

**The London School of Economics and Political
Science**

*Uncertainty and Experimentalist Policymaking in
Internal Market Regulation by the European
Commission: Cases on Electricity and Gas Policy*

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the London School of Economics for the Degree of
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Declaration

I certify that the thesis I have presented for examination for the MRes/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified).

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Abstract

Although the new architecture of experimentalist governance has been influential in academic scholarship as well as in policy debates over the last two decades, its actual impact on policymaking is still largely unclear. Specifically, questions about whether, under what conditions and how it influences policymaking processes remain largely unsolved. Without an adequate analysis of experimentalist policymaking, the current scholarship confines our understanding to the diffusion of experimentalist architectures, ultimately resulting in a poor understanding of their effects on policymaking processes. Thus, this thesis seeks to contribute to closing the knowledge gap by identifying conditions in which the Commission engages in experimentalist policymaking. To this end, it makes a number of inductive claims by further developing arguments found in experimentalist and shadow of hierarchy theories and using empirical analysis to follow them through. It studies the case of European Union energy regulation from the beginning of its liberalization and re-regulation in the late 1990s to the present day. The central argument of the thesis is that, when the Commission finds itself in conditions of greater uncertainty, even though the shadow of hierarchy is weaker or the distribution of power is less polyarchic, it engages in experimentalist policymaking by granting discretion to Member States and/or regulated companies to pursue common goals through distinct means, stimulating the comparison of their approaches and providing a basis for agreements on reforms to be developed with high stakeholder participation. Besides extending empirical research on EU energy regulation and contributing to the literature on modes of regulation, this thesis contributes to advancing the study of experimentalist governance in a number of respects. First, it clearly distinguishes experimentalist and hierarchical institutional architectures from policymaking processes by developing a set of indicators which are widely applicable. Second, by identifying patterns of policymaking that are not based on polyarchy, shadow of hierarchy, time or sector, but rather, are consistent with uncertainty, it suggests that uncertainty is an individually sufficient condition for experimentalist policymaking. More broadly, by identifying patterns of policymaking that are not based on specific institutional architectures, it shows that the type of policymaking can vary even if institutional architectures do not change, and hence warns scholars of the need to look beyond institutional design to the ways in which decision-making actually occurs.

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Introduction

Experimentalist governance has been emerging in recent years. Its advocates argue that this is a widespread response to turbulent environments where pervasive uncertainty about the nature of current and emerging problems means that policymakers cannot define *ex ante* their precise goals and how best to achieve them, while a multipolar distribution of power means that no single actor can impose a preferred solution without taking into account the views of others. These two scope conditions and the experimentalist governance they supposedly encourage are by no means confined to the EU. However, because the EU has faced problems of increasing strategic uncertainty under conditions of firm polyarchic constraints, experimentalists suggest that it appears to have more quickly and consistently found its way to experimentalist solutions. Through variously called fora, networked agencies, councils of regulators, open methods of coordination or more generally processes, experimentalist architectures have become pervasively institutionalised in the EU across a broad range of policy domains including regulation of competition, energy, telecommunications and finance; food, drug, chemicals and maritime safety; environmental protection; employment promotion and social inclusion; justice, security and crisis management; and data privacy, anti-discrimination and fundamental rights.¹

Yet, most of the literature thus far has focused on tracing the emergence and diffusion of experimentalist architecture, with much less attention paid to how such institutional architecture operates in practice. The issue is that policymakers can and indeed often favour different policymaking processes by using institutional structures differently. As a consequence, although experimentalist governance has attracted considerable attention in recent years, the actual impact of experimentalist architecture on policymaking remains largely unclear. Without adequate analysis of experimentalist policymaking, the current scholarship confines our understanding to the diffusion of experimentalist architecture, ultimately resulting in a poor understanding of its effects on policymaking processes.

Hence, rather than the diffusion of experimentalist architecture, this thesis seeks to examine its effects on policymaking processes. To this end, it primarily focuses on a key actor in the EU,

¹Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, 2010; C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170–184; De Burca, G. (2010) ‘New Governance and Experimentalism: An Introduction-Symposium: New Governance and the Transformation of Law’. *Wisconsin Law Review*, 2: 227–238.

namely, the European Commission. During the course of regulatory policymaking, the Commission may opt for different forms of policymaking, which raises the important research question about the conditions under which the Commission engages in experimentalist policymaking. This thesis draws a clear line between institutional architectures and policymaking processes by developing a number of indicators that reflect the key elements of experimentalist architecture as set out by its proponents, while shifting the attention from institutional design to actual operation. Thereafter, it inductively develops a number of claims about conditions under which the Commission engages in experimentalist policymaking, by developing arguments proposed in experimentalist and shadow of hierarchy theories. It then follows them through in the empirical analysis, which focuses on EU regulation of energy, an important sector in which both experimentalist and hierarchical decision-making procedures and institutional arrangements have been ongoing for significant periods and which therefore has been used as major example in the literature on both experimentalist governance and the shadow of hierarchy.² EU energy regulation offers a particularly strong case for studying under which conditions the Commission engages in experimentalist or hierarchical policymaking processes, because the Commission operates under the same general institutional architecture. The case study is analysed through a double methodology – process tracing and the comparative method – and by relying predominantly on primary sources of evidence.

The structure of the thesis is as follows. Chapter One reviews the literature on experimentalist governance and identifies the knowledge gap. To contribute to mitigating this gap, the question is raised about under which conditions the Commission engages in experimentalist policymaking. To address this research question, indicators are elaborated upon that distinguish experimentalist and hierarchical institutional architectures from policymaking processes; a number of claims are made about the conditions under which the Commission engages in experimentalist policymaking, by further developing arguments put forward in experimentalist and shadow of hierarchy theories; and case and subcases are selected in which the Commission can

²Cfr. Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1–28; Eberlein, B. (2005) ‘Regulation by cooperation: the ‘third way’ in making rules for the internal energy market’. In P.D. Cameron (Ed.) *Legal aspects of EU energy regulation: implementing the new Directives on Electricity and Gas across Europe*. Oxford: OUP; Eberlein, B. (2008) ‘The Making of the European Energy Market: The Interplay of Governance and Government’. *Journal of Public Policy*, 28: 73–92; Eberlein, B. (2010) ‘Experimentalist Governance in the Energy Sector’. In Sabel, C.F. and Zeitlin, J. (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP.

engage in both experimentalist and hierarchical policymaking, but which offer distinct combinations of conditions. The objectives of Chapter Two are twofold. First, it demonstrates that in the course of its regulatory policymaking, the Commission could engage in both experimentalist and hierarchical policymaking in all subcases, due to experimentalist and hierarchical architectures that developed in parallel. Second, it shows that the Commission could do so under distinct combinations of polyarchy (and shadow of hierarchy) and uncertainty offered by the selected subcases. Chapters Three to Six contain the empirical analyses of policymaking, which are organised into two broad phases. Phase One (Chapters Three and Four) comprises the period from the late 1990s to the early 2000s, when uncertainty was similar across issue areas and domains. Phase Two (Chapters Five and Six) encompasses the period from the mid-2000s to the present day, during which time differences in uncertainty emerged across issue areas and domains. Each empirical chapter identifies the types of regulatory policymaking that the Commission engaged in, as well as the conditions under which it did so. The final Chapter presents the Conclusions. It begins by summarising the main findings and answering the research question raised, after which it compares and contrasts the findings to the experimentalist and shadow of hierarchy theories from which the claims were derived. Finally, it draws wider conclusions.

Chapter One: Analysing Experimentalist Policymaking in Internal Market Regulation by the Commission

This chapter reviews the literature on experimentalist governance, by describing why it is important, noting how experimentalist governance is defined and showing that experimentalist architectures mainly spread in the European Union (EU). Then it identifies a current gap, namely, whether and under what conditions experimentalist architectures and policymaking processes differ, thereby raising the valuable research question about the conditions under which the European Commission engages in experimentalist policymaking. To address this research question, it develops indicators for more clearly distinguishing institutional architectures from policymaking processes. Thereafter, it elaborates claims about conditions under which the Commission engages in experimentalist policymaking, by further developing arguments proposed in experimentalist and shadow of hierarchy theories. Finally, it selects a case study and breaks it down into subcases in which the Commission could engage in both experimentalist and hierarchical policymaking under different conditions.

Reviewing the literature on experimentalist governance

“New modes of governance” that diverge in various respects from standard hierarchical or “command and control” models have attracted considerable attention over the last two decades, both in academic debates and practical applications.³ This is an important phenomenon that, as suggested by its name, tends to be primarily identified by comparison with what it is not, in contrast with some conception of traditional or “old” regulatory approaches. Although it results from a sharing of experience by scholars across a wide variety of policy domains that are quite diverse and disparate in institutional and political terms and in terms of the concrete problem to be addressed, some common features have been identified. These involve a shift in emphasis

³For academic discussions of new modes of governance see, for example, Eberlein, B. and Kerwer, D. (2004) ‘New Governance in the European Union: A Theoretical Perspective’. *JCMS*, 42(1): 121–42; De Burca, G. and Scott, J. (2006) *Law and New Governance in the EU and the US*. Oxford: Hart Publishing; and the forum on the Open Method of Coordination (OMC), often considered the archetypal examples of new governance in the EU. Available at: <http://eucenter.wisc.edu/OMC/index.htm>. Accessed on 2 July 2016. For policy documents on OMC, see the website of the European Commission: http://ec.europa.eu/index_en.htm. Accessed on 5 July 2016.

away from command and control in favour of “regulatory” approaches that are less rigid, less prescriptive, less committed to uniform outcomes and less hierarchical in nature.⁴

New modes of governance can be conceptualised through the theory of “experimentalist governance”, which identifies a precise, clearly distinguishable logic of governance.⁵ This theory was originally built upon the interpretation, proposed notably in an influential book by Michael J. Piore and Charles F. Sabel (1984), of the Toyota production systems that broke with standardised mass production as exemplification of decentralised flexible specialization.⁶ This theory has subsequently been extended to democratic governance.⁷ In experimentalist regimes, “central” institutions give autonomy to “local” ones to pursue generally declared goals. Then the centre monitors local performance, pools information in disciplined comparisons and creates pressures and opportunities for continuous improvement.⁸ This form of governance is thought of as experimentalist “because of the way it systematically provokes doubt about its own assumptions and practices, while unrelentingly treating its solutions as provisional and corrigible”.⁹

Defined in general terms, “experimentalist governance is a recursive process of provisional goal-setting and revision based on the comparison of alternative approaches to advancing them

⁴De Burca, G. and Scott, J. ‘New Governance, Law and Constitutionalism’. In de Burca, G. and Scott, J. (Eds.) *Law and New Governance in the EU and the US*. Hart Publishing, 2006. Draft available at: <http://www.ucl.ac.uk/laws/clge/docs/govlawconst.pdf> Accessed 21st August 2014.

⁵For an assessment of new governance in the light of the theory of democratic experimentalism, see Eberlein, B. and Kerwer, D. (2004) ‘New Governance in the European Union: A Theoretical Perspective’. *JCMS*, 42(1): 121–42.

⁶Piore, M.J. and Sabel, C.F. (1984) *The Second Industrial Divide: Possibilities For Prosperity*. New York: Basic books.

⁷See, in particular, Cohen, J. and Sabel, C.F. (1997) ‘Directly-Deliberative Polyarchy’. *European Law Journal*, 3(4):313–42; Dorf, M.C. and Sabel, C.F. (1998) ‘A Constitution of Democratic Experimentalism’. *Columbia Law Review*, 98(2): 267–473. See also Sabel, C. F. (1994) ‘Learning by Monitoring: The Institutions of Economic Development’. In N. Smelser and R. Swedberg (Eds.) *Handbook of Economic Sociology*. Princeton, NJ: Princeton University Press, and New York: Russell Sage Foundation.

⁸Sabel, C.F. and Simon, W.H. (2011) ‘Minimalism and Experimentalism in the Administrative State’. *Georgetown Law Journal*, 100(1): 55.

⁹Experimentalists use the terms ‘experimentalist governance’, ‘directly deliberative polyarchy’ and ‘learning from difference’ interchangeably. The thesis uses only the term ‘experimentalist governance’. See Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 276–7.

in different contexts”.¹⁰ In its most developed form, experimentalist architecture is said to be multilevel and to involve key elements linked in an iterative cycle.¹¹

First, broad framework goals and metrics for gauging achievement are provisionally established by some combination of “central” and “local” units, in consultation with the relevant civil society stakeholders. Examples of such framework goals are ‘good water quality’ or ‘safe food’. In regulatory systems, the local units are typically private actors such as firms and/or territorial authorities to whom they immediately respond (state regulators in the United States (US) or Member State authorities in the EU), while the centre can be the national government in the US or EU authorities in the EU. In service-providing organisations, the local units are typically front-line workers, such as teachers, police, or social welfare workers or the district or regional entities supervising them, while the centre can be a government agency or organization. Second, local units are given broad discretion to pursue these goals in their own way. Third, as a condition of this autonomy, these units must regularly report their performance and participate in a peer review in which their results are compared with those of others employing different means to the same ends. Where they are not making good progress against the agreed indicators, the local units are expected to show that they are taking appropriate corrective measures, informed by the experience of their peers. Fourth and finally, the goals, metrics and decision-making procedures themselves are periodically revised by a widening circle of actors in response to the problems and possibilities revealed by the review process, after which the cycle repeats.¹²

Experimentalists argue that the scope conditions for experimentalist governance are distinct and much broader than the historical contexts from which the new architecture emerged in the EU. Indeed, they suggest that these scope conditions are arguably quite minimal. The first

¹⁰ C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, p.170.

¹¹ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning From Difference: The New Architecture of Experimentalist Governance in the EU’. In (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP; Sabel, C.F. and Simon, W.H. (2011) ‘Minimalism and Experimentalism in the Administrative State’. *Georgetown Law Journal*, 100(1): 53–93; C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170–184.

¹² C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.168–169.

condition is strategic uncertainty, meaning that policy makers recognise that they cannot rely on their strategic dispositions (e.g., more market versus more plan) to guide action in a particular domain (or equivalently that they do not know *how* to achieve their declared goals). The second is a multipolar or polyarchic distribution of power in which no single actor has the capacity to impose his or her own preferred solution without taking into account the views of others.¹³

Experimentalists have found experimentalist architectures in the US and other developed democracies, both in the provision of social welfare services, such as education and child welfare, and in the regulation of health and safety risks such as nuclear power, food processing and environmental pollution.¹⁴ Furthermore, they argue that transnational experimentalist regimes likewise appear to be emerging across a number of major issue areas such as disability rights, data privacy, food safety, and the environmental sustainability of forests and fisheries.¹⁵ Because the EU has had to face problems of rising strategic uncertainty under conditions of firm polyarchic constraints, experimentalists suggest that it appears to have found its way more quickly and consistently than other polities to experimentalist solutions.¹⁶

Experimentalists clarify that the four key elements of experimentalist architecture listed should be understood as a set of necessary functions, which can be performed through a variety of

¹³Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 280; see also Sabel, C. F. and Zeitlin, J. (2010) 'Learning From Difference: The New Architecture of Experimentalist Governance in the EU'. In (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, p.9; OUP; Sabel, C.F. and Simon, W.H. (2011) 'Minimalism and Experimentalism in the Administrative State'. *Georgetown Law Journal*, 100(1): 56, 80; Sabel, C.F. and Zeitlin, J. (2012) 'Experimentalism in the EU: Common ground and persistent differences'. *Regulation & Governance*, 6(3): 412.

¹⁴See, for example, Sabel, C.F. and Simon, W. (2004) 'Destabilization Rights: How Public Law Litigation Succeeds'. *Harvard Law Review*, 17 (4): 1015; and Sabel, C.F. and Simon, W. (2011) 'Minimalism and Experimentalism in the Administrative State'. *Georgetown Law Journal*, 100 (1): 53.

¹⁵See, for instance, de Burca, G., Keohane, R.O. and Sabel, C.F. (2013) 'New Modes of Pluralist Global Governance'. *Journal of International Law and Politics*, 45 (1); de Burca, G., Keohane, R.O. and Sabel, C.F. (2014) 'Global Experimentalist Governance'. *British Journal of Political Science*, 44 (03); and J. Zeitlin, Ed. (2015) *Extending experimentalist governance? The European Union and transnational regulation*. Oxford: OUP.

¹⁶Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP; C.F. Sabel and J. Zeitlin (2012) 'Experimentalist Governance'. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170–184; de Burca, G. (2010) 'New Governance and Experimentalism: An Introduction Symposium: New Governance and the Transformation of Law'. *Wisconsin Law Review*, 2: 227–238.

possible institutional arrangements.¹⁷ With this qualification, through variously called fora, networked agencies, councils of regulators, open methods of coordination or more general processes, experimentalists have found the architecture of decision making described in a broad array of policy domains in the EU. These domains include re-regulation of privatised network infrastructure in sectors such as electricity, gas and telecommunications; regulation of public health and safety such as drug authorisation, occupational health and safety, environmental protection, food safety, maritime, rail and aviation safety; and social solidarity in employment and social protection. They also encompass regulation in response to catastrophe such as food and maritime safety/pollution; prudential regulation in advance of failure, namely, financial services; rationalisation of existing centralised regulation, specifically competition policy and state aid; and fundamental rights against, for example, discrimination on grounds of race, gender or disability.¹⁸

Identifying a current gap

Experimentalists themselves recognise that “we present the new governance institutions as they were designed to be. We are aware that in the life of society and the law nothing works precisely as designed”.¹⁹ A prominent illustration is offered by the open methods of coordination, which are said to most clearly display the EU’s new experimentalist governance architecture.²⁰ Inaugurated at the extraordinary Lisbon European socio-economic summit in March 2000 and subsequently extended to cover an enormous range of policy fields, it was defined as involving the following elements: fixing guidelines for the Union combined with specific timetables for achieving the goals which they set in the short, medium and long terms; establishing, where appropriate, quantitative and qualitative indicators and benchmarks against the best in the world and tailored to the needs of different Member States and sectors as a means of comparing best practices; translating these European guidelines into national and regional policies by set-

¹⁷ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 274.

¹⁸ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; C.F. Sabel and J. Zeitlin, Eds. (2010) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP.

¹⁹ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 280–281.

²⁰ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 289.

ting specific targets and adopting measures, taking into account national and regional differences; and periodic monitoring, evaluation and peer review organised as mutual learning processes.²¹ By reviewing evidence about the open method of coordination, however, experimentalists highlight significant practical limitations that, in actuality, inhibit the realisation of the theoretical promise of the open method of coordination.²² They point out that actual open method of coordination processes, as they have evolved since Lisbon, vary considerably in their modalities and procedures depending upon the specific characteristics of the policy field in question, the Treaty basis of EU competence and the willingness of the Member States to take joint action.²³

Likewise, scholars attracted to experimentalist theory suggest that systems with all the elements of the new governance architecture in place will only remain architectures if they do not also *operate* in an experimentalist way, in particular, if stakeholder participation is limited and if problems are not identified by accurate data and supplemented by effective ongoing monitoring.²⁴ Similarly, sceptical scholars point to case studies from air transport regulation, transboundary water management and immigration to highlight the fact that network governance, commonly presented as an alternative to the hierarchical “Community method”, is not void of hegemonic traits.²⁵ By comparing evidence from the most mature open method of coordination processes, some have found little evidence of learning, and instead, have discovered that its relationship with policy change can break down at several points due to deficiencies in the design of the open method of coordination, a lack of participation, and the political/institutional complexities in the EU context.²⁶

²¹ Lisbon European Council 23 and 24 March 2000. Presidency Conclusions, paragraph 37. Available at: http://www.europarl.europa.eu/summits/lis1_en.htm. Accessed on 7 September 2016.

²² Zeitlin, J. (2005) ‘Conclusion’. In Zeitlin, J. and Pochet, P. (Eds.) *The Open Method of Coordination in Action*. Brussels: PIE – Peter Lang, pp. 447–503.

²³ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 289–92.

²⁴ de Burca, G. (2010) ‘New Governance and Experimentalism: An Introduction - Symposium: New Governance and the Transformation of Law’. *Wisconsin Law Review*, 2: 235.

²⁵ Lavenex, S. (2008) ‘A governance perspective on the European neighborhood policy: integration beyond conditionality?’ *Journal of European Public Policy*, 15(6): 938–955.

²⁶ Radaelli, C. (2008) ‘Europeanization, policy learning and new modes of governance’. *Journal of Comparative Policy Analysis*, 10 (3): 239–254.

Others do not deny that new and experimentalist modes of governance are entirely workable,²⁷ but claim that, in and of themselves, they do not contribute to the ‘efficacy’ of policymaking, defined as “the successful production and enactment of rules and standards necessary to achieve the given policy goal”.²⁸ Instead, they argue that new forms of governance require the “shadow of hierarchy”.²⁹ The argument is that legislators can threaten to enact adverse legislation unless parties alter their behaviour to accommodate the legislators’ demands. Whether or not parties respond by complying depends on how likely it is that legislators will implement their threat and by what means they would do so.³⁰ Parties are endowed with authority to bargain with one another, but are also under the “Damocles sword of threatened direct state intervention”.³¹ Thus, the shadow of hierarchy is important for governance without government, because it generates incentives for cooperation for non-state actors.³² According to shadow of hierarchy scholars, examples from domains, such as the European social dialogue, competition policy, regulation of energy, telecommunications and financial markets and environmental self-regulation, document that effective societal self-coordination is rarely found without the involvement of state actors that have the capacity to make and enforce collective decisions.³³

²⁷ For examples of such harsh critiques, see Lowi, T.J. (2000) ‘Frontyard Propaganda’. In C.F. Sabel, A. Fung and B. Karkkainen (Eds.) *Beyond Backyard Environmentalism*. Boston: Beacon Press, pp. 70–76; Savitz, J. (2000) ‘Compensating Citizens’. In C.F. Sabel, A. Fung and B. Karkkainen (Eds.) *Beyond Backyard Environmentalism*. Boston: Beacon Press, pp.65–69.

²⁸ Eberlein, B. (2008) ‘The Making of the European Energy Market: The Interplay of Governance and Government’. *Journal of Public Policy*, 28: 74.

²⁹ Heritier, A. (2002) ‘New Modes of Governance in Europe: Policy-Making without Legislating?’. In A. Heritier (ed.) *Common Goods: Reinventing European and International Governance*. Rowman & Littlefield; Heritier, A. and Lehmkuhl, D. (2008) ‘The Shadow of Hierarchy and New Modes of Governance’. *Journal of Public Policy*, 28: 1–17; Borzel, T.A. and Risse, T. (2010) ‘Governance without a state: Can it work?’. *Regulation & Governance*, 4(2): 116; Borzel, T.A. (2012) ‘Experimentalist governance in the EU: The emperor’s new clothes?’. *Regulation & Governance*, 6: 378–384. The argument derives notably from Mayntz, R. and Scharpf, F.W. (eds) (1995a) *Gesellschaftliche Selbstregulierung Und Politische Steuerung*. Campus, Frankfurt; and F.W. Scharpf (1997) *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*. Westview Press.

³⁰ Heritier, A. and Lehmkuhl, D. (2008) ‘The Shadow of Hierarchy and New Modes of Governance’. *Journal of Public Policy*, 28: 1–17.

³¹ Schmitter, P.C. and Streeck, W. (1985) ‘Community, Market and the State – and Associations? The Prospective Contribution of Interest Governance to Social Order.’ *European Sociological Review*, 1: 131.

³² Borzel, T.A. and Risse, T. (2010) ‘Governance without a state: Can it work?’. *Regulation & Governance*, 4(2): 116.

³³ Heritier, A. and Lehmkuhl, D. (2008) ‘The Shadow of Hierarchy and New Modes of Governance’. *Journal of Public Policy*, 28: 1–17; De Visscher, C., Maiscoq, O. and Varone, F. (2008) ‘The Lamfalussy Reform in the EU Securities Markets: Fiduciary Relationships, Policy Effectiveness and Balance of Power’. *Journal of*

Thus, although new and experimentalist governance has been influential in academic scholarship as well as in policy debates, its actual impact on policymaking processes is still largely unclear. Specifically, questions about whether and under what conditions theory and practice, design and operation, structure and behaviour, proposed architecture and actual developments and institutional architectures and policymaking processes differ remain largely unresolved.

Defining the research question and design

The thesis seeks to contribute to mitigating this knowledge gap in the literature on experimentalist governance by exploring, rather than the diffusion, the effects of experimentalist architectures on policymaking processes, by focusing on a key actor in the EU, namely, the European Commission.³⁴ In the course of regulatory policymaking, the Commission can favour distinct types of policymaking processes, thereby raising the valuable research question about the conditions under which the Commission engages in experimentalist policymaking.

Public Policy, 28: 19–47; Eberlein, B. (2008) ‘The Making of the European Energy Market: The Interplay of Governance and Government’. *Journal of Public Policy*, 28: 73–92; Soriano, M.L. (2008) ‘New Modes of Governance in the Spanish Electricity and Gas Sectors’. *Journal of Public Policy*, 28: 93–111; Heritier, A. and Eckert, S. (2008) ‘New Modes of Governance in the Shadow of Hierarchy: Self-regulation by Industry in Europe’. *Journal of Public Policy*, 28: 113–138; Lehmkuhl, D. (2008) ‘On Government, Governance and Judicial Review: The Case of European Competition Policy’. *Journal of Public Policy*, 28: 139–159; Smismans, S. (2008) ‘The European Social Dialogue in the Shadow of Hierarchy’. *Journal of Public Policy*, 28: 161–180; Heritier, A. and Rhodes, M. Eds. (2010) *New Modes of Governance in Europe: Governing in the Shadow of Hierarchy*. Palgrave Macmillan.

³⁴The Commission found itself facing a surge of academic interest especially since the mid-1990s. A central debate concerned its role in European integration, with some seeing it as an ‘agent under control’ of Member States while others as an ‘autonomous engine’ of European integration. Cfr. Moravcsik, A. (1993) ‘Preferences and power in the European Community: a liberal intergovernmentalist approach’. *Journal of Common Market Studies*, 31: 473–524; Moravcsik, A. (1998) *The Choice for Europe: Social Purpose and State Power from Messina to Maastricht*. Ithaca, Cornell University Press; Pollack, M.A. (1997) ‘Delegation, Agency, and Agenda Setting in the European Community’. *International Organization*, 51: 99–134; Pollack, M. A. (2003): *The Engines of European Integration: Delegation, Agency and Agenda Setting in the EU*. Oxford: OUP; Sandholtz, W. and Stone Sweet, A. (Eds.) (1998) *European Integration and Supranational Governance*. Oxford: OUP.

Distinguishing architectures from policymaking

Experimentalists do not explicitly distinguish among institutional architecture, policymaking process and more general governance. Instead, when defining experimentalist architecture, they identify four key elements that constitute the “architecture of experimentalist governance”.³⁵ Similarly, when documenting and exploring experimentalist governance in its various institutional forms across a broad range of EU governance regimes, experimentalists do not explicitly distinguish between institutional architectures and policymaking processes. Instead, they “assess the goodness of fit between the architecture of deliberative rulemaking proposed

In spite of these very different views, the importance of the Commission to the development of European policies and polity has been widely acknowledged in the academic literature, with a growing number of scholars considering it central to the understanding of the EU as a political system. See, for example, Ludlow, P. (1991) ‘The European Commission’. In R. Keohane and S. Hoffmann (eds.) *The New European Community. Decision making and Institutional Change*. Boulder, Westview Press: 85–132; Christiansen, T. (1996) ‘A maturing bureaucracy? The role of the Commission in the Policy Process’. In J. Richardson (ed.) *European Union Power and Policy-Making*. 1st ed. London, Routledge: 77–95; Christiansen, T. (1997) ‘Tensions of European governance: politicized bureaucracy and multiple accountability in the European Commission’. *Journal of European Public Policy*, 4(1): 73–90; Christiansen, T. (2001) ‘The European Commission: Administration in Turbulent Times’, in J. Richardson (ed.) *European Union Power and Policy-Making*. London, Routledge: 95–114; Cram, L. (1994) ‘The European Commission as a multi-organization: social policy and IT policy in the EU’, *Journal of European Public Policy*, 1(2): 195–217; Cram, L. (1997) *Policy-Making in the European Union: Conceptual Lenses and the Integration Process*. London, Routledge; Laffan, B. (1997) ‘From policy entrepreneur to policy manager: the challenge facing the European Commission’. *Journal of European Public Policy*, 3(3): 422–38; Morth, U. (2000) ‘Competing frames in the European Commission - the case of the defence industry and equipment issue’, *Journal of European Public Policy*, (7) 2: 173–89; N. Nugent, ed., (2000) *At the Heart of the Union: Studies of the European Commission*. 2nd ed. London, Macmillan; Peters, B.G. (1994) ‘Agenda-Setting in the European Community’. *Journal of European Public Policy*, 1(1): 9–24; Peters, B.G. (2001) ‘Agenda-setting in the European Union’. In J. Richardson (ed.) *European Union Power and Policy-Making*. 2nd edition. London, Routledge: 77–93; Peterson, J. (1995) ‘Decision-making in the European Union: towards a framework of analysis’. *Journal of European Public Policy*, 2(1): 69–93; Peterson, J. (1999) ‘The Santer era: the European Commission in normative, historical and theoretical perspective’. *Journal of European Public Policy*, 6(1): 46–65; Richardson, J. (ed.) (2001) *European Union: Power and Policy-Making*. London, Routledge; Kampp, M. (2005) ‘Fragmentation and Policy Coordination in the European Commission: The Cases of Audiovisual and Telecommunications Policy’. *Thesis submitted for the degree of Doctor of Philosophy to the Department of Government at the London School of Economics and Political Science*; Hix, S. and Hoyland, B. (2011) *The Political System of the European Union*. 3rd edition, Palgrave Macmillan. Within this large body of literature, a 1998 article by Susanne K. Schmidt is particularly useful. Its point of departure is that, under European competition law, in those cases where Member State governments have endowed undertakings with rights conflicting with the Treaty's rules, the Commission has the right to issue Directives by itself, rather than by proposing legislation to Member States. The article hence asks about the conditions under which the Commission may use these rights against Member States. To address this question, it compares the telecommunications and electricity domains. It finds that in European telecommunications policy the Commission used this competence very successfully, with all liberalization Directives being based on Article 90, while for European electricity policy the Commission shrunk away from using these powers in favor of initiating Council legislation. The thesis applies an analogous approach to experimentalist policymaking. See Schmidt, S.K. (1998) ‘Commission activism: subsuming telecommunications and electricity under European competition law’. *Journal of European Public Policy*, 5(1): 169–184.

³⁵ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327.

[...] and actual institutional developments”.³⁶ The reason might be that, to date, their primary goal has been to “establish the deep similarity of architectural outcomes in diverse domains of decision making” in order to “demonstrate a striking and consistent design innovation, and for that purpose what the designers formally intend certainly counts”.³⁷ In accordance with experimentalist theory, this thesis assesses institutional architectures as experimentalist based on the extent to which the elements of experimentalist architecture are in place.

However, as experimentalists themselves have observed, “ideally, of course, we would assess the effectiveness of the new institutions as well”.³⁸ Indeed, the primary aim of this thesis is to explore the operation rather than demonstrate the diffusion of experimentalist architecture. Thus, the presence of experimentalist architectures will not be a concluding finding, but rather, will be a starting point. This thesis begins by acknowledging the diffusion of experimentalist architecture, after which it explores conditions under which such architecture is actually employed. To address the question about the conditions under which the Commission engages in experimentalist policymaking, this thesis distinguishes instances in which experimentalist architectures are present but not employed, from those in which they are both present and employed. In other words, it determines whether systems with all elements of the new governance architecture in place are only architectures, or rather, also *operate* in an experimentalist way.³⁹ For this purpose, it draws a clearer line between institutional architectures and policymaking processes.

The thesis assesses policymaking processes as experimentalist based on a set of indicators, which it develops by looking at the key elements of experimentalist architecture as set forth by its proponents, but shifting the emphasis from institutional design to actual operation. The thesis defines a first indicator of experimentalist policymaking as whether Member State public authorities and regulated companies are actually granted discretion to adopt distinct approaches to pursue common goals. This indicator reflects, in terms of policymaking process, the second key element of experimentalist architecture, namely, that “local units are given broad discretion

³⁶Sabel, C. F. and Zeitlin, J. (2010) ‘Learning From Difference: The New Architecture of Experimentalist Governance in the EU’. In (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, p.7.

³⁷Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 277, 280–281.

³⁸Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 280–281.

³⁹This is a paraphrase of de Burca, G. (2010) ‘New Governance and Experimentalism: An Introduction - Symposium: New Governance and the Transformation of Law’. *Wisconsin Law Review*, 2: 235.

to pursue these goals in their own way”. Therefore, in experimentalist policymaking, policies can be implemented by governments, private sector actors or both. This thesis contrasts the experimentalist grant of discretion with the obligation for Member States and regulated companies to adopt uniform solutions, typical of hierarchical policymaking.

The thesis defines a second indicator as whether the different approaches pursued by Member States and/or regulated companies are indeed compared. Although experimentalist comparisons might be performed through a variety of arrangements, including public consultations, they are not ‘simply consultation’, however extensive this might be. Instead such comparisons reflect, in practice, the third element of experimentalist architecture, namely, that “as a condition of this autonomy, these units must report regularly on their performance and participate in a peer review in which their results are compared with those of others employing different means to the same ends”. This differs from the hierarchical monitoring of compliance of Member States and regulated companies with the implementation of uniform solutions.

A third indicator is defined as whether agreements on reforms are actually developed based on these comparisons, evidenced for example by explicit references. This indicator reflects aspects of the first and fourth elements of experimentalist architecture, namely, that “broad framework goals and metrics for gauging their achievement are provisionally established” and “periodically revised in response to the problems and possibilities revealed by the review process”. This thesis contrasts it with the hierarchical development of reforms, not underpinned by comparisons of distinct approaches.

The thesis defines a fourth and last indicator as whether agreements on reforms are effectively developed with high stakeholder participation. This indicator reflects another aspect of the first and fourth elements of experimentalist architecture, namely, that “broad framework goals and metrics for gauging their achievement are provisionally established by some combination of central and local units, in consultation with the relevant civil society stakeholders”; and that “the goals, metrics and decision-making procedures themselves are periodically revised by a widening circle of actors”. Even if high stakeholder participation does not necessarily imply that governments and stakeholders have the same influence on policymaking, this contrasts with the low stakeholder participation that is characteristic of hierarchical policymaking.

In summary, this thesis develops a number of indicators that reflect key elements of experimentalist architecture as set forth by its proponents, while shifting the attention from institu-

tional design to effective operation. Hence, it defines and assesses experimentalist policymaking as a process whereby Member State public authorities and/or regulated companies are granted discretion to adopt distinct approaches, their different approaches are compared and on this basis agreements on reforms are developed with high stakeholder participation. It contrasts experimentalist policymaking with hierarchical policymaking, with the understanding that they are processes whereby compliance with uniform solutions is monitored and reforms are developed without conducting comparisons of different approaches and with low stakeholder participation, thereby making uniform solutions binding on all Member States and regulated companies. Table 1 shows the indicators that are developed and used for distinguishing experimentalist from hierarchical policymaking.

Table 1. Indicators for distinguishing experimentalist from hierarchical policymaking

Experimentalist policymaking	Hierarchical policymaking
1. Member States and/or regulated companies grant discretion to adopt different approaches	Member States and regulated companies are obligated to adopt uniform solutions
1. Different approaches are compared	Compliance with uniform solutions is monitored
3. Agreements on reforms are developed based on comparisons	Reforms are not developed on the basis of comparisons
4. Agreement on reforms are developed with high stakeholder participation	Agreement on reforms is developed with low stakeholder participation

Developing claims about conditions under which the Commission engages in experimentalist policymaking

After defining indicators for more clearly distinguishing institutional architectures from policymaking processes, this thesis inductively develops a number of claims about conditions under which the Commission engages in experimentalist policymaking, and then uses empirical analysis to follow them through. For this purpose, it further develops arguments put forward in experimentalist and shadow of hierarchy theories. Table 2 shows the claims about conditions under which the Commission engages in experimentalist policymaking, the arguments supporting them, the theories from which they are drawn and how they are empirically assessed.

This thesis develops the initial claim by using the argument, found in the shadow of hierarchy theory, that the threat of adverse legislation can induce conflicting parties to cooperate.⁴⁰ The core of this argument is that new modes of governance, in and of themselves, do not contribute to the efficacy of policymaking, but rather, require the shadow of hierarchy where hierarchy is used to describe legislative and executive decisions.⁴¹ Since the shadow of hierarchy provides an important incentive for non-state actors to cooperate in the provision of rules and collective goods, the willingness of non-state actors to engage in governance should increase to the degree that state actors can resort to hierarchical modes of governance.⁴² The thesis applies this important critique of new and experimentalist governance to policymaking processes, and in doing so, elaborates upon the first claim that the stronger the shadow of hierarchy, the more the Commission will engage in experimentalist policymaking, and vice versa.

⁴⁰Heritier, A. (2002) 'New Modes of Governance in Europe: Policy-Making without Legislating?' In A. Heritier (ed.) *Common Goods: Reinventing European and International Governance*. Rowman & Littlefield; Heritier, A. and Lehmkuhl, D. (2008) 'The Shadow of Hierarchy and New Modes of Governance'. *Journal of Public Policy*, 28: 1–17. The argument largely builds on Mayntz, R and Scharpf, F.W. (Eds.) (1995a) *Gesellschaftliche Selbstregulierung Und Politische Steuerung*. Campus, Frankfurt; F.W. Scharpf (1997) *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*. Westview Press.

⁴¹Heritier, A. and Lehmkuhl, D. (2008) 'The Shadow of Hierarchy and New Modes of Governance'. *Journal of Public Policy*, 28: 1–17; F.W. Scharpf (1997) *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*. Westview Press.

⁴²Borzel, T.A. and Risse, T. (2010) 'Governance without a state: Can it work?' *Regulation & Governance*, 4(2): 117.

Table 2. Claims about conditions under which the Commission engages in experimentalist policymaking

Theory	Argument	Claim	Assessment
Shadow of hierarchy	The threat of adverse legislation can induce conflicting parties to cooperate	The stronger the shadow of hierarchy, the more the Commission will engage in experimentalist policymaking, and vice versa	Shadow of hierarchy is assessed based on the Commission's formal rulemaking powers
Experimentalist governance	In the absence of polyarchy, one actor is dominant or there is a struggle for dominance, and the powerful prefer to impose outcomes, rather than cooperatively pursue them with others	The more polyarchic the distribution of power, the more the Commission will engage in experimentalist policymaking, and vice versa	Polyarchy is (inversely) assessed based on the Commission's formal rulemaking powers
Experimentalist governance	In the absence of strategic uncertainty, actors are convinced that they know how to pursue their goals, so the joint exploration of possibilities is superfluous	The higher the uncertainty, the more the Commission will engage in experimentalist policymaking, and vice versa	Uncertainty is (inversely) assessed based on the specificity of the Commission's policy preferences about how to achieve its goals

To be sure, conceptually, the debate between experimentalists and their major critics is in fact more sophisticated. Experimentalists suggest that “there is no disagreement that there are many situations where conflicts over potential divisions of returns obstruct experimentalist cooperation; nor is there that the actors in these situations can be, and often are, induced to cooperate by threatening to impose an outcome that puts them in a situation far less desirable than the one that could be achieved through joint efforts”. However, they point out that where their critics invoke “the idea of the shadow of hierarchy to describe this threat and its origin, we speak of the imposition of a penalty default”.⁴³ While penalty defaults also draw on official authority, they do so in a way that, according to experimentalists, is crucially different from the use of state power that occurs in the shadow of hierarchy.⁴⁴ The key difference is that, in experimentalist governance, “the hierarchical authorities are no longer credibly able to take over the regulatory functions directly. They can in effect promise only to make things unworkable: the penalty default is a warning, *in terrorem*, of an incalculable harm. Nor can the regulated parties precisely calculate the payoff they may eventually achieve through mutual engagement”.⁴⁵ Therefore, “the best ‘solution’ available to authorities acting themselves is so manifestly unworkable to the parties as to count as a draconian penalty [...]. Indeed, it is precisely the patent unworkability of official solutions – the failures, if you like, of rules made by anything like traditional means – which makes the mere threat of imposing them so effective a device for inducing the parties to deliberate in good faith”.⁴⁶

However, this thesis considers the shadow of hierarchy and penalty default as concepts that are very hard to distinguish by the evidence. Thus, while acknowledging that it constitutes a simplification, it makes a first claim solely based on the shadow of hierarchy theory, namely, that the threat of adverse legislation can induce conflicting parties to cooperate. Empirically, the

⁴³Sabel, C.F. and Zeitlin, J. (2012) ‘Experimentalism in the EU: Common ground and persistent differences’. *Regulation & Governance*, 6: 413.

⁴⁴Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 308.

⁴⁵C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, p.177.

⁴⁶Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 308.

literature on the shadow of hierarchy literature largely covers explicit threats of traditional legislation, as evidenced, for example, by the public initiation of draft pieces of legislation.⁴⁷ Yet, this approach leads to the risk of encountering the methodological challenge of “observational equivalence”, which is familiar to principal-agent theory from which the shadow of hierarchy was built.⁴⁸ The issue is that “agents” may rationally anticipate reactions from “principals” and adjust their behaviour accordingly. As such, the absence of any overt sanction or threat would not reveal much about the actual autonomy enjoyed by agents, and for the purpose of this thesis, about the actual influence of the shadow of hierarchy. To address this methodological challenge, this thesis assesses the shadow of hierarchy based on the formal rulemaking powers available to the Commission, regardless of whether explicit threats to use these powers are observed.

The thesis draws a second and third claim from experimentalist theory, which identifies “two very general scope conditions for the emergence of experimentalist institutions”.⁴⁹ Experimentalists argue that “the possibility conditions for experimentalist governance are arguably quite minimal: strategic uncertainty, meaning that policymakers recognise that they cannot rely on their strategic dispositions (e.g., more market vs. more plan) to guide action in a particular domain (or equivalently that they do not know *how* to achieve their declared goals); and a multipolar or polyarchic distribution of power, in which no single actor has the capacity to impose her own preferred solution without taking into account the views of the others”.⁵⁰

Although not explicitly defined, experimentalists present the two scope conditions together, which suggests that they understand them jointly rather than individually. Furthermore, experimentalists do not explicitly clarify whether these are necessary or sufficient conditions. In

⁴⁷ See, for instance, Heritier, A. and Lehmkuhl, D. (2008) ‘The Shadow of Hierarchy and New Modes of Governance’. *Journal of Public Policy*, 28: 1-17; Héritier, A. and Eckert, S. (2008) ‘New Modes of Governance in the Shadow of Hierarchy: Self-regulation by Industry in Europe’. *Journal of Public Policy* 28, 113–138; Eberlein, B. (2008) ‘The Making of the European Energy Market: The Interplay of Governance and Government’. *Journal of Public Policy*, 28: 73–92.

⁴⁸ See, for example, Weingast, B.R. and Moran, M. (1983) ‘Bureaucratic Discretion or Congressional Control? Regulatory Policy-Making by the Federal Trade Commission’. *Journal of Political Economy*, 91: 765–800; Pollack, M.A. (1998) ‘The Engines of Integration? Supranational Autonomy and Influence in the European Union’. In Sandholtz, W. and Stone Sweet, A. (Eds.) *European Integration and Supranational Governance*. Oxford: OUP, pp. 217–47; Pollack, M.A. (2003) *The Engines of European Integration: Delegation, Agency, and Agenda Setting in the EU*. Oxford: OUP.

⁴⁹ Sabel, C.F. and Zeitlin, J. (2012) ‘Experimentalism in the EU: Common ground and persistent differences’. *Regulation & Governance*, 6(3): 412.

⁵⁰ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 280.

some instances, they argue that “together, these conditions open up the *possibility* for transforming distributive bargaining into deliberative problem solving through the institutional mechanisms of experimentalist governance”,⁵¹ indicating that these are jointly necessary conditions. In other cases, they argue that “in the most straightforward case, where the two conditions are fully met, we *should* find experimentalism arising spontaneously when actors in a polyarchy anticipate the joint gains from collaborative problem-solving under uncertainty”,⁵² which suggests that these are jointly sufficient conditions. Finally, experimentalists argue that the EU has had to face problems of rising strategic uncertainty under conditions of firm polyarchic constraints.⁵³

This thesis elaborates upon a second claim based on the argument, found in experimentalist theory, that “in the absence of polyarchy, one actor is dominant, or there is a struggle for dominance, and the powerful prefer to impose outcomes, rather than pursue them cooperatively with others”.⁵⁴ Experimentalists argue that “in the European Union and in many international regimes, experimentalist institutions have arisen from the realisation that mutual evaluation and learning from diverse national practices is sometimes the only feasible way of coordination in the absence of a conventional national sovereign with presumptive authority to fix common goals”.⁵⁵ Indeed, the importance of a multipolar or polyarchic distribution of power for experimentalist governance has been consistently emphasised in the experimentalist literature, from the earliest essays developed in the late 1990s to the latest works that have only recently been

⁵¹ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 280.

⁵² Sabel, C.F. and Zeitlin, J. (2012) ‘Experimentalism in the EU: Common ground and persistent differences’. *Regulation & Governance*, 6: 412.

⁵³ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1–28.

⁵⁴ Sabel, C.F. and Zeitlin, J. (2012) ‘Experimentalism in the EU: Common ground and persistent differences’. *Regulation & Governance*, 6: 412.

⁵⁵ Sabel, C.F. and Simon, W.H. (2011) ‘Minimalism and Experimentalism in the Administrative State’. *Georgetown Law Journal*, 100(1): 78.

published.⁵⁶ This thesis applies this argument to policymaking processes rather than to institutional architectures or governance, hence developing the second claim that the more polyarchic the distribution of power, the more the Commission will engage in experimentalist policymaking, and vice versa.

As anticipated, experimentalists suggest that the EU has maintained firm polyarchic constraints.⁵⁷ It is certainly hard to imagine a situation in which the distribution of power in the EU is not polyarchic, but rather, is completely hierarchical. However, the distributions of power might be more or less polyarchic (or its obverse i.e., hierarchical), which in turn, allows the assessment of whether the argument supporting the claim is empirically corroborated.⁵⁸ The thesis empirically distinguishes more or less polyarchic distributions of power based on the Commission's formal rulemaking power. Therefore it uses the same indicator to assess polyarchy and shadow of hierarchy, and considers that the greater the Commission's powers, the stronger the shadow of hierarchy while the less polyarchic the distribution of power. Furthermore, the proposed shadow of hierarchy and polyarchy-based claims precisely oppose expectations. Specifically, the more polyarchic the distribution of power, the less the Commission will engage in experimentalist policymaking, according to the shadow of hierarchy claim, but the more it will engage in experimentalist policymaking, according to the polyarchy-based claim.

The third and last claim is derived from experimentalist theory and specifically its emphasis on uncertainty, defined as when policymakers "do not know how to achieve their declared goals".⁵⁹ The argument is that "in the absence of strategic uncertainty, actors are convinced

⁵⁶ Cfr. Cohen, J. and Sabel, C.F. (1997) 'Directly-Deliberative Polyarchy'. *European Law Journal*, 3(4): 313–42; Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) 'Learning from Difference: the New Architecture of Experimentalist Governance in the EU'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1-28; Zeitlin, J. (2016) "EU Experimentalist Governance in Times of Crisis". *West European Politics*, 39(5): 1073–94.

⁵⁷ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) 'Learning from Difference: the New Architecture of Experimentalist Governance in the EU'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1–28.

⁵⁸ Maggetti, M., Gilardi, F. and Radaelli, C.M. (2012) *Designing Research in the Social Sciences*. Sage, p.5.

⁵⁹ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 280.

that they know how to pursue their ends, so joint exploration of possibilities is superfluous”.⁶⁰ In contrast, under conditions of uncertainty, “the official decision maker does not know how to respond to current or emergent situations, but neither do the primary actors. The response, correspondingly, is [...] to organise joint exploration of the situation and possibilities for responding to it”. Experimentalists claim that experimentalist forms of organisation in making regulatory rules arise and diffuse as actors and the state face uncertainty.⁶¹ Indeed, they understand the emergence and success of experimentalist governance as a response to a secular rise in uncertainty that has overwhelmed the capacities of hierarchical governance.⁶² By applying this argument to policymaking processes rather than institutions or governance, the thesis develops a third claim that the higher the uncertainty, the more the Commission will engage in experimentalist policymaking, and vice versa.

⁶⁰Sabel, C.F. and Zeitlin, J. (2012) ‘Experimentalism in the EU: Common ground and persistent differences’. *Regulation & Governance*, 6(3): 412.

⁶¹Sabel, C.F. and Zeitlin, J. (2012) ‘Experimentalism in the EU: Common ground and persistent differences’. *Regulation & Governance*, 6(3): 411.

⁶²Sabel, C.F. (2004) ‘Beyond Principal-Agent Governance: Experimentalist Organizations, Learning and Accountability’. In E. Engelen and M. S. Dhian Ho (Eds.) *De Staat van de Democratie. Democratie voorbij de Staat*. WRR Verkenning 3 Amsterdam: Amsterdam University Press, pp. 173–195; Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2009) ‘Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration’. *Columbia Law Review*, 109(3): 431–502; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2010) ‘Braiding: the Interaction of Formal and Informal Contracting in Theory, Practice and Doctrine’. *Columbia Law Review*, 110(6): 1377–1447; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1-28; Sabel, C.F. and Simon, W.H. (2011) ‘Minimalism and Experimentalism in the Administrative State’. *Georgetown Law Journal*, 100(1): 53–93; Sabel, C.F. and Simon, W.H. (2012) ‘Contextualizing Regimes: Institutionalization as a Response to the Limits of Interpretation and Policy Engineering’. *Michigan Law Review*, 110(7): 1265–1308; Sabel, C.F. and Zeitlin, J. (2012) ‘Experimentalism in the EU: Common ground and persistent differences’. *Regulation & Governance*, 6(3): 410–26; C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170–184; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2013) ‘Contract and Innovation: The Limited Role of Generalist Courts in the Evolution of Novel Contractual Forms’. *New York University Law Review*, 88: 170–215; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2014) ‘Text and Context: Contract Interpretation as Contract Design’. *Cornell Law Review*, 100: 23–98; Zeitlin, J. (2016) “EU Experimentalist Governance in Times of Crisis”. *West European Politics*, 39(5): 1073–94.

As anticipated, experimentalists argue that the EU has had to face problems of rising strategic uncertainty.⁶³ This thesis does not assume what uncertainty should be, but rather, identifies what it is and traces whether it changes, and if so how these changes occur. Yet, assessing uncertainty as being when “actors by definition have to learn what their goals should be, and while learning determine how to achieve them”, as proposed by some,⁶⁴ might risk conflating uncertainty and experimentalist policymaking. On the other hand, assessing uncertainty as “the need to address complex policy problems which have not shown themselves to be readily amenable to resolution whether through hierarchy, market, or otherwise”, as suggested by others,⁶⁵ might raise the issue of what observable implications could be used to distinguish between policy problems that are readily amenable to resolution and otherwise.

In line with the conceptual definition provided by experimentalists, this thesis assesses uncertainty by looking at the specificity of the Commission’s policy preferences, namely, *how* to achieve its policy goals. Based on publicly available regulatory policy documents and interviews, the thesis assesses uncertainty as being higher when the Commission’s policy preferences about how to achieve its goals are more general, while it assesses uncertainty as being lower when the Commission’s policy preferences are more specific. This approach is valuable because it allows the “operationalisation” of uncertainty, and hence, the ability to falsify arguments based on such an important concept.

Selecting cases

This thesis focuses on the EU, which is precisely where experimentalist architectures have been the most widespread. Experimentalists suggest that, because the EU has had to face problems

⁶³Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1–28.

⁶⁴Sabel, C.F. and Zeitlin, J. (2010) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, p.9.

⁶⁵De Burca, G. (2010) ‘New Governance and Experimentalism: An Introduction *Symposium: New Governance and the Transformation of Law*’. *Wisconsin Law Review*, 2: 232.

of rising strategic uncertainty under firm polyarchic constraints, it is the polity where experimentalist architectures have become most institutionalised.⁶⁶ At the same time, the EU has also progressively seen much delegation of hierarchical powers from Member States to the EU, offering a major domain for applying shadow of hierarchy theory.⁶⁷ This thesis concentrates on regulation, which is the EU's core activity.⁶⁸

Within EU regulation, the focus is on the energy sector, from the beginning of its liberalisation and re-regulation in the late 1990s to the present day (i.e., November 2016). This is a major sector in which both experimentalist and hierarchical architectures have been ongoing for significant periods, and accordingly, which has been used as an important example by both the

⁶⁶Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP; C.F. Sabel and J. Zeitlin (2012) 'Experimentalist Governance'. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170–184; see also De Burca, G. (2010) 'New Governance and Experimentalism: An Introduction Symposium: New Governance and the Transformation of Law'. *Wisconsin Law Review*, 2; Zeitlin, J. (2016) "EU Experimentalist Governance in Times of Crisis". *West European Politics*, 39(5): 1073–94.

⁶⁷See, for instance, Heritier, A. and Lehmkuhl, D. (2008) 'The Shadow of Hierarchy and New Modes of Governance'. *Journal of Public Policy*, 28: 1–17; De Visscher, C., Maiscoq, O. and Varone, F. (2008) 'The Lamfalussy Reform in the EU Securities Markets: Fiduciary Relationships, Policy Effectiveness and Balance of Power'. *Journal of Public Policy*, 28: 19–47; Eberlein, B. (2008) 'The Making of the European Energy Market: The Interplay of Governance and Government'. *Journal of Public Policy*, 28: 73–92; Heritier, A. and Eckert, S. (2008) 'New Modes of Governance in the Shadow of Hierarchy: Self-regulation by Industry in Europe'. *Journal of Public Policy*, 28: 113–138; Lehmkuhl, D. (2008) 'On Government, Governance and Judicial Review: The Case of European Competition Policy'. *Journal of Public Policy*, 28: 139–159; Heritier, A. and Rhodes, M. Eds. (2010) *New Modes of Governance in Europe: Governing in the Shadow of Hierarchy*. Palgrave Macmillan. For applications of the principal-agent theory, on which the shadow of hierarchy theory builds, see for example Pollack, M.A. (1997) 'Delegation, Agency, and Agenda Setting in the European Community'. *International Organization*, 51: 99–134; Pollack, M. A. (2003): *The Engines of European Integration: Delegation, Agency and Agenda Setting in the EU*. Oxford: OUP; Dehousse, R. (1997) "Regulation by Networks in the European Community: The Role of European Agencies". *Journal of European Public Policy*, 4: 246; Majone, G. (1997) "The new European agencies: regulation by information". *Journal of European Public Policy*, 4(2): 262–275; Talberg, J. (2002) "Delegation to Supranational Institutions: Why, How and with What Consequences?". *West European Politics*, 25: 23–46; Levi-Faur, D. (2011) "Regulatory networks and regulatory agencification: towards a Single European Regulatory Space". *Journal of European Public Policy*, 18(6): 810–829; Kelemen, D. (2002) "The Politics of 'Eurocratic' Structure and the New European Agencies". *West European Politics*, 25(4): 93–118; Coen, D. and Thatcher, M. (2008) "Network governance and multi-level delegation: European networks of regulatory agencies". *Journal of Public Policy*, 28 (1): 49–71; Thatcher, M. (2011) "The creation of European regulatory agencies and its limits: a comparative analysis of European delegation". *Journal of European Public Policy*, 18 (6): 790–809.

⁶⁸Majone, G. (1996) *Regulating Europe*. London: Routledge.

experimentalist and the shadow of hierarchy literatures.⁶⁹ Thus, EU energy regulation offers a particularly strong case to study experimentalist and hierarchical policymaking processes, particularly the conditions under which the Commission engages in one or the other.

Interestingly, while making competing theoretical claims, both sets of literature in the energy sector have only empirically analysed the same, single case study, which solely focuses on the issue area of “tarification”, exclusively in the power domain and only until the early 2000s.⁷⁰ This thesis significantly expands upon the currently limited empirical research on this topic by studying the issue areas of “tarification” and “congestion management” in both the power and gas domains, from the beginning of EU energy liberalisation and re-regulation in the late 1990s to the present day (i.e., November 2016).

The aforementioned case study is broken down into subcases in which the Commission could engage in both experimentalist and hierarchical policymaking, due to the experimentalist and hierarchical architectures that developed in parallel and very similarly across domains and issue areas. At the same time, these subcases offer different combinations of factors crucial to the proposed claims of polyarchy (and the shadow of hierarchy) and uncertainty. Table 3 shows the selected subcases in terms of uncertainty and polyarchy (and shadow of hierarchy).

⁶⁹Cfr. Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1–28; Eberlein, B. (2005) ‘Regulation by cooperation: the ‘third way’ in making rules for the internal energy market’. In P.D. Cameron (Ed.) *Legal aspects of EU energy regulation: implementing the new Directives on Electricity and Gas across Europe*. Oxford: OUP; Eberlein, B. (2008) ‘The Making of the European Energy Market: The Interplay of Governance and Government’. *Journal of Public Policy*, 28: 73–92; Eberlein, B. (2010) ‘Experimentalist Governance in the Energy Sector’. In Sabel, C.F. and Zeitlin, J. (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP.

⁷⁰Cfr. Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1–28; Eberlein, B. (2005) ‘Regulation by cooperation: the ‘third way’ in making rules for the internal energy market’. In P.D. Cameron (Ed.) *Legal aspects of EU energy regulation: implementing the new Directives on Electricity and Gas across Europe*. Oxford: OUP; Eberlein, B. (2008) ‘The Making of the European Energy Market: The Interplay of Governance and Government’. *Journal of Public Policy*, 28: 73–92; Eberlein, B. (2010) ‘Experimentalist Governance in the Energy Sector’. In C.F. Sabel & J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new Architecture*. Oxford: Oxford University Press, 61–79.

Table 3. Polyarchy (and shadow of hierarchy) and uncertainty in the selected subcases

Polyarchy (and shadow of hierarchy)		
		More (weaker) Less (stronger)
Uncertainty	Higher	All issue areas and domains from the late 1990s to the early 2000s Congestion management in power and tarification in gas from the mid-2000s to the present day
	Lower	All issue areas and domains during the early 2000s Congestion management in gas and tarification in power from the mid-2000s to the present day

In all subcases, in the course of its regulatory policymaking, the Commission could engage in hierarchical policymaking by using hierarchical powers that developed almost identically across domains. From the late 1990s onwards, in both the power and gas domains, the Commission could propose legislation to the European Parliament and the Council.⁷¹ Since the mid-2000s in both domains, and specifically since 2003 in the power domain and 2005 in the gas domain, the Commission has also been able to adopt “implementing acts” subject to the approval of “comitology” committees, in the specific issue areas of congestion management and tarification.⁷² Because neither the legislative nor comitology procedure reflects the key elements of experimentalist architecture, this thesis considers them hierarchical architectures.

In all subcases, nonetheless, the Commission could also engage in experimentalist policymaking, by employing experimentalist architectures that developed in parallel to hierarchical architectures analogously if not identically across domains. A significant, albeit not exclusive, illustration is the Florence Forum for Electricity Regulation, also known as the Florence Pro-

⁷¹See for example <http://ec.europa.eu/citizens-initiative/public/competences/faq#q6>. Accessed on 21 March 2016.

⁷²Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Art. 13; Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art. 14.

cess, which was organised by the Commission immediately after the first round of liberalisation legislation. Since 1998, its key task has been to provide a “neutral and informal framework for discussion of issues and exchange of experiences concerning the implementation of EU legislation and the creation of the internal market”, by biannually bringing together the Commission, European regulatory networks and EU agencies, Member State governments and national regulatory agencies, distinct types of regulated companies (e.g., transmission network operators, network users such as power generators or gas importers), consumers and other stakeholders such as outside commercial and academic experts.⁷³ Immediately after the Florence Forum was created, the Commission also organised the Madrid Forum for Gas in 1999. The two fora have equivalent compositions, working arrangements and tasks. Since their conception, both have been meeting twice a year with a particular focusing on the issue areas of congestion management and tariffication.⁷⁴

While in all subcases the Commission could engage in both experimentalist and hierarchical policymaking, it could do so under different conditions of polyarchy (and shadow of hierarchy) and uncertainty. Initially, similarly across all issue areas and domains, the Commission faced higher uncertainty under a more polyarchic distribution of power and weaker shadow of hierarchy. From the late 1990s to the early 2000s, the distribution of power was more polyarchic and the shadow of hierarchy was weaker, because in order to develop rules, the Commission could only propose legislation. Although its right of initiative is exclusive, its proposals must be adopted by both the European Parliament and the Council.⁷⁵ Furthermore, at the very beginning of the liberalisation and re-regulation of European energy markets, the Commission did not have precise preferences in the power or gas domains on how to regulate congestion management and tariffication in order to achieve the broad goal of non-discriminatory access. Therefore, uncertainty was higher across all subcases.

However, by the early 2000s, the Commission had developed much more precise policy preferences with regard to the regulation of both congestion management and tariffication in both domains, resulting in a decline in uncertainty across all issue areas and domains. In contrast, the distribution of power remained more polyarchic and the shadow of hierarchy was weaker,

⁷³<https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>. For the analogous forum, for gas, see <https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 16 March 2016.

⁷⁴<https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>; and <https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 11 July 2016.

⁷⁵See for example <http://ec.europa.eu/citizens-initiative/public/competences/faq#q6>. Accessed on 21 March 2016.

because the Commission's powers had not yet been strengthened. Thus, a second combination of conditions saw, in all issue areas and domains, the Commission's regulatory policymaking continuing to take place under a more polyarchic distribution of power and a weaker shadow of hierarchy, but also under lower uncertainty.

Since the mid-2000s and specifically since 2003 in the power domain and 2005 in the gas domain, the Commission has been empowered to adopt "implementing acts" subject to the approval of "comitology" committees confined to Member State representatives, specifically in the issue areas of congestion management and tarification.⁷⁶ Since the Commission has been able to develop detailed implementing measures supplementing legislative acts without having to go through the entire legislative procedure, the distribution of power has become less polyarchic and the shadow of hierarchy has become stronger, across all issue areas and domains.

In contrast, differences in uncertainty emerged across domains and issue areas. For regulating the issue area of congestion management, the Commission faced new policy questions for which it did not have clearly defined preferences in the power domain, while it maintained precise preferences for specific policies in the gas domain. Therefore, in the issue area of congestion management, uncertainty was higher in power than in gas. Conversely, for tarification regulation, the Commission continued to hold precise policy preferences in the power domain, while being exposed to new policy questions in the gas domain for which it only had general preferences. Thus, for tarification regulation, uncertainty was higher in gas than in power.

Thus, a third combination of conditions has been offered by the regulation, since the mid-2000s, of congestion management in the power domain and tarification in the gas domain. These represent subcases of policymaking under conditions of less polyarchic distributions of power (and stronger shadow of hierarchy) and higher uncertainty. A fourth and last combination was offered by the regulation, during the same period, of congestion management in the gas domain and tarification in the power domain. These constitute subcases of the Commission's policymaking under conditions of less polyarchic distributions of power (and stronger shadow of hierarchy) and lower uncertainty.

⁷⁶Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Art. 13; Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art. 14.

Methodology

In this work, these subcases were studied by employing two methods. First, the conditions under which the Commission engages in experimentalist policymaking were compared with those under which it favours hierarchical policymaking. In line with a well-established view in the social sciences, the comparative analysis was based on variables.⁷⁷ That is to say, it mainly aimed at establishing generalised relationships between variables, as opposed to rich descriptions of a few instances of a certain phenomenon.⁷⁸

Second, the processes through which the Commission employs experimentalist or hierarchical architectures were traced. The variable-oriented qualitative analysis was therefore integrated with process tracing, which is distinctive in three aspects. The evidence upon which this approach concentrates is called ‘causal-process observations’, as opposed to the data analysed by quantitative techniques, namely ‘data-set observations’.⁷⁹ It is founded on careful description. It focuses its attention on sequences.⁸⁰ In sum, process tracing is ‘an analytical tool for drawing descriptive and causal inferences from diagnostic pieces of evidence – often understood as part of a temporal sequence of events or phenomena’.⁸¹

A core advantage of this method is that it allows strengthening causal inferences in small-N designs, such as this, based on matching and contrasting of cases. It integrates the use of the comparative method in qualitative research, particularly to establish causal inferences, by supplementing it through within-case analysis.⁸² Put it bluntly, it increases the ability of a qualitative study to make causal inferences, relative to the simple matching and contrasting of cases

⁷⁷ Heritier, A. (2012) ‘Causal Explanation’. In Della Porta, D. and Keating, M. (eds) *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*. Cambridge: Cambridge University Press, pp.61-79; and Schmitter, P. (2012) ‘The design of social and political research’. In Della Porta, D. and Keating, M. (eds) *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*. Cambridge: Cambridge University Press, pp. 263-295.

⁷⁸ Della Porta, D. (2012) ‘Comparative analysis: case-oriented versus variable-oriented research’. In Della Porta, D. and Keating, M. (eds) *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*. Cambridge: Cambridge University Press, pp. 198-222.

⁷⁹ Collier, D., Brady, H.E. and Seawright, J. (2010) : A Pluralist Perspective (eds) EUnral Trade Commissioner-ative View of Methodologyd Seawright, J. (2010) : A Pluralist PeRethinking *Social Inquiry: Diverse Tools, Shared Standards*. Lanham, MD: Rowman and Littlefield, pp.161-199.

⁸⁰ Mahoney, J. (2010) dologies in the Social Sciences: A Pluralist Perspective (*World Politics* 62(1): 120ics2

⁸¹ Collier, D. (2011) dologies in the Social Sciences: *PS: Political Science & Politics*, 44(4): 824.

⁸² Collier, D. (2011) ‘Understanding Process Tracing’. *PS: Political Science & Politics*, 44(4): 823-830; for more recent works see Beach, D. and Pedersen, R.B. (2013) *Process-Tracing Methods: Foundations and Guidelines*, University of Michigan Press; and Bennett, A. and Checkel, J.T. (2015) (eds) *Process Tracing: From Metaphor to Analytic Tool*, Cambridge: Cambridge University Press.

that comparative designs bring on their own and which is not sufficient to establish causality. Furthermore, the use of process tracing is particularly appropriate in this thesis, since the case study selected offers a significant period of time, namely around two decades.

Of course, the use of process tracing faces potential challenges. For example, the research might encounter common issues of missing variables, and concerns may arise as to whether plausible alternative explanations were appropriately considered and then dismissed.⁸³ In attempting to address these potential issues, this thesis started by identifying a timeline listing the sequence of events studied. It then considered the kind of evidence that could confirm or disconfirm the possible explanatory factors studied, and eventually appraised these factors in the light of the evidence found. To this end, it aimed at collecting and then studying information on all the steps that emerged as important to the sequence analysed. This was in turn supported by the combination of different sources of evidence.

To use the comparative and process tracing methods, this thesis predominantly relied on primary sources of evidence, even though secondary sources are also referenced where appropriate. This is especially the case when the very beginning of the liberalisation and re-regulation of European energy markets is generally discussed, specifically with regard to the regulation of tariffication in the power domain from the late 1990s to the mid-2000s. These are periods and issues that have been already studied by other scholars, and accordingly, the thesis builds upon the existing empirical research.

The primary sources of evidence used are the vast amount of publicly available regulatory policy documents including meetings minutes and presentations, notably from the Florence and Madrid Fora and the informal groups of experts they stimulated;⁸⁴ “position papers” produced by the informal regulatory network Council of European Energy Regulators (CEER) as

⁸³ Collier, D. (2011) ‘Understanding Process Tracing’. *PS: Political Science & Politics*, 44(4): 823-830.

⁸⁴ For the Florence Forum for electricity, for the more recent meetings, see <https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>; for previous meetings, see http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora. For the Madrid Forum for gas, for the more recent meetings, see <https://ec.europa.eu/energy/en/events/madrid-forum>; for previous meetings, see http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Madrid%20Fora. For the very first meetings of the Florence and Madrid Fora, which are not publicly available directly online, I have successfully requested access to documents to the Secretariat General of the Commission.

well as a variety of trade associations, such as the European Transmission System Operators (ETSO),⁸⁵ the European Federation of Energy Traders (EFET),⁸⁶ the Association of European Energy Exchanges (EuroPEX)⁸⁷ and the Union of the Electricity industry (Eurelectric);⁸⁸ impact assessments,⁸⁹ consultancy reports and academic studies, especially those commissioned by the Commission;⁹⁰ progress reports, notably of the formal European regulatory network European Regulators Group for Electricity and Gas (ERGEG) and the EU regulatory agency Agency for the Cooperation of Energy Regulators (ACER), particularly those about voluntary “regional initiatives”;⁹¹ a sector inquiry of the Commission;⁹² and drafts put forward for public consultation, responses received and versions eventually adopted, notably those concerning non-binding guidelines of good practice of CEER and ERGEG,⁹³ non-binding framework

The most important stakeholder advisory group is arguably the Project Coordination Group, which will be discussed in Chapter Five. See http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora/PCG. Accessed on 11 July 2016.

⁸⁵ Available at: <https://www.entsoe.eu/news-events/former-associations/etso/Pages/default.aspx>. Accessed on 11 July 2016.

⁸⁶ Available at: <http://www.efet.org/>. Accessed on 11 July 2016.

⁸⁷ Available at: <http://www.europex.org/>. Accessed on 11 July 2016.

⁸⁸ Available at: <http://www.eurelectric.org/>. Accessed on 11 July 2016.

⁸⁹ Available at: http://ec.europa.eu/smart-regulation/impact/ia_carried_out/cia_2016_en.htm. Accessed on 11 July 2016.

⁹⁰ Available at: https://ec.europa.eu/energy/en/studies?field_associated_topic_tid=42. Accessed on 11 July 2016.

⁹¹ For an introduction to the Regional Initiatives, see http://www.ceer.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES; http://www.acer.europa.eu/en/Electricity/Regional_initiatives/Pages/default.aspx and http://www.acer.europa.eu/en/Gas/Regional_%20Initiatives/Pages/default.aspx. For the ERGEG progress reports, see: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES/Progress_Reports. For the ACER progress reports, see http://www.acer.europa.eu/en/Electricity/Regional_initiatives/Pages/Reports.aspx and http://www.acer.europa.eu/en/Gas/Regional_%20Initiatives/Pages/Reports.aspx. Accessed on 11 July 2016.

⁹² See, for example: http://ec.europa.eu/competition/sectors/energy/2005_inquiry/index_en.html. Accessed on 11 July 2016.

⁹³ Available at: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT. Accessed on 11 July 2016.

guidelines of ACER,⁹⁴ binding network codes of the formal European Network of Transmission System Operators for Electricity (ENTSO-E)⁹⁵ and for Gas (ENTSO-G)⁹⁶ and binding regulations of the Commission.⁹⁷

In order to collect additional information, crosscheck the evidence and address potential gaps emerging from the analysis of publicly available regulatory policy documents, the author conducted 18 interviews between April 2016 and July 2016. Table 19 in Appendix provides the list of interviewees, describing their name, institution and/or company, position(s) held during the period and with regard to the issue under study, nationality, main policy domain of expertise, and mode, place and date of interview. In addition, it also provides a brief profile for each interviewee.

Before beginning his doctoral thesis, the author worked in the Eurelectric trade association in Brussels, which represents the European electricity industry. While this professional experience provided the author with important technical expertise as well as contacts, and even though at that time he was not directly involved in any of the subcases selected in the thesis, this could represent an additional source of bias. The author could, for example, be excessively in favour of European public policymakers and the integration process they promote, or on the contrary be too sensitive to interests of the industry it used to represent. Indeed, awareness of this risk prompted the author to select a sample of interviewees who is not only particularly expert and knowledgeable about the issues analysed, but also representative along a number of dimensions, with the aim of mitigating possible biases and taking different viewpoints into account. First, the 18 interviewees have 10 different European nationalities, namely, Austrian, Belgian, British, Finnish, French, German, Hungarian, Italian, Slovenian and Spanish. This might be useful in case given regulatory initiatives were supported by some countries while opposed by others. Second, the expertise and experience of the interviewees are balanced across the power and gas domains: seven of the interviewees are particularly knowledgeable

⁹⁴ Available at: http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/Pages/default.aspx; and http://www.acer.europa.eu/en/Gas/Framework%20guidelines_and_network%20codes/Pages/default.aspx. Accessed on 11 July 2016.

⁹⁵ Available at: <https://www.entsoe.eu/major-projects/network-code-development/Pages/default.aspx>. Accessed on 11 July 2016.

⁹⁶ Available at: <http://www.entsog.eu/publications/congestion-management-cmp>; and <http://www.entsog.eu/publications/tariffs>. Accessed on 11 July 2016.

⁹⁷ See, in particular, <https://ec.europa.eu/energy/en/consultations>; <https://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes>; and <https://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-network-codes>. Accessed on 11 July 2016.

about gas, eight about power, and the rest are similarly knowledgeable about both domains. Indeed, the expertise and knowledge of interviewees about the subcases studied was a key criterion driving their selection. Third, while most of the interviewees are senior officials and representatives (e.g., Director, Chair, President, Head), a few are less senior people (e.g., Officer, Advisor). The aim here was to have a discussion with both the people responsible for providing direction and making decisions as well as those involved in the actual detailed drafting of rules. Fourth, the interviewees proportionately represent both regulatory policymakers and regulatees, with 10 and 8 of them belonging to each category, respectively. Furthermore, each of these two broad categories of actors represents distinct sub-categories. Within regulatory policymakers, interviewees are not only from the Commission but are also from European regulatory networks (CEER, ERGEG) and the EU agency (ACER), as well as from the national regulatory authorities composing their boards. Within the category of regulatees, some interviewees represent transmission system operators, others embody network users (e.g. producers, importers), and still others represent additional types of regulated companies (i.e., traders, power exchanges) at both the company and European trade association levels. Once again, the logic was to collect information from a number of different viewpoints.

Ahead of each interview, the author sent a brief note introducing the relevant academic debates; identifying the gap, research question and case study; describing the provisional findings of each empirical chapter (Chapters 3-6); and presenting the then emerging argument and its broader implications. This note is available in Appendix. Most of the interviews were conducted “face-to-face”, in either Brussels, Ljubljana (where the EU agency ACER is based) or London, and lasted thirty minutes to two hours, with an average duration of one hour and fifteen minutes.⁹⁸ Interviews were “semi-structured” in that after briefly reviewing the written material sent in advance, the author mainly asked open-ended questions that were flexibly ordered. Such questions mainly aimed at understanding how far the findings that far emerged from the study of publicly available evidence corresponded to the interviewees’ readings of the same processes and events. For this reason, questions were asked to the interviewees who had most knowledge of the process under study, in order to verify and possibly fill in gaps that were left after the analysis of public documents. They included, for example, whether the rulemaking

⁹⁸ A couple of interviews consisted instead of email exchanges. The reason was the difficulty of meeting the interviewees in person and also the considerable knowledge already possessed by the researcher on the specific issues under discussion. These exchanges therefore largely aimed at confirming the relevant preliminary findings. Potential disadvantages of this mode of interview, relative to meetings in person, were mitigated by the availability of the interviewees to discuss over the telephone in case of need for clarifications, but such need did not arise.

process adopted in the specific subcase under discussion was correctly characterised in the provisional findings as experimentalist or hierarchical, and whether the possible accounts for those findings corresponded to their understanding. This led to largely respondent-driven discussions, which in some cases provided insights the researcher was not aware of, and which were later corroborated by other interviewees. Furthermore, in some instances interviewees, on their own initiative, offered suggestions about additional people who could be interviewed. In order to stimulate candid responses, interviewees were offered the possibility of confidentiality or anonymity, but no one opted for either option.

Chapter Two: Regulating the Internal Energy Market

This chapter has a twofold objective. First, it demonstrates that in all subcases, both experimentalist and hierarchical architectures were available to the Commission. Hence, the Commission could engage in both experimentalist and hierarchical policymaking. Second, it shows that the selected subcases also offer different combinations of the factors crucial to the claims made, namely, polyarchy (and hierarchy and its shadow) and uncertainty. Thus, while being able to engage in both experimentalist and hierarchical policymaking due to experimentalist and hierarchical architectures that developed in parallel and similarly across subcases, the Commission could do so under different conditions.

Analogous hierarchical and experimentalist architectures

Energy is a vital sector for modern market economies and European market integration.⁹⁹ Yet both gas pipelines and electricity wires, similar to other elements of “network industries” such as water pipes and train tracks, exhibit strong “natural monopoly” features. This can be described as a situation in which the market can most cheaply be supplied by a single firm. A natural monopolist, left to itself, would likely charge excessive prices; accordingly, there is a need for regulation.¹⁰⁰ In particular, the functioning of both power and gas markets is strongly dependent upon how access to network capacity is managed, as well as how it is priced. That is to say, upon how the issue areas of congestion management and tariffication are regulated. Congestion management is defined as the management of situations in which the demand for network capacity exceeds the amount of available network capacity, whereas tariffication is the regulation of prices for accessing and using network capacity.

The lack of or access at discriminatory conditions or tariffs to infrastructures such as gas pipes and electricity wires can lead to competition problems, notably, the favour of market entry of certain regulatees at the expense of others. Thus, regulation to ensure that all market actors have non-discriminatory access to these essential facilities is considered crucial to promote a “level playing field” and to prevent unfair competition, which can in turn lead to higher prices

⁹⁹ See, for example, <https://ec.europa.eu/energy/en/topics/oil-gas-and-coal>. Accessed on 13 January 2016.

¹⁰⁰ Natural monopoly can be described as a situation in which the market can most cheaply be supplied by a single firm. Examples include gas or water pipes, electricity or telecommunications wires, train tracks or a postal delivery round. See, for instance, Baldwin, R., Cave, M. and Lodge, M. (2011) *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: OUP, Ch.22.

for consumers.¹⁰¹ With regard to the European dimension, interconnectors are the “bridges” between national energy systems, and are therefore of critical importance to the single energy market.¹⁰² However, because interconnection capacity is often scarce and it is not always feasible to accommodate the physical flows resulting from commercial transactions, the functioning of European energy markets is strongly dependent on how interconnection capacity is allocated and how congestion in the cross-border networks is managed.¹⁰³ Because discriminatory tariffs can lead to distortions of competition, cross-border trade also requires energy to flow across countries without undue tariff barriers.¹⁰⁴ Since regulation for ensuring access to interconnections at non-discriminatory conditions and tariffs is considered a vital precondition for establishing a competitive internal energy market, from the 1990s onwards, the Commission began to extend EU regulation in the power and gas domains, notably in the issue areas of congestion management and tariffication.

In the course of regulatory policymaking, in all subcases, the Commission could use both hierarchical and experimentalist architectures. Hence, it could engage in both hierarchical and experimentalist policymaking. This thesis distinguishes between these two types of institutional architectures based on key elements of experimentalist architecture as defined by its proponents. As seen in the Introduction and Chapter One, “in this decision-making design, framework goals (e.g., full employment, social inclusion, good water status, a unified energy grid) and measures for gauging their achievement are established by joint action of the Member States and EU institutions. Lower-level units, such as national ministries or regulatory authorities and the actors with whom they collaborate, are given the freedom to advance these ends as they see fit. Subsidiarity in this architecture implies that in writing framework rules, lower-level units should be given sufficient autonomy to implement the rules and to propose changes to them. But in return for this autonomy, they must regularly report on their performance, especially as measured by the agreed upon indicators, and are required to participate in a peer

¹⁰¹ See for example Baldwin, R., Cave, M. and Lodge, M. (2011) *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: OUP; and http://www.europarl.europa.eu/ftu/pdf/en/FTU_5.7.2.pdf. Accessed on 2nd December 2015.

¹⁰² European Commission Second report to the Council and the European Parliament on harmonization requirements: Directive 96/92/EC concerning common rules for the internal market in electricity. Brussels, 16 April 1999, COM(1999) 164 final, p.6.

¹⁰³ See for example ACER Framework Guidelines on Capacity Allocation and Congestion Management for Electricity. Draft for Consultation, DFGC-2011-E-003, 11 April 2011.

¹⁰⁴ See for example http://europa.eu/rapid/press-release_IP-07-26_en.htm?locale=en. Accessed on 5 December 2015.

review in which their results are compared with those pursuing other means to the same general ends. Finally, the framework goals, metrics and procedures themselves are periodically revised by the actors who initially established them, augmented by new participants whose views have come to be seen as indispensable to full and fair deliberation”.¹⁰⁵

Based on these criteria, the thesis categorises the ordinary legislative procedure as a hierarchical architecture. This procedure has been available to the Commission in both the power and gas domains since the beginning of its liberalisation and re-regulation activities in the late 1990s. It consists of the joint adoption by the European Parliament and the Council of a regulation, directive or decision based on a proposal from the Commission. This is defined in Article 294 of the Treaty on the Functioning of the EU as the most common EU law-making procedure, and gives the European Parliament the power to jointly adopt EU laws with the Council of the EU.¹⁰⁶ The ordinary legislative procedure is commonly known as the “Community method”, which is characterised by the sole right of the European Commission to initiate legislation, the co-decision power between the Council and the European Parliament and the use of qualified majority voting in Council.¹⁰⁷ This procedure does not reflect key elements of experimentalist architecture, as national ministries or regulatory authorities *and* regulated companies do not have sufficient autonomy to implement rules and propose changes to them, do not have to regularly report on their performance and participate in a peer review and do not periodically contribute with new participants to the revision of rules in response to the problems and possibilities revealed by the reviews. Thus, this thesis considers the ordinary legislative procedure to be a hierarchical architecture.

Based on the same criteria, this thesis also categorises comitology as a hierarchical architecture. Under the Treaty on the Functioning of the EU, primary responsibility for implementing EU law lies with EU countries. However, where uniform conditions for implementation are

¹⁰⁵ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 273–4; see also Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1–28; and C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170–184.

¹⁰⁶ <http://eur-lex.europa.eu/summary/glossary/ordinary-legislative-procedure.html>. Accessed on 16 September 2016.

¹⁰⁷ http://eur-lex.europa.eu/summary/glossary/community_intergovernmental_methods.html. Accessed on 16 September 2016.

needed, the EU act in question will confer implementing powers on the Commission.¹⁰⁸ The term “comitology” refers to the set of procedures through which the European Commission exercises the implementing powers conferred upon it by the EU legislator, with the assistance of committees of representatives from EU countries. Such comitology committees are chaired by a Commission official and provide an opinion on implementing acts proposed by the Commission.¹⁰⁹ Comitology “refers to a set of procedures through which EU countries control how the European Commission implements EU law”, comitology committees *only* “include representatives from all EU Member States and are chaired by a Commission official” and “*only* the Member States have a role to play in controlling how the Commission exercises its implementing powers”.¹¹⁰ Since these key characteristics of comitology are in contrast with key elements of experimentalist architecture, notably, the participation of regulated companies and other stakeholders in regular peer reviews and the periodic revisions of rules based on these reviews, this thesis considers it a hierarchical architecture.¹¹¹

In comitology, the opinions that the committee provide on the Commission’s proposed measures can be more or less binding, depending upon the particular procedure specified in the legal act being implemented. The choice of procedure for a committee is made by the EU legislator, and depends upon the nature of the implementing powers that are laid out in the basic regulation, directive or decision.¹¹² The “basic legal act” defines the content and scope

¹⁰⁸ <http://ec.europa.eu/transparency/regcomitology/index.cfm?do=implementing.home>. Accessed on 16 September 2016.

¹⁰⁹ <http://eur-lex.europa.eu/summary/glossary/comitology.html>. Accessed on 16 September 2016.

¹¹⁰ <http://ec.europa.eu/transparency/regcomitology/index.cfm?do=FAQ.FAQ;>
<http://ec.europa.eu/transparency/regcomitology/index.cfm?do=implementing.home>. Accessed on 16 September 2016.

¹¹¹ The author is aware of the scholarly debate about whether comitology procedures are instruments of control or rather deliberative mechanisms. Cfr. For example T. Christiansen and E. Kirchner (Eds.), *Committee Governance in the European Union* (Manchester University Press, 2000); C. Joerges and J. Neyer, ‘Transforming Strategic Interaction into Deliberative Problem-Solving: European Comitology in the Foodstuffs Sector’, (1997) 4 *European Journal of Public Policy* 609; C. Joerges and E. Vos (Eds.), *EU Committees: Social Regulation, Law and Politics* (Hart, 1999); M.P.C.M. van Schendelen (Ed), *EU Committees as Influential Policymakers* (Ashgate, 1998); and Pollack, M.A. (2003) ‘Control Mechanism Or Deliberative Democracy? Two Images of Comitology’. *Comparative Political Studies*, 36 (1–2): 125:155. However, the focus in this Chapter is not on the actual operation of comitology but rather on its institutional design. In this respect, also experimentalists such as Charles F. Sabel and Jonathan Zeitlin recognize that comitology was “originally established by Member States to ensure that the Commission’s elaboration of rules respected political compromises”. See Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 278.

¹¹² <http://eur-lex.europa.eu/summary/glossary/comitology.html>. Accessed on 16 September 2016.

of the implementing powers and determines the type of comitology procedure to be applied in each case.¹¹³

This hierarchical architecture has, nonetheless, been available to the Commission very similarly across all subcases, because it was introduced almost identically across the power and gas domains as well as across the issue areas of congestion management and tariffication. In the power domain, the first regulation on cross-border exchanges adopted in 2003 laid down basic principles that allowed for the adoption of guidelines detailing further relevant principles and methodologies, specifically in the issue areas of tariffication and congestion management.¹¹⁴ For that purpose, in some cases it empowered the Electricity Cross-Border Committee to control the Commission through the “regulatory procedure”, in which the Commission’s proposal had to be approved by a “qualified majority” of the Committee; if it was not approved, the matter was submitted to the Council of Ministers, which decided based on the qualified majority. In other cases, the Commission acted on the basis of the “advisory procedure”, where the opinion of the Committee was merely advisory.¹¹⁵ In 2009, the first regulation was repealed by a second one, which changed the comitology procedure from regulatory or advisory to “regulatory with scrutiny”, where in addition to the Council, the European Parliament is included as a ‘full co-controller’ which, acting by majority of its component members, can oppose the rules made by the Commission.¹¹⁶ Analogous to the power domain, the first regulation on conditions for accessing cross-border networks, which was adopted in 2005 in the gas domain, laid down principles and allowed for the adoption of guidelines specifying additional details in the issue areas of tariffication and congestion management.¹¹⁷ To that end, and similar to the power domain, it was mandated that the Gas Committee operate under the regulatory procedure.¹¹⁸

¹¹³ <http://ec.europa.eu/transparency/regcomitology/index.cfm?do=FAQ.FAQ>. Accessed on 16 September 2016.

¹¹⁴ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Recital (8).

¹¹⁵ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Art. 13.

¹¹⁶ Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003. Art. 23.

¹¹⁷ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art.9(1) (a) and (b).

¹¹⁸ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art. 14.

Thereafter, exactly as in the power domain, a second regulation that was adopted in 2009 repealed the first one and changed the comitology procedure from regulatory to regulatory with scrutiny.¹¹⁹

In addition to hierarchical architectures, in its regulatory policymaking, the Commission could also use experimentalist architectures, which developed in parallel. Furthermore, these experimentalist architectures became institutionalised analogously across the power and gas domains, as well as across the issue areas of tariffication and congestion management. A significant example is the Florence Forum for Electricity Regulation, also known as the Florence Forum, which was not derived from directives or other legal instruments, but instead, was organised by the Commission immediately after the first round of liberalisation legislation. Since 1998, its key task has been to provide a “neutral and informal framework for discussion of issues and exchange of experiences concerning the implementation of EU legislation and the creation of the internal electricity market”. Twice a year, it brings together the Commission, European regulatory networks and EU agencies, Member State governments and national regulatory authorities, transmission network operators, electricity traders, consumers, network users, power exchanges and other stakeholders such as outside commercial and academic experts.¹²⁰ In 1999, one year after the Florence Forum was established, the Commission also organised the Madrid Forum for Gas Regulation. The tasks, working arrangements and composition of the Madrid Forum mirror those of the Florence Forum. The Madrid Forum was established for the discussion of issues regarding the creation of the internal gas market, and has been meeting twice a year since its inception. Its participants include the Commission, national regulatory authorities and governments, transmission system operators, gas suppliers and traders, consumers, network users and gas exchanges.¹²¹ Since their establishment, both the Florence and the Madrid Fora have particularly focused on the tariffication of cross-border exchanges and the management of scarce interconnection capacity.¹²²

This thesis considers the Florence and Madrid Fora to be experimentalist architectures, because they reflect key elements of experimentalist architecture. In particular, these architectures are

¹¹⁹Regulation (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. Art.28.

¹²⁰<https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>. Accessed on 16 March 2016.

¹²¹<https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 16 March 2016

¹²²Cfr. <https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>; <https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 16 March 2016

designed so that national ministries or regulatory authorities *and* regulated companies are given sufficient freedom to implement rules and to propose changes to them, to regularly report on their performance, to participate in peer reviews in which their results are compared to those of others, and together with other stakeholders such as academics, to periodically contribute to the revision of rules in response to the problems and possibilities revealed by the reviews.

This thesis categorises as an additional experimentalist architecture the procedure for developing network codes. This procedure was introduced in 2009 by a “third legislative package” in both the power and gas domains, to develop detailed EU-wide rules that are binding on all cross-border networks in a number of issue areas, including tarification and congestion management.¹²³ This architecture has been identically available to the Commission across domains and issue areas.

The procedure for adopting network codes is as follows. The Commission begins by drafting an “annual priority list” of areas to be included in the development of network codes for electricity and gas in consultation with the EU Agency for the Cooperation of Energy Regulators (ACER) and the European Network of Transmission System Operators for Electricity (ENTSO-E) and Gas (ENTSO-G). Once the annual priority list is established, the ACER develops “framework guidelines” that set principles for developing specific network codes. These framework guidelines are used by the ENTSO-E and ENTSO-G to prepare a network code, which is submitted back to the ACER for its opinion. If the ACER deems that the code fulfils its framework guidelines and the internal market objectives of the EU, it recommends that the Commission adopt the code. The Commission studies the code and then sends it to the Electricity Cross-Border Committee and Gas Committee, comprising specialists from national energy ministries, for an opinion. Once the Committee accepts the draft network code, it is adopted via the comitology procedure with approval of the Council of the EU and the European Parliament, after which it becomes a legally binding regulation.¹²⁴

¹²³ Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003. Art.8(6); 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. Art.8(6).

¹²⁴ <http://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes>; <http://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-network-codes>. Accessed on 16 September 2016.

This thesis considers this procedure to be an experimentalist architecture, because as aforementioned, the drafting of network codes involves the Commission, the ACER and the ENTSO-E and ENTSO-G. Furthermore, because both the ACER and the ENTSO-E and ENTSO-G are under strict consultation and transparency obligations in the delivery of their tasks with regard to framework guidelines and network codes, this procedure also closely involves other stakeholders.¹²⁵ Finally, the network codes procedure is designed so that all of these actors will also regularly report on their performance and periodically contribute to the revision of rules in response to the problems and possibilities revealed. In the power domain, “European Stakeholder Committees” were established to inform and consult stakeholders about the requirements in the network codes during the implementation period. To this end, “the ACER and ENTSO-E shall co-organise regular meetings to identify problems and propose improvements to the network codes”.¹²⁶ Similarly, in the gas domain, the “Joint Functionality Process”, co-managed by the ENTSO-G and the ACER and supported by the Commission, aimed towards reaching commonly recommended solutions on implementation and operational issues with the existing gas network codes. It “will provide stakeholders a possibility to raise and discuss issues as well as an opportunity to be involved in developing solutions”. A platform “makes it possible for stakeholders to raise implementation and operation issues [...] and gives an overview of all reported issues and their status. After an issue has been reported, the ACER and ENTSO-G will jointly validate, categorise and prioritise the raised issues and elaborate upon solutions, taking into account stakeholders’ ideas”.¹²⁷

Thus, this section distinguished between experimentalist and hierarchical architectures based on the key elements of experimentalist architecture as defined by its proponents. It showed that, in the course of regulatory policymaking, the Commission could use both experimentalist and hierarchical architectures, which developed in parallel. Furthermore, it demonstrated that these architectures are very similar if not identical across domains and issue areas, thereby

¹²⁵ http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/Pages/default.aspx; http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/Pages/default.aspx. Accessed on 16 September 2016.

¹²⁶ http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/Pages/European-Stakeholder-Committees.aspx. Accessed on 16 September 2016.

¹²⁷ <http://www.entsog.eu/publications/joint-functionality-process#1-FIRST-FUNCTIONALITY-CYCLE-FROM-2014>. Accessed on 16 September 2016.

demonstrating that in all of the selected subcases, the Commission could engage in both experimentalist and hierarchical policymaking. Figure 1 shows the hierarchical and experimentalist architectures available to the Commission in both domains and issue areas.

Figure 1. Hierarchical and experimentalist architectures available to the Commission in both domains and issue areas

Hierarchical architectures

- Legislative procedure
- Comitology procedure

Experimentalist architectures

- Florence and Madrid Fora
- Network codes procedure

Different polyarchy (and shadow of hierarchy) and uncertainty

Even though the Commission could engage in both experimentalist and hierarchical policymaking due to experimentalist and hierarchical architectures that developed in parallel and very similarly across subcases, it could do so under different conditions. This is because the selected subcases feature different combinations of polyarchy (and hierarchy and its shadow) and uncertainty.

One such combination occurred from the late 1990s to the early 2000s, during which time, in all issue areas and domains, the Commission's regulatory policymaking took place under conditions of a more polyarchic distribution of power (and weaker shadow of hierarchy) and higher uncertainty. The distribution of power was more polyarchic and the shadow of hierarchy was

weaker because traditionally, vertical delegation of powers from Member States to the supranational level was very modest.¹²⁸ The formal rulemaking powers of the Commission were initially limited to its ability of proposing legislation. In the ordinary legislative procedure, the Commission had exclusive rights to propose legislation, but its proposals had to be adopted by both the European Parliament and the Council.¹²⁹

Uncertainty was higher because, at the very beginning of the liberalisation and re-regulation of European energy markets, the Commission did not have precise preferences about how to regulate congestion management and tariffication to achieve the broad goal of non-discriminatory network access, neither in power nor in gas. Since very few jurisdictions had experimented with liberalisation, with Britain providing the only example of full-scale energy liberalisation in Europe, the liberalisation of national electricity and gas markets was a very new policy area with little experience to draw from.¹³⁰ Furthermore, historically, European energy networks were not designed for the purpose of cross-border trade and the existing regulatory frameworks did not cover commercial exchanges across liberalised markets. Thus, the integration of national electricity and gas systems into a common market was entirely virgin territory, which raised a host of poorly understood technical issues.¹³¹ One such issue was how to manage situations in which the capacity of interconnection among national systems, which was historically limited, could not accommodate the requests for trade, which were growing as a result of gradual market liberalisation and integration. Another novel issue that arose from cross-border trade was how to compensate “transit” countries for the extra costs they incurred due to the external cross-border transactions they had to host. Chapters Three and Four will detail how primary sources, such as regulatory policy documents and interviews as well as secondary

¹²⁸ Matlary, J. H. (1997) *Energy Policy in the European Union*. New York: St Martin's Press; Padgett, S. (1992) 'The Single European Energy Market: The Politics of Realization'. *Journal of Commons Market Studies*, 30, 1, 53-75.

¹²⁹ See for example <http://ec.europa.eu/citizens-initiative/public/competences/faq#q6>. Accessed on 21 March 2016.

¹³⁰ Eberlein, B. (2008) The Making of the European Energy Market: The Interplay of Governance and Government. *Journal of Public Policy*, 28: 77; Eberlein, B. (2010) 'Experimentalist Governance in the European Energy Sector'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new architecture*. Oxford: OUP, p. 65; see also Eberlein, B. (2003) 'Regulating cross-border trade by soft law? The Florence Process in the supranational governance of electricity markets'. *Journal of Network Industries*, 4(2): 137-55.

¹³¹ Eberlein, B. (2008) The Making of the European Energy Market: The Interplay of Governance and Government. *Journal of Public Policy*, 28: 77; Eberlein, B. (2010) 'Experimentalist Governance in the European Energy Sector'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new architecture*. Oxford: OUP, p. 65; see also Eberlein, B. (2003) 'Regulating cross-border trade by soft law? The Florence Process in the supranational governance of electricity markets'. *Journal of Network Industries*, 4(2): 137-55.

sources, suggest that initially, the Commission had general rather than specific preferences on how to address these issues, and as such, originally found itself in conditions of higher uncertainty in all subcases.

The same chapters, nonetheless, will also show that in a few years the Commission developed much more specific policy preferences with regard to the regulation of both congestion management and tariffication, in power as well as in gas. This is evidenced, *inter alia*, by guidelines containing very specific provisions that the Commission voluntarily agreed upon in the early 2000s, in all issue areas and domains.¹³² Thus, by the early 2000s, the Commission witnessed a relative decline in uncertainty across all subcases.

In contrast, in the early 2000s, the distribution of power continued to be more polyarchic and the shadow of hierarchy was weaker, because the Commission's formal rulemaking powers were still limited to the ordinary legislative procedure. Thus, in the early 2000s, a second combination of conditions saw, in all issue areas and domains, the Commission's regulatory policymaking taking place under a consistently more polyarchic distribution of power and weaker shadow of hierarchy, but also under lower uncertainty.

As seen in the previous section, the Commission's formal rulemaking powers were increased in the mid-2000s, specifically in 2003 in the power domain and 2005 in the gas domain. The Commission was empowered to adopt "implementing acts" subject to the approval of "comitology" committees confined to Member State representatives, specifically in the issue areas of congestion management and tariffication.¹³³ Similarly across domains and issue areas, the Commission became able to adopt detailed implementing measures, understood as "non-legislative acts of general application that supplement or amend certain non-essential elements of a legislative act", by directly dealing with committees made up of specialists from national ministries

¹³²Cfr. Conclusions Sixth Meeting of the European Electricity Regulation Forum. Florence, 9/10 November 2000, Guidelines on congestion management, pp.4–8; Conclusions of the 7th meeting of the European Gas Regulatory Forum Madrid, 24–25 September 2003. ANNEX 1 The Guidelines for Good TPA Practice - revised version, Art.8.1-8.2; Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999); Conclusions Eight Meeting of the European Electricity Regulatory Forum. Florence, 21–22 February 2002, p.1; Conclusions Tenth Meeting of the European Electricity Regulatory Forum. Rome, 8–9 July 2003, p.4; Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002; Conclusions of the 6th Gas Regulatory Forum. 30/31 October 2002.

¹³³Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Art. 13; Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art. 14.

rather than having to go through the entire legislative procedure.¹³⁴ Certainly, this thesis does not argue that this led to a complete shift from polyarchy to hierarchy. It merely emphasises that the Commission's formal rulemaking powers, initially limited to the ordinary legislative procedure, were increased through the comitology procedure. On this basis, it considers that since the mid-2000s, the distribution of power became less polyarchic and the shadow of hierarchy became stronger in a similar manner across domains and issue areas. Table 4 shows how polyarchy (and the shadow of hierarchy) changed over time in all domains and issue areas.

Table 4. Polyarchy (and shadow of hierarchy) in the subcases

Polyarchy (and shadow of hierarchy)	
More polyarchy (weaker shadow)	Less polyarchy (stronger shadow)
All domains and issue areas from the late 1990s to the early 2000s	All domains and issue areas from the mid-2000s to the present day

Although since the mid-2000s, the distribution of power became less polyarchic and the shadow of hierarchy became stronger in a similar manner across issue areas and domains, differences in uncertainty also emerged. Table 5 shows the uncertainty in all subcases. Chapter Five will detail how both regulatory policy documents and interviews indicate that in the power domain, the Commission was confronted with new policy questions for which it did not have straightforward preferences in the issue of congestion management. Thus, this thesis considers that the Commission found itself in conditions of higher uncertainty. Chapter Five will also show how the same type of primary sources indicate that, in contrast, the Commission had a precise idea of how to develop reforms in the gas domain, based upon the specific policy preferences it had developed in the early 2000s and which it maintained throughout the decade. Therefore, this thesis considers that in the issue area of congestion management, from the mid-2000s to the present day, uncertainty was higher in power than in gas.

¹³⁴1999/468/EC: Council Decision of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission; and 2006/512/EC: Council Decision of 17 July 2006 amending Decision 1999/468/EC laying down the procedures for the exercise of implementing powers conferred on the Commission.

Chapter Six will use regulatory policy documents and interviews to document that, with regard to tariffication regulation in the power domain, the Commission maintained specific policy preferences throughout the 2000s, namely, those it had developed at the beginning of the decade. It will also show that, in contrast, with regard to the gas domain, interviews suggest that the Commission knew that “something had to be done” but did not know exactly what, and that in regulatory policy documents, there is no trace of the Commission’s preferences for specific policies until the early 2010s. Thus, for tariffication regulation from the mid-2000s to the present day, this thesis assesses uncertainty as higher in gas than in power.

Table 5. Uncertainty in the subcases

Uncertainty	
Higher	Lower
All domains and issue areas from the late 1990s to the early 2000s	All domains and issue areas during the early 2000s
Congestion management in power and tariffication in gas from the mid-2000s to the present day	Congestion management in gas and tariffication in power from the mid-2000s to the present day

Thus, a third combination of conditions is offered by the regulation, from the mid-2000s to the present day, of congestion management in the power domain and of tariffication in the gas domain. These represent subcases of policymaking under conditions of less polyarchic distributions of power (and stronger shadow of hierarchy) and higher uncertainty. A fourth and final combination is offered by the regulation, during the same period, of congestion management in the gas domain and of tariffication in the power domain. These constitute subcases of the Commission’s policymaking under conditions of less polyarchic distributions of power (and stronger shadow of hierarchy) and lower uncertainty.

Chapter Three begins the empirical analysis of policymaking, by analysing the Commission’s regulation of congestion management across the gas and power domains from the late 1990s to the early 2000s, and offers two distinct combinations of conditions. From the late 1990s to

the early 2000s, the Commission found itself facing conditions of higher uncertainty and more polyarchic distributions of powers (and weaker shadow of hierarchy). During the early 2000s, the Commission continued to find itself in conditions of more polyarchic distribution of powers (and weaker shadow of hierarchy), but under lower uncertainty.

Phase One: Similar Uncertainty and Policymaking – Late 1990s to the Early 2000s

Chapter Three: Interchanging Experimentalist with Hierarchical Policymaking in Both Power and Gas Domains to Regulate Congestion Management

Introduction

This chapter begins the empirical analysis of policymaking, by comparing the regulation of congestion management across power and gas domains from the late 1990s to the early 2000s. Energy markets were historically managed on a national basis by state-owned, vertically integrated monopolists, who undertook all aspects of production of the service in question.¹³⁵ In that context, the rules governing access to networks were drawn up nationally.¹³⁶ In the late 1990s, there was virtually no European regulation governing how Europe's cross-border electricity transmission networks and gas pipelines operated. There was a "European patchwork of asymmetric national rules".¹³⁷ Incumbent companies, often in alliance with national governments, typically controlled underdeveloped interconnectors and were able to distort competition,¹³⁸ but by the early 2000s, the situation had fundamentally changed and an initial set of common rules were adopted in both the power and gas domains. By mandating that scarce interconnection capacity be managed through market-based approaches, and specifically auctions in electricity¹³⁹ and "use-it-or-lose-it" provisions and secondary markets in gas¹⁴⁰, these rules marked a clear turning point from previous arrangements that limited competition and cross-border trade.

¹³⁵ Baldwin, R., Cave, M. and Lodge, M. (2011) *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: OUP.

¹³⁶ See for example <https://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes>. Accessed on 2nd December 2015.

¹³⁷ Hancher, L. (1997) 'Slow and Not So Sure: Europe's Long March to Electricity Market Liberalization'. *Electricity Journal*, November, 92–101; Hancher, L. (1998) 'Delimitation of Energy Law Jurisdiction. The EU and Its Member States: From Organisational to Regulatory Conflicts'. *Journal of Energy and Natural Resources Law*, 42, 42–67; Haase, N. (2008) 'European gas market liberalisation: Are regulatory regimes moving towards convergence?'. *Oxford Institute for Energy Studies*, NG24.

¹³⁸ Eberlein, B. (2010) 'Experimentalist Governance in the European Energy Sector'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new architecture*. Oxford: OUP, p. 62.

¹³⁹ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Art. 6.1 and Annex Guidelines.

¹⁴⁰ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art.5.3(a) and Annex Guidelines.

Throughout the phase analysed, in both the power and gas domains, the Commission could use the hierarchical architecture represented by the ordinary legislative procedure. At the same time, in the course of its regulatory policymaking, the Commission could also employ experimentalist architectures, which developed in parallel to hierarchical architectures analogously across gas and power. Significant examples are the Florence Forum for Electricity Regulation and the Madrid Forum for Gas Regulation, which were organised by the Commission in 1998 and 1999, respectively, to provide a “neutral and informal framework for the discussion of issues and exchange of experiences concerning the implementation of EU legislation and the creation of the internal market”. Both have had analogous compositions and working arrangements, and since their establishment, have particularly focused on the issue area of congestion management (and tariffication).¹⁴¹

This chapter’s central finding is that, in both the power and gas domains, the Commission interchanged experimentalist with hierarchical policymaking, with important reforms first being agreed upon through the former and then being formalised and given binding power through the latter. At the very beginning of the market liberalisation and integration processes, the Commission employed experimentalist architectures, notably, the Florence and Madrid Fora, to stimulate the comparison of distinct approaches that were adopted by Member States and regulated companies, and to facilitate the development of agreements on reforms on this basis with high stakeholder participation. Thereafter, it favoured hierarchical policymaking. It monitored compliance with uniform solutions, and through the hierarchical architecture of the ordinary legislative procedure, developed reforms without conducting comparisons of different approaches and with low stakeholder participation, to make uniform solutions binding for all Member States and regulated companies.

From the shadow of hierarchy perspective, it is surprising that the Commission engaged in experimentalist policymaking. The shadow of hierarchy it could cast on conflicting parties was weaker, because its formal rulemaking powers were limited to the ordinary legislative procedure. The polyarchy-based viewpoint provides a consistent explanation, namely, that the Commission engaged in experimentalist policymaking precisely because its course of action was constrained by its limited formal rulemaking powers, that is to say, because of the more polyarchic distribution of powers. However, this view does not explain why, at some point, the

¹⁴¹ <https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>; <https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 16 March 2016

Commission shifted from experimentalist to hierarchical policymaking in both domains, despite the fact that the distribution of power had remained more polyarchic. Since the first two arguments are only somewhat consistent with the patterns of policymaking found, this chapter develops an alternative, plausible explanation of why the Commission interchanged experimentalist with hierarchical policymaking. The argument is that, at the very beginning of the market liberalisation and integration processes, the Commission engaged in experimentalist policymaking because it only had general policy preferences on how to regulate congestion management, and hence, uncertainty was higher. However, due to the emergence of agreements on reforms, the Commission developed much more specific policy preferences, and under these conditions of lower uncertainty, favoured hierarchical policymaking instead.

This chapter first identifies the types of policymaking that the Commission engaged in, to show that it substituted experimentalist with hierarchical policymaking, and that it did so very similarly across the power and gas domains. Then it assesses the findings against the claims developed. It highlights the inconsistencies of the polyarchy and shadow of hierarchy arguments in light of the identified patterns of policymaking and develops a plausible alternative argument based on uncertainty.

Interchanging experimentalist with hierarchical policymaking in the power domain

Observing initial experimentalist policymaking

During the period from the late 1990s through the early 2000s, the Commission initially engaged in experimentalist policymaking to regulate congestion management in the power domain. The indicators used to make this argument and the corresponding evidence are shown in Table 6. Member States and regulated companies were granted discretion to adopt different approaches. Due to employment of the experimentalist architecture of the Florence Forum, their different approaches were compared, and agreements on reforms were developed on the basis of these comparisons with high stakeholder participation. By providing for the use of market-based auctions, these reforms broke away from previously dominant administered systems of rationing scarce resources on a first-come, first-served basis and pro-rata, which limited entry and competition and greatly favoured incumbent generators and suppliers by allowing them to influence the conduct of their affiliated transmission system operators. More generally,

they established a common system for allocating cross-border capacity for commercial exchanges, which had not previously existed.

Table 6. Initial experimentalist policymaking to regulate congestion management in the power domain from the late 1990s to the early 2000s

Indicator			Evidence
Member States and/or regulated companies are granted discretion to adopt different approaches			Directive 96/92/EC allows Member States and regulated companies to pursue different approaches to regulate network access, particularly congestion management (e.g., pro-rata, first-come, first-served, market-based auctions)
Different approaches are compared			Examples of the most experienced markets are provided in terms of liberalisation and integration (e.g., UK, Nordic, Spain), pro-rata rationing (e.g., Italy), and first-come, first-served (e.g., France) compared to auctions (e.g., Spain)
Agreements on reforms developed based on comparisons			Agreement in 1999 on market-based approach explicitly refers to auctions at the French–Spanish border, followed by guidelines on congestion management that was agreed upon in 2000 suggesting market-based auctions
Agreement on reforms developed with high stakeholder participation			Agreements are developed within the Florence Forum, whose participation was broadened to include industry after the first meeting

The first indicator that the Commission engaged in experimentalist policymaking is that Member States and regulated companies were granted discretion to pursue different approaches to regulate congestion management. From the 1990s onwards, the Commission began to extend EU regulation, notably, through a series of liberalising and re-regulatory directives. After the first set of legislation on price transparency and energy transits in the early 1990s and over five years of negotiations in the Council, the resulting legislation accepted the general principle of

market opening and the need for common rules in a European market. But as a political compromise, it was weak in terms of providing a coherent set of EU-level rules. The first 1996 Electricity Directive only prescribed limited market opening and granted Member States a large margin of discretion regarding key regulatory issues, including the regime of access to the natural monopoly of transmission wires.¹⁴² Furthermore, it failed to establish common rules for the interconnection of national grid systems and for more general cross-border trade.¹⁴³

Right after this first round of legislation, the Commission created an experimentalist architecture. Specifically, in 1998, it devised the Florence Forum for Electricity. This forum was not part of the Directive or more generally of the EU legal system, instead, its creation was the Commission's initiative. As seen in Chapter Two, this is an experimentalist architecture, as it reflects key elements of experimentalist architecture as defined by its proponents. Its objective was to biannually provide a neutral and informal EU-level framework for the discussion of issues and exchange of experiences concerning the implementation of the 1996 Electricity Directive.¹⁴⁴

The second indicator is that the Commission used the Florence Forum, which is characterised by high stakeholder participation. It is chaired by the Commission and brings together national regulatory authorities and Member States, representatives of various types of industry companies and consumers and experts and participants from outside of the EU.¹⁴⁵ At its first meeting, the Commission explained that the Forum allowed for broader participation including representatives from industry, consumers and commercial experts as well as participants from outside the EU.¹⁴⁶ Indeed, participants immediately suggested that participation be broadened,

Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity; for analyses, see for instance Eberlein, B. (2008) *The Making of the European Energy Market: The Interplay of Governance and Government*. *Journal of Public Policy*, 28, pp 73–92.

¹⁴² Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity; for analyses, see for instance Eberlein, B. (2008) *The Making of the European Energy Market: The Interplay of Governance and Government*. *Journal of Public Policy*, 28, pp 73–92; Eberlein, B. (2010) 'Experimentalist Governance in the Energy Sector'. In Sabel, C.F. and Zeitlin, J. (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP.

¹⁴³ Eberlein, B. (2010) 'Experimentalist Governance in the Energy Sector'. In Sabel, C.F. and Zeitlin, J. (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP.

¹⁴⁴ <https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>. Accessed on 19 September 2016.

¹⁴⁵ <https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>. Accessed on 19 September 2016.

¹⁴⁶ The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998. Minutes, p.1.

particularly from industry. Jonathan Green, Head of the Electricity Directorate at the Department of Trade and Industry of the United Kingdom (UK), noted that “there was perhaps a little too much consensus among participants and that this was a sign that participation should be broadened”.¹⁴⁷ Participants subsequently considered that the broader participation in the Forum, with regard to specific topics, was extremely helpful as it allowed rich discussions and identification of the main issues.¹⁴⁸

The third indicator that the Commission engaged in experimentalist policymaking is that from its very first meetings, the Florence Forum was employed to compare different approaches carried out by Member States and regulated companies. In the opening address, Pablo Benavides, Director General for Energy of the Commission, explained that, “the ‘cross-fertilisation’ of experience between the Member States is extremely useful and important”.¹⁴⁹ Jonathan Green, who spoke on behalf of the UK Presidency of the EU Council of Ministers, pointed out that while “particular national solutions cannot be taken as straight ‘blueprints’ for other Member States [and] the situation and structure of the electricity market vary widely across the EU [...], mistakes may be made which should be recognised and learned from”. In particular, he argued that, “the UK has much to offer in terms of practical experience, but should certainly not be regarded as ‘the solution’ for other Member States”.¹⁵⁰ Professor Sergio Garribba, Commissioner at the Italian regulatory authority, proposed that, “there should be more time left for discussion and questions since such interactions were the most particular and valuable element of this type of informal forum”.¹⁵¹ Participants agreed on the advantages of leaving more time for open and informal discussion.¹⁵²

British, Nordic and Spanish representatives brought information about the most experienced markets, in terms of national liberalisation and integration of distinct markets. Roger Urwin, of the British transmission network operator National Grid, gave an overview of developments in the UK since the power industry was restructured in 1990.¹⁵³ Jan Magnusson, of the Swedish

¹⁴⁷The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998. Minutes, p.19.

¹⁴⁸2nd Forum of European Electricity Regulation. Florence, October 8th and 9th, 1998, p.8.

¹⁴⁹The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998. Minutes, p.2.

¹⁵⁰The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, p.3.

¹⁵¹The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998. Minutes, p.20.

¹⁵²The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998. Minutes, p.1.

¹⁵³The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, p.3.

transmission network operator Svenska Kraftnat, emphasised what he presented as “key factors” for the successful regulatory reform of national electricity markets, based on key examples from Norway and England/Wales markets. He also stressed the main elements of the “Nord Pool”, a pioneering joint trading exchange between Norway and Sweden that opened all networks to access by third parties as of 1996.¹⁵⁴ Maria Luisa Huidobro y Areba, of the Spanish wholesale market operator, gave an overview of the Spanish liberalisation experience beginning in 1997, including how her company matched up bids from the demand and production sides of the market, which at that time, was a ground-breaking electricity pool.¹⁵⁵

The comparison of different approaches with congestion management was also enriched by participants from outside the EU. David Smol, of ILEX Energy Consulting, presented the New Zealand case and argued that one of the main lessons to be learned from it was that “there are two key steps to reform: separation of transmission from generation and supply, and establishment of open and transparent wholesale trading arrangements”.¹⁵⁶ James Barker, of the US law firm Barker, Dunn and Rossi, drew upon examples from California, Alberta, the New England Power Pool (NEPOOL), the Pennsylvania, New Jersey, Maryland Power Pool (PJM), New York, Canada, England and Wales, New Zealand and Australia. He suggested that, “while regulatory reform in the EU should seek to avoid the pitfalls and disadvantages of the US regulatory framework, it should also recognise the critical factors underpinning the successful aspects and advantages of the US model”.¹⁵⁷

Fourth and finally, based on these comparisons, agreements on reforms were developed. With a view to the increasing convergence of the positions already recognised during the presentations and open discussions, the Commission, in close cooperation with the German Presidency of the EU Council and Dr Jorge Vasconcelos, Chairman of the Council of European Energy Regulators (CEER) and of the Portuguese regulatory authority, summarised that “rules and mechanisms regarding cross-border congestion management be based on the principles of cost-reflectiveness, transparency and non-discrimination”.¹⁵⁸ As suggested by Peter Styles, Chair-

¹⁵⁴The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, pp.4–5.

¹⁵⁵The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, pp.7–8.

¹⁵⁶The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, pp.8–9.

¹⁵⁷The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, p.10.

¹⁵⁸3rd Meeting of the European Electricity Forum. Florence, 20 and 21 May 1999, pp.3-5.

man of the Electricity Committee of the European Federation of Energy Traders (EFET), experts, and particularly economists, pointed to the superiority of auctions compared to the previously dominant methods against these criteria.¹⁵⁹ Professor Ignacio Perez-Arriaga, Commissioner at the Spanish regulatory authority and one of the main experts on auctions in the late 1990s, “highlighted the advantages of an auctioning system in order to deal with congestion at system bottlenecks”.¹⁶⁰ The use of auctions for allocating scarce interconnection capacity contrasted with the “administered” methods that were dominant at that time. These were notably “pro-rata” rationing, used in Italy for example, in which all of the requested transactions were carried out but in which each transaction quantity was cut by the same percentage; and “first-come, first-served” approaches, employed in France for instance, in which requests were accepted until the capacity limit was reached.¹⁶¹

After almost two years of discussions and comparisons of different approaches adopted by Member States and regulated companies, at the Florence Forum meeting of November 1999, participants agreed that “congestion management should be based on market solutions that give proper and justified incentives to both market parties and transmission system operators to act in a rational and economic way. Where appropriate, the development of suitable market organisation structures should be encouraged. In this light, the draft agreement towards a transparent auctioning-based allocation mechanism at the French–Spanish interconnector was noted”.¹⁶² They also agreed that the Commission, based on work done in collaboration with regulatory authorities, Member States, the association of European transmission system operators (ETSO) and all other appropriate market actors, would outline proposals for the most appropriate regulatory approaches towards the allocation of interconnection capacity in the EU for discussion at the following meeting.¹⁶³ At the 6th meeting of the Florence Forum in November 2000, the Commission, Member States, national regulatory authorities, transmission system operators as well as producers, consumers, traders, power exchanges and other market actors voluntarily agreed on Guidelines on congestion management.¹⁶⁴ The Guidelines had 33 paragraphs, with

¹⁵⁹ Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

¹⁶⁰ 3rd Meeting of the European Electricity Forum. Florence, 20 and 21 May 1999, p.3.

¹⁶¹ Interview with Alberto Pototschnig, Director of ACER. Ljubljana, 9 June 2016.

¹⁶² Conclusions Fourth Meeting of the European Electricity Regulation Forum. Florence, November 1999.

¹⁶³ Conclusions Fifth Meeting of the European Electricity Regulation Forum. Florence, 30–31 March 2000, pp.5–6.

¹⁶⁴ Conclusions Sixth Meeting of the European Electricity Regulation Forum. Florence, 9/10 November 2000, Guidelines on congestion management, pp.4–8.

some containing several items. With regard to preferred methods for congestion management, the Guidelines stated that network congestion problems be addressed with market-based solutions, particularly auction systems, and be designed in such a way that all available transport capacity be offered to the market. It also allowed bidders to participate in the sessions of any organised market (i.e., power exchange or pool) of the countries involved.

In the late 1990s, the transition from administered methods to auctions was far from obvious, suggests Peter Styles.¹⁶⁵ Dr Juan Jose Alba Rios, Chairman of the Markets Committee of the Union of the European electricity industry (Eurelectric) and Vice President of Regulatory Affairs at Endesa, considers that the adoption of auctions and the creation of wholesale markets was crucial to favouring market entry from domestic and foreign new entrants, but that at that time, this was not at all evident.¹⁶⁶ This important regulatory outcome resulted from the Commission's engagement in experimentalist policymaking. Member States and regulated companies were granted discretion to adopt different approaches. By using the experimentalist architecture of the Florence Forum, their different approaches were compared, and agreements on reforms were developed on the basis of these comparisons with high stakeholder participation.

Observing a subsequent shift to hierarchical policymaking

Shortly after the development of these agreements on reforms the Commission switched to hierarchical policymaking. The indicators and evidence used to make this claim are shown in Table 7. By turning to hierarchical architectures, namely, the ordinary legislative procedure, the Commission reduced stakeholder participation. It monitored compliance with uniform solutions and codified reforms without conducting comparisons of different approaches, to make uniform solutions binding for all Member States and regulated companies. The resulting regulation is important because it provided the first set of common rules for cross-border trade in electricity. At its core, it mandated that scarce interconnection capacity be managed through auctions, on the grounds that these are non-discriminatory, market-based solutions. This marked a clear turning point from previous arrangements such as pro-rata and first-come, first-served principles, which limited competition and cross-border trade.

¹⁶⁵ Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

¹⁶⁶ Interview with Dr Juan Jose Alba Rios, Chairman of Eurelectric Markets Committee and Vice President of Regulatory Affairs at Endesa. Brussels, 17 May 2016.

Right after the elaboration of agreements on reforms, the Commission reduced stakeholder participation by employing the ordinary legislative procedure, even though the experimentalist architecture of the Florence Forum was still available. As seen in Chapter Two, the ordinary legislative procedure is a hierarchical architecture because it does not reflect key elements of experimentalist architecture as defined by its advocates. In particular, since it consists of the joint adoption by the European Parliament and the Council of a regulation, directive or decision on a proposal from the Commission, it does not allow for stakeholder participation. Instead, participation is limited to Member States and the Commission.¹⁶⁷ In March 2001, just a few months after development of the Guidelines on congestion management in November 2000, the Commission used the ordinary legislative procedure to propose a regulation to the European Parliament and the Council on conditions for accessing the network for cross-border exchanges in electricity.¹⁶⁸

Table 7. Subsequent hierarchical policymaking to regulate congestion management in the power domain from the late 1990s to the early 2000s

Indicator	Evidence
Member States and regulated companies are obligated to adopt binding uniform solutions	Regulation 1228/2003 makes market-based auctions binding
Compliance with uniform solutions is monitored	Compliance with the Guidelines agreed upon in 2000 is monitored
Reforms are not developed on the basis of comparisons	Regulation 1228/2003 is not based on comparisons

¹⁶⁷<http://eur-lex.europa.eu/summary/glossary/ordinary-legislative-procedure.html>. Accessed on 16 September 2016.

¹⁶⁸Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001.

Agreement on reforms is developed with low stakeholder participation	Regulation 1228/2003 is adopted through the ordinary legislative procedure, in which participation is limited to Member States and the Commission
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Rather than comparing different approaches pursued by Member States and regulated companies, the Commission monitored the compliance of Member States and regulated companies with uniform policy solutions. In February 2002, as a result of a discussion paper that reviewed the experience to date with the voluntary Guidelines, forum participants noted that there had been improvements in the ways in which congestion was handled at cross-border lines. Specifically, at many borders, market-based congestion management systems were in place. However, it was also noted that, “certain congested interconnections remain without a market-based allocation mechanism for scarce capacity. With respect to some interconnectors, therefore, the guidelines adopted by the Forum are not applied”.¹⁶⁹ Subsequently, the Commission and the CEER presented a detailed status report of congestion management mechanisms operating throughout the Community. This report argued that the delay in implementing market-based congestion management systems “has created a very unclear situation at certain borders and has seriously prevented non-incumbent market parties to operate. Market parties have made several complaints against practices at the interconnectors still using non-market-based methods like first come, first served”. The report highlighted that “some parties claim that the difficulty to reach an agreement in a relatively large group of parties, (at least) two transmission system operators and two regulators, has been an important factor to delay the process”.¹⁷⁰ It considered that from the analysis “it is fair to say that the congestion management Guidelines agreed in the 6th Florence Forum meeting are only halfway implemented. Market-based methods are in use in 12 of the 24 interconnectors. However, most of the interconnectors with the highest economic value, especially those at the borders of Italy, do not yet have market-based methods in place”. The report suggested that, “the most important action is to move to market-based methods on all interconnectors in the EU as soon as possible. This applies to the Italian borders, the borders of France with Germany, Belgium and Spain, the cable between Sweden

¹⁶⁹ Conclusions Eighth Meeting of the European Electricity Regulatory Forum. Florence 21–22 February 2002, p.4; see also Discussion paper on congestion management. Presented at the same meeting.

¹⁷⁰ Congestion management in the EU electricity transmission network – status report. September 2002, DG TREN MS/17.10.02, p.2. Presented at the Ninth Meeting of the European Electricity Regulatory Forum. Rome, 17–18 October 2002.

and Germany and to the Spanish Portuguese interconnector'. It concluded that, to comply with the Guidelines, making them binding "seems to be necessary".¹⁷¹

While monitoring compliance with the voluntary Guidelines stressed the importance of binding rules, reforms were not developed on the basis of comparisons of different approaches pursued by Member States and regulated companies. As aforementioned, rather than comparing different approaches pursued by Member States and regulated companies, the Commission monitored the compliance of these actors with uniform policy solutions. Furthermore, these compliance-monitoring reports were elaborated upon and presented in 2002, although the Commission had already tabled its legislative proposal in 2001. Hence, the latter could not be based on the former. Instead, the content of the Commission's proposal was identical to the voluntary Guidelines, which were annexed to it.¹⁷² Without adding any major changes to the Commission's proposal, in June 2003, the European Parliament and Council adopted Regulation (EC) No. 1228/2003 on conditions for accessing the network for cross-border exchanges in electricity.¹⁷³ Thus, this Regulation codified the reforms previously agreed upon through experimental policymaking.

Fourth and finally, rather than granting Member States and regulated companies discretion to pursue different approaches to regulate congestion management, Regulation (EC) No. 1228/2003 obligated Member States and regulated companies to adopt uniform solutions to regulate congestion management, by making market-based solutions and auctions binding.

¹⁷¹ Congestion management in the EU electricity transmission network – status report. September 2002, DG TREN MS/17.10.02, p.7. Presented at the Ninth Meeting of the European Electricity Regulatory Forum. Rome, 17–18 October 2002.

¹⁷² Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. Art.6. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001; Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. Annex Guidelines on the management and allocation of available transfer capacity of interconnections between national systems. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001.

¹⁷³ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity.

Thus, as illustrated, shortly after agreements on reforms were developed through experimentalist policymaking, the Commission shifted to hierarchical policymaking. It did not continue to grant discretion to adopt different approaches, compare them, and develop agreements on reforms on this basis and with high stakeholder participation. In contrast, by employing the hierarchical architecture of the ordinary legislative procedure, the Commission lowered stakeholder participation. It monitored compliance with uniform solutions, and without conducting comparisons of different approaches, codified reforms previously agreed upon to make uniform solutions binding for all Member States and regulated companies.

Finding similar patterns of policymaking in the gas domain

Observing initial experimentalist policymaking

Similarly to the power domain, the Commission initially engaged in experimentalist policymaking in the gas domain. The indicators and evidence supporting this assertion are shown in Table 8. Member States and regulated companies were granted discretion to pursue different approaches to regulate congestion management. By employing the experimentalist architecture of the Madrid Forum, the Commission stimulated the comparison of these approaches and the development of agreement on reforms on this basis with high stakeholder participation. By promoting the freeing up of unused transport capacity through interruptible use-it-or-lose-it provisions and secondary markets, these reforms marked a turning point from the previous regime, which allowed incumbents to foreclose market entry by hoarding transport capacity without actually using it.

Table 8. Initial experimentalist policymaking to regulate congestion management in the gas domain from the late 1990s to the early 2000s

Indicator	Evidence
Member States and/or regulated companies are granted discretion to adopt different approaches	Member states and transmission system operators were pursuing distinct approaches to regulate third party network access, particularly congestion management

Different approaches compared	are	Examples are provided from the most experienced markets including the UK, Spain and the Netherlands; overviews are given by the Gas Transmission Europe of access regimes, and in particular, of congestion management measures used by its members across Europe
Agreements on reforms developed based on comparisons	are	Guidelines for good third party access are agreed upon in 2001, and revised Guidelines are agreed upon in 2003, which suggest that congestion management be based on interruptible use-it-or-lose-it and secondary capacity trading markets
Agreement on reforms developed with high stakeholder participation	are	Agreements are developed within the Madrid Forum and smaller working groups, both featuring high stakeholder participation

The first indicator that the Commission engaged in experimentalist policymaking is that Member States and regulated companies were granted discretion to pursue different approaches to regulate congestion management. The first 1998 Gas Directive, which marked the beginning of the liberalisation and re-regulation of European gas markets, set out the general framework and principles for the introduction of competition in the industry, but in line with the principle of subsidiarity, left much of the technical and practical details of implementation open to national interpretation. In particular, it granted Member States a large margin of discretion regarding key regulatory issues, such as the regime of access to the natural monopoly of transmission pipelines.¹⁷⁴

Right after this first round of legislation, in 1999, the Commission devised the Madrid Forum for Gas. As its “twin institution” in the power domain (i.e., Florence Forum), the Madrid Forum was not derived from the Directive or the EU legal system, but rather, was created upon the

¹⁷⁴ 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; Eberlein, B. (2008) The Making of the European Energy Market: The Interplay of Governance and Government. *Journal of Public Policy*, 28, pp 73–92.

Commission's initiative. As seen in Chapter Two, this is an experimentalist architecture because it reflects key elements of experimentalist architecture as defined by its proponents. Its objective was to biannually provide a neutral and informal EU-level framework for the discussion of issues and exchange of experiences concerning the implementation of the 1998 Gas Directive.¹⁷⁵

The second indicator of experimentalist policymaking is the Commission's use of the Madrid Forum, which provides for high stakeholder participation, as it brings together national regulatory authorities, national governments, transmission system operators, gas suppliers and traders, consumers, network users and gas exchanges.¹⁷⁶

The third indicator is that from the very first Madrid Forum meeting, different approaches pursued by Member States and regulated companies to regulate congestion management were compared, with the goal of "identifying the different methodologies and approaches concerning access conditions that were under development in the Member States". At that time, "only a limited number of Member States [had] already adopted a framework governing the conditions for third party access to the gas system". Callum McCarthy from the regulatory authority Ofgas, Lopex Silanes from the company Gas Natural and George Verberg from the company Gasunie outlined the approach for accessing conditions in their respective countries, namely, the UK, Spain and the Netherlands, respectively.¹⁷⁷

To further stimulate the comparison of different approaches to congestion management, the Commission, Member States and the CEER invited the European gas industry to establish a new body, bringing together representatives of all those responsible for the operation of the transmission network for gas in Europe. The objective of this body, namely, Gas Transmission Europe (GTE), was to "provide technical data regarding the transmission systems within Europe", and in particular, to ensure "an appropriate exchange of experience and information in this respect and the development of best practice in the internal gas market". The GTE was invited to submit a report outlining, on a Member State-by-Member State basis, the measures that needed to be taken, with regard to both structure and organisation, to avoid discrimination in network access and to guarantee confidentiality of commercial information received by gas undertakings in the context of third party access; the range of services offered by gas companies

¹⁷⁵<https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 14 January 2016.

¹⁷⁶<https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 14 January 2016.

¹⁷⁷ 1st European Gas Regulatory Forum. Madrid, September 30th and October 1st, 1999, p.2.

in the context of third party access and the terms at which they were offered; the measures that needed to be taken to ensure appropriate transparency; and the mechanisms that needed to be established to ensure that the administrative arrangements relevant to third party access fostered competition and market entry. Furthermore, in order to progress towards developing the necessary rules to resolve possible issues of congestion, GTE was also asked to provide appropriate information concerning a matrix outlining relevant points in the internal European gas market and identifying the available transmission capacity between these points; as well as details of any mechanisms, existing or envisaged, for allocating transport capacity in the event of scarcity, including any measure that needed to be taken to ensure that gas capacity was allocated in a non-discriminatory manner between new entrants and incumbents part of a vertically integrated company.¹⁷⁸

Fourth and finally, on the basis of comparisons of different approaches pursued by Member States and regulated companies, agreements on reforms were developed. Forum participants considered the “continued in-depth exchange of practical experience identifying concrete obstacles to trade” to be important. In particular, as a result of the initial comparative exercise prepared by GTE, participants noted considerable differences across gas companies regarding services offered and terms and conditions imposed, which underscored the need to ensure that such differences did not hinder the creation of an effective single market.¹⁷⁹ In addition, they stressed the importance of having adequate published information regarding available transmission capacities, because “such information will serve to identify as early as possible potential bottlenecks in the trans-European network and possible measures to overcome such bottlenecks as well as considerations with regard to allocation of scarce capacity in case of congestion”.¹⁸⁰ Based on such information, participants subsequently “noted with concern that capacity constraints appear to become an increasingly important matter in the European gas market”. Hence, they stressed the need to develop appropriate principles for transparent and non-discriminatory allocation of scarce capacity in the event of congestion.¹⁸¹ To ensure rapid progress, they agreed to establish a joint working group of representatives of the Commission, the

¹⁷⁸ Conclusions of the Second meeting of the European Gas Regulatory Forum. Madrid, 11 and 12 May 2000, pp. 1–2.

¹⁷⁹ Conclusions of the 3rd meeting of the European Gas Regulatory Forum. Madrid, 26–27 October 2000, p. 2.

¹⁸⁰ Conclusions of the 3rd meeting of the European Gas Regulatory Forum. Madrid, 26–27 October 2000, p. 3.

¹⁸¹ Conclusions of the 4th meeting of the European Gas Regulatory Forum. Madrid, 2–3 July 2001.

CEER and interested Member States. They asked that the working group elaborate upon guidelines needed for good practice regarding all necessary third party access services, including the role of market-based mechanisms, such as secondary capacity trading markets, to facilitate the efficient use of the network.¹⁸² The development of these guidelines featured high stakeholder participation, notably because GTE was invited to develop a proposal for principles for allocation of scarce capacity for discussion in the joint working group.¹⁸³

In February 2002, Madrid Forum participants adopted a multi-paragraph set of recommendations for Guidelines for good practice regarding third party access services.^{184,214} With regard to the role of market-based mechanisms, such as secondary capacity trading markets, the Guidelines allowed capacity rights to be freely tradable in a secondary market, and provided for transmission system operators to endeavour to discourage “capacity hoarding” and facilitate the reutilisation of unused capacity.¹⁸⁵ However, at the subsequent Forum meeting, a lack of compliance with a number of requirements in the Guidelines was observed in several cases, as well as a significant degree of uncertainty about the interpretation of the Guidelines themselves and considerable differences in the implementation of the Guidelines between different transmission system operators, resulting in different levels of effective network access throughout Europe. In order to “avoid ambiguity in the interpretation of the Guidelines for good practice and to ensure a level playing field and raise standards and aim towards best industry practice”, Forum participants considered it “appropriate and necessary to clarify the Guidelines for good practice and to reinforce these in certain respects”.¹⁸⁶ In particular, the CEER, the Commission, and consumers and traders stressed the positive role that non-firm (i.e., interruptible) capacity services could have in fostering competition and market liquidity and in enhancing the efficient use of the network.¹⁸⁷ Forum participants invited the Commission to chair a specific working group with participation of national regulatory authorities, interested Member States and GTE, with the goal of preparing a revised version of the Guidelines in the following

¹⁸²Conclusions of the 3rd meeting of the European Gas Regulatory Forum. Madrid, 26–27 October 2000, p.4.

¹⁸³Conclusions of the 4th meeting of the European Gas Regulatory Forum. Madrid, 2–3 July 2001, p.2.

¹⁸⁴Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002, p.4; and Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002, Annex II Recommendations on Guidelines for Good Practice in relation to TPA Services, Tarification, Balancing etc., p.9

¹⁸⁵Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002, Annex II Recommendations on Guidelines for Good Practice in relation to TPA Services, Tarification, Balancing etc., p.13.

¹⁸⁶Conclusions of the 6th meeting of the European Gas Regulatory Forum. Madrid, 30–31 October 2002, p.5.

¹⁸⁷Conclusions of the 6th meeting of the European Gas Regulatory Forum. Madrid, 30–31 October 2002, p.4.

months for adoption at the next Madrid Forum meeting. Where appropriate, the Commission would invite other relevant stakeholders, such as representatives of consumers and traders, to participate in the working group meetings.¹⁸⁸

After four years of debates and comparisons of different approaches to regulate congestion management within the Madrid Forum and smaller working groups, in September 2003, Forum participants voluntarily agreed upon the revised set of Guidelines,¹⁸⁹ which provided more detail and advanced requirements. Specifically, they provided for transmission system operators to facilitate secondary trade of capacity by developing standardised contracts, procedures and services; and to actively endeavour to discourage capacity hoarding and facilitate reutilisation of unused capacity by allowing unused capacity to be traded, at least on an interruptible basis that would be clearly defined.¹⁹⁰ This paved the way for interruptible use-it-or-lose-it provisions and secondary markets, understood as non-discriminatory market-based approaches, to promote competition by ensuring that capacity rights be awarded to parties who actually intended to use them. This was a clear deviation from the previously dominant system, which limited entry and greatly favoured incumbents by allowing them to hoard transport capacity without actually using it. Since agreement on the Guidelines was developed with high stakeholder participation and based upon comparisons of different approaches for regulating congestion management, these reforms resulted from experimentalist policymaking.

¹⁸⁸Conclusions of the 6th meeting of the European Gas Regulatory Forum. Madrid, 30–31 October 2002, p.5.

¹⁸⁹Conclusions of the 7th meeting of the European Gas Regulatory Forum. Madrid, 24–25 September 2003, pp.1–2.

¹⁹⁰Conclusions of the 7th meeting of the European Gas Regulatory Forum. Madrid, 24–25 September 2003, Annex1: The Guidelines for Good TPA Practice – revised version, p.18.

Observing a subsequent shift to hierarchical policymaking

Very similarly to the power domain, almost immediately after elaboration of the revised Guidelines the Commission switched to hierarchical policymaking in the gas domain, as shown in Table 9. By using the hierarchical architectures of the ordinary legislative procedure, the Commission reduced stakeholder participation. It monitored compliance with uniform solutions and codified reforms without conducting comparisons of different approaches, to make uniform solutions binding for all Member States and regulated companies. The resulting regulation is important as it provided the first set of common rules for accessing the network for cross-border exchanges in gas. At its core, it mandated that transmission system operators offer unused capacity of certain users to other users. It also gave users the freedom to freely trade their capacity rights, by selling or subletting their unused capacity on secondary markets. By promoting the efficient use of scarce interconnection capacity, this regulation provided the impetus for competition and cross-border trade.

Table 9. Subsequent hierarchical policymaking to regulate congestion management in the gas domain from the late 1990s to the early 2000s

Indicator	Evidence
Member States and regulated companies are obligated to adopt uniform solutions	Regulation 1775/2005 makes interruptible use-it-or-lose-it and secondary markets for trading capacity binding
Compliance with uniform solutions is monitored	Regulation 1775/2005 makes interruptible use-it-or-lose-it and secondary markets for trading capacity binding
Reforms are not developed on the basis of comparisons	Regulation 1775/2005 is not based on comparisons
Agreement on reforms is developed with low stakeholder participation	Regulation 1775/2005 is adopted through ordinary legislative procedure, in which participation is limited to Member States and the Commission

Shortly after the elaboration of agreements on reforms, the Commission reduced stakeholder participation by employing the hierarchical architecture of the ordinary legislative procedure, even though the experimentalist architecture of the Madrid Forum was still available. As seen in Chapter Two, the ordinary legislative procedure is a hierarchical architecture because it does not reflect key elements of experimentalist architecture. In particular, since participation is limited to Member States and the Commission, it does not provide for stakeholder participation.¹⁹¹ Just a few months after development of the revised Guidelines in September 2003, in December 2003, the Commission used the ordinary legislative procedure to table a legislative proposal for a regulation on access conditions to the transmission gas network.¹⁹²

Rather than comparing the different approaches of Member States and regulated companies in regulating congestion management, the compliance of these actors was monitored with uniform policy solutions. In 2004, the CEER prepared, in cooperation with GTE and its members, a monitoring report on compliance with the revised Guidelines. While noting an important improvement, this monitoring report indicated a certain lack of compliance with some key elements contained in the Guidelines that were agreed upon at the 7th Madrid Forum.¹⁹³

Reforms were not developed on the basis of comparisons of different approaches pursued by Member States and regulated companies. As aforementioned, rather than comparing different approaches pursued by Member States and regulated companies, the compliance of these actors was monitored with uniform policy solutions. Furthermore, these compliance-monitoring reports were elaborated upon and presented in 2004, when the Commission's proposal had already been tabled. Hence, the latter could not be based on the former. Instead, the content of the Commission's proposal was based on the voluntarily revised Guidelines, which were annexed to it. Without adding any major changes to the Commission's proposal, in September 2005, the European Parliament and Council adopted Regulation (EC) No. 1775/2005 about conditions for accessing the natural gas transmission networks.¹⁹⁴ In its introductory recital, Regulation (EC) No. 1775/2005 explains that the "experience gained in the implementation and monitoring of a first set of Guidelines for Good Practice, adopted by the European Gas

¹⁹¹<http://eur-lex.europa.eu/summary/glossary/ordinary-legislative-procedure.html>. Accessed on 16 September 2016.

¹⁹²Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the gas transmission networks. Brussels, 10.12.2003, COM(2003) 741 final 2003/0302 (COD).

¹⁹³CEER Monitoring report 2004 concerning compliance with the guidelines for good third party access practice to gas transmission systems.

¹⁹⁴Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

Regulatory Forum in 2002, demonstrates that in order to ensure the full implementation of the rules set out in the Guidelines in all Member States, and in order to provide a minimum guarantee of equal market access conditions in practice, it is necessary to provide for them to become legally enforceable. A second set of common rules entitled ‘the Second Guidelines for Good Practice’ was adopted at the meeting of the Forum on 24–25 September 2003 and the purpose of this Regulation is to lay down, on the basis of those Guidelines, basic principles and rules regarding network access and third party access services, congestion management, transparency, [...] and the trading of capacity rights”.¹⁹⁵ At its core, it develops common rules “to free up unused capacity in accordance with the ‘use-it-or-lose-it’ principle; [...] and] to ensure that undertakings acquiring capacity rights are able to sell them to other licensed undertakings in order to ensure an appropriate level of liquidity on the capacity market”. For this purpose, “in the Guidelines annexed to this Regulation, specific detailed implementing rules are defined on the basis of the second Guidelines for Good Practice”.¹⁹⁶ Thus, this Regulation codified the reforms previously agreed through experimentalist policymaking.

Finally, rather than granting Member States and regulated companies the discretion to pursue different approaches for regulating congestion management, Regulation (EC) No. 1775/2005 obligated Member States and regulated companies to adopt uniform solutions to regulate congestion management by making interruptible use-it-or-lose-it and secondary markets for trading capacity binding.

Thus, as can be seen, shortly after agreements on reforms were developed through experimentalist policymaking, the Commission shifted to hierarchical policymaking. Member States and regulated companies were not granted discretion to adopt different approaches, different approaches were not compared, and reforms were not developed on this basis and with high stakeholder participation. In contrast, by employing the hierarchical architecture of the ordinary legislative procedure, the Commission lowered stakeholder participation. Compliance with uniform solutions was monitored, and without conducting comparisons of different approaches, reforms previously agreed upon were codified to make uniform solutions binding for all Member States and regulated companies.

¹⁹⁵ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Recitals (1), (2) and (3).

¹⁹⁶ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Recitals (11), (13), (15), (16) and (18).

Accounting for the identified patterns of policymaking

Showing the limitations of the shadow of hierarchy and polyarchy explanations

The previous sections showed that, to regulate congestion management from the late 1990s to the early 2000s in a strikingly similar manner across the power and gas domains, the Commission initially used the experimentalist architectures of the Florence and Madrid Fora to engage in experimentalist policymaking, whereby Member States and regulated companies were granted discretion to pursue different approaches, these different approaches were compared, and agreements on reforms were developed on this basis with high stakeholder participation. Then, it subsequently switched to hierarchical policymaking. By employing the hierarchical architecture of the ordinary legislative procedure, it codified reforms with low stakeholder participation and without comparing different approaches, but rather, by monitoring compliance with uniform solutions to make them binding for all Member States and regulated companies.

From the perspective of the shadow of hierarchy, it is surprising that the Commission engaged in experimentalist policymaking despite the weaker shadow it could cast to induce conflicting actors to cooperate. As seen in Chapter Two, until the mid-2000s, the formal rulemaking powers of the Commission in both domains were limited to the ordinary legislative procedure. In this procedure, the Commission had exclusive authority to propose legislation, although its proposals had to be adopted by both the European Parliament and the Council.¹⁹⁷ Given its limited formal rulemaking powers, this thesis considers that the shadow of hierarchy that the Commission could cast from the late 1990s to the early 2000s was weaker. Consequently, it is puzzling that the Commission engaged in experimentalist policymaking even though its ability to threaten adverse legislation to incentivise parties to cooperate was weaker.

This is all the more surprising because parties had rather conflicting policy preferences. European electricity and gas markets were historically managed on a national basis by state-owned,

¹⁹⁷ See for example <http://ec.europa.eu/citizens-initiative/public/competences/faq#q6>. Accessed on 21 March 2016.

vertically integrated monopolists who undertook all aspects of the service in question.¹⁹⁸ The rules governing the actions of transmission system operators and how access was given to network users, such as producers and suppliers, were drawn up nationally. In that context, publicly owned, vertically integrated incumbent companies typically controlled underdeveloped inter-connectors and were often able to distort competition.¹⁹⁹ From the 1990s onwards, the Commission began to extend EU regulation, notably, through a series of liberalising and re-regulatory directives. The legal and political rationale for EU action has been to end long-standing national legal monopolies and allow effective competition to create a “single energy market”, a key objective of the Commission since it began bringing energy into the single market agenda in the mid-1980s.²⁰⁰ However, the Commission’s efforts met resistance from many Member States that, often in alliance with historically state-owned incumbents, were keen to retain tight control over a sector considered to be of strategic geopolitical and economic importance.²⁰¹ At that time, not every Member State had delegated powers to sector-specific national regulatory authorities. An important example is Germany, which continued to rely on general competition authorities until the mid-2000s. In addition to the conflicts between national and EU public policymakers, energy liberalisation and re-regulation also had to confront a second, often related conflict, notably between incumbent producers and suppliers, which traditionally were vertically integrated, and hence, which also owned transmission networks, as well as new producers and suppliers that depended upon network access to enter the market.²⁰² Since in the early 2000s the ownership of competitive and network activities was only separated in three Member States in the power domain and in one Member State in the gas domain, the preferences of incumbents and new entrants were conflicting.²⁰³ Indeed, “certain companies mounted

¹⁹⁸ See for example McGowan, F., ed. (1996) *European Energy Policies in a Changing Environment*. Heidelberg: Physica; Midttun, A., ed. (1997) *European Electricity Systems in Transition: A Comparative Analysis of Policy and Regulation*. Amsterdam: Elsevier; Baldwin, R., Cave, M. and Lodge, M. (2011) *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: OUP, p. 444.

¹⁹⁹ Eberlein, B. (2010) ‘Experimentalist Governance in the European Energy Sector’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new architecture*. Oxford: OUP, p. 62.

²⁰⁰ Jabko, N. (2006) *Playing the Market: A Political Strategy for Uniting Europe, 1985–2005*. Ithaca: Cornell University Press.

²⁰¹ Matlary, J. H. (1997) *Energy Policy in the European Union*. New York: St Martin’s Press; Padgett, S. (1992) ‘The Single European Energy Market: The Politics of Realization’. *Journal of Commons Market Studies*, 30, 1, 53–75.

²⁰² See, for example, Eberlein, B. (2008) ‘The Making of the European Energy Market: The Interplay of Governance and Government’. *Journal of Public Policy*, 28: 80; see also Supponen, M. (2011) ‘Influence of National and Company Interests on European Electricity Transmission Investments’. *Doctoral Dissertations*, 77. Aalto University publication series.

²⁰³ Commission staff working paper: First benchmarking report on the implementation of the internal electricity and gas market. Brussels, 3.12.2001, SEC(2001) 1957, pp.3, 5 and 32.

a ferocious defence of the *status quo* in their own countries and in Brussels in response to the process of liberalisation, and some found much support from their Member States”.²⁰⁴

While from the shadow of hierarchy perspective it is surprising that the Commission initially engaged in experimentalist policymaking despite its limited formal rulemaking powers, from the polyarchy-based viewpoint the Commission engaged in experimentalist policymaking precisely because of its limited formal rulemaking powers. Since the Commission’s formal rulemaking powers were limited, this thesis assesses the distribution of power as being more polyarchic, meaning that the Commission could not impose outcomes, but rather, had to pursue them cooperatively with others. Indeed, at the first meeting of the Florence Forum in 1998, the Commission explained that the objective of the Forum was to develop a consensus among all of the parties involved, namely, governments, regulators and industry, as a complement to harmonisation measures. It clarified that the EU-harmonised rules could not be further refined to any greater level of detail than that already included in the Directive.²⁰⁵ Pablo Benavides, Director General for Energy of the Commission, sent “a clear message that pressure to direct the Commission to issue further and more detailed proposals concerning harmonisation of national electricity markets would be resisted. Any such movement towards enforcing common regulatory solutions at the EU level would be incompatible with the principle of subsidiarity”. These considerations were similarly applied to the power and gas domains. Professor Claus Dieter Ehlermann, former Director General for Competition of the Commission, “underlined this point, emphasising that, indeed, in applying internal market and competition principles to the electricity and gas sectors of the Member States, the Commission had already pushed its competence to the limit vis-à-vis the subsidiarity constraint”.²⁰⁶ Thus, the perspective emphasising the importance of polyarchy explains the Commission’s engagement in experimentalist policymaking on the basis of the more polyarchic distribution of powers.

Yet from this perspective, it is difficult to explain why in the early 2000s in both the power and the gas domains, the Commission switched to hierarchical policymaking even though the distribution of powers remained more polyarchic. As seen in Chapter Two, it was only in the mid-

²⁰⁴Stern, J.P. (1998) *Competition and Liberalization in European Gas Markets: a diversity of models*. London: Royal Institute of International Affairs, p. 173; referenced in Klop, M. ‘Charting the Gaps: EU regulation of gas transmission tariffs in the Netherlands and the UK’. *Oxford Institute for Energy Studies*, NG 26, January 2009, p.6.

²⁰⁵The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998. Minutes, p.1.

²⁰⁶The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998. Minutes, p.16.

2000s and specifically in 2003 in the power domain and 2005 in the gas domain, that the Commission's formal rulemaking powers were strengthened.²⁰⁷ Then the Commission was entrusted with the additional power to adopt implementing acts subject to the approval of committees, confined to Member State representatives, and operating according to comitology procedures. It became able to develop detailed implementing measures supplementing legislative acts without having to go through the entire ordinary legislative procedure. However, from the late 1990s to the early 2000s, the Commission's formal rulemaking powers were still limited to the ordinary legislative procedure. Thus, from the polyarchy viewpoint, it is surprising that the Commission shifted to hierarchical policymaking despite the fact that the distribution of powers continued to be more polyarchic.

Developing an alternative, plausible argument based on uncertainty

Since the shadow of hierarchy and polyarchy perspectives only partially explain the identified patterns of policymaking, this chapter develops an alternative, plausible explanation. The argument is that, at the very beginning of the market liberalisation and integration processes, the Commission only had general policy preferences on how to regulate congestion management. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking. But due to the emergence of agreements on reforms, the Commission developed much more specific policy preferences. Under these conditions of lower uncertainty, it switched to hierarchical policymaking.

In the late 1990s, in both the power and gas domains, there was little experience with market liberalisation and almost none with market integration. European energy industries were historically organised as national monopolies in a closed national context.²⁰⁸ In Europe, Britain was the first country to adopt comprehensive market reforms, specifically in 1986 in gas and 1990 in electricity, followed by Scandinavian countries.²⁰⁹ These market reforms featured, in particular, the separation of production from transmission in order to confine regulation to the

²⁰⁷ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Art. 13; Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art. 14.

²⁰⁸ McGowan, F., ed. (1996) *European Energy Policies in a Changing Environment*. Heidelberg: Physica; Midttun, A., ed. (1997) *European Electricity Systems in Transition: A Comparative Analysis of Policy and Regulation*. Amsterdam: Elsevier.

²⁰⁹ Armstrong, M., Cowan, S. and Vickers, J. (1994) *Regulatory Reform: Economic Analysis and British Experience*. MIT Press.

network, and by opening it to third party access, to allow competition in production and supply.²¹⁰ In the past, the same company owned the gas fields and power plants, transported gas and power to homes and businesses, and retailed them to customers.²¹¹ Since very few jurisdictions had experimented with liberalisation, with Britain providing the only example of full-scale energy liberalisation in continental Europe, the liberalisation of national energy markets was a very new policy area with little experience to draw from.²¹²

Furthermore, the integration of national energy systems into a common market was entirely virgin territory, which raised a host of poorly understood technical issues.²¹³ One such issue was how to manage situations in which the capacity of interconnection among national systems, which was historically limited and managed by vertically integrated companies, could not accommodate the requests for trade, which instead were growing as a result of gradual market liberalisation and integration. Historically, European energy networks were not designed with the purpose of cross-border trade in mind, and the existing regulatory frameworks did not cover commercial exchanges across liberalised markets. In the past, trade over interconnectors only took place between vertically integrated transmission system operators for their own commercial interests, either as a guaranteed mechanism for the purposes of technical reserve or based on long-term purchase contracts.²¹⁴ Cross-border transactions took place within a framework of technical cooperation among vertically integrated national utilities, focusing more on system security and on the efficient use of production resources rather than on

²¹⁰See, for instance, Newbery, D.M. (1997) 'Privatisation and Liberalisation of Network Utilities'. *European Economic Review*, 41.

²¹¹Baldwin, R., Cave, M. and Lodge, M. (2011) *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: OUP, p.444.

²¹²Eberlein, B. (2008) The Making of the European Energy Market: The Interplay of Governance and Government. *Journal of Public Policy*, 28: 77; Eberlein, B. (2010) 'Experimentalist Governance in the European Energy Sector'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new architecture*. Oxford: OUP, p. 65; see also Eberlein, B. (2003) 'Regulating cross-border trade by soft law? The Florence Process in the supranational governance of electricity markets'. *Journal of Network Industries*, 4(2): 137–55.

²¹³Eberlein, B. (2008) The Making of the European Energy Market: The Interplay of Governance and Government. *Journal of Public Policy*, 28: 77; Eberlein, B. (2010) 'Experimentalist Governance in the European Energy Sector'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new architecture*. Oxford: OUP, p. 65; see also Eberlein, B. (2003) 'Regulating cross-border trade by soft law? The Florence Process in the supranational governance of electricity markets'. *Journal of Network Industries*, 4(2): 137–55.

²¹⁴European Commission Second report to the Council and the European Parliament on harmonization requirements: Directive 96/92/EC concerning common rules for the internal market in electricity. Brussels, 16 April 1999, COM(1999) 164 final, p.6.

commercial objectives.²¹⁵ However, after entry into the force of the first Directives, reservation of capacity for long-term contracts had to compete with short-term needs for the transactions of eligible customers and traders. As noted by the Commission at the beginning of 1999, since the capacity of interconnectors would often not be sufficient for the expected increase in trade after liberalisation, interconnectors tended to often be bottlenecks of the European transmission system. Moreover, in contrast to ‘normal’ bottlenecks within the territory of one transmission system operator, interconnectors involved, by definition, two transmission system operators. In order to ensure the economically optimal usage of available capacity as well as fair and non-discriminatory access for all system users, a new level of coordination between transmission system operators needed to be established.²¹⁶ As suggested by Fernando Lasheras Garcia, Director of Iberdrola’s representative office in Brussels, the prospect that physical capabilities for trading among countries would be lower than the needs of market players, was indeed a new challenge from which new conditions for efficient cross-border trade emerged.²¹⁷ As confirmed by Peter Styles, Chairman of the Electricity Committee of the EFET, cross-border deals really started in 1998. But at that time, there was no common capacity allocation and congestion management procedure in place. Instead, cross-border transport capacity (and its price) were negotiated among neighbouring vertically integrated companies, which were at the same time both producers and transmission system operators.²¹⁸

Although a lack of experience does not necessarily imply higher uncertainty, this chapter did not find any evidence, in the main regulatory policy documents of that period, that the Commission had specific preferences on how to regulate congestion management. On the contrary, these publicly available primary sources suggest that the preferences of the Commission were quite general. With regard to the power domain, neither the first 1996 Electricity Directive nor the 1992 Commission’s proposal on which the Directive was based, mentioned specific market-based approaches or auctions, but rather, only made reference on how to access the system

²¹⁵ Squicciarini, G., Cervigni, G., Perekhodtsev, D. and Poletti, C. (2010) “The integration of the European electricity markets at a turning point: from the regional model to the Third Legislative Package”. *EUI working paper*, RSCAS 2010/56, p.3.

²¹⁶ European Commission Second report to the Council and the European Parliament on harmonization requirements: Directive 96/92/EC concerning common rules for the internal market in electricity. Brussels, 16 April 1999, COM(1999) 164 final, p.6.

²¹⁷ Lasheras, F. (2002) ‘Cross-Border Trade on Electricity’. *Unpublished paper*, Iberdrola.

²¹⁸ Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

in accordance with general objectives, and transparent and non-discriminatory criteria.²¹⁹ This chapter did not find reference to these specific congestion management methods in the minutes of the first Florence Forum meetings held throughout 1998.²²⁰ Analogously, with respect to the gas domain, the first 1998 Gas Directive, the 1992 Commission's proposal on which the Directive was based, and the first overview report on the Directive's implementation adopted by the Commission in 2000, did not mention specific use-it-or-lose-it or secondary markets, but instead, only referred to accessing the system in accordance with general objectives, and transparent and non-discriminatory criteria.²²¹ There was also no reference to these specific congestion management methods in the minutes of the first Madrid Forum meetings held in 1999 and 2000.²²²

Based on the general, rather than specific policy preferences of the Commission, this chapter considers that the Commission initially found itself in conditions of higher uncertainty. Under these conditions, the Commission engaged in experimentalist policymaking. Member States and regulated companies were granted discretion to pursue different approaches, their different approaches were compared, and agreements on reforms were developed on this basis with high stakeholder participation.

As a result of the elaboration on the reform agreements, however, the Commission developed much more precise policy preferences. Specifically, by November 2000, the Commission had explicit preferences for market-based methods, particularly auctions, in the power domain.²²³

²¹⁹ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity; Commission Proposal for a Council Directive concerning common rules for the internal market in electricity. (92/C 65/04), COM(91) 548 final – SYN 384, Submitted by the Commission on 24 February 1992.

²²⁰ The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, Minutes; 2nd Forum of European Electricity Regulation. Florence, October 8th and 9th, 1998, Minutes.

²²¹ 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; Commission Proposal for a Council Directive concerning common rules for the internal market in natural gas. (92/C 65/05), COM (91) 548 final – SYN 385, Submitted by the Commission on 24 February 1992; State of implementation of the EU Gas Directive (98/30/EC) by Member States: an Overview. State of Play by the end of May 2000, Prepared by Directorate General for Energy and Transport, European Commission.

²²² 1st European Gas Regulatory Forum. Madrid, September 30th and October 1st, 1999, Minutes; Conclusions of the Second meeting of the European Gas Regulatory Forum. Madrid, 11 and 12 May 2000, Minutes.

²²³ Conclusions Sixth Meeting of the European Electricity Regulation Forum. Florence, 9/10 November 2000, Guidelines on congestion management, pp.4-8.

By September 2003, the Commission had precise preferences for interruptible use-it-or-lose-it and secondary markets in the gas domain.²²⁴

Based on these more detailed and specific policy preferences, this chapter considers that the Commission subsequently found itself in conditions of lower uncertainty, which resulted in the switch to hierarchical policymaking. By tabling legislative proposals shortly after the elaboration of these agreements, in March 2001 in the power domain and in December 2003 in the gas domain, it codified reforms with low stakeholder participation and without conducting comparisons of different approaches, but rather, by monitoring compliance with uniform solutions, making them binding for all Member States and regulated companies.

Conclusions

This chapter began with empirical analysis of policymaking, by comparing the regulation of congestion management from the late 1990s to the early 2000s across the power and gas domains. Its central finding was that, in a strikingly similar manner across both domains, the Commission interchanged experimentalist with hierarchical policymaking, with important reforms first being agreed upon through the former and then being formalised and given binding power through the latter. Initially, the Commission employed experimentalist architectures, namely the Florence and Madrid Fora, to stimulate the comparison of different approaches that the Member States and regulated companies were granted discretion to pursue and to facilitate the development of agreements on reforms on this basis with high stakeholder participation. Thereafter, it shifted to hierarchical policymaking. By using the hierarchical architecture of the ordinary legislative procedure with low stakeholder participation, it codified reforms that were previously agreed upon through experimentalist processes without conducting comparisons of different approaches, but instead, by monitoring compliance with uniform solutions, making them binding for all Member States and regulated companies.

From the shadow of hierarchy perspective, it is surprising that the Commission engaged in experimentalist policymaking despite the weaker shadow it could cast to induce conflicting parties to cooperate, in turn due to its limited formal rulemaking powers. The polyarchy point of view accounts for the Commission's engagement in experimentalist policymaking precisely because of its limited formal rulemaking powers, which made the distribution of power more

²²⁴Conclusions of the 7th meeting of the European Gas Regulatory Forum. Madrid, 24–25 September 2003, pp.1–2.

polyarchic. However, it does not explain why the Commission subsequently shifted to hierarchical policymaking, despite the fact that the distribution of powers had remained more polyarchic. Since both the shadow of hierarchy and polyarchy perspectives have limitations, this chapter developed an alternative explanation. Specifically, that at the very beginning of the market liberalisation and integration processes, the Commission only had general policy preferences. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking. However, due to the emergence of agreements on reforms, it developed much more specific policy preferences, and under these conditions of lower uncertainty, it subsequently favoured hierarchical policymaking.

The identified patterns of policymaking could be due, however, to specificities in the issue area analysed. For this reason, Chapter Four continues to compare the Commission's regulatory policymaking across power and gas domains from the late 1990s to the early 2000s, shifting the attention from congestion management to another key issue area, namely, tariffication regulation.

Chapter Four: Interchanging Experimentalist with Hierarchical Policymaking in Both Power and Gas Domains

Also in Tarification Regulation

Introduction

This chapter examines the argument that the Commission engages in experimentalist policymaking under conditions of higher uncertainty, which was developed in the previous chapter. It continues to compare the Commission's regulatory policymaking across power and gas domains from the late 1990s to the early 2000s, but shifts the attention from congestion management to another key issue area, namely, tarification regulation. As aforementioned, energy markets were historically managed on a national basis by state-owned, vertically integrated monopolists, who undertook all aspects of production of the service in question.²²⁵ The rules governing not only how access was given to network users but also how it was priced were drawn up nationally.²²⁶ In that context, cross-subsidies within domestic systems were pervasive.²²⁷ In the late 1990s, there was no European regulation governing the tarification of Europe's cross-border electricity networks and gas pipelines. Cross-subsidies distorted competition and trade to favour incumbents to the detriment of domestic and foreign new entrants.²²⁸ By the early 2000s, however, the situation had fundamentally changed. An initial set of rules mandating common tarification approaches and principles promoting competition and cross-border trade were adopted, marking a clear turning point from previous regimes that favoured incumbents by segmenting markets and hindering entry.

Throughout the period analysed, in both the power and gas domains, the Commission could use hierarchical architectures, namely, the ordinary legislative procedure. At the same time, it could also employ experimentalist architectures, which developed in parallel to hierarchical

²²⁵Baldwin, R., Cave, M. and Lodge, M. (2011) *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: OUP.

²²⁶See for example <https://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes>. Accessed on 2nd December 2015.

²²⁷For the Italian case, see Rangoni, B. (2011) 'Spiegando l'Incompleta Liberalizzazione dei Mercati Energetici Italiani'. *L'Industria*, XXXIII (4): 693–708.

²²⁸Klop, M. 'Charting the Gaps: EU regulation of gas transmission tariffs in the Netherlands and the UK'. *Oxford Institute for Energy Studies*, NG 26, January 2009, pp.7–8.

architectures analogously across both domains. In particular, it could use the Florence and Madrid Fora, which were created in 1998 and 1999, respectively, and since then have had analogous composition and working arrangements with a particular focus on the issue area of tariffication regulation (and congestion management).²²⁹

This chapter's central findings are strikingly similar to those of Chapter Three. In both the power and gas domains, the Commission interchanged experimentalist with hierarchical policymaking, with important reforms first being agreed upon through the former and then being formalised and given binding power through the latter. At the very beginning of the market liberalisation and integration processes, the Commission employed experimentalist architectures, notably the Florence and Madrid Fora, to stimulate the comparison of different approaches that were being adopted by Member States and regulated companies, and to facilitate the development of agreements on reforms on this basis and with high stakeholder participation. Thereafter, it shifted to hierarchical policymaking. It monitored compliance with uniform policy solutions, and by using the hierarchical architecture of the ordinary legislative procedure, codified some of the reforms that were previously agreed upon through experimentalist processes, laid the groundwork for the future codification of others with low stakeholder participation, and made uniform solutions binding for all Member States and regulated companies.

Thus, the implications of the chapter's findings are also analogous to those of Chapter Three. From the shadow of hierarchy perspective, it is surprising that the Commission engaged in experimentalist policymaking despite the weaker shadow it could cast to induce conflicting actors to cooperate. From the polyarchy viewpoint, the Commission's engagement in experimentalist policymaking can precisely be explained in light of its limited formal rulemaking powers. Yet this does not explain why, at some point in both domains, the Commission shifted from experimentalist to hierarchical policymaking, despite continuity in polyarchy. In contrast, the patterns of policymaking found are consistent with the argument developed in Chapter Three. At the very beginning of the market liberalisation and integration processes, the Commission only had general policy preferences about how to regulate tariffication. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking. However, as a result of the emergence of agreements on reforms, the Commission developed more specific

²²⁹ <https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>; <https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 16 March 2016

policy preferences. Under these conditions of lower uncertainty, it shifted to hierarchical policymaking.

This chapter first identifies the types of policymaking that the Commission engaged in, to show that it substituted experimentalist with hierarchical policymaking very similarly across the power and gas domains. Then it shows how the identified patterns of policymaking confirm the limitations of the shadow of hierarchy and polyarchy perspectives and provide support to the argument emphasising uncertainty.

Interchanging experimentalist with hierarchical policymaking in the power domain

Observing initial experimentalist policymaking

From the late 1990s to the early 2000s, to regulate tariffication in the power domain, the Commission initially engaged in experimentalist policymaking; the indicators and evidence used to make this argument are shown in Table 10. Member States and regulated companies were granted discretion to adopt different approaches. By employing experimentalist architectures, notably the Florence Forum, their different approaches were compared, and agreements on a number of reforms were developed on the basis of these comparisons with high stakeholder participation. These reforms are important. First, by granting access to the entire European grid at a flat rate through a “postage-stamp” tariff, they deviated from the previous tariffication system based on transit fees for each transactions network users engaged in, which limited entry and cross-border trade.²³⁰ Second, by setting up an intertransmission system operator compensation mechanism, they ensured that transmission system operators recovered the costs of hosting cross-border flows of power on their networks.²³¹ Third, by harmonising transmission tariffs levied on generators, they avoided distortions of competition between producers located in different countries and created a “level playing field”.²³²

²³⁰ Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999). P.1.

²³¹ Conclusions Eight meeting of the European Electricity Regulatory Forum. Florence, 21-22 February 2002, p.1.

²³² Conclusions Tenth meeting of the European Electricity Regulatory Forum. Rome, 8-9 July 2003, p.4.

Table 10. Initial experimentalist policymaking to regulate tarification in the power domain from the late 1990s to the early 2000s

Indicator	Evidence
Member States and/or regulated companies are granted discretion to adopt different approaches	Directive 96/92/EC allows Member States and regulated companies to pursue different approaches to regulate network access, particularly tarification (e.g., nodal pricing, distance-related tariffs, postage stamp tariffs)
Different approaches are compared	Examples of national as well as cross-border tarification approaches are provided (e.g., UK, Germany, Sweden, New Zealand, the US and those reviewed by Aachen University) study
Agreements on reforms developed based on comparisons	Agreements in 1999 on postage-stamp tariff not based on transactions, in 2002 on provisional inter-transmission system operator compensation mechanism, and in 2003 on harmonised transmission charges levied on generators
Agreement on reforms developed with high stakeholder participation	Agreements are developed within the Florence Forum, whose participation is broadened to include industry after the first meeting

The first indicator that the Commission engaged in experimentalist policymaking is that Member States and regulated companies were granted discretion to pursue different approaches to tarification regulation. As seen in Chapter Three, the liberalisation and re-regulation of European power markets began with the first Electricity Directive adopted by the European Parliament and Council in 1996.²³³ The Directive prescribed progressive market opening and established, for the first time, some common rules for the organisation of the sector. However, it set out a very broad framework that left Member States an exceptionally wide margin of discretion

²³³ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity.

regarding crucial regulatory issues such as the regime of access to monopoly networks, including its pricing. In particular, it left Member States the freedom to choose between “regulated access”, giving eligible customers and their suppliers a right of access on the basis of a published tariff, and “negotiated access”, in which the would be supplier/eligible customer and the grid operator negotiated in ‘good faith’ and on the basis of indicative prices.²³⁴ It allowed any combination of tariff principles and structures. In the absence of any common tarification approach, differences in tariff regulation inevitably occurred across Member States.²³⁵ Furthermore, the Directive simply did not address technical and regulatory issues arising from the very idea of cross-border trade in an integrated European market, such as the pricing of cross-border transmission.²³⁶

The second indicator that the Commission engaged in experimentalist policymaking is that it used the experimentalist architecture of the Florence Forum, which features high stakeholder participation. From its very first meeting, industry representatives of both transmission system operators and producers, and consumers and experts from outside Europe participated in the Forum, notably, by presenting their views and experiences about tarification regulation. Roger Urwin, of the UK National Grid Company, explained that transmission prices in the UK were controlled by a pioneering form of incentive regulation that was developed by Professor Stephen Littlechild, who was then the Director General of the British electricity regulatory authority.²³⁷ Rudiger Winkler, of Vereinigung Deutscher Elektrizitätswerke, informed participants that in Germany, a proposal for distance sensitive tariffs was subject to strong criticism. Jan Magnusson, of Svenska Kraftnat grid utility, pointed to the experience of the Swedish electricity market to argue for yet another approach, namely, “nodal tariffs”.²³⁸ Tim Russell, from the British National Power, in a presentation entitled, “Transmission access: what a generator wants”, suggested that there were trade-offs between economic efficiency, fairness and political acceptability and that “there is no single, particular pricing methodology (e.g., postage

²³⁴Hancher, L. (1997) “Slow and not so sure: Europe's long march to electricity market liberalization”. *The Electricity Journal*, 10 (9): 96.

²³⁵Klop, M. ‘Charting the Gaps: EU regulation of gas transmission tariffs in the Netherlands and the UK’. *Oxford Institute for Energy Studies*, NG 26, January 2009, pp.7-8.

²³⁶Eberlein, B. (2005) ‘Regulation by cooperation: the ‘third way’ in making rules for the internal energy market’. In P.D. Cameron (Ed.) *Legal aspects of EU energy regulation: implementing the new Directives on Electricity and Gas across Europe*. Oxford: OUP, p.64.

²³⁷The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, p.3.

²³⁸The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, p.4.

stamp, contract, MW Mile, Long Run Marginal Pricing) that can be considered the ‘intrinsically right’ solution for all”.²³⁹ Christof Bauer of Degussa presented the view of the industrial consumers. He suggested that Germany had left many important aspects of transmission agreements open to negotiation, often between a powerful incumbent and a much weaker new entrant, hence arguing against “negotiated third party access”.²⁴⁰ David Smol, from ILEX Consulting, presented the New Zealand case to suggest that one of the main lessons to be learned was that transmission pricing and contracts had to be transparent. James Barker of the US law firm Barker, Dunn and Rossi spoke about the US experience in reform of electricity markets by drawing upon examples from California, Alberta, NEPOOL, PJM, New York, Canada, England and Wales, New Zealand and Australia. He argued that, “the EU states, at a relatively early stage in developing the structures and principles of such market regulation, could learn much from identifying the various advantages and disadvantages of the existing US framework and should consider carefully how to avoid its failures and pick the elements of success”. In particular, he suggested that a critical element was to allow the regulator to establish transparent and standard transmission prices.²⁴¹ Debates also involved round table discussions of regulators.²⁴²

Third, different approaches of Member States and regulated companies were compared. These comparisons had a twofold objective. First, to identify the different types of transmission pricing systems that were developing in the Member States, in order to evaluate their relative advantages or disadvantages so that clear objectives could be pursued and any necessary revisions could be made. Second, to monitor the conditions under which cross-border electricity trade between Member States could take place.²⁴³ A study carried out by the Aachen University upon request from the Commission was particularly important. A qualitative and quantitative comparison of tariffication approaches adopted within nine European countries (i.e., Austria, England/Wales, Finland, Germany, the Netherlands, Norway, Portugal, Spain and Sweden) was conducted, and existing cross-border arrangements in electricity transmission (i.e., US, Scandinavia, England/Scotland, Germany and the UCPTE transit agreement) and other areas of the economy (i.e., post and telephone) were reviewed. The results showed that in most Member

²³⁹The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, pp.5-6.

²⁴⁰The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, p.6.

²⁴¹The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, pp.9-11.

²⁴²The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, p.13.

²⁴³2nd Forum of European Electricity Regulation. Florence, October 8th and 9th, 1998, p.2.

States, tariffication systems were non-transaction-based; thus, it was recommended that such an approach be generally adopted. The study also addressed different approaches to ensure that transmission system operators could recover the costs for hosting on their networks' transit flows, and recommended compensation for inter-transmission system operators.²⁴⁴

On the basis of these comparisons, an agreement on a number of important reforms was developed. In accordance with the recommendations of this study, the Commission expressed a clear preference for a non-transaction-oriented tariffication system. Dr. Jorge Vasconcelos, Chairman of the CEER and of the Portuguese regulatory authority, and Professor Ignacio Perez-Arriaga, Commissioner of the Spanish regulatory authority, presented the common views of the Italian, Portuguese and Spanish regulators, which largely coincided with that of the Commission.²⁴⁵ With the goal of increasing convergence of the positions and to outline a working programme for the following months, the Commission, in close cooperation with the German presidency of the Council and Dr. Vasconcelos, summarised that any tariffication system had to be non-transaction based. Therefore, it did not have to identify different charges according to individual contract paths.²⁴⁶ At the 4th Florence Forum in November 1999, participants considered that “the voluntary approach developed so far has produced a common understanding of the main problems and processes involved in cross-border electricity trade, as well as a common view about possible solutions”. Following the principles and the working programme established at the last meeting, they agreed on the fundamental principle that each transmission system operator's network costs be recovered through charges imposed upon local network users. Thus, these charges provided access to the complete interconnected EU network, “independent of the commercial transactions that the network users may engage in”.²⁴⁷ This reform deviated from the then dominant system of transit fees or export charges, which hindered competition and cross-border trade. Indeed, all transit or export tariffs were eventually eliminated.

²⁴⁴ Study on Cross-border electricity transmission tariffs. Carried out by Professor Hans-Jurgen Haubrich, Dr-Ing. Wolfgang Fritz, and Dipl-Ing. Hendrik Vennegeerts by order of the European Commission, DG XVII. Final report, Aachen, April 1999; 3rd Meeting of the European Electricity Regulation Forum. Florence, 20 & 21 May 1999, p.2.

²⁴⁵ 3rd Meeting of the European Electricity Regulation Forum. Florence, 20 & 21 May 1999, pp.2-3.

²⁴⁶ 3rd Meeting of the European Electricity Regulation Forum. Florence, 20 & 21 May 1999, pp.3-4.

²⁴⁷ Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999). P.1.

On the basis of the aforementioned comparisons, Forum participants also agreed on a mechanism to allow compensation for transmission system operators. They recognised that the existence of cross-border transactions could cause individual power systems to incur extra costs and that this justified the acknowledgement of additional network charges. The participants agreed that transmission system operators who suffered extra costs caused by cross-border transactions had to receive payments from other transmission system operators.²⁴⁸ The Commission could bring forward proposals in this area, but “it is reticent to do so insofar as industry will resolve this issue in the near future”. In particular, in the Commission’s view, such an issue “would preferably be dealt with, at least at an initial stage, by the newly developing transmission system operators under the control of regulators”.²⁴⁹ Indeed, the association of ETSO, created upon invitation of the Commission, proposed a scheme designed to provide compensation to the transmission system operators who incurred costs related to cross-border transactions, while at the same time charging this compensation to transmission system operators who were responsible for such costs. As suggested by Professor Pippo Ranci Ortigosa, co-founder and Vice President of the CEER and President of the Italian regulatory authority, the main issues were how to quantify the transits (i.e., the flows of energy) and how to assess which costs had to be compensated for (i.e., average or marginal).²⁵⁰ In order to address these issues, Forum participants set up a working group, bringing together the Commission, national regulatory authorities, Member States and ETSO.²⁵¹ The Commission, regulatory authorities and Member States recognised the important progress and efforts made by the ETSO in coming forward with an unanimous proposal on the methodology to be applied and the amount of money that had to be recovered for an initial one year period.²⁵² To refine the cost calculations, an additional working group chaired by the Commission was established. At the 8th meeting of the Florence Forum in February 2002, participants reached an agreement on a provisional scheme that was to be implemented from March 2002 to January 2003.²⁵³ At the following

²⁴⁸ Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999). P.2.

²⁴⁹ 2nd Forum of European Electricity Regulation. Florence, October 8th and 9th, 1998, p.4.

²⁵⁰ Interview with Professor Pippo Ranci Ortigosa, co-founder and Vice-President of CEER and President of the Italian regulatory authority. Email, 26 May 2016.

²⁵¹ Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999). pp.1–2.

²⁵² Conclusions Fifth Meeting of the European Electricity Regulation Forum. Florence, 30–31 March 2000, pp.1–2.

²⁵³ Conclusions Eight meeting of the European Electricity Regulatory Forum. Florence, 21–22 February 2002, p. 1.

meeting, ETSO presented a proposal for the implementation of a revision of the existing mechanism to be put into effect from January 2003; this revision was regarded by the CEER, the Commission and Member States as an improvement over the existing approach, notably because it provided a more robust description of the network affected by transits.²⁵⁴ This reform is important because, according to Florence Forum participants, establishment of such a tariffication system and trade facilitating mechanisms “will enable the single market to become a reality”.²⁵⁵ As can be seen, it was not hierarchically imposed by the Commission, but rather, was developed on the basis of comparisons and largely from the industry.

Finally, on the same basis, Forum participants also came to an agreement on a third reform. The association of the European power producers and suppliers (Eurelectric) highlighted that, as a complement to non-transaction-based tariffs and the compensation mechanism for transmission system operators, the rapid harmonisation of transmission charges within national systems was also very important. Indeed, regulatory authorities, Member States, ETSO and the other market players represented at the Forum stressed the importance of making simultaneous progress in harmonising transmission charges, and invited the Commission to forward proposals on that issue.²⁵⁶ Participants then asked the CEER, in close collaboration with the Commission, Member States, ETSO and other relevant stakeholders to continue this work.²⁵⁷ At the 10th Forum meeting in July 2003, participants agreed on the harmonisation of transmission charges levied on producers through determination of a range, going from zero to a positive figure, within which all national charges would have to remain.²⁵⁸ Thus, this third and last reform, contributed to the creation of a level playing field and the avoidance of competition between generators located in different countries.

Observing a subsequent shift to hierarchical policymaking

After the development of these agreements on reforms, the Commission switched to hierarchical policymaking, as evidenced by the indicators shown in Table 11. By using the hierarchical architecture of the ordinary legislative procedure, the Commission reduced stakeholder

²⁵⁴Conclusions Ninth meeting of the European Electricity Regulatory Forum. Rome, 17–18 October 2002, pp.1–2.

²⁵⁵2nd Forum of European Electricity Regulation. Florence, October 8th and 9th, 1998, p. 3.

²⁵⁶Conclusions Fifth Meeting of the European Electricity Regulation Forum. Florence, 30–31 March 2000, pp.4–5.

²⁵⁷Conclusions Eight meeting of the European Electricity Regulatory Forum. Florence, 21–22 February 2002, p. 3.

²⁵⁸Conclusions Tenth meeting of the European Electricity Regulatory Forum. Rome, 8–9 July 2003, p. 4.

participation. Without comparing different approaches, it codified parts of the reforms previously agreed upon and laid the ground for the future codification of others, to make uniform solutions that were binding for all Member States and regulated companies. The resulting regulation is important because it provided the first set of common rules for cross-border trade in electricity. At its core, it mandated non-transaction-based tariffs and the establishment of a mechanism whereby transmission system operators could compensate each other for the costs of hosting cross-border flows of electricity on their networks.²⁵⁹ This represents a clear turning point from the past, where transit fees on cross-border flows represented a major obstacle to the development of the internal electricity market and a common system of cross-border tariffication had simply not existed.

Table 11. Subsequent hierarchical policymaking to regulate tariffication in the power domain from the late 1990s to the early 2000s

Indicator	Evidence
Member States and regulated companies are obligated to adopt uniform solutions	Regulation 1228/2003 makes non-transaction-based tariffs and an inter-transmission system operator compensation mechanism binding, and lays the ground for the future codification of details of the compensation mechanism as well as the harmonisation of charges levied on generators
Compliance with uniform solutions is monitored	Regulation 1228/2003 provides for compliance-monitoring reports with the adopted uniform solutions
Reforms are not developed on the basis of comparisons	Regulation 1228/2003 is not based on comparisons

²⁵⁹ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Articles 3 and 4.

Agreement on reforms is Regulation 1228/2003 is adopted through ordinary legislative developed with low procedure, in which participation is limited to Member States and stakeholder participation the Commission

The first indicator used to argue that, after the development of agreements on reforms, the Commission switched to hierarchical policymaking, is that it reduced stakeholder participation. Rather than using the experimentalist architecture of the Florence Forum, which continued to be available, the Commission employed the hierarchical architecture of the ordinary legislative procedure, which as seen in Chapters Two and Three, features low stakeholder participation. By turning to such hierarchical architecture, the Commission favoured a procedure in which participation does not include stakeholders, but rather, is limited to itself and Member States.

Second, the Commission developed reforms without comparing different approaches to tariffication regulation pursued by Member States and regulated companies. Instead, it codified reforms *previously* agreed upon, and laid the ground for the future codification of others that had not yet been agreed upon. In March 2001, it tabled a legislative proposal.²⁶⁰ The proposal reflected agreements that, as seen in the previous section, had already been reached at that time, namely, the establishment of compensation for transmission system operators and nontransaction-based tariffs. In its recital, it stated that “transmission system operators should be compensated for costs incurred as a result of hosting transit flows of electricity on their networks by the operators of the transmission systems from which transits originate or for which they are destined”, and that “it would not be appropriate to apply distance-related tariffs, or a specific tariff to be paid only by exporters or importers”.²⁶¹ With respect to the intertransmission system operator compensation mechanism, it proposed that the amounts of transit hosted and amounts of transit flow originating and/or ending in national transmission systems should be determined on the basis of the flow of electricity actually measured in a given period of time, and the costs incurred as a result of hosting transit flow should reflect costs and benefits borne by a network from hosting transit flow compared to the costs borne in the absence of such

²⁶⁰ Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001.

²⁶¹ Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. Art.6. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001, Recitals (7), (8) and (11).

flow.²⁶² With regard to charges for access to networks, it proposed that exporters and importers should not be charged any specific charge in addition to the general charge for access to national networks, and that there should be no specific network charge on individual transactions.²⁶³ Furthermore, the Commission proposed the future adoption of guidelines on the details of the determination of the transmission system operators liable to pay compensations for transit flows, details of the payment procedure to be followed, details of methodologies to determine the amount of transits hosted and exports/imports of electricity made, details of the methodology to determine the costs incurred as a result of hosting transits of electricity and details of the harmonisation of the charges applied to generators under national tariff systems.²⁶⁴ At the time when the Commission tabled its legislative proposal, as seen in the previous section, these reforms had not yet been agreed upon. In June 2003, the European Parliament and Council adopted Regulation (EC) No. 1228/2003 on conditions for accessing the network for cross-border exchanges in electricity, without adding any major change to the Commission's proposal.²⁶⁵ Thus, the Commission did not develop reforms based on comparisons of different approaches, but rather, codified reforms based on agreements previously reached through experimentalist processes and comparisons. Chapter Six described how a few years later, it also codified the rest of the reforms that were previously agreed upon.

Third, Member States and regulated companies did not continue to be granted discretion to pursue different approaches to tariffication regulation. On the contrary, by giving binding power to these reforms, the Commission imposed uniform policy solutions on all Member States and regulated companies. Fourth and finally, rather than comparing different approaches pursued by Member States and regulated companies, Regulation (EC) No. 1228/2003 prescribed the monitoring of compliance with the uniform policy solutions it had made binding for all Member States and regulated companies.²⁶⁶

²⁶² Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. Art.6. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001, Art.3(1) and (6).

²⁶³ Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. Art.6. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001, Art.4(1), (4) and (5).

²⁶⁴ Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. Art.6. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001, Art.7.

²⁶⁵ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Arts. 3, 4 and 8.

²⁶⁶ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Art. 14.

Finding similar patterns of policymaking in the gas domain

Observing initial experimentalist policymaking

Similarly to the power domain, the Commission initially engaged in experimentalist policymaking in the gas domain. This assertion is supported by the indicators shown in Table 12. By using the experimentalist architecture of the Madrid Forum, the Commission stimulated the comparison of different approaches of tariffication regulation that Member States and regulated companies had been granted discretion to pursue, and facilitated the development of agreements on reforms on this basis with high stakeholder participation. The importance of these reforms is twofold. First, by establishing that tariffs should reflect costs, these agreements deviated from previous ones, in which cross-subsidies that had detrimental effects on competition were pervasive.²⁶⁷ Second, by introducing entry-exit systems in which entry transport capacity can be sold without any restriction as to its final destination, they marked a clear turning point from the previously dominant point-to-point systems, which ensured that incumbents with larger portfolios of gas supply contracts had a commercial advantage over new entrants.

Table 12. Initial experimentalist policymaking to regulate tariffication in the gas domain from the late 1990s to the early 2000s

Indicator		Evidence
Member States and/or regulated companies are granted discretion to adopt different approaches		Directive 98/30/EC allows Member States and regulated companies to pursue different approaches to regulate network access and in particular tariffication (e.g., point-to-point, entry-exit, hybrids)
Different approaches compared	are	Comparisons of UK, Spain, the Netherlands, Germany, France and Italy, in individual presentations as well as overviews by GTE, CEER and the Brattle Group

²⁶⁷ For the Italian case, see Rangoni, B. (2011) 'Spiegando l'Incompleta Liberalizzazione dei Mercati Energetici Italiani'. *L'Industria*, XXXIII (4): 693-708.

Agreements on reforms are Agreements in 2002 on the principle of cost-reflective developed based on comparisons tariffs and entry-exit systems

Agreement on reforms are Agreements are developed within the Madrid Forum, which developed with high stakeholder features high stakeholder participation participation

The first indicator used to claim that the Commission engaged in experimentalist policymaking is that Member States and regulated companies were granted discretion to pursue different approaches to regulate tariffication. As seen in Chapter Three, the first 1998 Gas Directive set out the general framework for the introduction of competition in the industry, but left much of the technical and practical details of implementation open to national interpretation. With regard to tariffication regulation, in particular, it allowed any combination of tariff principles and structures. In the absence of any common EU regulatory framework, differences in tariff regulation inevitably occurred across Member States.²⁶⁸

The second indicator is that the Commission employed the Madrid Forum, which as seen in Chapters Two and Three is an experimentalist architecture characterised by high stakeholder participation. Organised by the Commission in 1999, it brings together national regulatory authorities, national governments, transmission system operators, gas suppliers and traders, consumers, network users and gas exchanges.²⁶⁹

Third, the Madrid Forum was used to compare different approaches to tariffication regulation adopted by Member States and regulated companies, with the objective of “identifying the different methodologies and approaches concerning access conditions, in particular tariffication, that are developing in the Member States”. For this purpose, at the 1st Madrid Forum meeting, Callum McCarthy from the British regulatory authority, Lopex Silanes from the Spanish company Gas Natural, and George Verberg from the Dutch company Gasunie, outlined the approach to tariffication regulation in their respective countries. On this basis, three different

²⁶⁸Klop, M. ‘Charting the Gaps: EU regulation of gas transmission tariffs in the Netherlands and the UK’. *Oxford Institute for Energy Studies*, NG 26, January 2009, pp.7–8.

²⁶⁹<https://ec.europa.eu/energy/en/events/madrid-forum>. Accessed on 14 January 2016.

methodologies were identified: the “entry-exit” approach applied in the UK, the distance-related “point-to-point” approach applied in Spain, and a hybrid system adopted in the Netherlands.²⁷⁰ As seen in Chapter Three, the Commission, Member States and the CEER invited the European gas industry to establish a new body, bringing together representatives of all those responsible for the operation of the transmission network for gas in Europe. The aim of GTE was to provide technical data regarding the transmission systems within Europe.²⁷¹ In particular, GTE was invited to provide the Commission with a detailed examination of the tariffication mechanisms and levels, for a representative sample of services and types of customers, on a Member State-by-Member State basis; and with an overview of specific measures with regard to cross-border transit arrangements, where any existed, also on a Member State-by-Member State basis.²⁷²

Fourth, based on these comparisons, agreements on reforms were developed. As a result of the information provided by GTE, Forum participants recognised “very significant differences among tariff structures for transmission in the EU”.²⁷³ They considered that the significant differences that existed among national tariff structures, “where not based on common principles, could have hampered gas trade and market liquidity”. Hence, in order to facilitate transportation across the boundaries of transmission system operators, they stressed the need for a European gas market based on common principles.²⁷⁴ At the 5th Madrid Forum meeting in February 2002, participants agreed upon a set of common principles proposed by the CEER, including the principle that all tariffs for the use of gas transmission networks be cost-reflective so that any differences in tariffs applied to different customers for similar services would reflect the underlying costs, thereby avoiding cross-subsidies.²⁷⁵

Based on the same comparisons, an agreement on a second important reform was also developed. Based on the “significant differences” among the observed national tariff structures, and in addition to agreeing upon the principle of cost-reflectiveness, the Commission, regulators, most Member States, traders and local distributors expressed “serious doubts” that distance-

²⁷⁰ 1st European Gas Regulatory Forum. Madrid, September 30th and October 1st, 1999, pp.2-3.

²⁷¹ Conclusions of the Second meeting of the European Gas Regulatory Forum. Madrid, 11 and 12 May 2000, p.1.

²⁷² Conclusions of the Second meeting of the European Gas Regulatory Forum. Madrid, 11 and 12 May 2000, p.2.

²⁷³ Conclusions of the 3rd meeting of the European Gas Regulatory Forum. Madrid, 26–27 October 2000, p.3.

²⁷⁴ Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002, pp.1–2.

²⁷⁵ Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002, p.2.

related, point-to-point systems would effectively promote trade and market liquidity.²⁷⁶ Instead, they considered that entry-exit would best meet the agreed upon set of principles, particularly that of cost-reflectivity, and would also best facilitate the development of competition in the European gas market.²⁷⁷ The CEER, in close consultation with GTE, was invited to examine the concrete consequences of different tariffication systems, and to present the results of its work for discussion at the following Forum meeting.²⁷⁸ By making explicit references to implementation experiences with entry-exit systems, such as those of UK and Italy, the paper prepared by the CEER highlighted that the key feature of such a system was that entry capacity could be sold without any restriction on its final destination. Therefore, it stimulated the development of hubs where network users who had booked entry or exit capacity could sell or buy gas, which in turn, fostered trade and competition. The paper contrasted this system with point-to-point systems, where there was an incentive for network users to swap gas scheduled to flow in opposite directions in order to save the associated transport costs. This system ensured a commercial advantage of incumbents over new entrants, due to their existing large portfolios of gas supply contracts.²⁷⁹ Similarly, a study prepared for the Commission by the Brattle Group consulting firm, based on its advantages in terms of cost-reflectivity and the promotion of competition, recommended entry-exit systems.²⁸⁰ At the 6th Madrid Forum meeting in October 2002, the Commission, the CEER, most Member States, consumers, traders and local distributors “confirmed their view that an entry-exit tariff structure would in principle best facilitate the development of competition in the European gas market”.²⁸¹

Observing a subsequent shift to hierarchical policymaking

Similarly to the power domain, also in the gas domain the Commission shifted to hierarchical policymaking almost immediately after the development of agreements on reforms, as evidenced by the indicators showed in Table 13. Shortly after the elaboration of agreements on reforms, the Commission used the ordinary legislative procedure to table a legislative proposal.

²⁷⁶Conclusions of the 4th meeting of the European Gas Regulatory Forum. Madrid, 2–3 July 2001, p.3.

²⁷⁷‘Comments on CEER Position Paper: Guidelines for tariff structure pertaining to intrastate and cross border transport and transit’. Bernard Brelle, GTE, European Gas Regulatory Forum, Madrid, 7–8 February 2002.

²⁷⁸Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002, p.3.

²⁷⁹‘Establishing the preferred tariff methodology for intrastate, cross-border and transit flows in European gas markets’. CEER Paper to the Madrid Forum, 30/31 October 2002.

²⁸⁰Conclusions of the 6th meeting of the European Gas Regulatory Forum. Madrid, 30–31 October 2002, pp.1–2.

²⁸¹Conclusions of the 6th meeting of the European Gas Regulatory Forum. Madrid, 30–31 October 2002, pp.2–3.

By using this hierarchical architecture, it reduced stakeholder participation. Rather than conducting comparisons of different approaches pursued by Member States and regulated companies, it monitored their compliance with uniform solutions. Instead of developing reforms based on comparisons, it codified part of the reforms that were previously agreed upon, thereby obligating Member States and regulated companies to implement uniform policy solutions. The resulting regulation is important because it provided the first set of common rules for accessing the network for cross-border exchanges in gas. By imposing that tariffs be cost-reflective, it departed from previous regimes, which were dominated by tariffs that did not reflect costs and which created cross-subsidies in favour of incumbents over new entrants, distorting competition and cross-border trade.

Table 13. Subsequent hierarchical policymaking to regulate tariffication in the gas domain from the late 1990s to the early 2000s

Indicator	Evidence
Member States and regulated companies are obligated to adopt uniform solutions	Regulation 1775/2005 makes cost-reflective tariffs binding, and a few years later, another piece of EU legislation also makes entry-exit systems binding
Compliance with uniform solutions is monitored	Compliance with entry-exit systems is monitored, notably through the CEER checklist
Reforms are not developed on the basis of comparisons	Regulation 1775/2005 is not based on comparisons
Agreement on reforms is developed with low stakeholder participation	Regulation 1775/2005 is adopted through the ordinary legislative procedure, in which participation is limited to Member States and the Commission

Shortly after agreements on reforms were achieved, the Commission reduced stakeholder participation by employing the ordinary legislative procedure, which as seen in Chapters Two and Three, is a hierarchical architecture characterised by low stakeholder participation because par-

ticipation is limited to the Commission and Member States. In December 2003, the Commission tabled a legislative proposal for regulation on conditions for access to gas transmission networks.²⁸²

Rather than comparing different approaches of tariffication regulation pursued by Member States and regulated companies, compliance with uniform policy solutions was monitored. In September 2003, the CEER provided a checklist of necessary elements of entry-exit systems, which the Commission considered a workable basis for monitoring the implementation of entry-exit systems. A result of this checklist, it was noted that an increasing number of Member States had already implemented entry-exit tariff systems.²⁸³ Indeed Jacques Laurelut, Vice President of GTE, had already noted in July 2004 that, “for many transmission system operators such move from point-to-point to entry/exit is now behind in the past [and] the move toward entry/exit tariff systems is now widely pursued by the transmission system operators”.²⁸⁴

Reforms were not developed based on comparisons. In contrast, shortly after development of the agreement on the principle of cost-reflectivity (and entry-exit systems) in 2002, in 2003, the Commission proposed its codification to the European Parliament and Council.²⁸⁵ In September 2005, the European Parliament and Council adopted Regulation (EC) No. 1775/2005 on conditions for accessing the natural gas transmission networks without making any major changes to the Commission’s proposal.²⁸⁶ The regulation mandated that the tariffs applied by transmission system operators and approved by regulatory authorities reflect actual costs incurred and avoid cross-subsidies between network users.²⁸⁷ Thus, the Commission’s legislative proposal was based on part of the reforms that had already been agreed upon through experimentalist processes, namely, the principle of cost-reflectivity, as seen in the previous section. Chapter Six will show that a few years later, the Commission codified through hierarchical

²⁸²Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the gas transmission networks. Brussels, 10.12.2003, COM(2003) 741 final 2003/0302 (COD).

²⁸³Conclusions of the 7th meeting of the European Gas Regulatory Forum. Madrid, 24–25 September 2003, pp.3–4.

²⁸⁴‘Entry-Exit System Guidelines’. Presentation delivered by Jacques Laurelut, GTE Vice President, to the Madrid Forum VIII, 8–9 July 2004, slide 5.

²⁸⁵Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the gas transmission networks. Brussels, 10.12.2003, COM(2003) 741 final 2003/0302 (COD).

²⁸⁶Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

²⁸⁷Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art.3 (1) and (2).

policymaking via the ordinary legislative procedure also the other part of the reforms previously agreed through experimentalist processes, namely entry-exit systems.

Finally, far from granting discretion to Member States and regulated companies to adopt different approaches in an experimentalist fashion, the Commission imposed uniform policy solutions of tariffication regulation, by making the principle of cost-reflectiveness binding for all Member States and regulated companies.

Accounting for the identified patterns of policymaking

Confirming the limitations of the shadow of hierarchy and polyarchy explanations

The previous sections show patterns of policymaking that were strikingly similar to those observed in Chapter Three with regard to the issue area of congestion management. This chapter also shows that in the issue area of tariffication regulation, in both the power and gas domains, the Commission initially engaged in experimentalist policymaking but subsequently switched to hierarchical policymaking. These findings confirm the limitations of the shadow of hierarchy and polyarchy explanations.

From the shadow of hierarchy perspective it is puzzling that, in both the power and gas domains, the Commission initially engaged in experimentalist policymaking. During the period analysed, the Commission's formal rulemaking powers were limited to the ordinary legislative procedure. As seen in Chapters Two and Three, in such a procedure, the Commission had exclusive rights to propose legislation, but its proposals needed to be adopted by both the European Parliament and the Council.²⁸⁸ For this reason, this thesis considers that the shadow of hierarchy, which the Commission could cast on parties to induce cooperation, was weaker.

One cannot argue that even if the Commission's ability to threaten adverse legislation was weaker, it still engaged in experimentalist policymaking because the parties were not conflicting. This is because, in fact, the parties had conflicting preferences. In the power domain, suggests Professor Ortigosa, co-founder and Vice President of the CEER and President of the Ital-

²⁸⁸ See for example <http://ec.europa.eu/citizens-initiative/public/competences/faq#q6>. Accessed on 21 March 2016.

ian regulatory authority, the Commission wanted to maximise the circulation of energy; national governments apparently favoured the interests of their transmission system operators but also those of their main generators and suppliers. These companies sometimes favoured liberalisation depending upon the market power they could exercise in an only partially integrated European market and large consumers had precisely opposite interests.²⁸⁹ By taking into account views expressed by network users (Eurelectric), traders (EFET), large industrial consumers (International Federation of Industrial Energy Consumers, IFIEC and European Chemical Industry Council, CEFIC) and power exchanges (EuroPEX), the Commission, regulators and Member States raised issues and requested amendments to the overall level of compensation for cross-border flow as well as to the collection mechanism initially proposed by the ETSO.²⁹⁰ In addition, two distinct categories of Member States existed: those that intended to charge exporters with costs and those that favoured a system of repartition of costs and revenues for all users of the network. As clarified by Fernando Lasheras Garcia, there was tension between transit countries interested in maximising payments and external countries interested in minimising such payments.²⁹¹ Indeed the Commission, large industrial consumers, traders, local distributors and a number of Member States and national regulators favoured the elimination of export charges.²⁹² In contrast, transit countries in particular wished to maintain such export charges, with Germany being the last one to remove them.²⁹³

Similarly, the gas domain parties also had conflicting preferences. Right after the establishment of GTE, the Commission, CEER and Member States requested that Eurogas (the association representing the European gas industry) and GTE re-examine the division of capabilities and independence between the new body's constituent parts, to ensure that GTE was fully capable of taking into account the interests of all network users without discriminating between new entrants and vertically integrated incumbents.²⁹⁴ In addition, while the Commission, CEER,

²⁸⁹ Interview with Professor Pippo Ranci Ortigosa, co-founder and Vice-President of CEER and President of the Italian regulatory authority. Email, 26 May 2016.

²⁹⁰ Conclusions Fifth Meeting of the European Electricity Regulation Forum. Florence, 30-31 March 2000, pp.2-3.

²⁹¹ Interview with Fernando Lasheras Garcia, Director of Iberdrola's representative office in Brussels. London, 23 June 2016.

²⁹² Conclusions Sixth meeting of the European Electricity Regulatory Forum. Florence, 9-10 November 2000, pp. 2-3.

²⁹³ Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

²⁹⁴ Conclusions of the 3rd meeting of the European Gas Regulatory Forum. Madrid, 26-27 October 2000, p.1.

consumer organisations, traders (EFET) and local distributors (the Voice of Local Energy Distributors across Europe, GEODE) considered that an entry-exit system would best meet the principle of cost-reflectivity and facilitate the development of competition, GTE suggested that an appropriate balance between distinct objectives (e.g., cost-reflectivity and simplicity) needed to be established, and that each system had comparative advantages and disadvantages; hence, there should be no bias against entry-exit or point-to-point systems.²⁹⁵ Thus, while the CEER, the Commission, Member States, representatives of consumers and traders considered that tariffication systems needed to move closer together and particularly favoured entry-exit systems, GTE resisted such harmonisation, arguing instead that considerable differences existed across domestic markets and that accordingly tariffication systems should be chosen on a case-by-case basis at the national level.²⁹⁶

In contrast to the shadow of hierarchy perspective, the polyarchy viewpoint provides a useful explanation of why the Commission engaged in experimentalist policymaking in both domains. From this outlook, the Commission's engagement in experimentalist policymaking can be accounted for precisely in light of its modest formal rulemaking powers. Since delegation of rulemaking powers from Member States to the supranational level was traditionally very limited,²⁹⁷ the Commission could initially only count on the ordinary legislative procedure. For this reason, the distribution of powers was more polyarchic. The Commission, therefore, could not impose rules hierarchically, but rather, had to cooperate with parties to develop them through experimentalist policymaking.

However, the polyarchy perspective does not explain why, in both the power and gas domains, the Commission initially engaged in experimentalist policymaking but then shifted to hierarchical policymaking, even if its formal rulemaking powers had not changed, and thus, the distribution of powers had not become less polyarchic.

²⁹⁵ Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7–8 February 2002, p.3.

²⁹⁶ See 'Comments on CEER Position Paper: Guidelines for tariff structure pertaining to intrastate and cross border transport and transit'. Bernard Brelle, GTE, European Gas Regulatory Forum, Madrid, 7–8 February 2002; Conclusions of the 6th meeting of the European Gas Regulatory Forum. Madrid, 30–31 October 2002, p.2; 'Establishing the preferred tariff methodology for intrastate, cross-border and transit flows in European gas markets'. CEER Paper to the Madrid Forum, 30/31 October 2002.

²⁹⁷ Matlary, J. H. (1997) *Energy Policy in the European Union*. New York: St Martin's Press; Padgett, S. (1992) 'The Single European Energy Market: The Politics of Realization'. *Journal of Commons Market Studies*, 30, 1, 53–75.

Supporting the argument emphasising uncertainty

The identified patterns of policymaking are consistent with the argument about uncertainty developed in Chapter Three. As mentioned in Chapters Two and Three, the integration of national electricity systems into a common market was entirely virgin territory, which raised a host of poorly understood technical issues.²⁹⁸ One such novel issue was how to facilitate trade, and at the same time, how to compensate transit countries for the extra costs they incurred due to the external cross-border transactions they had to host. As suggested by Peter Styles, previously no common system for cross-border tariffication was in place. Instead, tariffs were negotiated among neighbouring, vertically integrated companies, which were at the same time both generators and transmission system operators.²⁹⁹ Furthermore, countries charged transit fees or export charges to compensate for the extra costs of hosting cross-border flow. In 1998, Florence Forum participants agreed that, “the main issue is the need for the rapid development of mechanisms and tariffication systems that will enable the single market to become a reality”. They recognised, however, that “at present, such mechanisms and systems do not exist. As a matter of fact, up to now, cross-border transactions were limited to technical exchanges (stand-by and emergency exchanges over short distance) among the owners of the high-voltage grid. [...] The old rules [...] do not cover commercial electricity exchanges through liberalized markets”.³⁰⁰ In the words of the Commission, “for most eligible customers it is in fact organisationally and economically difficult to choose a supplier situation in another Member State, in particular if a third or fourth Member State has to be transited. The reason for this is simple: there is no tariff framework for cross-border transactions. Each transaction has to be negotiated, and each concerned transmission system operator will require a transmission fee, which is not necessarily coordinated with the transmission fees already payable to other transmission system operators. Thus, the sum of all required transmission fees will in most cases add up to a prohibitive amount, making it cheaper for the customer to stick to the local supplier”.³⁰¹

²⁹⁸Eberlein, B. (2008) The Making of the European Energy Market: The Interplay of Governance and Government. *Journal of Public Policy*, 28: 77; Eberlein, B. (2010) ‘Experimentalist Governance in the European Energy Sector’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist governance in the European Union: towards a new architecture*. Oxford: OUP, p. 65; see also Eberlein, B. (2003) ‘Regulating cross-border trade by soft law? The Florence Process in the supranational governance of electricity markets’. *Journal of Network Industries*, 4(2): 137–55.

²⁹⁹Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

³⁰⁰2nd Forum of European Electricity Regulation. Florence, October 8th and 9th, 1998, p.3.

³⁰¹Commission of the European Communities Second report to the Council and the European Parliament on harmonization requirements: Directive 96/92/EC concerning common rules for the internal market in electricity. Brussels, 16 April 1999, COM(1999) 164 final, pp.14–15.

While the lack of experience about cross-border tariffication does not necessarily imply that the Commission only had general policy preferences on how to regulate this issue area, the lack of reference to specific policy preferences in the available primary sources does. No reference to non-transaction-based tariffs or inter-transmission system operator compensation mechanisms were found in any of the main regulatory policy documents at the beginning of liberalisation and re-regulation of European power markets. These documents include the 1992 Commission's proposal for the first Electricity Directive, the Directive as adopted in 1996 by the European Parliament and Council, a Commission's report on the state of liberalisation of the energy markets adopted in April 1998, the Commission's first report on harmonisation requirements with regard to the Directive published in March 1998, and the minutes from the first Florence Forum meetings held in 1998.³⁰² At that time, the broad goal of non-discriminatory tariffication was known, but the detailed methods to achieve such a framework goal were unknown, which was confirmed by Fernando Lasheras Garcia.³⁰³

Similarly, the Commission did not have specific policy preferences on how to regulate tariffication in the gas domain. This claim is supported by the lack of reference by the Commission, in the main regulatory policy documents of that period, on specific tariffication methods, and in particular, on the principle of cost-reflectivity or entry-exit systems. No reference was found on such principle or systems in the 1992 Commission's proposal for a first Gas Directive, the 1998 Directive as adopted by the European Parliament and Council, a Commission's report on the state of liberalisation of the energy markets adopted in April 1998, the first overview report on the Directive's implementation adopted by the Commission in 2000, or the minutes of the

³⁰² Commission Proposal for a Council Directive concerning common rules for the internal market in electricity. (92/C 65/04), COM(91) 548 final – SYN 384, Submitted by the Commission on 24 February 1992; Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity; Commission report on the state of liberalization of the energy markets. COM (1998) 212, Bull. 4-1998, point 1.2.82; Commission first report on harmonization requirements with regard to Directive 96/92/EC. COM(1998) 167, Bull. 3-1998, point 1.2.107; The European Electricity Regulation Forum. Florence, February 5th and 6th, 1998, Minutes; 2nd Forum of European Electricity Regulation. Florence, October 8th and 9th, 1998, Minutes.

³⁰³ Interview with Fernando Lasheras Garcia, Director of Iberdrola's representative office in Brussels. London, 23 June 2016.

first Madrid Forum meetings held during 1999 and 2000.³⁰⁴

Based on the lack of specific policy preferences on how to regulate tariffication in the power and gas domains, this chapter considers that, at the very beginning of the liberalisation and re-regulation of European energy markets, the Commission faced higher uncertainty in both domains. As previously seen in this chapter, under these conditions of higher uncertainty, the Commission engaged in experimentalist policymaking by employing the experimentalist architectures of the Florence and Madrid Fora to compare different approaches pursued by Member States and regulated companies, and to develop agreements on reforms on this basis with high stakeholder participation.

However, in both domains, the Commission shifted to hierarchical policymaking by using the hierarchical architecture of the ordinary legislative procedure to codify reforms with low stakeholder participation without comparing different approaches, but rather, by monitoring compliance with uniform policy solutions to make them binding for all Member States and regulated companies. This chapter argues that the Commission shifted to hierarchical policymaking when it found itself in conditions of lower uncertainty in both domains.

In the power domain, the Commission shifted to hierarchical policymaking by tabling a legislative proposal in March 2001.³⁰⁵ By then, uncertainty had become lower because the Commission had developed more specific policy preferences. This is evidenced by regulatory policy documents, such as Commission reports and minutes of the Florence Forum. In the second report on harmonisation requirements with regard to the Directive published in April 1999, the Commission considered that a non-transaction-based tariffication system, which relied on inter-transmission system operator compensation in order to facilitate trade, would have had several advantages: it recognised the customers' need for simple and non-transaction-based tariffs, and

³⁰⁴ 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; Commission Proposal for a Council Directive concerning common rules for the internal market in natural gas. (92/C 65/05), COM (91) 548 final – SYN 385, Submitted by the Commission on 24 February 1992; Commission report on the state of liberalization of the energy markets. COM (1998) 212, Bull. 4-1998, point 1.2.82; State of implementation of the EU Gas Directive (98/30/EC) by Member States: an Overview. State of Play by the end of May 2000, Prepared by Directorate General for Energy and Transport, European Commission; 1st European Gas Regulatory Forum. Madrid, September 30th and October 1st, 1999, Minutes; Conclusions of the Second meeting of the European Gas Regulatory Forum. Madrid, 11 and 12 May 2000, Minutes.

³⁰⁵ Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the network for cross-border exchanges in electricity. 2001/C 240 E/12, COM(2001) 125 final, 2001/0078(COD), Submitted by the Commission on 13 March 2001.

at the same time, allowed transmission system operators to be remunerated for the costs incurred.³⁰⁶ As seen in this chapter, at the 4th Florence Forum meeting in November 1999, participants including the Commission voluntarily agreed that “the network charges will be independent of the commercial transactions that the network users may engage in”, and at the same time, that “transmission system operators that suffer the extra costs of losses and congestions caused by cross-border transactions should receive payment from other transmission system operators”.³⁰⁷ These documents show that, by the end of 1999, the Commission had developed specific policy preferences on how to regulate tariffication in the power domain, namely, on the basis of non-transaction-based tariffs and an inter-transmission system operator compensation mechanism. Thus, when in March 2001 the Commission used the ordinary legislative procedure to engage in hierarchical policymaking, it faced lower uncertainty.

Similarly, the Commission engaged in hierarchical policymaking in the gas domain by tabling a legislative proposal via the ordinary legislative procedure only after it had developed specific policy preferences on how to regulate tariffication. The Commission tabled a legislative proposal in December 2003,³⁰⁸ but by that time, had already developed specific policy preferences. This is demonstrated in the minutes of the Florence Forum, which show that in February 2002, the Commission together with other Forum participants, voluntarily adopted the principle of cost-reflectivity, and that in October of the same year, the Commission also expressed its specific preference for a precise tariffication system, namely, entry-exit.³⁰⁹

Conclusions

This chapter examined the argument that the Commission engages in experimentalist policymaking under conditions of higher uncertainty, as outlined in Chapter Three. It continued to compare the Commission’s regulatory policymaking across power and gas domains from the late 1990s to the early 2000s, but shifted attention from the issue area of congestion management to that of tariffication regulation. Its central findings were strikingly similar to those of

³⁰⁶Commission of the European Communities Second report to the Council and the European Parliament on harmonization requirements: Directive 96/92/EC concerning common rules for the internal market in electricity. Brussels, 16 April 1999, COM(1999) 164 final, pp.20–21.

³⁰⁷Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999). P.2.

³⁰⁸Proposal for a Regulation of the European Parliament and of the Council on conditions for access to the gas transmission networks. Brussels, 10.12.2003, COM(2003) 741 final 2003/0302 (COD).

³⁰⁹Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7-8 February 2002, p.2; Conclusions of the 6th meeting of the European Gas Regulatory Forum. Madrid, 30-31 October 2002, pp.2–3.

Chapter Three. In both the power and gas domains, at the very beginning of the market liberalisation and integration processes, the Commission used the experimentalist architectures of the Florence and Madrid Fora to stimulate the comparison of different approaches pursued by Member States and regulated companies and the development of agreements on reforms on this basis with high stakeholder participation. Thereafter, it shifted to hierarchical policymaking. It monitored compliance with uniform policy solutions and by using the hierarchical architecture of the ordinary legislative procedure. In addition, without comparing different approaches and with low stakeholder participation, it codified reforms that were previously agreed upon through experimentalist processes, making uniform solutions binding for all Member States and regulated companies.

These findings confirmed the limitations of the shadow of hierarchy and polyarchy explanations. The former does not explain well the Commission's engagement in experimentalist policymaking, given that the shadow of hierarchy the Commission could cast on conflicting parties to induce them to cooperate was weaker. The latter explains it in the light of the more polyarchic distribution of power, which meant that the Commission could not impose rules hierarchically, but rather, had to cooperate with others to develop them through experimentalist policymaking. However, this viewpoint does not explain why, in both the power and gas domains, the Commission switched to hierarchical policymaking, even if the distribution of power had not changed. In contrast, this chapter's findings support the argument about uncertainty developed in Chapter Three. In addition, in the issue area of tariffication regulation, in both the power and gas domains, at the very beginning of the liberalisation and integration processes, the Commission only had general policy preferences. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking, but due to the emergence of agreements on reforms, the Commission developed more specific policy preferences. Under these conditions of lower uncertainty, it shifted to hierarchical policymaking.

Even though the findings from the late 1990s to the early 2000s are very similar across the distinct issue areas of congestion management (Chapter Three) and tariffication (Chapter Four), this could have been due to factors common to both issue areas and other than uncertainty, such as time. Specifically, the type of policymaking that the Commission engages in could be a function of time, with policymaking generally beginning with experimentalist processes and then becoming formalised through hierarchical processes. For this reason, Chapter Five brings the empirical analysis of policymaking to the period from the mid-2000s to the present day

(Phase Two), when uncertainty differed across issue areas and domains during the same time period.

Phase Two: Different Uncertainty and Policymaking –Mid-2000s to the Present Day

Chapter Five: Engaging in Different Policymaking across the Power and Gas Domains to Regulate Congestion Management

Introduction

This chapter further examines the argument that the Commission engages in experimentalist policymaking under conditions of higher uncertainty, which was developed in Chapter Three and supported in Chapter Four. It begins Phase Two of the empirical analysis of policymaking, which encompasses the period from the mid-2000s to the present day, during which time differences in uncertainty emerged across issue areas and domains. In particular, this chapter compares the regulation of congestion management across the power and gas domains during this time period. As seen in Chapter Three, in the early 2000s, an initial set of common rules mandating that scarce interconnection capacity be managed through market-based approaches had been adopted, marking a clear turning point from previous arrangements that limited competition and favoured incumbents. Still, energy did not always flow efficiently across Europe and incumbents remained largely able to foreclose markets. The current situation is dramatically different as Commission regulations and decisions containing legally binding rules have been adopted, which govern all cross-border electricity and gas market transactions with the goal of reducing congestion and efficiently allocating cross-border transport capacity.³¹⁰

In both domains, the Commission could engage in experimentalist and hierarchical policymaking, due to the presence of both experimentalist and hierarchical architectures. In addition to the ordinary legislative procedure, the Commission could also use the hierarchical architecture represented by the comitology procedure, thanks to the power it became equipped with almost

³¹⁰<https://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes>;
<https://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-network-codes>. Accessed on 30 September 2016.

identically in the power and gas domains in 2003 and 2005, respectively.³¹¹ At the same time, the Commission could also resort to experimentalist architectures, which developed in parallel to hierarchical architectures analogously across the gas and power domains. In addition to the Florence and Madrid Fora, since 2009, in both the power and gas domains, the Commission has been able to co-develop rules with the ACER, ENTSO-E, ENTSO-G and other stakeholders, based on the network codes procedure.³¹²

This chapter's central findings are that the Commission engaged in different types of policymaking across the two domains. In the power domain, the Commission employed experimentalist architectures, such as the Florence Forum and the network codes procedure, to stimulate the comparison of different approaches being pursued by Member States and regulated companies and to facilitate the development of agreements on reforms on this basis with high stakeholder participation. Alternatively, in the gas domain, the Commission engaged in hierarchical policymaking. By using the hierarchical architecture of the comitology procedure, it developed reforms without comparing different approaches and with low stakeholder participation, to impose uniform policy solutions on all Member States and regulated companies and to monitor their compliance with them.

From the polyarchy perspective, it is surprising that in the power domain, the Commission engaged in experimentalist policymaking, even if the distribution of powers had become less polyarchic because of the stronger Commission's formal rulemaking powers. In contrast, this finding is consistent with the shadow of hierarchy viewpoint, according to which the Commission's engagement in experimentalist policymaking can be accurately explained because it could cast a stronger shadow of hierarchy thanks to its strengthened formal rulemaking powers. However, this viewpoint does not explain why the Commission did not also engage in experimentalist policymaking in the gas domain, even though the shadow of hierarchy that loomed

³¹¹Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Recital (8), Art. 13; Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003. Art. 23; Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art.9(1) (a) and (b), Art. 14; 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. Art.28.

³¹²Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003. Art.8(6); 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. Art.8(6).

was equivalent across the two domains. Instead, the perspective emphasising uncertainty can account for the patterns of policymaking found. In the power domain, the Commission was confronted with new policy questions for which it did not have straightforward policy preferences. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking. On the other hand, in the gas domain, the Commission continued to hold previously established preferences for specific policies. Under these conditions of lower uncertainty, it favoured hierarchical policymaking.

This chapter first identifies the types of policymaking the Commission engaged in, to contrast the use of experimentalist policymaking in the power domain with the use of hierarchical policymaking in the gas domain. Then it shows how the polyarchy and shadow of hierarchy viewpoints are only partially consistent with the identified patterns of policymaking, hence further confirming their limitations. Together, these findings provide further support for the uncertainty perspective, which is able to explain the identified patterns of policymaking.

Engaging in different types of policymaking in the two domains

Finding experimentalist policymaking in power

In the power domain, to regulate congestion management from the mid-2000s to the present day, the Commission engaged in experimentalist policymaking, as supported by the indicators and evidence shown in Table 14. Member States and regulated companies were granted the discretion to pursue different approaches to regulate congestion management, namely, different types and subtypes of market-based auctions. Through experimentalist architectures, such as the Florence Forum and the network codes procedure, a “target model” was developed on the basis of comparisons of different approaches pursued by Member States and regulated companies with high stakeholder participation. It was then formalised through a Regulation, which established a binding guideline on capacity allocation and congestion management governing cross-border EU electricity markets. This Regulation is important because it promotes the efficient allocation of transport capacity, by providing that transport and commodity rights are implicitly traded through single rather separate auctions and that a single matching algorithm establishes both prices and volumes across all borders.³¹³

³¹³ <https://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes>; http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/CACM/Pages/default.aspx. Accessed on 4 October 2016.

Table 14. Experimentalist policymaking to regulate congestion management in the power domain from the mid-2000s to the present day

Indicator	Evidence
Member States and/or regulated companies are granted discretion to adopt different approaches	Regulation (EC) No. 1228/2003 allows Member States and regulated companies to pursue different approaches to regulate congestion management, namely, different types (i.e., explicit, implicit) and subtypes of auctions (i.e., implicit auctions though volume coupling and price coupling)
Different approaches are compared	Comparisons of different types of auctions (e.g., explicit auctions) in Italy-Slovenia (September 2007) and Italy-Switzerland (January 2008) and implicit auctions in the “Trilateral Market Coupling” involving France, Belgium and the Netherlands (November 2006), the Iberian electricity market project integrating Spain and Portugal (July 2007) and a project interconnecting Continental Europe and Nordic countries through Germany and Denmark (at that time expected by June 2008); comparisons of different subtypes of implicit auctions, namely, volume coupling, especially at the Danish-German border, and price coupling, notably, the Trilateral Market Coupling project connecting France, Belgium and the Netherlands
Agreements on reforms are developed based on comparisons	Agreements in 2009 on a target model for congestion management based on implicit auctions through price coupling, then formalised through Commission Regulation (EU) 2015/1222
Agreement on reforms is developed with high stakeholder participation	Agreements are developed within the Florence Forum and then formalised through the network codes procedure, which both feature high stakeholder participation

Member States and regulated companies were granted the discretion to pursue different approaches to regulate congestion management. As seen in Chapter Three, Regulation (EC) No. 1228/2003 established the first common rules on cross-border trade. It mandated that network congestion problems be addressed through auctions, considered non-discriminatory market-based approaches, rather than previously used long-term contracts and administered methods (e.g., pro-rata, first-come, first-served) that favoured incumbents by foreclosing the market. However, Regulation (EC) No. 1228/2003 did not specify what type of auction should be used, let alone through which specific arrangement. In particular, it left open the choice between “explicit auctions”, where commodity and transport rights are explicitly traded through separate auctions, and “implicit auctions”, where transport rights are traded implicitly while trading commodity, through a single auction.³¹⁴

The Commission favoured high stakeholder participation by employing the Florence Forum, which as seen in Chapters Two, Three and Four is an experimentalist architecture characterised by high stakeholder participation. Immediately after the adoption of Regulation (EC) No. 1228/2003, in the context of the Florence Forum, the Commission asked two consulting groups, Frontier Economics and Consentec, to jointly analyse cross-border congestion management approaches.³¹⁵ ETSO and EuroPEX, which had published separate position papers, were then invited to elaborate upon a joint proposal on cross-border congestion management.³¹⁶ Thereafter, the debate was broadened to include additional actors, notably generators and suppliers represented by Eurelectric.³¹⁷ At the 11th Florence Forum meeting in September 2004, participants decided to set up a number of “Mini-Fora”. They had a similar composition to the Florence Forum, as they brought together the Commission, national regulatory authorities, Member

³¹⁴ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity.

³¹⁵ Frontier Economics and Consentec “Analysis of Cross-Border Congestion Management Methods for the EU Internal Electricity Market”. Study commissioned by the European Commission Directorate-General Energy and Transport, Final Report, June 2004.

³¹⁶ For previous separate position papers, see ETSO “Co-ordinated use of Power Exchanges for Congestion Management”. Final Report, April 2001; ETSO “Co-ordinated use of Power Exchanges for Congestion Management in Continental Europe: Market Design and Role of Power Exchanges”. Open Discussion Paper. Draft, February 2002; EuroPEX ‘Congestion Management. Presented at the Eighth Meeting of the European Electricity Regulatory Forum. Florence 21–22 February 2002; Co-ordinated congestion management: an ETSO vision, ETSO, April 2002; Outline proposals for a co-ordinated congestion management scheme based on the ETSO vision, ETSO, September 2002; Using implicit auctions to manage cross-border congestion: “Decentralised Market Coupling”, EuroPEX, July 2003.

For the joint proposal, see ETSO and EuroPEX “Flow-based market coupling”. A joint ETSO-EuroPEX Proposal on Cross-Border Congestion Management and Integration of Electricity Markets in Europe. Interim Report, September 2004.

³¹⁷ Eurelectric “Contribution to the 11 Electricity Regulatory Forum”. April 2004.

State governments, transmission system operators and power exchanges. However, they had a macro-regional rather than pan-European dimension, and an exclusive focus on the issue area of congestion management. The aim of the Mini-Fora was to provide a plan and a detailed timetable for the introduction of market-based auctions.³¹⁸ Mini-Fora meetings took place for more than one year.³¹⁹ In the spring of 2006, with the support of the Commission, the ERGEG, which had been created in 2003 by the Commission as its formal advisory group,³²⁰ launched the “Regional Initiatives”, which had similar compositions and tasks as the Mini-Fora. They aimed to bring together the Commission, national regulatory authorities, transmission system operators and other stakeholders in a voluntary process to advance integration at the regional level as a step towards the creation of an internal market. According to the ACER, the Regional Initiatives “represent a bottom-up approach to completion of the internal energy market, in the sense that they bring all market participants together to test solutions for cross-border issues, carry out early implementation of the EU *acquis* and come up with pilot projects that can be exported from one region to others”.³²¹

The distinct types of auctions adopted by the Regional Initiatives were compared through ERGEG monitoring reports, which were regularly discussed at the Florence Forum.³²² As anticipated, Regulation (EC) No. 1228/2003 mandated the transition from administered methods to market-based auctions, but left the discretion to Member States and regulated companies with regard to the type of auctions. Through comparisons, Forum participants noted that some regions had preferred to move from the previously dominant administered methods (e.g., pro-rata; first-come, first-served) to explicit auctions (e.g., Italy-Slovenia, September 2007; Italy-Switzerland, January 2008), where the rights to buy or sell power in a neighbouring market and the transport rights to import or export power are traded through two distinct auctions. Other regions favoured the transition to implicit auctions, in which the right of buying or selling

³¹⁸Conclusions 11th Florence Electricity Regulatory Forum. September 2004.

³¹⁹See, for example,

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/Congestion%20Management%20Guidelines/CD/E05-PC-03-01_Public%20consultation%20paper%20on%20draft%20guidelin.pdf. Accessed on 4 October 2016.

³²⁰2003/796/EC: Commission Decision of 11 November 2003 on establishing the European Regulators Group for Electricity and Gas.

³²¹http://www.acer.europa.eu/en/electricity/regional_initiatives/Pages/default.aspx; see also

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES/ERI. Accessed on 20th April 2015.

³²²http://www.ceer.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES and http://www.ceer.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES/ERI. Accessed on 15th April 2015.

power across borders also implies the right to transport it. The latter most notably included the “Trilateral Market Coupling”, a pioneering project that has connected France, Belgium and the Netherlands since November 2006. Regions that favoured a transition towards implicit auctions also included the Iberian electricity market project, integrating Spain and Portugal (July 2007), and a project interconnecting Continental Europe and Nordic countries through Germany and Denmark (at that time scheduled for June 2008).³²³

On the basis of these comparisons, agreements on reforms were developed. By 2007, key actors had explicitly expressed their preference for implicit rather than explicit auctions, as shown by the following references. The Commission declared that, “although explicit auctioning is theoretically and with perfect foresight an efficient mechanism and it is in practice compatible with Regulation 1228/2003, it has efficiency deficits compared to implicit auctioning”.³²⁴ It also stated that, “in the future, more capacity will be allocated through implicit auctions. The so-called market coupling method, developed by ETSO and EuroPEX, has the highest potential of truly integrating the European electricity market through implicit auctions. [...On the contrary,] explicit auctions as currently practiced often lead to inefficient use of interconnection capacity and prevent market integration”.³²⁵ The ERGEG claimed that, “it is now widely recognized that [...] implicit allocation methods are more efficient than explicit auctions and should be the target mechanism for all regions”.³²⁶ Eurelectric explained that “it is now appropriate to restate our position as regards the preferred solution and the way forward”, also supporting implicit rather than explicit auctions.³²⁷ As suggested by Peter Styles, this was far from evident because until 2006, implicit auctions had not been implemented in Europe except in the Nordic market.³²⁸

After an agreement in favour of implicit auctions was reached among most actors, however, a new issue emerged regarding what specific arrangements should be adopted to ensure coherence and convergence across European regions, since Member States and regulated companies

³²³ See for example ERGEG Regional Initiatives Annual Report. Progress and Prospects – March 2007; The Regional Initiatives – Europe’s key to energy market integration. ERGEG Regional Initiatives Annual Report - February 2008.

³²⁴ European Commission, DG for Competition, Energy Sector Inquiry, January 2007.

³²⁵ European Commission, DG Energy and Transport, Report on Regulation 1228/2003 on cross-border trade in electricity, May 2007, p.5.

³²⁶ ERGEG, Coherence and Convergence Report, July 2007.

³²⁷ Union of the Electricity Industry – EURELECTRIC Position Paper Improving Interconnection Capacity Allocation. August 2005, p. 7.

³²⁸ Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

had been granted the discretion to pursue implicit auctions through different approaches, that is, through different subtypes of implicit auctions. France, for example, was involved in four parallel projects at the same time: the first with Germany, Belgium, Luxembourg and the Netherlands; the second with Germany, Austria, Greece, Italy and Slovenia; the third with Spain and Portugal; and the fourth with the UK and Ireland. In 2007, the French regulatory authority expressed concerns about the compatibility of these distinct projects and raised the issue of “interregional coherence”.³²⁹ Similarly, ERGEG published “Coherence and Convergence Reports” which warned that, although most regions had indeed been moving towards implicit auctions, attention was needed to their detailed design and implementation to ensure regions’ compatibility.³³⁰ These concerns were echoed by generators and suppliers. Eurelectric denounced that different paces of market integration across Europe were leading to a “patchwork of different solutions”.³³¹ It claimed that there were too many initiatives, sometimes overlapping, going in different directions or not fully compatible. In order to “start keeping track systematically of which regions are not meeting their targets”, it hence suggested the next step to be the development of “a master plan that includes specific targets for concrete issues”.³³²

The Commission continued to favour high stakeholder participation. Similarly to three years earlier, in the context of the Florence Forum it requested that Consentec Consulting look at what needed to be done within and between regions to move towards a single European electricity market.³³³ Then, ETSO and EuroPEX were asked to write a common discussion paper that addressed challenges highlighted by the consulting study.³³⁴ Thereafter, ERGEG was invited to create an informal Project Coordination Group (PCG) of experts with participants from the Commission, regulators and Member State representatives, transmission system operators,

³²⁹ CRE “Management and use of electric interconnections in 2007”.

³³⁰ ERGEG ERI Coherence and Convergence Report – Conclusions. E08-ERI-12-04, 15 February 2008, p.10.

³³¹ ‘Set up EU-side master plan for market integration, regulators told’. *European Daily Electricity Markets*, Heren Energy, 2 March 2009.

³³² ‘Set up EU-side master plan for market integration, regulators told’. *European Daily Electricity Markets*, Heren Energy, 2 March 2009.

³³³ CONCLUSIONS XIVth European Electricity Regulatory Forum. Florence, 24–25 September 2007, p.4.

³³⁴ CONCLUSIONS XIVth European Electricity Regulatory Forum Florence, 24–25 September 2007, p.4; EuroPEX and ETSO ‘Coordinated Model(s) for Regional and Inter-Regional Congestion Management Methods’. 1 February 2008, p.1. Available at http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora/15th_Florence_Forum. Accessed on 9th December 2015; EuroPEX-ETSO, Interim Report Development and Implementation of a Coordinated Model for Regional and Inter-Regional Congestion Management, April 2008; Available at http://www.europex.org/index/pages/id_page-22/lang-en/. Accessed on 9th December 2015; EuroPEX and ETSO ‘Development and Implementation of a Coordinated Model for Regional and Inter-Regional Congestion Management’. Final Report, January 2009.

power exchanges, generators and suppliers and traders.³³⁵ The PCG was asked to develop a model to harmonise interregional and EU-wide coordinated congestion management, and to proposing a roadmap with concrete measures and a detailed timeframe, taking into account progress achieved by the Regional Initiatives.³³⁶

Through debates in the PCG, its participants compared different approaches. As a result of the joint ETSO-EuroPEX paper, two main alternatives for implementing implicit auctions were identified: a less harmonised “volume coupling”, in which only the flows between markets are determined in the first stage and prices are subsequently calculated by the local power exchanges, and a more harmonised “price coupling”, in which a single pattern matching algorithm established both prices and volumes across all borders.³³⁷

By taking into account the experiences of the Regional Initiatives, PCG participants developed agreements on reforms as well as on metrics for assessing the progress towards them. By their 5th meeting, they considered the volume-coupling arrangements less efficient, because in the Danish-German experience they had delivered economically incoherent results (i.e., energy flowing from higher to lower priced areas) and had created problems of market power by allowing transport capacity to be often booked but unused. Volume coupling was not producing the correct results and was considered unpredictable, explains Peter Styles.³³⁸ This was confirmed by Alberto Pototschnig, Director of the ACER, who suggests that the Danish-German volume-coupling project was a disaster as it failed to launch twice. Until then, many actors believed that those arrangements could have worked.³³⁹ In contrast, by reflecting on the Trilateral Market Coupling project connecting France, Belgium and the Netherlands since 2006, PCG participants concluded that price-coupling arrangements had been proven to efficiently operate.³⁴⁰ A few months afterwards, PCG participants also developed a consensus on the progressive extension throughout Europe of the price-coupling arrangements, rather than tackling

³³⁵ Conclusions XVth European Electricity Regulatory Forum. Florence, 24–25 November 2008, p.2.

³³⁶ http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora/PCG. Accessed on 4 October 2016.

³³⁷ EuroPEX-ETSO, Interim Report Development and Implementation of a Coordinated Model for Regional and Inter-Regional Congestion Management, April 2008; Available at http://www.europex.org/index/pages/id_page-22/lang-en/. Accessed on 9th December 2015; EuroPEX and ETSO ‘Development and Implementation of a Coordinated Model for Regional and Inter-Regional Congestion Management’. Final Report, January 2009.

³³⁸ Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

³³⁹ Interview with Alberto Pototschnig, Director of ACER. Ljubljana, 9 June 2016.

³⁴⁰ Minutes of the 5th PCG Meeting. 8 July 2009 from 11:00 to 16:30 hours, CEER offices, Brussels.

interregional coordination through looser volume-coupling arrangements.³⁴¹ After one year of comparisons and debates within the PCG,³⁴² in December 2009, the Commission, regulators, transmission system operators, power exchanges, generators and suppliers and traders successfully proposed to the Florence Forum a target model for congestion management based on implicit price coupling and a roadmap for its progressive extension from the Trilateral Market Coupling region to neighbouring regions.³⁴³

Thereafter, the Commission continued to engage in experimentalist policymaking by using the experimentalist architecture represented by the network codes procedure, even though it could have used hierarchical architectures, such as the comitology procedure. As seen in Chapter Two, the network codes procedure is an experimentalist architecture, because it reflects its key elements as set by its proponents. In particular, it constitutes a highly inclusive procedure in which rules are drafted by the Commission, the ACER and the ENTSO-E. Furthermore, since both the ACER and ENTSO-E are under strict consulting and transparency obligations, this procedure also closely involves other stakeholders.³⁴⁴

After consulting with the ACER and ENTSO-E, the Commission included congestion management as a priority area in the development of network codes, and asked the ACER to produce framework guidelines that set principles for developing specific network codes.³⁴⁵ On the basis of these framework guidelines, the ENTSO-E also drafted a network code by consulting

³⁴¹ Minutes of the 5th PCG Meeting. 8 July 2009 from 11:00 to 16:30 hours, CEER offices, Brussels; 6th PCG Meeting. 7 October 2009 from 10:30 to 17:00 hours ENTSO-E offices, Brussels; 7th PCG Meeting. 2 November 2009 from 10:30 to 17:00 hours Eurelectric offices, Brussels; 7th PCG Meeting. 2 November 2009 from 10:30 to 17:00 hours Eurelectric offices, Brussels.

³⁴² Available at http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora/PCG. Accessed on 9th December 2015.

³⁴³ PCG Proposal for Target Model and Roadmap for Capacity Allocation and Congestion Management. PCG Report to the XVIIth Florence Forum. 10&11 December 2009, Rome; and PCG Presentation to the Florence Forum on the Target Model. Both available at: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora/PCG. Accessed on 7 October 2016.

³⁴⁴ http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/Pages/default.aspx; http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/Pages/default.aspx. Accessed on 16 September 2016.

³⁴⁵ Framework Guidelines on Capacity Allocation and Congestion Management for Electricity. FG-2011-E-002, 29 July 2011.

stakeholders, as recommended by the ACER.³⁴⁶ Then the Commission proposed the draft network code to the Electricity Cross-Border Committee, made up of specialists from national energy ministries.³⁴⁷ The Committee eventually accepted the draft network code, which was adopted via the comitology procedure with approval of the Council of the EU and the European Parliament. In 2015 it became a legally binding regulation termed Commission Regulation (EU) 2015/1222, which establishes very detailed guidelines on capacity allocation and congestion management that governs all cross-border power networks. At its core, it mandates that congestion management be based on implicit price coupling.³⁴⁸ Thus, it formalises and gives binding power to the reforms that, as just seen, were agreed upon at the Florence Forum through experimentalist policymaking. As confirmed by Alberto Pototschnig, even before the framework guidelines and network code were elaborated upon, there was a target model that had been developed through a “significant informal work”.³⁴⁹ Indeed Mark Copley, Vice Chair of the electricity working group of the ACER and Partner at the British regulatory authority as well as a former employee of ENTSO-E, suggests that the Trilateral Market Coupling project began without the Commission’s initiative, that the policymaking process was largely industry-driven rather than hierarchically imposed by regulatory policymakers, and that the Commission subsequently spread the agreed upon solution to latecomers.³⁵⁰ This reform is very important. On its basis, in a landmark move towards the internal electricity market, in 2014, the markets of an area from the Strait of Gibraltar to the Barents Sea became fully interlinked, covering 17 jurisdictions and approximately 75% of the electricity delivered in the EU. This was quickly followed by expansion to the Iberian market and Italy.³⁵¹ As a result, 19 countries are currently connected representing about 85% of the power consumption in Europe.³⁵²

³⁴⁶http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Recommendations/ACER%20Recommendation%2001-2013.pdf

³⁴⁷<https://ec.europa.eu/energy/en/topics/wholesale-market/electricity-network-codes>. Accessed on 4 October 2016.

³⁴⁸ Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management.

³⁴⁹ Interview with Alberto Pototschnig, Director of ACER. Ljubljana, 9 June 2016.

³⁵⁰ Mark Copley, Vice-Chair Electricity Working Group ACER and Associate Partner Wholesale Markets Ofgem. London, 24 June 2016.

³⁵¹<http://www.acer.europa.eu/Media/News/Pages/ACER-review-of-2014-regional-initiatives-for-energy-market-integration-highlights-coupling-from-the-Strait-of-Gibraltar-to.aspx>. Accessed: 10th April 2015.

³⁵²<http://www.epexspot.com/en/market-coupling>. Accessed on 11 December 2015.

Observing hierarchical policymaking in the gas domain

In contrast to the power domain, the Commission engaged in hierarchical rather than experimentalist policymaking in the gas domain, as shown by the indicators described in Table 15. The Commission monitored the effectiveness of uniform policy solutions, and by employing the hierarchical architecture represented by the comitology procedure, developed reforms without comparing different approaches with low stakeholder participation to make uniform policy solutions binding for all Member States and regulated companies. The resulting Commission Decision is important, as its aim is to reduce congestion in gas pipelines by requiring companies to make use of their reserved capacity or risk losing it, with unused capacity being placed back on the market.³⁵³

Table 15. Hierarchical policymaking to regulate congestion management in the gas domain from the mid-2000s to the present day

Indicator	Evidence
Member States and regulated companies are obligated to adopt uniform solutions	Commission Decision 2012/490/EU mandates the application of firm use-it-or-lose-it provisions as of July 2016 at pipelines that face congestion above certain thresholds
Compliance with uniform solutions is monitored	First Commission's sector inquiry monitors the (in)effectiveness of previous provisions (i.e., interruptible use-it-or-lose-it), after which Commission Decision 2012/490/EU requires the ACER to monitor implementation of the amended provisions (i.e., oversubscription and buy back, firm use-it-or-lose-it)
Reforms are not developed on the basis of comparisons	Commission Decision 2012/490/EU is not based on comparisons

³⁵³ <https://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-network-codes>. Accessed on 5 October 2016.

Agreement on reforms is Commission Decision 2012/490/EU is adopted through the developed with low comitology procedure, in which participation is limited to Member stakeholder participation States and the Commission

As seen in Chapter Three, at the 7th Madrid Forum in September 2003, participants agreed upon a revised version of Guidelines on congestion management.³⁵⁴ These were formalised and given binding power by Regulation (EC) No. 1775/2005, which established the first set of common rules on conditions for accessing gas transmission networks. In addition to entitling network users that wished to resell their contracted but unused capacity to do so on secondary markets, this regulation required transmission system operators to offer unused transport capacity on at least an interruptible basis.³⁵⁵ This paved the way for interruptible use-it-or-lose-it provisions and secondary markets, understood as non-discriminatory market-based approaches, to promote competition by enabling transport capacity rights to be awarded to parties who actually intended to use them. However, at the 7th Madrid Forum in September 2003, at which the revised Guidelines on congestion management were agreed upon, participants already noted that “further developments need to be made on a number of other important issues to create a real competitive gas market, which are not covered in the Guidelines or are covered in insufficient detail, notably [...] use-it-or-lose-it rules. Special attention must be paid not to create disadvantages for newcomers, wholesalers and consumers wishing to change their supplier”.³⁵⁶ Furthermore, at approximately the time that Regulation (EC) No. 1775/2005 was adopted, consumers and new entrants voiced concerns about the development of wholesale markets, limited consumer choice and observed as well as expected increases in gas prices.³⁵⁷

Prompted by these concerns, and distinctive of hierarchical policymaking, the Commission chose to monitor the effectiveness of the uniform policy solutions imposed rather than compare different approaches pursued by Member States and regulated companies in an experimentalist fashion. In June 2005, it launched a sector inquiry,³⁵⁸ which was one of the most thorough

³⁵⁴Conclusions of the 7th meeting of the European Gas Regulatory Forum. Madrid, 24–25 September 2003, Annex 1: The Guidelines for Good TPA Practice – revised version, p.18.

³⁵⁵Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

³⁵⁶Conclusions of the 7th meeting of the European Gas Regulatory Forum. Madrid, 24–25 September 2003, p.2.

³⁵⁷http://europa.eu/rapid/press-release_IP-05-716_en.htm?locale=en. Accessed on 14 January 2016.

³⁵⁸http://europa.eu/rapid/press-release_MEMO-05-203_en.htm?locale=en. Accessed on 14 January 2016.

investigations in the Commission's history. During the course of one and a half years, the Commission sent about 3,000 questionnaires to a variety of regulated companies, and assessed, in all Member States, the extent to which important lines were foreclosed. It also reviewed the state of congestion in about 40 pipelines and important points connected to key routes, and undertook an in-depth analysis of a number of pipelines in which the problem of congestion was particularly acute.³⁵⁹ However, this thorough investigation did not compare different approaches of regulating congestion management pursued by Member States and regulated companies, but rather, assessed the effectiveness of the uniform policy solutions mandated by Regulation (EC) No. 1775/2005, namely, interruptible use-it-or-lose-it provisions and secondary markets. In 2007, the conclusion was made that long-term transport capacity bookings filled up cross-border networks, leaving market players, who did not have such legacy contracts, without access to transport capacity. As such, new entrants were unable to secure transport capacity on key routes due to the predominance of long-term contracts signed between incumbent network operators, and typically, their supply affiliates. The situation was expected to persist for the term of the pre-liberalization legacy contracts (typically 15–20 years duration) but also potentially longer, due to the existence of provisions allowing these contracts to be extended. Furthermore, companies using gas transmission pipelines to transport their gas across countries often used less transport capacity than they had reserved, precluding new market players from accessing transport capacity and consequently entering the markets.³⁶⁰ As a consequence, the problem emerging from the sector enquiry was that, although there was enough physical infrastructure capacity, the existing congestion management rules were not effective in promoting efficient use of the capacity. Instead, they still allowed incumbents to hoard the scarce transport capacity without actually using it, hence hindering entry and competition. Thus, the sector inquiry concluded that the congestion management mechanisms introduced by Regulation (EC) No. 1775/2005 were functioning poorly.³⁶¹ As explained by Stephen Rose, Chairman of Eurelectric working group Gas to Power and Head of Gas Market Design at RWE, the sector inquiry was the driving force behind the reform of the existing congestion management rules. Its main finding was that a lack of sufficient physical capacity

³⁵⁹ DG Competition Report on Energy Sector Inquiry. Brussels, 10 January 2007, SEC(2006) 1724, pp.70-89; see also http://europa.eu/rapid/press-release_MEMO-05-203_en.htm?locale=en. Accessed on 14 January 2016.

³⁶⁰ COMMUNICATION FROM THE COMMISSION Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report); DG COMPETITION REPORT ON ENERGY SECTOR INQUIRY. Brussels, 10 January 2007, SEC(2006) 1724, p.89.

³⁶¹ DG COMPETITION REPORT ON ENERGY SECTOR INQUIRY. Brussels, 10 January 2007, SEC(2006) 1724, p.217.

was not the reason the European gas market was not developing as desired; rather, the underlying cause was due to contractual congestion.³⁶²

After the Commission concluded that the existing congestion management rules had to be amended, it developed reforms without conducting comparisons of different approaches and with low stakeholder participation. It did not employ experimentalist architectures, despite the fact that the Madrid Forum was available in gas just as the Florence Forum was in power. Nor did it follow the envisaged rulemaking procedure for developing network codes, which as seen in Chapter Two and in the previous section of this chapter, is an experimentalist architecture that features lengthy involvement of the ACER, the ENTSO-G and several rounds of consultations with other stakeholders.³⁶³

In contrast, the Commission employed the comitology procedure, which as seen in Chapter Two, is a hierarchical architecture characterised by low stakeholder involvement, given that participation is limited to the Commission and Member States representatives. According to the Commission, “this power may be called for when the full process to develop EU-wide binding codes is likely to take longer or where the ENTSO-G might be ill-suited to be entrusted with drafting, for example because of potential conflicts of interest”.³⁶⁴ On these grounds, the Commission considered that it was “better placed to come up more rapidly with a more neutral proposal, taking the diverging views of the different Member States and different stakeholders into account”.³⁶⁵ It asked the formal advisory group it had created in 2003 to provide it with input for revising the existing rules.³⁶⁶ According to the ERGEG, the objective was to “rapidly

³⁶²Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016.

³⁶³Regulation (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. Art.8; see also COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...](2012) XXX draft, p.7.

³⁶⁴COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...](2012) XXX draft, p.6.

³⁶⁵COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...](2012) XXX draft, p.7.

³⁶⁶http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/E09-PC-36/BG. Accessed on 9 August 2016.

adopt new provisions allowing to reduce congestion”.³⁶⁷ In its revised principles, ERGEG began by noting that Regulation (EC) No. 1775/2005 had introduced use-it-or-lose-it mechanisms “at least on an interruptible basis” as a means to manage congestion and to avoid possible capacity hoarding.³⁶⁸ It concluded, however, that the situation across Europe demanded congestion management measures to be more effectively implemented.³⁶⁹ Without comparing different approaches, it suggested that firm use-it-or-lose-it provisions would have significantly enhanced the existing interruptible provisions, as unused capacity would have been brought back to the market on a firm rather than interruptible basis.³⁷⁰ Therefore, it recommended that interruptible provisions be replaced with firm use-it-or-lose-it provisions.³⁷¹ Similarly, in its impact assessment, the Commission argued that the existing regime at that time, in which new entrants could only get interruptible capacity while established players had long-term firm capacity reservations, provided a very asymmetrical risk profile among competitors, to the detriment of new entrants.³⁷² The Commission reasoned that this made it very difficult for new entrants to enter the gas market on equal terms with incumbent players, because the use of interruptible capacity was subject to the possibility that the original capacity holder would change its mind and claim back that capacity. Given that interruptible capacity was only a “second class” right, it made it very difficult to compete with holders of “first class” rights.³⁷³ In contrast, the Commission believed firm use-it-or-lose-it provision, which basically restricts the possibility for original capacity holders to change their minds, to be a very effective tool,

³⁶⁷ ERGEG revised principles on gas CAM and CMP. 10 December 2009, E09-GNM-10-03, p.2.

³⁶⁸ ERGEG revised principles on gas CAM and CMP. 10 December 2009, E09-GNM-10-03, p.7.

³⁶⁹ ERGEG revised principles on gas CAM and CMP. 10 December 2009, E09-GNM-10-03, p.6.

³⁷⁰ ERGEG revised principles on gas CAM and CMP. 10 December 2009, E09-GNM-10-03, p.20.

³⁷¹ ERGEG Congestion management on European Gas Transmission Networks: Recommendations for Guidelines Adopted via a Comitology Procedure. E09-GNM-10-07, 10 December 2009; ERGEG Congestion management procedures: Recommendations for guidelines to be adopted via a comitology procedure. E10-GWG-67-04, 8 September 2010; see also http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/GAS/E09-PC-36/CD. Accessed on 22nd January 2016; ERGEG Principles: Capacity Allocation Mechanisms and Congestion Management Procedures - An ERGEG Public Consultation Document. 26 January 2009, E08-GFG-41-09; and ERGEG revised principles on gas CAM and CMP. 10 December 2009, E09-GNM-10-03.

³⁷² COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...] (2012) XXX draft, pp.24-25.

³⁷³ COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...] (2012) XXX draft, pp.19-20.

as it immediately allows unused capacity to be freed up and remarketed to other network users.³⁷⁴ The Commission concluded that this was the most appropriate solution to effectively combat contractual congestion, namely, to foster the creation of a level playing field between new entrants and incumbents.³⁷⁵ In 2012, the Gas Committee adopted via comitology the Commission's proposal, which led to the Commission Decision 2012/490/EU.³⁷⁶

Rather than granting discretion to Member States and regulated companies to pursue different congestion management approaches, this Decision imposed uniform policy solutions. It explained that “despite the application of certain congestion management principles such as the offering of interruptible capacities as provided for by Regulation (EC) No. 1775/2005 [...], contractual congestion in the Union gas transmission networks remains an obstacle to the development of a well-functioning internal market in gas. Therefore it is necessary to amend the guidelines on the application of congestion management procedures”.³⁷⁷ At its core, the Commission Decision 2012/490/EU mandated the application of firm use-it-or-lose-it provisions as of July 2016 at pipelines facing congestion above certain thresholds, as assessed through specific criteria. Below those thresholds, this provision is not compulsory. Instead, the obligatory, default mechanism is an “oversubscription and buy-back” scheme, in which transmission system operators oversell firm capacity, and if necessary, buy it back from the market.³⁷⁸

³⁷⁴ COMMISSION STAFF WORKING DOCUMENT: EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...](2012) XXX draft, p.5.

³⁷⁵ COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...](2012) XXX draft, p.36.

³⁷⁶ Commission Decision 2012/490/EU of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks.

³⁷⁷ Commission Decision 2012/490/EU of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Recital (2).

³⁷⁸ Commission Decision 2012/490/EU of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks.

In addition, rather than stimulating the comparison of different approaches, the Commission Decision 2012/490/EU provided for the compliance monitoring of Member States and regulated companies of the adopted uniform policy solutions.³⁷⁹ It did so by tasking the ACER to produce annual monitoring reports, which since 2013, have assessed the levels of congestion at European cross-border networks, verifying that the mandatory oversubscription and buy-back scheme were applied and identifying cross-border networks at which congestion meets specific thresholds, thereby making firm use-it-or-lose-it provisions compulsory.³⁸⁰

This Commission Decision is important. First, because the oversubscription and buy-back scheme applies to firm rather than interruptible capacity, this compulsory provision already in and of itself facilitates the efficient use and maximisation of capacities in the networks.³⁸¹ Second, based on the latest ACER's monitoring reports, the firm use-it-or-lose-it provisions will become compulsory for a number of important pipelines, as suggested by Dr. Margot Loudon, Deputy Secretary General of Eurogas.³⁸² Third, a number of national regulatory authorities, most notably Germany and Austria, have been implementing the firm use-it-or-lose-it provisions, even if not compulsory.³⁸³ As can be seen, this important reform was developed through hierarchical policymaking, because it was elaborated upon without comparing different approaches and with low stakeholder participation, making uniform policy solutions binding for all Member States and regulated companies and providing for the monitoring of compliance with them.

³⁷⁹ Commission Decision 2012/490/EU of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Annex I, 2.2.1.2.

³⁸⁰ ACER annual reports on contractual congestion at interconnection points. Available at: http://www.acer.europa.eu/Official_documents/Publications/Pages/Publication.aspx. Accessed on 5 October 2016.

³⁸¹ See, for example, http://www.acer.europa.eu/en/Gas/Framework%20guidelines_and_network%20codes/Pages/default.aspx. Accessed on 5 October 2016.

³⁸² Interview with Dr Margot Loudon, Deputy Secretary General of Eurogas. Brussels, 18 May 2016.

³⁸³ Cfr. ACER annual reports on contractual congestion at interconnection points. Available at: http://www.acer.europa.eu/Official_documents/Publications/Pages/Publication.aspx. Accessed on 5 October 2016.

Explaining the different identified patterns

Further showing the limits of the polyarchy and shadow of hierarchy viewpoints

From the perspective emphasising the importance of polyarchy, it is surprising that, in the power domain, the Commission engaged in experimentalist policymaking. As seen in Chapter Two, in the mid-2000s, the formal rulemaking powers of the Commission were strengthened. The Commission became able to develop rules without going through the ordinary legislative procedure, by directly proposing rules to comitology committees composed of Member State representatives. Because of the stronger formal rulemaking powers of the Commission, this thesis considers that the distribution of powers became comparatively less polyarchic, or more hierarchical. Yet, despite its increased ability to impose outcomes rather than pursue cooperation with others, in the power domain, the Commission engaged in experimentalist policymaking by employing experimentalist architectures, such as the Florence Forum and the network codes procedure, as previously seen in this Chapter. Thus, this finding is at odds with the argument centred on polyarchy.

In contrast, the Commission's engagement in experimentalist policymaking in the power domain can be explained through the shadow of hierarchy lens. From this perspective, the Commission engaged in experimentalist policymaking, precisely because, thanks to its strengthened formal rulemaking powers, it could cast a stronger shadow of hierarchy to induce conflicting parties to cooperate. The EFET supported the development of rules on congestion management as long as it left some regulatory differences across borders, because traders' business is based on arbitrage. Since implicit auctions do not allow arbitraging, traders resisted the transition from explicit to implicit auctions, suggests Dr. Martin Povh, Officer at the ACER, and confirms Alberto Pototschnig.³⁸⁴ Equally, national power exchanges strenuously resisted the creation of a single European power exchange, because this would have fundamentally threatened their businesses and very existence, points out Dr. Guido Cervigni, former Head of Market Development at the Italian power exchange, and confirm Dr. Juan Jose Alba Rios and Alberto

³⁸⁴ Interview with Alberto Pototschnig, Director ACER. Ljubljana, 9 June 2016; Interview with Dr Martin Povh, Framework Guidelines and Network Codes Officer ACER. Ljubljana, 9 June 2016.

Pototschnig.³⁸⁵ Yet despite these conflicts, the Commission still engaged in experimentalist policymaking because, due to its comitology powers, it could cast a stronger shadow of hierarchy to induce parties to cooperate.

However, this viewpoint does not explain why, in the gas domain, the Commission engaged in hierarchical policymaking instead. From the shadow of hierarchy perspective, it is puzzling that the Commission engaged in distinct types of policymaking across the two domains, even if the shadow of hierarchy it could cast on parties to induce them to cooperate was very similar in both. As seen in Chapter Two, also in the gas domain in the mid-2000s the Commission was equipped with comitology powers, similar to the power domain. Furthermore, the gas domain parties also had conflicting preferences. Regulatory policy documents such as responses to the public consultations carried out by the ERGEG and the Commission on the modification of congestion management rules show that incumbent importers and suppliers as well as transmission system operators strongly resisted the proposal for firm use-it-or-lose-it provisions, put forward by the Commission with support from regulators. Instead, these actors proposed a measure more in line with their preferences, namely, an oversubscription and buy-back scheme in which transmission system operators, taking into account statistical scenarios for the likely amount of unused capacity, oversell transport capacity beyond technical limits, and to the extent necessary, subsequently buy it back from the market.³⁸⁶ As previously seen in this chapter and also suggested by Dr. Margot Loudon and Stephen Rose, the eventual outcome was a compromise.³⁸⁷ Thus, from the shadow of hierarchy perspective it is hard to explain why in the power domain the Commission engaged in experimentalist policymaking, whereas in the gas domain it engaged in hierarchical policymaking, despite the fact that the shadow it could cast

³⁸⁵ Interview with Dr Guido Cervigni, former Head of Market Development GME. Email, 7 April 2015; Interview with Dr Juan Jose Alba Rios, Chairman of Eurelectric Markets Committee and Vice-President of Regulatory Affairs at Endesa. Brussels, 17 May 2016; Interview with Alberto Pototschnig, Director of ACER. Ljubljana, 9 June 2016.

³⁸⁶ ERGEG principles: Capacity allocation and congestion management in natural gas transmission networks. An ERGEG Evaluation of Comments Paper. E09-GNM-07-03, 24 August 2009, pp.19-22; ENTSO-G response to European Commission consultation on congestion management procedures. 12 April 2011. Available at: <http://www.entsog.eu/public/uploads/files/publications/CMP/2012/110112%20CMP%20Questionnaire%20final%20submitted.pdf>. Accessed on 7 October 2016; see also ERGEG Monitoring Report 2010 on capacity allocation mechanisms and congestion management procedures at selected interconnection points. E10-GMM-11-05, 2 February 2011, pp.45-46; COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...] (2012) XXX draft, pp.15, 36.

³⁸⁷ Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016; Interview with Dr Margot Loudon, Deputy Secretary General of Eurogas. Brussels, 18 May 2016.

on actors to induce them to cooperate was very similar across the two domains and that actors had conflicting policy preferences in both.

Providing further support to the uncertainty perspective

The distinct types of policymaking processes the Commission engaged in across the two domains can be explained by the uncertainty argument. According to this account, in the power domain, the Commission was exposed to policy questions for which it did not have specific policy preferences, namely, what type of auctions should be used and through which detailed arrangements they should be implemented. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking. In contrast, in the gas domain, the Commission continued to hold precise policy preferences for specific solutions, namely, use-it-or-lose-it provisions. Under these conditions of lower uncertainty, it favoured hierarchical policymaking.

No evidence was found in the main regulatory policy documents of the mid-2000s that at that time, in the power domain, the Commission had precise preferences for specific types of auctions and arrangements over others. As anticipated, Regulation (EC) No. 1228/2003 established that market-based auctions be used, but did not express preferences for either explicit or implicit auctions, let alone provide specific details about how such auctions should be implemented.³⁸⁸ Nor did the reports on implementation of the internal electricity market, published by the Commission in 2004 and 2005, express any preference for specific types and subtypes of auctions compared to others.³⁸⁹

On the contrary, many regulatory policy documents of that time show that implicit auctions were rapidly identified as the theoretical ideal solution, which neither the Commission nor other actors knew how to apply to continental Europe. Already in the Guidelines on congestion management the Commission voluntarily agreed upon in 2000 in the Florence Forum, the approach based on implicit auctions was considered “too difficult to implement in the short term, since it requires the existence of exchanges or power pool based arrangements on both sides of

³⁸⁸ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity.

³⁸⁹ DG TREN DRAFT WORKING PAPER Third benchmarking report on the implementation of the internal electricity and gas market. Brussels, 01.03.2004; Report from the Commission - Annual Report on the Implementation of the Gas and Electricity Internal Market. COM(2004) 863 final, Brussels, 5.1.2005.

the interconnection”.³⁹⁰ From 2001 to 2005, this was reiterated in many publicly available regulatory policy documents, including consulting studies conducted on behalf of the Commission and presentations delivered and discussed in the Florence Forum. All of these documents pointed to the theoretical superiority of implicit over explicit auctions, as the former avoid possible abuses of market power by ensuring that all transport capacity is used, and maximise overall economic surplus by ensuring that energy flows efficiently (i.e., from lower to higher priced areas as far as technically possible). At the same time, they all questioned the practical feasibility of this theoretically ideal solution. The key issue was that the only existing implementation experience with implicit auctions was the Scandinavian “Nord Pool”. But this common market was managed by a single power exchange. This sharply contrasted with Continental Europe, which instead, was organised into several national markets managed by a number of national or regional power exchanges.³⁹¹ Thus, the key question was whether, in practice, implicit auctions could be applied to continental Europe, and if so, how. Dr. Juan Jose Alba Rios confirms that the Commission did not have a precise idea of what to do.³⁹²

As previously seen in this chapter, it was only in 2007 that the Commission as well as other actors such as ERGEG expressed a precise preference for implicit rather than explicit auctions.³⁹³ This only happened after practical experiences. In particular, the Trilateral Market Coupling project connecting France, Belgium and the Netherlands as of 2006, showed that

³⁹⁰ Conclusions Sixth Meeting of the European Electricity Regulation Forum. Florence, 9/10 November 2000, Guidelines on congestion management, pp.6-7.

³⁹¹ Cfr. ETSO “Co-ordinated use of Power Exchanges for Congestion Management”. Final Report, April 2001; ETSO “Co-ordinated use of Power Exchanges for Congestion Management in Continental Europe: Market Design and Role of Power Exchanges”. Open Discussion Paper. Draft, February 2002; EuroPEX ‘Congestion Management. Presented at the Eighth Meeting of the European Electricity Regulatory Forum. Florence 21-22 February 2002; Co-ordinated congestion management: an ETSO vision, ETSO, April 2002; Outline proposals for a co-ordinated congestion management scheme based on the ETSO vision, ETSO, September 2002; Using implicit auctions to manage cross-border congestion: “Decentralised Market Coupling”, EuroPEX, July 2003; ETSO and EuroPEX “Flow-based market coupling”. A joint ETSO-EuroPEX Proposal on Cross-Border Congestion Management and Integration of Electricity Markets in Europe. Interim Report, September 2004; Frontier Economics and Consentec “Analysis of Cross-Border Congestion Management Methods for the EU Internal Electricity Market”. Study commissioned by the European Commission Directorate-General Energy and Transport, Final Report, June 2004; Eurelectric “Contribution to the 11 Electricity Regulatory Forum”. April 2004; Union of the Electricity Industry – EURELECTRIC Position Paper Improving Interconnection Capacity Allocation. August 2005, p. 7.

³⁹² Interview with Dr Juan Jose Alba Rios, Chairman of Eurelectric Markets Committee and Vice-President of Regulatory Affairs at Endesa. Brussels, 17 May 2016.

³⁹³ European Commission, DG for Competition, Energy Sector Inquiry, January 2007; European Commission, DG Energy and Transport, Report on Regulation 1228/2003 on cross-border trade in electricity, May 2007, p.5; ERGEG, Coherence and Convergence Report, July 2007.

implicit auctions could indeed be applied to continental Europe even in the absence of a single European power exchange.

Yet the chapter found no evidence that, when the Commission had developed precise preferences for implicit rather explicit auctions, it had specific preferences for detailed arrangements to implement implicit auctions. In addition to all the regulatory policy documents just mentioned, this is also shown by the Commission's sector inquiry published in January 2007; the Communication from the Commission to the Council and the European Parliament on the experience gained in the application of the Regulation (EC) No. 1228/2003, published in May 2007; the Report from the Commission to the Council and the European Parliament about progress in creating the internal electricity market, published in April 2008; and the minutes of the Florence Forum meeting held in 2007. None of these documents reference price- or volume-coupling arrangements to implement implicit auctions; therefore, there is also no trace of the Commission's specific preferences for either.³⁹⁴

Instead, as seen in this chapter, it was only from 2009 onwards that the Commission, together with other actors, had developed specific policy preferences for price- rather than volume-coupling arrangements in order to implement implicit auctions. This is evidenced by the meeting minutes of the PCG of experts held in July, October and November 2009; the target model the Commission voluntarily agreed upon in the PCG and proposed to the Florence Forum in December 2009; the framework guidelines developed in 2011 by the ACER and the draft network code elaborated in 2013 by ENTSO-E on their basis, which were both approved by the

³⁹⁴European Commission, DG for Competition, Energy Sector Inquiry, January 2007; European Commission, DG Energy and Transport, Report on Regulation 1228/2003 on cross-border trade in electricity, May 2007; Report from the Commission to the Council and the European Parliament - Progress in creating the internal gas and electricity market. COM(2008) 192 final, Brussels, 15.4.2008; Conclusions XIVth European Electricity Regulatory Forum. Florence, 24–25 September 2007.

Commission; and the Commission Regulation (EU) 2015/1222 which was eventually adopted in 2015 via comitology.³⁹⁵

As suggested by Dr. Matti Supponen, Policy Coordinator at the Directorate General for Energy of the Commission who was closely involved in this rulemaking process, in simplified terms, the reform of congestion management rules essentially entailed the adaptation of the Nordic model to the Continental Europe context, including the application of such a model in the absence of a central European power exchange. But in practice, this proved to be so complicated that the Commission could not have conceived it on its own and imposed it through hierarchical policymaking. Instead, as can be seen, it required experimentalist policymaking, in which the Trilateral Market Coupling project represented “the” experiment and the Commission acted as the main convener of the process.³⁹⁶

The patterns found in the power domain contrast with those found in the gas domain, where the Commission engaged in hierarchical rather than experimentalist policymaking. The chapter argues that the Commission did so under conditions of lower uncertainty. It considers that, in the gas domain, the Commission found itself in conditions of lower uncertainty because both interviews and regulatory policy documents show that from the mid-2000s to the present day it held specific policy preferences, namely, for use-it-or-lose-it provisions.

As can be seen, the Commission’s sector inquiry launched in mid-2005 and concluded at the beginning of 2007 and was the driving force behind the reform of the existing rules on congestion management. However, as suggested by Stephen Rose, the Commission had a clear idea of what it wanted to do, namely, to release transport capacity in the short term. Effectively, the Commission sought a “quick win”, and chose a faster and less inclusive rulemaking procedure

³⁹⁵ Minutes of the 5th PCG Meeting. 8 July 2009 from 11:00 to 16:30 hours, CEER offices, Brussels; 6th PCG Meeting. 7 October 2009 from 10:30 to 17:00 hours ENTSO-E offices, Brussels; 7th PCG Meeting. 2 November 2009 from 10:30 to 17:00 hours Eurelectric offices, Brussels; 7th PCG Meeting. 2 November 2009 from 10:30 to 17:00 hours Eurelectric offices, Brussels; PCG Proposal for Target Model and Roadmap for Capacity Allocation and Congestion Management. PCG Report to the XVIIth Florence Forum. 10&11 December 2009, Rome; and PCG Presentation to the Florence Forum on the Target Model. Both available at: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora/PCG. Accessed on 7 October 2016; Framework Guidelines on Capacity Allocation and Congestion Management for Electricity. FG-2011-E-002, 29 July 2011; http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Recommendations/ACER%20Recommendation%2001-2013.pdf; Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management.

³⁹⁶ Interview with Dr Matti Supponen, Policy Coordinator Unit B.2 Wholesale markets: electricity and gas European Commission Directorate General for Energy (DG ENER). Brussels, 19 May 2016.

in light of its specific policy preferences.³⁹⁷ To achieve its objective, the Commission had a clear preference for firm use-it-or-lose-it provisions, confirms Dr. Margot Loudon.³⁹⁸ The fact that the Commission had specific policy preferences about both its goals and the precise methods to achieve them is further confirmed by Dr. Annegret Groebel, Vice President of CEER and Head of the International Relations Department at the German regulatory authority.³⁹⁹

The Commission was particularly supported by the German regulatory authority, which was among the key promoters of firm use-it-or-lose-it provisions even in the absence of any practical experience, suggest Csilla Bartok and Thomas Holzer, respectively Team Leader and Officer at the ACER.⁴⁰⁰ The German regulator believed that stricter rules were needed and favoured a stricter application of the existing use-it-or-lose-it provisions rather than “changing fundamentals”, which it expected, would have created stronger resistance from the industry. To apply the existing policy more strictly rather than changing it completely is the approach generally followed, when possible, by the German regulator, which in this case coincided with the specific preferences of the Commission, explains Dr. Annegret Groebel.⁴⁰¹

Publicly available regulatory policy documents further confirm that the Commission had specific policy preferences about how to reform congestion management rules. Already in the conclusions of the sector inquiry, the Commission “highlighted the importance of enhancing the scope for entry through [...] strict application of use-it-or-lose-it provisions”.⁴⁰² The preference for firm use-it-or-lose-it provisions was then reaffirmed throughout all the regulatory policy documents that were key to the development of this reform, namely the principles and recommendations developed by the Commission’s formal advisory body (ERGEG) in 2009,

³⁹⁷ Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016.

³⁹⁸ Interview with Dr Margot Loudon, Deputy Secretary General of Eurogas. Brussels, 18 May 2016.

³⁹⁹ Interview with Dr Annegret Groebel, Vice-President of CEER and Head of the International Relations Department of the German regulatory authority. Telephone, 10 June 2016.

⁴⁰⁰ Interview with Csilla Bartok, Team Leader Framework Guidelines and Network Codes ACER. Ljubljana, 9 June 2016; and Interview with Thomas Holzer, Framework Guidelines and Network Codes Officer ACER. Ljubljana, 9 June 2016.

⁴⁰¹ Interview with Dr Annegret Groebel, Vice-President of CEER and Head of the International Relations Department of the German regulatory authority. Telephone, 10 June 2016.

⁴⁰² COMMUNICATION FROM THE COMMISSION Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report). Brussels, 10.1.2007, COM(2006) 851 final, p.13; and DG COMPETITION REPORT ON ENERGY SECTOR INQUIRY. Brussels, 10 January 2007, SEC(2006) 1724, p.327.

the proposal put forward by the Commission in 2010 on the basis of ERGEG's Recommendations, the impact assessment carried out by the Commission, and the Commission Decision as eventually adopted via comitology in 2012.⁴⁰³

Thus, both regulatory policy documents and interviews show that, in the gas domain, to the Commission and important regulators it appeared straightforward that the best solution was simply to impose a stricter application of the already existing use-it-or-lose-it provisions, even though this idea was not backed by any practical implementation experience. Under these conditions of lower uncertainty, as shown in this chapter, the Commission engaged in hierarchical policymaking.

Conclusions

This chapter further examined the argument that the Commission engages in experimentalist policymaking under conditions of higher uncertainty, which was developed in Chapter Three and supported in Chapter Four. It began Phase Two of the empirical analysis of policymaking, which encompasses the period from the mid-2000s to the present day, during which time uncertainty differed across issue areas and domains. In particular, this chapter compared the regulation of congestion management across the power and gas domains during this period. This chapter's central finding was that the Commission engaged in different types of policymaking across the two domains. In the power domain, the Commission used experimentalist architectures, such as the Florence Forum and the network codes procedure, to stimulate the comparison of different approaches pursued by Member States and regulated companies and to facilitate the development of agreements on reforms on this basis with high stakeholder participation. Alternatively, in the gas domain, the Commission engaged in hierarchical policymaking. By using the hierarchical architecture of the comitology procedure, it developed reforms without comparing different approaches and with low stakeholder participation, to make uniform

⁴⁰³ ERGEG revised principles on gas CAM and CMP. 10 December 2009, E09-GNM-10-03; ERGEG Congestion management on European Gas Transmission Networks: Recommendations for Guidelines Adopted via a Comitology Procedure. E09-GNM-10-07, 10 December 2009; ERGEG Congestion management procedures: Recommendations for guidelines to be adopted via a comitology procedure. E10-GWG-67-04, 8 September 2010; Congestion management procedures: Commission proposal for guidelines to be adopted via a comitology procedure. 28 September 2010; COMMISSION STAFF WORKING DOCUMENT: IMPACT ASSESSMENT Accompanying the document Commission decision amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks. Brussels, XXX [...] (2012) XXX draft; Commission Decision 2012/490/EU of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks.

solutions binding for all Member States and regulated companies and to monitor compliance with them.

These findings further confirm the limitations of the polyarchy and shadow of hierarchy explanations. From the polyarchy perspective, it is surprising that in the power domain, the Commission engaged in experimentalist policymaking, even if the distribution of powers had become less polyarchic because of the stronger Commission's formal rulemaking powers. In contrast, this can be explained through the shadow of hierarchy lens, according to which the Commission's engagement in experimentalist policymaking can be precisely explained because it could cast a stronger shadow of hierarchy thanks to its strengthened formal rulemaking powers. However, this viewpoint does not explain why the Commission did not also engage in experimentalist policymaking in the gas domain, even though the shadow of hierarchy it could cast was equivalent in both domains. Instead, the noted patterns of policymaking provide additional support for the argument based on uncertainty. In the power domain, the Commission was confronted with new policy questions for which it did not have precise policy preferences. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking. In the gas domain, the Commission continued to hold previously established preferences for specific policies. Under these conditions of lower uncertainty, it favoured hierarchical policymaking.

It is possible that the Commission engaged in distinct types of policymaking processes across the two domains for sector-specific reasons rather than because of uncertainty. One such reason could be distinct degrees of conflicts. Indeed, a number of interviewees suggest that, although conflicts were present in both domains, in the power domain, industry actors were a driving force behind the policymaking process. Eurelectric, in particular, was often even more supportive than the regulators themselves. In contrast, in the gas domain, most of the industry, including Eurogas, strongly resisted the development of reforms.⁴⁰⁴ Thus, the type of policymaking the Commission engaged in could have been a function of the different degree of conflicts characterising the two domains and hence more generally of the domain. For this reason, Chapter Six provides a final examination of the argument that the Commission engages in experimentalist policymaking under conditions of higher uncertainty. It continues to analyse

⁴⁰⁴ Interview with Dr Juan Jose Alba Rios, Chairman of Eurelectric Markets Committee and Vice-President of Regulatory Affairs at Endesa. Brussels, 17 May 2016; Interview with Alberto Pototschnig, Director of ACER. Ljubljana, 9 June 2016; Interview with Edith Hofer, Assistant to the Director General for Energy of the European Commission. Brussels, 19 May 2016; Interview with Dr Martin Povh, Framework Guidelines and Network Codes Officer ACER. Ljubljana, 9 June 2016.

policymaking during the period from the mid-2000s to the present day, but shifts the focus to the issue area of tariffication regulation, which was not characterised by different degrees of conflicts across the two domains.

Chapter Six: Engaging in Different Policymaking across the Power, Gas Domains Also in Tarification Regulation

Introduction

This chapter provides the final evaluation of the argument that the Commission engages in experimentalist policymaking under conditions of higher uncertainty, which was developed in Chapter Three and supported in Chapters Four and Five. It continues to compare the Commission's regulatory policymaking across power and gas domains from the mid-2000s to the present day, but shifts the focus from congestion management to tarification regulation. As seen in Chapter Four, in the early 2000s, an initial set of rules mandating common tarification approaches and principles was adopted. Yet, significant heterogeneities in the tarification approaches applied across Member States remained, creating distortions of competition and cross-border trade. Today, the situation is remarkably different. EU regulations have advanced the harmonisation of transmission tariff structures in Europe, fostering a level playing field and internal market.

Throughout the period studied, in both the power and gas domains, the Commission could use identical hierarchical architectures, namely, the ordinary legislative and comitology procedures. At the same time, it could also employ experimentalist architectures, which developed in parallel to hierarchical architectures very similarly across the gas and power domains. In addition to the Florence and Madrid Fora, it could employ the network codes procedure to co-develop rules together with the ACER, ENTSO-E, and ENTSO-G and stakeholders.

This chapter's central findings are strikingly similar to those of Chapter Five, except that they are reversed across the two domains. The Commission engaged in different types of policymaking processes across the gas and power domains. In the power domain, it did not use experimentalist architectures, even though they were available just as in the gas domain. Instead, it favoured hierarchical policymaking. By employing the hierarchical architecture of the comitology procedure, it developed reforms not underpinned by comparisons of different approaches and with low stakeholder participation, to impose on all Member States and regulated companies, and monitored their compliance with uniform policy solutions. In contrast, in the gas domain, the Commission engaged in experimentalist policymaking. It used experimentalist

architectures, such as the Madrid Forum and the network codes procedure, to stimulate comparisons of different approaches pursued by Member States and regulated companies and to develop agreements on reforms on this basis with high stakeholder participation.

Thus, the implications of this chapter's findings are analogous (though reversed) to those of Chapter Five. From the shadow of hierarchy perspective, it is surprising that, in the power domain, the Commission favoured hierarchical policymaking despite the stronger shadow of hierarchy it could cast to induce actors to cooperate as a result of its strengthened rulemaking powers. From the polyarchy viewpoint, the Commission's engagement in hierarchical policymaking can be explained in light of the less polyarchic distribution of powers. Yet this viewpoint does not explain why, in contrast to the power domain, the Commission did engage in experimentalist policymaking in the gas domain, even though polyarchy was the same across both domains. Alternatively, the patterns of policymaking found are consistent with the argument about uncertainty. In the power domain, the Commission continued to hold previously established preferences for specific policies. Under these conditions of lower uncertainty, it favoured hierarchical policymaking. Instead, in the gas domain, the Commission found itself exposed to new questions for which it did not have specific policy preferences. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking. Furthermore, in tariffication regulation conflicts were similar across the two domains and the patterns of uncertainty and policymaking were reversed across domains compared to the issue area of congestion management studied in Chapter Five. Importantly, this chapter therefore also shows that the type of policymaking is not dependent on conflicts or the more general sector.

As usual, the chapter initially identifies the types of policymaking that the Commission engaged in, to show that it engaged in different policymaking processes across the power and gas domains. Then it shows how the noted patterns of policymaking provide further confirmation of the limits of the shadow of hierarchy and polyarchy perspectives and additional support to the argument emphasising uncertainty.

Engaging in different types of policymaking across the two domains

Finding hierarchical policymaking in the power domain

In contrast to the gas domain, the Commission engaged in hierarchical rather than experimentalist policymaking in the power domain, as shown by the indicators described in Table 16. The Commission monitored compliance with uniform policy solutions that had been previously voluntarily agreed upon, and by employing the hierarchical architecture of the comitology procedure, developed reforms without undertaking comparisons of different approaches and with low stakeholder participation to make uniform policy solutions binding for all Member States and regulated companies. The resulting Commission Regulation is important. By making binding an inter-transmission system operator compensation mechanism and a range within which network access tariffs levied on generators should be kept, it ensures that transmission system operators receive a fair compensation for the costs of hosting cross-border flow of electricity on their networks and that variations in charges applied to generators for accessing transmission systems across different Member States do not distort competition between them.⁴⁰⁵

Table 16. Hierarchical policymaking to regulate tariffication in power from the mid-2000s to the present day

Indicator	Evidence
Member States and regulated companies are obligated to adopt uniform solutions	Commission Regulation (EU) No. 774/2010 mandates a common inter-transmission system operator compensation mechanism and a harmonised range of transmission charges levied on generators

⁴⁰⁵ Commission Regulation (EU) No 774/2010 of 2 September 2010 on laying down guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging.

Compliance with Initial ERGEG compliance reports monitor compliance with the uniform solutions is uniform policy solutions previously agreed upon on a voluntary monitored basis; then Commission Regulation (EU) No. 774/2010 requires the ACER to monitor compliance with the inter-transmission system operator compensation mechanism

Reforms are not Commission Regulation (EU) No. 774/2010 is not based on developed on the basis of comparisons comparisons

Agreement on reforms is Commission Regulation (EU) No. 774/2010 is adopted through developed with low comitology procedure, in which participation is limited to Member stakeholder participation States and the Commission

As seen in Chapter Four, in the early 2000s, the Florence Forum participants agreed on a set of reforms. First, access to the entire European grid should be granted at a flat rate through a “postage-stamp” tariff, to facilitate trade and a departure from the previous tariffication system based on transit fees for each transaction that network users engage in.⁴⁰⁶ Second, an inter-transmission system operator compensation mechanism should be created, to ensure that transmission system operators recover the costs of hosting cross-border flow of power on their networks.⁴⁰⁷ Third, transmission tariffs levied on generators should be harmonised to avoid distortion of competition among producers located in different countries.⁴⁰⁸ Then, Regulation (EC) No. 1228/2003 mandated non-transaction-based tariffs and the creation of inter-transmission system operator mechanism for compensating transmission system operators for the cost of hosting cross-border flow of electricity on their networks.⁴⁰⁹ Furthermore, it laid the groundwork for the future adoption of guidelines on the details of such an inter-transmission system

⁴⁰⁶Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999). P.1.

⁴⁰⁷Conclusions Eight meeting of the European Electricity Regulatory Forum. Florence, 21-22 February 2002, p.1.

⁴⁰⁸Conclusions Tenth meeting of the European Electricity Regulatory Forum. Rome, 8-9 July 2003, p.4.

⁴⁰⁹Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Articles 3 and 4.

operator compensation mechanism as well as the harmonisation of charges applied to generators under national tariff systems.⁴¹⁰

Rather than comparing different approaches to tariffication regulation adopted by Member States and regulated companies, compliance with uniform policy solutions was monitored. Asta Sihvonen-Punkka, Chair of the Electricity Focus Group of the Commission's formal advisory group (ERGEG), noted some lack of compliance with Regulation (EC) No. 1228/2003. Her report pointed out that the temporary inter-transmission system operator compensation mechanism, which had been applied on a voluntary basis since 2002, did not cover all European countries and had not always deviated from specific individual network charges on individual transactions for declared transits of electricity, in contrast to what had been previously agreed upon. Furthermore, it suggested that the lack of binding guidelines on the inter-transmission system operator compensation mechanism also hampered the adoption of binding guidelines on transmission tariffication, given that Regulation (EC) No. 1228/2003 provided for the adoption of binding rules on these two issues in a single set of guidelines. She concluded that it was "important for the development of the internal market to have the binding inter-transmission system operation compensation mechanism guidelines as soon as possible".⁴¹¹ Similarly, another ERGEG report monitoring compliance with Regulation (EC) No. 1228/2003 recommended that the Commission "adopt and implement the inter-transmission system operator compensation mechanism and transmission tariffication guidelines as soon as possible".⁴¹² Thus, these reports did not compare different approaches, but instead, monitored compliance with uniform policy solutions. In doing so, they emphasised the need for binding rules to aid in their implementation.

The need for binding rules is also confirmed by the Commission itself, according to which "experience since the adoption of the Regulation, in particular the fact that national transmission system operators have indicated that they face increasing difficulty agreeing an inter-transmission compensation mechanism amongst themselves, clearly indicate that voluntary agreement is unlikely to produce an agreed inter-transmission compensation mechanism. [...]"

⁴¹⁰ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity. Article 8.

⁴¹¹ Compliance with Electricity Regulation 1228/2003. Presentation by Mrs A. Sihvonen-Punkka, Chair of ERGEG Electricity Focus Group, at the 14th European Electricity Regulatory Forum, 24-25 September 2007, slides 5-7.

⁴¹² Regulation (EC) 1228/2003 - ERGEG Compliance Monitoring. Presentation delivered at the 15th European Electricity Regulatory Forum, 24-25 November 2008, slide 13.

As long as inter-transmission system compensation remains an unresolved issue it will inevitably occupy the time of senior individuals within the national regulatory authorities and transmission system operators. This has been the experience to date in the development of the several voluntary schemes. It is individually rational to commit these resources to the inter-transmission compensation project as long as each transmission system operator and regulator considers that it has to protect its own interests. Moreover, each stakeholder effectively holds a veto in what is, by itself, a “zero-sum” issue. The opportunity costs associated with the time dealing with inter-transmission compensation is important. There are only a limited number of areas that the most senior transmission system operators or national regulators can address at a time. In particular it distracts from other important work in the internal market. It is impossible to know with certainty the final outcome negotiations. [...] However, a lack of agreement is very probable. This would at least frustrate the further integration of the internal market in electricity, and could even lead to regression if individual transmission system operators began to re-impose import and export fees or transit fees on the basis that they were entitled to compensation for the costs of hosting cross border-flows. By contrast binding guidelines on the inter-transmission compensation mechanism, and on transmission tariffication, will support completing the internal energy market and improving security of supply. They will help ensure full implementation of the Regulation. This is the clearly expressed view of all major stakeholders – in particular those who would be responsible for designing a voluntary mechanism. It is reasonable to conclude that it is necessary for the Commission to introduce guidelines”.⁴¹³

Prompted by the need for binding rules, the Commission did not develop reforms with high stakeholder participation and on the basis of comparisons of different approaches pursued by Member States and regulated companies. It did not employ experimentalist architectures, such as the Florence Forum and the network codes procedure, involving the ACER, the ENTSO-E and stakeholders, even though these architectures were present, just as they were in the gas domain. Instead it asked its formal advisory body, the ERGEG, to elaborate draft guidelines on transmission tariffication and inter-transmission system operator compensation, intended “to be adopted by the Commission as binding Guidelines as provided for in Regulation (EC) No.

⁴¹³ COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying document to the Commission Regulation establishing a mechanism for the compensation of transmission system operators for the costs of hosting cross border flows of electricity and a common regulatory approach to transmission charging {COM(2008) xxx final} {SEC(2008) xxx}. Brussels, SEC(2010) XXX final, pp.26-27.

1228/2003”.⁴¹⁴ For this purpose, the ERGEG only performed *ad hoc* public consultation and did not compare different approaches. In 2005, the ERGEG proposed some harmonisation of the transmission charges levied on generators to avoid distortions of competition between them, namely, through a harmonised range of charges defined between zero and a positive value.⁴¹⁵ But, as seen in Chapter Four, this is exactly what had been agreed upon years before in the Florence Forum by a variety of actors, including the Commission.⁴¹⁶ Furthermore, it reflected an already ongoing tendency towards generation transmission charges being set to zero.⁴¹⁷ Analogously, with respect to inter-transmission system operator compensation, in 2006, the ERGEG suggested specific methods for calculating the costs that transmission system operators incurred as a result of hosting cross-border flows. But these methods reflected the schemes agreed upon by the Commission and the other Florence Forum participants since a provisional inter-transmission system operator compensation mechanism had initially been developed in 2002, and then progressively refined on an annual and voluntary basis by an increasing number of transmission system operators.⁴¹⁸

Thereafter, rather than embarking on the whole network codes procedure, which could have led to experimentalist policymaking, the Commission favoured a faster and less inclusive procedure, by directly proposing rules to the Committee on Cross-Border Trade in Electricity, confined to Member State representatives and operating according to comitology. According to the Commission, stakeholders had asked it to develop binding Guidelines effectively as an “honest broker” without a direct stake in the final rules.⁴¹⁹ Dr. Matti Supponen suggests that

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http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/Transmission%20Tarification%20Guidelines;

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/Inter-TSO%20Compensation%20Guidelines. Accessed on 12 August 2016.

⁴¹⁵ ERGEG GUIDELINES ON TRANSMISSION TARIFICATION. EXPLANATORY NOTE, 18 July 2005.

⁴¹⁶ Conclusions Tenth Meeting of the European Electricity Regulatory Forum. Rome, 8-9 July 2003, p.4.

⁴¹⁷ See, for example, Compliance with Electricity Regulation 1228/2003. Presentation by Mrs A. Sihvonon-Punkka, Chair of ERGEG Electricity Focus Group, at the 14th European Electricity Regulatory Forum, 24-25 September 2007; and COMMISSION STAFF WORKING DOCUMENT Accompanying document for the Inter Transmission System Operator Compensation Mechanism and Harmonization of Transmission Tariffs for Electricity. IMPACT ASSESSMENT, {COM(2008) xxx final} {SEC(2008) xxx}, Brussels, 3.7.2009, SEC(2008) yyy, pp.25-26.

⁴¹⁸ Cover note to ERGEG draft proposal on Guidelines on Inter TSO Compensation. E06-CBT-09-08a, 10 April 2006.

⁴¹⁹ COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying document to the Commission Regulation establishing a mechanism for the compensation of transmission system operators for the costs of hosting cross border flows of electricity and a common regulatory approach to transmission charging {COM(2008) xxx final} {SEC(2008) xxx}. Brussels, SEC(2010) XXX final, p.26.

no experimentalist comparisons took place during the comitology procedure, which was primarily focused on ensuring that no vital interests of Member States were threatened. This is also confirmed by Marco Foresti, Market Advisor at ENTSO-E.⁴²⁰ The comitology procedure resulted in Commission Regulation (EU) No. 774/2010, which set forth guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging. These guidelines detail how to calculate the costs for losses and for making infrastructures available to host cross-border flow of electricity, and how to set the value of transmission charges paid by producers to be within a precise range.⁴²¹ Commission Regulation (EU) No. 774/2010 is important, because it ensures that transmission system operators receive compensation for the costs of hosting cross-border flow of electricity and that variations in charges applied to power generators for accessing transmission systems do not undermine the internal market. However as can be seen, this important reform was not developed with high stakeholder participation and on the basis of comparisons of different approaches pursued by Member States and regulated companies. Instead, the guidelines annexed to Commission Regulation (EU) No. 774/2010 reflect the draft guidelines produced by the ERGEG. Both were developed without comparing different approaches and with low stakeholder participation, and neither went beyond the already applied voluntary schemes and trends, in turn based on the voluntary agreements reached in the early 2000s in the Florence Forum, but not yet codified.

Rather than granting discretion to Member States and regulated companies to pursue different approaches, Commission Regulation (EU) No. 774/2010 made uniform solutions binding. The Commission Regulation itself explains that, “valuable experience has been gained since the need for inter-transmission system operator compensation mechanism was first recognized, in particular through voluntary mechanisms by transmission system operators. However, transmission system operators have found it increasingly difficult to reach agreement on such voluntary mechanisms. Binding guidelines establishing an inter-transmission system operator compensation mechanism should provide a stable basis for the operation of the inter-transmission system operator compensation mechanism and fair compensation to transmission system

⁴²⁰ Interview with Dr Matti Supponen, Policy Coordinator Unit B.2 Wholesale markets: electricity and gas European Commission Directorate General for Energy (DG ENER). Brussels, 19 May 2016; Interview with Marco Foresti, Market Advisor ENTSO-E. Brussels, 18 May 2016.

⁴²¹ Commission Regulation (EU) No 774/2010 of 2 September 2010 on laying down guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging. Annex Part A Guidelines on the establishment of an inter-transmission system operator compensation mechanism; and Part B Guidelines on a common regulatory approach to transmission charging.

operators for the costs of hosting cross-border flows of electricity”. Equally, it states that, “variations in charges applied to producers of electricity for access to the transmission system should not undermine the internal market. For this reason average charges for access to the network in Member States should be kept within a range which helps to ensure that the benefits of harmonization are realized”.⁴²² Thus, in the very same piece of legislation the Commission codified the voluntary agreements reached by the Florence Forum participants since the early 2000s on a basic inter-transmission system operator compensation mechanism and a harmonised range of charges levied on generators, without adding any major innovation. By annexing guidelines on the establishment of an inter-transmission system operator compensation mechanism and on a common regulatory approach to transmission charging to the Commission Regulation (EU) No. 774/2010, it gave them binding power.

Furthermore, it provided for the monitoring of compliance with such uniform policy solutions in a hierarchical fashion, by tasking the ERGEG to report to the Commission each year on implementation of the inter-transmission system operator compensation mechanism.⁴²³ When the ACER entered into operation in March 2011 and the ERGEG was dissolved, these monitoring responsibilities were passed on from the regulatory network to the EU agency.⁴²⁴ Since then, the ACER has been publishing monitoring reports assessing compliance with the uniform policy solutions adopted, notably overseeing and reporting to the Commission each year on the implementation of the inter-transmission system operator compensation mechanism and the management of the related fund.⁴²⁵

⁴²² Commission Regulation (EU) No 774/2010 of 2 September 2010 on laying down guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging. Recitals (2), (3), (6), (7) and (9).

⁴²³ Commission Regulation (EU) No 774/2010 of 2 September 2010 on laying down guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging. Annex Part A Guidelines on the establishment of an inter-transmission system operator compensation mechanism, Art.1.4.

⁴²⁴ Commission Regulation (EU) No 838/2010 of 23 September 2010 on laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to transmission charging.

⁴²⁵ http://www.acer.europa.eu/en/Electricity/Infrastructure_and_network%20development/Pages/Inter-TSO-compensation-mechanism-and-transmission-charging.aspx. Accessed on 12 August 2016.

Observing experimentalist policymaking in the gas domain

In contrast to the power domain, the Commission engaged in experimentalist policymaking in the gas domain. As shown in Table 17, Member States and regulated companies were granted the discretion to pursue common entry-exit tariff systems with different arrangements, including different tarification methodologies. By using experimentalist architectures, such as the Madrid Forum and the network codes procedure, their different approaches were compared and agreements on reforms were developed on this basis with high stakeholder participation. This resulted in a Commission Regulation, which at the time of writing (i.e., November 2016), was about to be adopted. It defines a common language among regulators and regulated companies that had previously not existed, promotes transparency on the tarification methodologies used throughout the EU and identifies specific reference methodologies.⁴²⁶

Table 17. Experimentalist policymaking to regulate tarification in the gas domain from the mid-2000s to the present day

Indicator	Evidence
Member States and/or regulated companies are granted the discretion to adopt different approaches	Regulation (EC) No 715/2009 allows Member States and regulated companies to implement the common entry-exit system through distinct detailed arrangements, including alternative tarification methodologies (e.g., postage stamp, capacity-weighted distance approach, virtual point based approach, and matrix approach)
Different approaches are compared	Comparisons of different tarification methodologies, notably through consultancy and academic studies (i.e., KEMA and REKK, Florence School of Regulation, KEMA and COWI)

⁴²⁶ <https://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-network-codes>. Accessed on 26 October 2016.

Agreements on reforms are developed based on comparisons	Agreements in 2013 on ACER Framework Guidelines, which were followed by ENTSO-G Network Code and a Commission Regulation whose final adoption was pending as of November 2016
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Agreements on reforms are developed with high stakeholder participation	Agreements are developed within the Madrid Forum and the network codes procedure, which both feature high stakeholder participation
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As seen in Chapter Four, in the early 2000s, the Commission engaged in experimentalist policymaking within the Madrid Forum, which led to the development of agreements on two important reforms, namely, the principle of cost-reflectivity and entry-exit tariff systems.⁴²⁷ Thereafter, based on a Commission’s legislative proposal, the European Council and Parliament adopted Regulation (EC) No. 1775/2005, which ratified part of these agreements, by mandating tariffs to be cost-reflective.⁴²⁸

In 2007, the Commission proposed another Regulation to the European Parliament and Council, which was adopted in 2009. Regulation (EC) No. 715/2009 repealed Regulation (EC) No. 1775/2005 and made entry-exit systems mandatory. The Regulation itself clarified that: “To enhance competition through liquid wholesale markets for gas, it is vital that gas can be traded independently of its location in the system. The only way to do this is to give network users the freedom to book entry and exit capacity independently, thereby creating gas transport through zones instead of along contractual paths. The preference for entry-exit systems to facilitate the development of competition was already expressed by most stakeholders at the 6th Madrid Forum on 30 and 31 October 2002”.⁴²⁹ If the Commission’s regulatory activities during the period from the mid-2000s to the present day ended here, then the type of policymaking it engaged in would be very similar across the gas and power domain. In both domains, the Commission would have used hierarchical architectures to give, through hierarchical policymaking,

⁴²⁷ Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7-8 February 2002; Conclusions of the 6th Gas Regulatory Forum. 30/31 October 2002.

⁴²⁸ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks. Art.3.1.

⁴²⁹ 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. Recital 19.

binding power to reforms previously agreed through experimentalist processes but not yet codified. But in fact, in contrast to the power domain, the Commission engaged in experimentalist policymaking in the gas domain.

Regulation (EC) No. 715/2009 granted discretion to Member States and regulated companies to implement entry-exit systems through a variety of arrangements. Since Member States had been implementing entry-exit systems through distinct detailed arrangements, it was noted that, despite the common transition from the previously dominant point-to-point systems to entry-exit systems, network users continued to face considerable variations in tarification approaches throughout Europe.⁴³⁰ A new question emerged about whether these differences could lead to barriers to entry for new players and distortions of cross-border trade and, if so, how these could be addressed through increased harmonisation.

The Commission did not develop reforms on tarification harmonisation hierarchically, by directly proposing rules to the Gas Committee composed only of Member State representatives and operating according to comitology, as it did in the power domain. Instead, it engaged in experimentalist policymaking by employing experimentalist architectures such as the Madrid Forum and the network codes procedure. Through these architectures, it stimulated for a number of years the comparison of different approaches pursued by Member States and regulated companies and the development of reforms with high stakeholder participation.

It began to do so by asking, in the context of the Madrid Forum, a consulting agency and university research centre to compare the main differences in the tarification models that Member States and regulated companies had been adopting, in order to identify possible barriers to cross-border trade resulting from heterogeneity and offer a number of recommendations for harmonisation.⁴³¹ From 2008 and 2009, KEMA and REKK were supported by ERGEG, the voluntary GTE, a research centre (Florence School of Regulation), a user survey, and a virtual test conducted in one of the Regional Initiatives. They produced a report of about 200 pages, containing a number of comparative figures and tables and accompanied by country fact sheets

⁴³⁰ See, for example, ACER Public Consultation on Scope and main policy options for Framework Guidelines on Harmonized transmission tariff structures - Evaluation of responses. Available at: http://www.acer.europa.eu/Official_documents/Public_consultations/PC_2012_G_14/PC_2012_G_14_ACER%20Public%20Consultation%20on%20Scope%20and%20main%20policy%20options%20for%20Framework%20Guidelines%20on%20Harmonised.pdf. Accessed on 23 June 2016.

⁴³¹ Conclusions of the 15th meeting of the European Gas Regulatory Forum. Madrid, 6-7 November 2008.

of about 100 pages. This pointed to the significant differences existing in transmission tariff structures across Member States.⁴³²

After this report was debated in the Madrid Forum,⁴³³ the Commission funded an additional study, coordinated by a research centre, the Florence School of Regulation. Organised around a multidisciplinary group of 23 experts from 14 countries, throughout 2010 and 2011 this research project went through an expert hearing to seek views of the industry, a discussion meeting with a scientific council composed of academics and a public consultation to gather stakeholders' views. By integrating evidence from previous studies with new comparisons of different approaches being carried out across Member States (e.g., Italy, UK, Portugal, Belgium, and Czech Republic), the Florence School of Regulation study confirmed the key findings emerged from the previous KEMA and REKK report. While differences in tariff levels were considered justifiable in light of national factors, such as policy priorities and historical evolutions, heterogeneities in stage of implementation and concrete design of tariff structures increased the risk of distorting the competition and cross-border trade.⁴³⁴

By building upon these studies, in June 2012 the Commission asked the new ACER to develop Framework Guidelines on harmonised transmission tariff structures.⁴³⁵ Thus, rather than using its comitology powers to deal directly and exclusively with Member State representatives, the Commission favoured the lengthier and more inclusive rulemaking procedure for developing

⁴³² KEMA and REKK 'Report - Study on Methodologies for Gas Transmission Network Tariffs and Gas Balancing Fees in Europe'. Submitted to the European Commission, Directorate-General Energy and Transport. Arnhem, December 2009; KEMA and REKK 'Study on Methodologies for Gas Transmission Network Tariffs and Gas Balancing Fees in Europe - Annex'. Submitted to the European Commission, Directorate-General Energy and Transport. Arnhem, December 2009.

⁴³³ Conclusions Madrid Forum 21-22 March 2011.

⁴³⁴ Ruester, S., von Hirschhausen, C., Marcantonini, C., He, X., Egerer, J. and Glachant, J.M. 'EU Involvement in Electricity and Natural Gas Transmission Grid Tarification'. THINK, European University Institute, Final Report, January 2012; see also 'Need for EU involvement in natural gas transmission grid tarification?'. Presented by Sophia Ruester of THINK project at the 21st meeting of the European Gas Regulatory Forum. Madrid, 23 March 2012.

⁴³⁵ European Commission Directorate General for Energy Invitation to start the procedure on a framework guideline on rules regarding harmonized transmission tariff structures for gas. Brussels, 29 June 2012, ENER B/JAV/TH/tj s(2012) 913468, Ref. Ares(2012)789016 – 29/06/2012. Available at: [http://www.acer.europa.eu/en/Gas/Framework%20guidelines and network%20codes/Documents/FG TAR Invitation.pdf](http://www.acer.europa.eu/en/Gas/Framework%20guidelines%20and%20network%20codes/Documents/FG_TAR_Invitation.pdf). Accessed on 21 October 2016.

network codes, which involves the ACER, the ENTSO-G and several rounds of consultations with other stakeholders.⁴³⁶

Furthermore, the Commission supported the creation of an *ad hoc* informal group, composed of 10 representatives from distinct companies and associations, as well as 2 observers from ENTSO-G and the Florence School of Regulation, tasked to provide the ACER with expert advice in the development of the Framework Guidelines.⁴³⁷ The ACER sought dialogue with a variety of actors well beyond its formal requirements. In addition to the assistance of its informal group of experts, it undertook a number of public consultations and industry events throughout 2012 and 2013, including a consultation on the scope of the Framework Guidelines, a consultation on an initial draft, a workshop, an “open house” event in which it shared with stakeholders proposed changes to the initial draft, a consultation on a revised chapter, and a related “Q&A” session and workshop.⁴³⁸

In parallel to the formal network codes procedure, the Commission asked two consulting firms to jointly elaborate upon an additional study, in order to further compare the implementation of entry-exit systems across Member States and to identify which choices in their design could lead to barriers for entry of new market players and cross-border trade. By defining a list of “best practices” and assessing the implementation approaches of several Member States against it (e.g., Estonia, Finland, Greece, Lithuania, Luxembourg, Latvia, Belgium, Spain, Germany, Austria, France, Hungary, Italy, Slovenia, Bulgaria, Romania, Poland, Hungary, Slovakia, Denmark, and Austria), KEMA and COWI delivered country fact sheets of about 300 pages to the Madrid Forum. They identified cross-national heterogeneities and typical deviations from best practices, including with regard to cost allocation regimes (e.g., applied entry/exit split,

⁴³⁶ Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators; 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; and 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.

⁴³⁷

http://www.acer.europa.eu/The_agency/Organisation/Expert_Groups/EG_on_Harmonised_Gas_Tariff_Structures/Pages/default.aspx. Accessed on 15 February 2016.

⁴³⁸ http://www.acer.europa.eu/Gas/Framework%20guidelines_and_network%20codes/Pages/Harmonised-transmission-tariff-structures.aspx. Accessed on 15 February 2016.

capacity/commodity split, approach to locational pricing signals, and the methodology applied).⁴³⁹

Thus, as can be seen and was suggested by Thomas Querrioux, Gas Officer at the ACER, consultants and academics were specifically employed to “get a picture” of the methods used across Member States, as well as for conceptual clarification.⁴⁴⁰ This is also confirmed by Tom Maes, Chairman of the ACER Task Force on Tariffs, Vice Chairman of ACER and CEER Working Group on Gas, and Principal Advisor at the Belgian regulatory authority, who suggests that the academic and consultancy studies definitely gave an overview of the approaches used across Member States, and also helped the Commission to make a case for further harmonization.⁴⁴¹ As pointed out by Stephen Rose, there was much experimentalism because there was a lot of discussion and comparison of tariffication methodologies.⁴⁴² Furthermore, as seen and pointed out by Tom Maes and Stephen Rose, the comparison of different approaches and development of reforms with high stakeholder participation continued also during the elaboration of the ACER’s Framework Guidelines.⁴⁴³

These comparisons and high stakeholder participation led to the development of reforms. In November 2013, the ACER published Framework Guidelines on harmonized transmission tariff structures. They made explicit reference to some of the previous studies, namely those by KEMA and REKK and by the Florence School of Regulation, and the comparisons therein contained. On this basis, the Framework Guidelines identified four distinct tariffication methodologies to be allowed (i.e., ‘postage stamp’, ‘capacity-weighted distance approach’, ‘virtual point based approach’ and ‘matrix approach’), and introduced the obligation to justify the choices taken at national level against specified criteria, publish the results of a cost allocation

⁴³⁹ KEMA & COWI ‘Study on Entry-Exit Regimes in Gas. Part A: Implementation of Entry-Exit Systems’. By order of the European Commission – DG ENERGY. Groningen – The Netherlands, July 19 – 2013; KEMA & COWI ‘Country factsheets’. July 19, 2013; and ‘Entry-Exit Regimes in Gas’. Presentation delivered by Bert Kiewiet of KEMA at the XXIV Madrid Forum, 15-16 October 2013.

⁴⁴⁰ Interview with Thomas Querrioux, Gas Officer ACER. Ljubljana, 9 June 2016.

⁴⁴¹ Interview with Tom Maes, Chairman ACER Tariff Task Force, Vice-Chairman ACER and CEER Gas Working Group, and Principal Advisor CREG. Telephone, 27 May 2016.

⁴⁴² Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016.

⁴⁴³ Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016; Interview with Tom Maes, Chairman ACER Tariff Task Force, Vice-Chairman ACER and CEER Gas Working Group, and Principal Advisor CREG. Telephone, 27 May 2016.

test, and carry out a counter-factual exercise to ensure that the methodology chosen was the most adequate compared to the others provided for.⁴⁴⁴

The Commission then requested ENTSO-G to elaborate, on the basis of the ACER Framework Guidelines, a draft Network Code. During 2014 and 2015, the ENTSO-G held stakeholder joint working sessions, workshops, meetings and a number of consultations.⁴⁴⁵ Thus similar to the ACER, the ENTSO-G also went beyond its formal consulting requirements. In July 2015, ENTSO-G submitted a draft Network Code, which narrowed down the tariffication methodologies even further, from the four identified by the Framework Guidelines to only two (i.e., postage stamp and capacity-weighted distance methodology). At the same time, the prescriptiveness of these models was reduced, transforming them into “references”.⁴⁴⁶

Thereafter, the Commission proposed the draft Network Code to the Gas Committee. At the time of writing (i.e., November 2016), its final adoption was pending.⁴⁴⁷ Once adopted, a Commission Regulation establishing a Network Code on Harmonised Transmission Tariff Structures for Gas will become directly binding on all cross-border exchanges. This Regulation defines a set of common parameters for tariff setting and sets requirements on the publication of tariff setting data. It is important because it promotes transparency about the tariffication approaches adopted throughout Europe, identifies two reference tariffication methodologies (i.e., postage stamp, capacity-weighted distance methodology), and as suggested by Thomas Querrioux, defines a common language among regulators and regulated companies which had not previously existed, as until recently, the same concepts were discussed with different words and vice versa.⁴⁴⁸ As can be seen, it stemmed from the Commission’s engagement in experimentalist policymaking, which in turn, resulted from the employment of experimentalist architectures such as the Madrid Forum and the network codes procedure.

⁴⁴⁴ ACER Framework Guidelines on rules regarding harmonized transmission tariff structures for gas. FG-2013-G-01, 29 November 2013; see also ACER Assessment of Policy Options *Justification document for Framework Guidelines on rules regarding Harmonized Transmission Tariff Structures*. ACER-JD-2014-G-01, 31 March 2014.

⁴⁴⁵ <http://www.entsog.eu/publications/tariffs>. Accessed on 13 August 2016.

⁴⁴⁶ <http://www.entsog.eu/publications/tariffs#TAR-NC-RE-SUBMITTED-TO-ACER>. Accessed on 13 August 2016.

⁴⁴⁷ <https://ec.europa.eu/energy/en/topics/markets-and-consumers/wholesale-market/gas-network-codes>. Accessed on 13 August 2016.

⁴⁴⁸ Interview with Thomas Querrioux, Gas Officer ACER. Ljubljana, 9 June 2016.

Explaining the different identified patterns

Further highlighting the limitations of the polyarchy and shadow of hierarchy viewpoints

As seen in the previous sections, this Chapter found that during the period from the mid-2000s to the present day, to regulate tariffication the Commission engaged in distinct types of policymaking processes across the two domains, as found in Chapter Five with regard to the regulation of congestion management during the same period. However, the types of policymaking the Commission engaged in to regulate tariffication were, compared to those used to regulate congestion management, reversed across the two domains. In the power domain, the Commission favoured hierarchical policymaking, whereas in the gas domain, it engaged in experimentalist policymaking.

The Commission's engagement in hierarchical policymaking observed in the power domain is inconsistent with the shadow of hierarchy view. As seen in Chapters Two and Five, in the mid-2000s the Commission was entrusted with the additional power to adopt implementing acts subject to the approval of committees, confined to Member States representatives only and operating according to comitology procedures. Since its formal rulemaking powers were extended from the ordinary legislative procedure to the comitology procedure, the Commission could cast a stronger shadow of hierarchy to induce parties to cooperate. Hence, from this perspective it is hard to explain why, in the power domain, the Commission did not engage in experimentalist policymaking despite its stronger ability to threaten parties to enact adverse legislation.

One could consider that, even though the Commission could cast a stronger shadow of hierarchy, in power it still favoured hierarchical policymaking because in this domain parties had particularly conflicting policy preferences. The argument would then be that in the gas domain, by contrast, the Commission engaged in experimentalist policymaking because even if the shadow of hierarchy it could cast was very similar across the two domains, the degrees of conflicts across gas and power were different. However, in contrast to the regulation of congestion management analysed in Chapter Five, in tariffication regulation this Chapter found no evidence that one domain was characterized by stronger conflicts than the other. On the contrary, a number of interviewees representative of both domains suggest that it would be inap-

appropriate to consider tariffication regulation more conflictual in either the power or the gas domain. These interviewees do not only include Edith Hofer, Assistant to the Director General for Energy of the Commission, but also Dr Margot Loudon, Stephen Rose and Dr Annegret Groebel.⁴⁴⁹

In the power domain, regulatory policy documents such as the Commission's impact assessment and the draft guidelines put forward by the ERGEG show that national regulatory authorities debated extensively the appropriate form of an inter-transmission compensation mechanism without reaching a consensus and that they hence proposed not to go beyond the *status quo*. The same evidence also tells that national transmission system operators faced increasing difficulty agreeing on such a mechanism amongst themselves.⁴⁵⁰ Indeed, interviewees such as Peter Styles point out that conflicts were implied: they did not explode but were clearly there. In very simple terms, the Commission decided not to pursue more ambitious levels of harmonization because it was politically too difficult. Transmission system operators were at ease with the basic inter-transmission system operator compensation mechanism agreed. This was a hard compromise which nobody wanted to disturb, starting from German generators and government, who would be among the main losers from the development of more harmonized tariffication regulation.⁴⁵¹ Peter Styles suggests that there was no impetus towards this direction also because it was hard to see clear competition and discrimination effects which would allow to make a case for further harmonization.⁴⁵² This is confirmed by Tom Maes as well as by Mark Copley. Both share the opinion that it was hard to argue that further harmonization of

⁴⁴⁹ Interview with Dr Margot Loudon, Deputy Secretary General of Eurogas. Brussels, 18 May 2016; Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016; Interview with Dr Annegret Groebel, Vice-President of CEER and Head of the International Relations Department of the German regulatory authority. Telephone, 10 June 2016; Interview with Edith Hofer, Assistant to the Director General for Energy of the European Commission. Brussels, 19 May 2016.

⁴⁵⁰ Cover note to ERGEG draft proposal on Guidelines on Inter TSO Compensation. E06-CBT-09-08a, 10 April 2006; Compliance with Electricity Regulation 1228/2003. Presentation by Mrs A. Sihvonen-Punkka, Chair of ERGEG Electricity Focus Group, at the 14th European Electricity Regulatory Forum, 24-25 September 2007, slide 5; COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying document to the Commission Regulation establishing a mechanism for the compensation of transmission system operators for the costs of hosting cross border flows of electricity and a common regulatory approach to transmission charging {COM(2008) xxx final} {SEC(2008) xxx}. Brussels, SEC(2010) XXX final, p.26.

⁴⁵¹ The agreed inter-transmission system operators compensation mechanism is a basic system because it simply compensates for costs, rather than also providing price signals for guiding investments. To provide locational signals, the charges paid by generators would have to have a positive value. However, at the moment they are in many cases equal to zero. German generators, in particular, would be among the main losers, given that the charges levied on generators in Germany are currently equal to zero.

⁴⁵² Interview with Peter Styles, Chairman of the Electricity Committee of EFET. London, 28 July 2016.

tariffs would be beneficial to the internal market, and that neither Member States nor the Commission wanted more harmonization, as this would have brought on the agenda controversial issues, including the harmonization of subsidies to renewable energy sources.⁴⁵³

Similarly, in the gas domain ideally the Commission would have favoured “full harmonization”, i.e. a single tariffication approach throughout the EU. But it met the resistance of the industry, suggests Dr Margot Loudon.⁴⁵⁴ In addition, the Commission also met the resistance of Member States and national regulatory authorities, interested in accommodating national sensitivities, suggest both Stephen Rose and Tom Maes.⁴⁵⁵ This is also reflected in regulatory policy documents such as the first version of the Framework Guidelines elaborated by the ACER, whose Board is composed of the Head of national regulatory authorities, which the Commission deemed not ambitious enough and formally asked to revise.⁴⁵⁶ Mark Copley points out that the compromise found in the revised ACER Framework Guidelines, which had identified four tariffication models, was subsequently lost in the ENTSO-E Network Code, in which two methodologies became mere references.⁴⁵⁷ Indeed, the final text of the Regulation whose adoption is pending was significantly “watered down” so that it will impose more transparency than harmonization of tariffication regulation, conclude Alberto Pototschnig and Csilla Bartok.⁴⁵⁸

Thus, from a shadow of hierarchy perspective, it is hard to explain why in the power domain the Commission did not engage in experimentalist policymaking as it did in the gas domain, despite the fact that both the shadow of hierarchy it could cast and the degree of conflicts among parties were similar across the two domains. In contrast, the Commission’s engagement

⁴⁵³ Mark Copley, Vice-Chair Electricity Working Group ACER and Associate Partner Wholesale Markets Ofgem. London, 24 June 2016.

⁴⁵⁴ Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016.

⁴⁵⁵ Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016; Interview with Tom Maes, Chairman ACER Tariff Task Force, Vice-Chairman ACER and CEER Gas Working Group, and Principal Advisor CREG. Telephone, 27 May 2016.

⁴⁵⁶ Cfr. Exchange of letters about the scope between EC and ACER (i) EC letter and ACER answer of March 2013, (ii) ACER letter to the EC, 24 April 2013, (iii) EC letter confirming the deadline extension until 30 November 2013. Available at: http://www.acer.europa.eu/en/Gas/Framework%20guidelines_and_network%20codes/Pages/Harmonised-transmission-tariff-structures.aspx. Accessed on 24 June 2016; see also Interview with Thomas Querrioux, Gas Officer ACER. Ljubljana, 9 June 2016.

⁴⁵⁷ Mark Copley, Vice-Chair Electricity Working Group ACER and Associate Partner Wholesale Markets Ofgem. London, 24 June 2016.

⁴⁵⁸ Interview with Alberto Pototschnig, Director ACER. Ljubljana, 9 June 2016; Interview with Csilla Bartok, Team Leader Framework Guidelines and Network Codes ACER. Ljubljana, 9 June 2016.

in hierarchical policymaking found in the power domain is consistent with the view emphasising the importance of polyarchy. From this perspective, the Commission did not engage in experimentalist policymaking precisely because its strengthened formal rulemaking powers had made the distribution of power less polyarchic. Yet this viewpoint does not explain why, in the gas domain, the Commission did engage in experimentalist policymaking, even though, as seen in Chapter Two, its formal rulemaking powers had been strengthened and the distribution of power had become less polyarchic very similarly across the two domains. Thus, neither the shadow of hierarchy nor polyarchy lenses explains why, despite being equipped with similar formal rulemaking powers across the gas and power domains, the Commission engaged in distinct types of policymaking processes across the two domains.

Providing additional support to the uncertainty perspective

Once again, one may better understand the Commission's policymaking through the lenses that emphasise uncertainty. From this perspective, the Commission's engagement in distinct types of policymaking processes across the two domains can be explained in light of the different uncertainty that characterised the gas and power domains during the period from the mid-2000s to the present day. In the power domain, the Commission held specific policy preferences throughout the period analysed. Under these conditions of lower uncertainty, as seen, it favoured hierarchical policymaking. In the gas domain, in contrast, the Commission was exposed to policy questions about which it did not have precise preferences. Under these conditions of higher uncertainty, it engaged in experimentalist policymaking.

In the power domain, as shown in Chapter Four, by the early 2000s the Commission had developed specific policy preferences about how to set up an inter-transmission system operator compensation mechanism as well as how to harmonise transmission charges levied on generators. This is evidenced by the agreements it voluntarily agreed upon in the context of the Florence Forum, respectively the provisional inter-transmission system operators compensation mechanism established in February 2002 and the decision taken in July 2003 that transmission charges levied on generators had to be comprised within a range defined between zero and a positive figure.⁴⁵⁹

⁴⁵⁹ Conclusions Eight Meeting of the European Electricity Regulatory Forum. Florence, 21-22 February 2002, p.1; Conclusions Tenth Meeting of the European Electricity Regulatory Forum. Rome, 8-9 July 2003, p.4.

In contrast to the gas domain, the Commission was not exposed to new policy questions about which it did not have specific preferences in the power domain. The main regulatory policy documents that accompanied the development of reforms on tariffication regulation show that, in the power domain, the Commission continued to maintain throughout the 2000s the specific preferences it had developed at the beginning of that decade. These documents comprise the draft guidelines on tariffication and on inter-transmission system operators compensation mechanism put forward for consultation and the formal advices provided respectively in 2005 and 2006 by the Commission's formal advisory body, the ERGEG, upon request from the Commission;⁴⁶⁰ the impact assessment carried out by the Commission from 2008 to 2010 accompanying the Commission Regulation;⁴⁶¹ and the Commission Regulation (EU) No. 774/2010 laying down binding guidelines on the establishment of an inter-transmission system operators compensation mechanism and on a common regulatory approach to transmission charging, as adopted via comitology based on the Commission's proposal.⁴⁶² In none of these documents the Chapter found that the Commission had broad rather than specific preferences about the precise methods to either establish an inter-transmission system operator compensation mechanism or harmonise transmission charging. On the contrary, all these regulatory policy documents indicate that it maintained its precise preferences unaltered throughout the period studied. This is also confirmed by interviewees such as Dr. Matti Supponen, who suggests that the Commission has considered that these specific methods have worked quite well.⁴⁶³

The guidelines annexed to the Commission Regulation (EU) No. 774/2010 reflect the draft guidelines produced by the ERGEG, which did not go beyond the already applied voluntary schemes and trends, and were in turn, based on the voluntary agreements reached in the early 2000s in the Florence Forum but that were not yet codified. Hence, this reform was based on

⁴⁶⁰ Available at:

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/Transmission%20Tariffication%20Guidelines/CD; and http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT/CLOSED%20PUBLIC%20CONSULTATIONS/ELECTRICITY/Inter-TSO%20Compensation%20Guidelines. Accessed on 21 October 2016.

⁴⁶¹ COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying document to the Commission Regulation establishing a mechanism for the compensation of transmission system operators for the costs of hosting cross border flows of electricity and a common regulatory approach to transmission charging {COM(2008) xxx final} {SEC(2008) xxx}. Brussels, SEC(2010) XXX final.

⁴⁶² Commission Regulation (EU) No 774/2010 of 2 September 2010 on laying down guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging. Annex Part A Guidelines on the establishment of an inter-transmission system operator compensation mechanism; and Part B Guidelines on a common regulatory approach to transmission charging.

⁴⁶³ Interview with Dr Matti Supponen, Policy Coordinator Unit B.2 Wholesale markets: electricity and gas at the Directorate General for Energy (DG ENER) of the European Commission. Brussels, 19 May 2016.

the specific policy preferences that the Commission developed in the early 2000s and maintained throughout the 2000s. Under these conditions of lower uncertainty, as previously seen in this Chapter, the Commission favoured hierarchical policymaking.

This contrasts with the gas domain, where as seen the Commission engaged in experimentalist policymaking instead. As suggested by Edith Hofer, the lower uncertainty in the power domain contrasted with the surge of uncertainty in the gas domain.⁴⁶⁴ Indeed Stephen Rose points out that in the gas domain the Commission did not have a clear idea of how to proceed. It was frustrated by different detailed arrangements adopted by Member States to implement entry-exit systems, which clearly risked threatening the internal market. It knew that something had to be done, but did not know exactly what.⁴⁶⁵

That in the gas domain the Commission did not have precise policy preferences about how to regulate tariffication is also suggested by the main regulatory policy documents accompanying the development of reforms. These comprise the minutes of the Madrid Forum meetings held throughout the 2000s;⁴⁶⁶ Regulation (EC) No. 1775/2005 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks, adopted based on a Commission proposal;⁴⁶⁷ Regulation (EC) No. 715/2009 of the European Parliament and of the Council repealing Regulation (EC) No. 1775/2005, also adopted on the basis of a Commission proposal;⁴⁶⁸ the report carried out during 2008 and 2009 by KEMA and REKK upon

⁴⁶⁴ Interview with Edith Hofer, Assistant to the Director General for Energy of the European Commission. Brussels, 19 May 2016.

⁴⁶⁵ Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016.

⁴⁶⁶ Available at: <https://ec.europa.eu/energy/en/madrid-forum-previous-meetings>. Accessed on 21 October 2016.

⁴⁶⁷ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

⁴⁶⁸ 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.

request from the Commission;⁴⁶⁹ the study conducted throughout 2010 and 2011 by the Florence School of Regulation, also upon request from the Commission;⁴⁷⁰ and the public consultation carried out between 2011 and 2012, upon request from the Commission, by the ACER on scope and main policy options for Framework Guidelines on harmonised transmission tariff structures.⁴⁷¹ In none of these documents, the chapter found that the Commission had precise policy preferences for specific tariffication methodologies. Instead, regulatory policy documents such as the study elaborated by KEMA and COWI by order of the Commission and the ACER Framework Guidelines as approved by the Commission, which were both published in 2013, show that the Commission developed specific policy preferences for well identified tariffication methodologies only in the early 2010s.⁴⁷²

Since in the gas domain the Commission did not have precise policy preferences, this chapter considers that the Commission found itself in conditions of higher uncertainty. As seen, under these conditions, it did engage in experimentalist policymaking. As put it by Stephen Rose, to develop reforms on tariffication regulation, in the gas domain the Commission had first to understand how tariffication regulation was managed across Member States.⁴⁷³

As noted, both uncertainty and the type of policymaking the Commission engaged in were reversed compared to those found in Chapter Five, with regard to the regulation of congestion

⁴⁶⁹ KEMA and REKK ‘Report - Study on Methodologies for Gas Transmission Network Tariffs and Gas Balancing Fees in Europe’. Submitted to the European Commission, Directorate-General Energy and Transport. Arnhem, December 2009; KEMA and REKK ‘Study on Methodologies for Gas Transmission Network Tariffs and Gas Balancing Fees in Europe - Annex’. Submitted to the European Commission, Directorate-General Energy and Transport. Arnhem, December 2009.

⁴⁷⁰ Ruester, S., von Hirschhausen, C., Marcantonini, C., He, X., Egerer, J. and Glachant, J.M. ‘EU Involvement in Electricity and Natural Gas Transmission Grid Tarification’. THINK, European University Institute, Final Report, January 2012; see also ‘Need for EU involvement in natural gas transmission grid tariffication?’. Presented by Sophia Ruester of THINK project at the 21st meeting of the European Gas Regulatory Forum. Madrid, 23 March 2012.

⁴⁷¹ Available at:

http://www.acer.europa.eu/Official_documents/Public_consultations/PC_2012_G_14/PC_2012_G_14_ACER%20Public%20Consultation%20on%20Scope%20and%20main%20policy%20options%20for%20Framework%20Guidelines%20on%20Harmonised.pdf. Accessed on 21 October 2016.

⁴⁷² KEMA & COWI ‘Study on Entry-Exit Regimes in Gas. Part A: Implementation of Entry-Exit Systems’. By order of the European Commission – DG ENERGY. Groningen – The Netherlands, July 19 – 2013; KEMA & COWI ‘Country factsheets’. July 19, 2013; and ‘Entry-Exit Regimes in Gas’. Presentation delivered by Bert Kiewiet of KEMA at the XXIV Madrid Forum, 15-16 October 2013; ACER Framework Guidelines on rules regarding harmonized transmission tariff structures for gas. FG-2013-G-01, 29 November 2013; see also ACER Assessment of Policy Options *Justification document for* Framework Guidelines on rules regarding Harmonized Transmission Tariff Structures. ACER-JD-2014-G-01, 31 March 2014.

⁴⁷³ Interview with Stephen Rose, Chairman of Eurelectric Working Group Gas to Power and Head of Gas Market Design at RWE. London, 25 May 2016.

management. In congestion management, the Commission faced higher uncertainty and engaged in experimentalist policymaking in the power domain, while it found itself in conditions of lower uncertainty and favoured hierarchical policymaking in the gas domain. In tariffication regulation, on contrary, it found itself in conditions of lower uncertainty and favoured hierarchical policymaking in the power domain, while it faced higher uncertainty and engaged in experimentalist policymaking in the gas domain. This is useful because it shows that the type of policymaking observed did not depend on the specific sector.

Conclusions

This chapter has offered a final test to the argument that under conditions of higher uncertainty the Commission engaged in experimentalist policymaking, which was elaborated in Chapter Three and found support in Chapters Four and Five. It compared tariffication regulation across the gas and power domains during the period from the mid-2000s to the present day. The Chapter's central findings were strikingly similar to those of Chapter Five, except that they were reversed across the two domains. The Commission engaged in different types of policymaking processes across gas and power. In the power domain, it did not employ experimentalist architectures even though they were present very similarly than in gas. Instead, it favoured hierarchical policymaking. It monitored compliance with uniform policy solutions and, by employing the hierarchical architecture of the comitology procedure, it developed reforms without conducting comparisons of different approaches and with low stakeholder participation, to impose on all Member States and regulated companies uniform policy solutions and monitor their compliance. By contrast, in the gas domain the Commission engaged in experimentalist policymaking. Even though it could use hierarchical architectures, it used experimentalist architectures such as the Madrid Forum and the network codes procedure to stimulate comparisons of different approaches pursued by Member States and regulated companies and to facilitate the development of agreements on reforms on this basis and with high stakeholder participation.

From the shadow of hierarchy perspective it is puzzling that in the power domain the Commission, despite its stronger ability to threaten adverse legislation to induce conflicting parties to cooperate thanks to its strengthened formal rulemaking powers, did not engage in experimentalist policymaking in the power domain. In contrast to congestion management regulation, this cannot be explained by different degrees of conflicts across the two domains, given that con-

licts were similar across gas and power. The Commission's lack of engagement in experimentalist policymaking in the power domain is compatible with the view emphasising polyarchy, which explains it precisely in the light of the Commission's stronger formal rulemaking powers. Yet, this view does not explain why, in the gas domain, the Commission did engage in experimentalist policymaking even though its formal rulemaking powers and hence polyarchy were very similar than in the power domain. Thus, these patterns of policymaking further show the limits of the polyarchy and shadow of hierarchy views. In contrast, they provide additional support to the argument centred on uncertainty. The patterns of policymaking found are consistent with this explanation because in the power domain the Commission held throughout the 2000s precise policy preferences for specific policies and hence faced lower uncertainty, while in the gas domain it was exposed to new policy questions about which it did not have precise policy preferences and thus found itself in conditions of higher uncertainty. Furthermore, since both uncertainty and the types of policymaking the Commission engaged in were reversed compared to those observed in Chapter Five with regard to congestion management regulation, the types of policymaking were not dependent on the domain.

The following chapter provides the Conclusions. It begins by summarising the main findings of the thesis and answering the research question raised. It then puts these findings in perspective by comparing and contrasting them to the experimentalist and shadow of hierarchy theories, from which claims were derived. Finally, it discusses the implications of these findings and their significance for the study of experimentalist governance.

Conclusions

Table 18 summarises the main findings of the thesis. It shows that, as seen in Chapters Three and Four, to regulate the issue areas of congestion management as well as tariffication in both the power and the gas domains during the period from the late 1990s to the early 2000s, under conditions of higher uncertainty, even though the shadow of hierarchy was weaker, the Commission engaged in experimentalist policymaking by granting discretion to Member States and/or regulated companies to pursue common goals through distinct means, comparing their different approaches, and developing agreements on reforms on this basis and with high stakeholder participation. It also shows that, as seen in the same Chapters, to regulate congestion management and tariffication in both the power and gas domains during the early 2000s, under conditions of lower uncertainty, despite the more polyarchic distribution of powers, the Commission favoured hierarchical policymaking by monitoring compliance with uniform solutions and developing reforms without conducting comparisons of different approaches and with low stakeholder participation, to make uniform solutions binding on all Member States and regulated companies. Furthermore Table 18 illustrates that, as seen in Chapters Five and Six respectively, to regulate congestion management in the power domain and tariffication in the gas domain from the mid-2000s to the present day (i.e., November 2016), under conditions of higher uncertainty the Commission engaged in experimentalist policymaking, even though the distribution of powers was less polyarchic. Finally it also highlights that, as seen in the same Chapters, to regulate congestion management in the gas domain and tariffication in the power domain from the mid-2000s to the present day, under conditions of lower uncertainty the Commission favoured hierarchical policymaking, even though the shadow of hierarchy was stronger. Thus, based on these findings the thesis answers the research question by arguing that the Commission engages in experimentalist policymaking under conditions of higher uncertainty, regardless of whether the shadow of hierarchy to induce conflictual actors to cooperate is weaker or the distribution of powers is less polyarchic.

Table 18. Commission's policymaking in the selected subcases

<i>Polyarchy (and shadow of hierarchy)</i>		
	<i>More (weaker)</i>	<i>Less (stronger)</i>
<i>Higher Uncertainty</i>	Experimentalist	Experimentalist policymaking – in
	policymaking – in all issue areas and domains from the late 1990s to the early 2000s	congestion management in power and tarification in gas from the mid-2000s to the present day
<i>Lower</i>	Hierarchical policymaking	Hierarchical policymaking – in
	– in all issue areas and domains during the early 2000s	congestion management in gas and tarification in power from the mid-2000s to the present day

First of all, through in-depth comparative analysis of EU regulation of crucial issues (i.e., congestion management and tarification) in electricity and natural gas over the past two decades, this thesis advances empirical research on EU energy regulation. Its findings might have implications for the policies produced in the field of energy regulation, especially since in a number of instances key actors face considerable strategic uncertainty. The most obvious example is represented by the need to fight climate change through an increasing penetration of renewable energy sources, which in turn implies a paradigm change in the organisation of the energy sector. Another example are the novel efforts, at the crossroads of energy and financial regulation, to identify and penalize insider trading and market manipulation in wholesale energy markets across Europe under the Regulation on Energy Markets Integrity and Transparency (REMIT) adopted in 2011.⁴⁷⁴

In addition, the thesis and its findings do have important implications that advance the study of experimentalist governance in a number of respects. By developing a set of indicators, the thesis offers a clearer distinction of experimentalist and hierarchical institutional architectures

⁴⁷⁴ <http://www.acer.europa.eu/en/remit/Pages/default.aspx>. Accessed on 12 July 2017.

from policymaking processes than done thus far in the literature.⁴⁷⁵ It does so by elaborating indicators based on the key elements of experimentalist architecture as set out by its proponents, but which shift the emphasis from institutional design to actual operation. Specifically, it defined and assessed experimentalist policymaking as a process whereby a) Member State public authorities and/or regulated companies are granted discretion to adopt distinct approaches, b) their different approaches are compared, and c) agreements on reforms are developed on this basis and d) with high stakeholder participation. These criteria are widely applicable and therefore represent a useful contribution in its own right that might be used in future research.

Furthermore, the thesis elaborated and employed original reconceptualisations and operationalisations of both strategic uncertainty and polyarchy. The core advantage of these formulations compared to existing alternatives is that they allow experimentalist theoretical arguments to be corroborated or challenged by empirical findings. As the indicators to distinguish between experimentalist and hierarchical forms of policymaking, also the reconceptualisations and operationalisations of strategic uncertainty and polyarchy can be directly used by other scholars in other contexts. By building on them, the thesis showed that the distribution of powers in the EU has not remained constantly polyarchic, as argued in the literature,⁴⁷⁶ but instead has become relatively less polyarchic (or more hierarchical) over time. Equally, it showed that uncertainty has not always been rising in the EU,⁴⁷⁷ but instead may vary across domains, issue areas and over time. In particular, it suggests an endogenous relationship between uncertainty and experimentalist policymaking whereby actors develop more specific preferences following experimentalist processes, but then face new problems about which they do not have specific

⁴⁷⁵ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning From Difference: The New Architecture of Experimentalist Governance in the EU’. In (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1-28.

⁴⁷⁶ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1-28.

⁴⁷⁷ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1-28.

preferences and hence turn again to experimentalism. Such relationship should be further explored.

By finding patterns of policymaking processes not based on polyarchy, shadow of hierarchy, time or sector but instead consistent with uncertainty, the thesis suggests that uncertainty is an individually sufficient condition for experimentalist policymaking. These findings contrast with shadow of hierarchy theory and, in part, also with experimentalist theory, from which the thesis derived claims about the conditions under which the Commission engages in experimentalist policymaking. By showing that the Commission did engage in experimentalist policymaking despite the absence of a comparatively strong shadow of hierarchy supposedly needed to induce conflictual parties to cooperate,⁴⁷⁸ it suggests a different picture from that put forward by the major critics of new and experimentalist governance, who emphasize the importance of the shadow of the state for such modes of governance. This is significant not only for shadow of hierarchy arguments, because it suggests that, in fact, experimentalist policymaking does not require a comparatively strong shadow of hierarchy. But also as concerns experimentalist arguments, which present polyarchy and uncertainty jointly and do not explicitly clarify whether these are necessary or sufficient conditions.⁴⁷⁹ By finding that the Commission did engage in experimentalist policymaking even when the distribution of powers was comparatively less polyarchic (or more hierarchical), the thesis suggests a somewhat different view from that proposed by experimentalist theory, which has consistently stressed the importance of polyarchy.⁴⁸⁰ By contrast, by finding that the Commission engaged in experimentalist poli-

⁴⁷⁸ Heritier, A. (2002) 'New Modes of Governance in Europe: Policy-Making without Legislating?'. In A. Heritier (ed.) *Common Goods: Reinventing European and International Governance*. Rowman & Littlefield; Heritier, A. and Lehmkuhl, D. (2008) 'The Shadow of Hierarchy and New Modes of Governance'. *Journal of Public Policy*, 28: 1-17. The argument largely builds on Mayntz, R. and Scharpf, F.W. (eds) (1995a) *Gesellschaftliche Selbstregulierung Und Politische Steuerung*. Campus, Frankfurt; F.W. Scharpf (1997) *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*. Westview Press; Borzel, T.A. and Risse, T. (2010) 'Governance without a state: Can it work?'. *Regulation & Governance*, 4(2): 117.

⁴⁷⁹ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 280; Sabel, C.F. and Zeitlin, J. (2012) 'Experimentalism in the EU: Common ground and persistent differences'. *Regulation & Governance*, 6: 412.

⁴⁸⁰ Cohen, J. and Sabel, C.F. (1997) 'Directly-Deliberative Polyarchy'. *European Law Journal*, 3(4):313-42; Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327; Sabel, C. F. and Zeitlin, J. (2010) 'Learning from Difference: the New Architecture of Experimentalist Governance in the EU'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1-28; Sabel, C.F. and Simon, W.H. (2011) 'Minimalism and Experimentalism in the Administrative State'. *Georgetown Law Journal*, 100(1): 53-93; Zeitlin, J. (2016) "EU Experimentalist Governance in Times of Crisis". *West European Politics*, 39(5): 1073-94.

cymaking under conditions of higher uncertainty and favoured hierarchical policymaking under conditions of lower uncertainty, the thesis supports the emphasis put by experimentalist theory on uncertainty.⁴⁸¹ It hence suggests that uncertainty has significant influence not only on the diffusion of experimentalist architecture, but also on whether key actors such as the Commission engage in experimentalist policymaking by actually making use of such architectures.

Of course, these findings should be considered with caution, as the thesis has potential limitations. Because of the thesis question and design, experimentalist decision-making procedures were always present, which however raises the question of whether the experimentalist architecture is a necessary but not sufficient condition for experimentalist policymaking or rather the latter might emerge even in the absence of the former,⁴⁸² which in turn has implications for whether uncertainty really is an individually sufficient condition for experimentalist processes. Another limitation arises from the fact that the thesis adopted an inductive rather than a deductive approach. Induction means extrapolating from some information to make an inference about something else. In contrast to deduction, in induction conclusions do not necessarily follow from the premises. In inductive arguments, the truth of the premises cannot guarantee the truth of conclusions. In particular, although the thesis did use abduction to consider different possible explanations, it is always possible that it did not consider other factors which might

⁴⁸¹ Sabel, C.F. (2004) 'Beyond Principal-Agent Governance: Experimentalist Organizations, Learning and Accountability'. In E. Engelen and M. S. Dhian Ho (Eds.) *De Staat van de Democratie. Democratie voorbij de Staat*. WRR Verkenning 3 Amsterdam: Amsterdam University Press, pp. 173-195; Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271-327; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2009) 'Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration'. *Columbia Law Review*, 109(3): 431-502; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2010) 'Braiding: the Interaction of Formal and Informal Contracting in Theory, Practice and Doctrine'. *Columbia Law Review*, 110(6): 1377-1447; Sabel, C. F. and Zeitlin, J. (2010) 'Learning from Difference: the New Architecture of Experimentalist Governance in the EU'. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.1-28; Sabel, C.F. and Simon, W.H. (2011) 'Minimalism and Experimentalism in the Administrative State'. *Georgetown Law Journal*, 100(1): 53-93; Sabel, C.F. and Simon, W.H. (2012) 'Contextualizing Regimes: Institutionalization as a Response to the Limits of Interpretation and Policy Engineering'. *Michigan Law Review*, 110(7): 1265-1308; Sabel, C.F. and Zeitlin, J. (2012) 'Experimentalism in the EU: Common ground and persistent differences'. *Regulation & Governance*, 6(3): 410-26; C.F. Sabel and J. Zeitlin (2012) 'Experimentalist Governance'. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170-184; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2013) 'Contract and Innovation: The Limited Role of Generalist Courts in the Evolution of Novel Contractual Forms'. *New York University Law Review*, 88: 170-215; Gilson, R.J., Sabel, C.F. and Scott, R.E. (2014) 'Text and Context: Contract Interpretation as Contract Design'. *Cornell Law Review*, 100: 23-98; Zeitlin, J. (2016) "EU Experimentalist Governance in Times of Crisis". *West European Politics*, 39(5): 1073-94.

⁴⁸² De Burca, G. (2010) 'Stumbling into Experimentalism: The EU Anti-Discrimination Regime'. In C.F. Sabel and J. Zeitlin (eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*, Oxford: OUP, pp. 215-236.

have acted as “confounders”. Yet another potential limitation is that the analysis focused exclusively on one case study, namely EU energy regulation. This raises familiar questions about external validity, in particular how generalizable the thesis’ findings are. The distribution of power in the EU remains, in absolute terms, polyarchic, in energy just as in other sectors. This suggests caution, because polyarchy might still serve as an additional bulwark against hierarchical governance,⁴⁸³ which would imply the need to retain it as a secondary scope condition alongside strategic uncertainty. Furthermore, strategic uncertainty might be more prevalent in regulatory than in other types of public policies, as the emphasis on technical complexity in the literature on regulation might suggest,⁴⁸⁴ which in turn prompts questions about the argument’s validity for policy areas beyond regulation. In addition, since the need to coordinate divergent regimes which affect one other is particularly strong in the EU,⁴⁸⁵ the generalizability of the findings to instances which might be characterized by lower degrees of interdependence, such as global, might be called into question. Altogether, then, these potential challenges suggest the need to test and refine by focusing on other empirical evidence the arguments developed in this thesis, which aimed at contributing to advance our understanding from the diffusion of experimentalist architecture to its effects on policymaking processes.

The thesis also constitutes a study of the regulatory process, and hence also offers contributions to the literature on regulation. In particular, experimentalist governance has some features similar to what in the regulation literature is called ‘management-based regulation’, in that this mode of regulation seeks to “take advantage of private actors’ understanding of the relationship between behaviours and their outputs, compelling regulated parties to conduct their own evaluations, find their own control solutions, and document all the steps they take”.⁴⁸⁶ By finding patterns of policymaking consistent with uncertainty and on that basis suggesting that uncertainty may be an individually sufficient condition for experimentalist policymaking, the thesis

⁴⁸³ Zeitlin, J. (2016) “EU Experimentalist Governance in Times of Crisis”. *West European Politics*, 39(5): 1073-94.

⁴⁸⁴ Majone, G. (1994) ‘The rise of the regulatory state in Europe’. *West European Politics*, 17(3): 77-101; Majone, G. (1996) *Regulating Europe*. London: Routledge; Majone, G. (1997) ‘The new European agencies: regulation by information’. *Journal of European Public Policy*, 4(2): 262-275.

⁴⁸⁵ De Burca, G. (2010) ‘New Governance and Experimentalism: An Introduction - Symposium: New Governance and the Transformation of Law’. *Wisconsin Law Review*, 2: 227-238.

⁴⁸⁶ Coglianese, C. and Lazer, D. (2003) ‘Management-Based Regulation: Prescribing Private Management to Achieve Public Goals’. *Law & Society Review*, 37(4): 726. It should nonetheless be noted that the literature on experimentalist governance emphasizes that this mode of governance does not simply consist in the identification of the most knowledgeable actors and the extraction of information from them, but rather in a joint exploration of problems and potential solutions that no actor, including ‘lower level’ units, knows in advance.

supports claims in the literature on modes of regulation that management-based regulation “appears to be a promising strategy available when regulation is needed to address some of the most intractable public policy problems”, for which governments are often unable to prescribe uniform fixes.⁴⁸⁷

Finally and more broadly, by introducing a distinction between governance architectures and policymaking and defining the former as institutional arrangements and decision-making procedures and the latter as how decision-making actually occurs within such institutional architectures, the main premise of the thesis already offered an important conceptual innovation relative to the existing literature, which thus far has focused on documenting the diffusion of experimentalist architectures without differentiating between them and their operation. By finding patterns of policymaking not based on the existence of particular institutional architectures, the thesis showed that there is no tight link between institutional architectures and policymaking processes, but rather that the type of policymaking can vary even if institutional architectures do not. The thesis’ findings hence warn that institutional structures and policymaking processes may well differ. In particular, the findings support claims that “systems with all the elements of the new governance architecture in place will remain architectures only if they do not also operate in an experimentalist way”.⁴⁸⁸ More generally, while in principle most scholars might well agree that actual policymaking may take distinct forms within a given set of institutional arrangements and decision-making procedures, in practice, often institutional characteristics are considered the determinants of policy outcomes and already known institutional variables are eventually used as major explanatory factors due to lack of information on policy-level variables.⁴⁸⁹ Therefore, the thesis expands upon and reinforces the message that, in contrast to conventional practice, scholars need to look beyond institutional design to the ways in which decision-making actually occurs.

⁴⁸⁷ Coglianese, C. and Lazer, D. (2003) ‘Management-Based Regulation: Prescribing Private Management to Achieve Public Goals’. *Law & Society Review*, 37(4): 726.

⁴⁸⁸ De Burca, G. (2010) ‘New governance and experimentalism: An introduction’. In Symposium Issue on New Governance and the Transformation of Law. *Wisconsin Law Review*, 2: 235.

⁴⁸⁹ Radaelli, C.M., Dente, B. and Dossi, S. (2012) ‘Recasting institutionalism: institutional analysis and public policy’. *European Political Science*, 11(4): 537-550.

Appendix

Sources of evidence

As seen in Chapter One, the thesis relied predominantly on primary sources of evidence. These included publicly available regulatory policy documents and interviews. The specific regulatory policy documents employed in the thesis are listed in the Bibliography. They are notably conclusions of meetings of the Florence Electricity Regulatory Forum and the Madrid Gas Regulatory Forum, as well as the presentations therein delivered;⁴⁹⁰ “position papers” produced by the informal regulatory network CEER as well as a variety of trade associations, such as the ETSO,⁴⁹¹ the EFET,⁴⁹² EuroPEX⁴⁹³ and Eurelectric;⁴⁹⁴ impact assessments,⁴⁹⁵ consultancy reports and academic studies, conducted upon request from the Commission;⁴⁹⁶ progress reports, notably of the formal European regulatory network ERGEG and the EU regulatory agency ACER, in particular about voluntary “Regional Initiatives”;⁴⁹⁷ the energy sector inquiry carried out by the Commission;⁴⁹⁸ and drafts of rules put forward for public consultation, responses

⁴⁹⁰ For the Florence Forum for electricity, for the more recent meetings, see <https://ec.europa.eu/energy/en/events/meeting-european-electricity-regulatory-forum-florence>; for previous meetings, see http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora. For the Madrid Forum for gas, for the more recent meetings, see <https://ec.europa.eu/energy/en/events/madrid-forum>; for previous meetings, see http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Madrid%20Fora. For the very first meetings of the Florence and Madrid Fora, which are not publicly available directly online, I have successfully requested access to documents to the Secretariat General of the Commission.

The most important stakeholder advisory group is arguably the Project Coordination Group, which will be discussed in Chapter Five. See http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Florence_Fora/PCG. Accessed on 11 July 2016.

⁴⁹¹ Available at: <https://www.entsoe.eu/news-events/former-associations/etso/Pages/default.aspx>. Accessed on 11 July 2016.

⁴⁹² Available at: <http://www.efet.org/>. Accessed on 11 July 2016.

⁴⁹³ Available at: <http://www.europex.org/>. Accessed on 11 July 2016.

⁴⁹⁴ Available at: <http://www.eurelectric.org/>. Accessed on 11 July 2016.

⁴⁹⁵ Available at: http://ec.europa.eu/smart-regulation/impact/ia_carried_out/cia_2016_en.htm. Accessed on 11 July 2016.

⁴⁹⁶ Available at: https://ec.europa.eu/energy/en/studies?field_associated_topic_tid=42. Accessed on 11 July 2016.

⁴⁹⁷ For an introduction to the Regional Initiatives, see http://www.ceer.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES; http://www.acer.europa.eu/en/Electricity/Regional_initiatives/Pages/default.aspx and http://www.acer.europa.eu/en/Gas/Regional_%20Intiatives/Pages/default.aspx. For the ERGEG progress reports, see: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES/Progress_Reports. For the ACER progress reports, see http://www.acer.europa.eu/en/Electricity/Regional_initiatives/Pages/Reports.aspx and http://www.acer.europa.eu/en/Gas/Regional_%20Intiatives/Pages/Reports.aspx. Accessed on 11 July 2016.

⁴⁹⁸ See, for example: http://ec.europa.eu/competition/sectors/energy/2005_inquiry/index_en.html. Accessed on 11 July 2016.

received and versions eventually adopted, notably non-binding guidelines of good practice of the CEER and the ERGEG,⁴⁹⁹ non-binding framework guidelines of the ACER,⁵⁰⁰ binding network codes of the formal ENTSO-E⁵⁰¹ and the ENTSO-G,⁵⁰² and binding regulations of the Commission.⁵⁰³

These regulatory policy documents were complemented by interviews, which were conducted between April 2015 and July 2016. Before starting his doctoral thesis, the author worked in Brussels, namely for the trade association Eurelectric, which represents the European electricity industry. While this professional experience provided the author with precious technical expertise as well as contacts, and even though at that time he was not directly involved in any of the subcases selected and studied in the thesis, this could also represent an additional source of bias. To mitigate such risk, the author selected a sample of interviewees whom, in addition to being particularly knowledgeable and expert on the subcases analysed, is representative of a number of dimensions. This is shown in Table 19, which provides a list of the interviewees, describes their key characteristics and offers a brief profile for each of them.

First, the 18 interviewees have 10 different European nationalities, namely Austrian, Belgian, British, Finnish, French, German, Hungarian, Italian, Slovenian and Spanish. Second, their expertise and experience are balanced across the power and gas domains: 7 of the interviewees are particularly knowledgeable about gas, 8 about power, and the rest similarly about both domains. Third, while most of the interviewees are senior officials and representatives (e.g., Director, Chair, President, Head), a few interviewees are less senior (e.g., Officer, Advisor). Fourth, the interviewees represent both regulatory policymakers and regulatees, with ten and eight of them belonging to each category respectively. Furthermore, each of these two broad categories of actors is representative of distinct sub-categories. Within regulatory policymak-

⁴⁹⁹ Available at: http://www.ceer.eu/portal/page/portal/EER_HOME/EER_CONSULT. Accessed on 11 July 2016.

⁵⁰⁰ Available at: http://www.acer.europa.eu/en/Electricity/FG_and_network_codes/Pages/default.aspx; and http://www.acer.europa.eu/en/Gas/Framework%20guidelines_and_network%20codes/Pages/default.aspx. Accessed on 11 July 2016.

⁵⁰¹ Available at: <https://www.entsoe.eu/major-projects/network-code-development/Pages/default.aspx>. Accessed on 11 July 2016.

⁵⁰² Available at: <http://www.entsog.eu/publications/congestion-management-cmp>; and <http://www.entsog.eu/publications/tariffs>. Accessed on 11 July 2016.

⁵⁰³ See, in particular, <https://ec.europa.eu/energy/en/consultations>; <https://ec.europa.eu/energy/en/topics/whole-sale-market/electricity-network-codes>; and <https://ec.europa.eu/energy/en/topics/markets-and-consumers/whole-sale-market/gas-network-codes>. Accessed on 11 July 2016.

ers, interviewees are not only from the Commission, but also from European regulatory networks (CEER, ERGEG) and the EU agency (ACER), as well as from the national regulatory authorities composing their boards. Within the category of regulated companies, some interviewees are representatives of transmission system operators, others of network users such as producers and importers, and still others of other types of companies such as power exchanges and traders, at both the individual company and the European trade association levels.

Table 19. List of interviewees

Name	Institution / Company	Position(s) held	Nationality	Main expertise	Mode, place and date of interview
Dr. Juan Jose Alba Rios	Eurelectric and Endesa	Chairman of Markets Committee and Vice-President of Regulatory Affairs	Spanish	Power	Face-to-face, Brussels, 17 May 2016
<p>Dr. Juan Jose Alba Rios is Chairman, Markets Committee, EURELECTRIC. He is also Vice President, Regulatory Affairs for Endesa, an Enel group company. Between 2000 and 2004 he was in charge of the European trading unit of Endesa, developed through a joint venture with Morgan Stanley. Prior to this he was in charge of regulatory affairs in the Endesa generation business. Between 1986 and 1997 he was a researcher at the Instituto de Investigación Tecnológica (IIT). He has served as a member of the board of directors of the European Federation of Energy Traders (EFET) and co-chairman of its working group served as a member of the boards of the French and Polish power exchanges.</p>					
Csilla Bartok	ACER	Team Leader Framework Guidelines	Hungarian	Gas	Face-to-face, Ljubljana, 9 June 2016
<p>Csilla Bartok is Senior officer, Team Leader for Framework Guidelines and Network Codes in the Gas Department of the Agency for the Cooperation of Energy Regulators (ACER) established in 2009.</p>					

Dr. Guido Cervigni	Italian power exchange	Head of Market Development	Italian	Power	Email, 7 April 2015
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Dr Guido Cervigni is an international economist specialized in the energy sector and he is Research Fellow at the Institute for Energy and Environmental Economics (IEFE) at Bocconi University, Milan, and Research Fellow with the Centre on Regulation in Europe (CERRE), Brussels. Guido is a former Director at AF Mercados in Madrid, and former Director at LECG Consulting in London and Head of LECG's Italian office. Prior to joining LECG, he was Head of Economic Analysis and Regulatory Affairs at Enel S.p.A, Head of Business Development in an energy trading company and Head of Market Development at the Italian Power Exchange. Guido started his career at the Italian Energy Regulatory Authority where he was Head of Competition and Markets. Guido holds a PhD in economics with a thesis in industrial organisation from Bocconi University, Milan.

Mark Copley	ACER and British regulatory authority	Vice-Chair Electricity Working Group and Associate Partner Wholesale Markets	British	Power	Face-to-face, London, 24 June 2016
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Mark joined Ofgem as associate partner, European markets and coordination in January 2014, following three years with the European Network of Transmission System Operators for Electricity (ENTSO-E) in Brussels. Mark leads projects on the development of European and British wholesale markets and is the vice chair of the Electricity Working Group of European Regulators. He particularly focuses on the incentivisation of the system operator and the design and effective functioning of intraday, day ahead and balancing markets. An economist by background, Mark was previously an economic consultant with CEPA where he worked with clients across regulated sectors. He began his energy sector career with Ofgem in 2003.

Marco Forresi	ENTSO-E	Market Advisor	Italian	Power	Face-to-face, Brussels, 18 May 2016.
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Marco is Market design specialist at ENTSO-E, the European Network of Transmission System Operators for Electricity, a European association gathering 42 Transmission System Operators (TSOs) companies across 34 countries in Europe (then going beyond the borders of the Union). In 2009, the EU granted the association legislative mandate in order to coordinate the actions of those companies. The association has as a principal mandate to provide the EU with 10-years investment plans for grids (including amortisation). The association has also a role in forecasting demand evolution in order to make it in adequacy with capacities (for instance in case of severe winter), up to 10-20 years. ENTSO-E has finally a function of network code drafting, which are then reviewed by the ACER (Agency for the Cooperation of Energy Regulators) and then validated by European institutions. Before joining ENTSO-E, Marco worked as a market advisor at Eurelectric, the Union of the European electricity industry.

Dr. Anne-gret Groebel	CEER and German regulatory authority	Vice-President and Head of International Relations	German	Gas	Telephone, 10 June 2016
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Dr. Annegret Groebel has studied economics at the University of Heidelberg and Paris-Dauphine and was a researcher at the University of Mannheim where she also got her doctorate in 1996. Dr. Groebel has worked for the German Regulatory Authority for Telecommunications and Post since 1997 (renamed in 2005 to Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway). Dr. Groebel has held the post of Head of Section "International Co-ordination" in the German Regulatory Authority for Telecommunications and Post since 2001 and was promoted Head of Department International Relations/Postal Regulation in 2009. She also holds key positions at the Independent Regulators Group (IRG). She is actively involved in the work of the European Regulators Group (ERG) and of the newly created Body of European Regulators for Electronic Communications (BEREC). She is responsible for all contacts to other European and non-European regulatory bodies as well as for the contacts with the European Commission, including CEER, ACER in the energy field, ERG-Post and IRG Railways. In March 2012, she was appointed Vice-President of the Council of European Energy Regulators (CEER) and became the alternate member of the ACER Board of Regulators representing BNetzA at the BoR Plenary meetings.

Thomas Holzer	ACER	Officer Framework Guidelines	German	Gas	Face-to-face, Ljubljana, 9 June 2016
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Thomas Holzer is Officer for Framework Guidelines and Network Codes in the Gas Department of the Agency for the Cooperation of Energy Regulators (ACER) established in 2009. Among his key responsibilities, there has been the development of rules on congestion management.

Edith Hofer	Commission	Assistant to the Director General for Energy	Austrian	Both power and gas	Face-to-face, Brussels, 19 May 2016
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Edith Hofer studied law at the Johannes-Kepler University in Linz (Austria). From 1997 to 2001, she worked as an assistant lecturer at the Institute for Public Law at the same university. Following the successful completion of a 1-year post-graduate study programme (Master of Laws) at King's College London, Ms. Hofer worked in the legal department of E-Control, the Austrian energy regulatory authority, and from autumn 2003 to autumn 2004 as a seconded expert for CEER, the Council of European Energy Regulators. From October 2004 to November 2007, Edith Hofer worked as adviser in the Markets Unit of Eurelectric, the European electricity industry's association, before returning to E-Control as senior adviser for European issues in the International Relations department. Since January 2011, she works in the European Commission's Directorate-General for Energy. Ms. Hofer has extensive knowledge about the European electricity markets, including on the 3rd package, and experience in working in energy policy at EU level.

Fernando Lasheras Garcia	Iberdrola	Director of Brussels' office	Spanish	Power	Face-to-face, London, 23 June 2016
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Fernando Lasheras Garcia is since 2001 the Director of Iberdrola's Representative Office in Brussels. He has a Degree on Electrical Engineering and a broad experience both in the Operation and Regulation of Electricity Sectors. He began his professional activity in Iberduero in 1976 as responsible for the security functions in the Energy Management System. In 1986, he joined Red Eléctrica, the Spanish TSO, as Deputy Manager of the Northern Regional Centre. In 1996, he returned to Iberdrola as Director of Regulatory Development. He was involved in the design and development of the Spanish Electricity Market. His current duties are the institutional representation of Iberdrola in Brussels and the follow-up of the regulations that come from the EU institutions.

Dr. Margot Loudon	Eurogas	Deputy Secretary General	British	Gas	Face-to-face, Brussels, 18 May 2016
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Dr. Margot Loudon received a PhD in Humanities in 1983 from the University of London. After working with British Steel, and the Nationalised Industries Chairmen's Group, she began her career with the gas industry in the capacity of Financial Analyst with British Gas plc. She was seconded by British Gas to Brussels in 1986, where she worked in the Secretariat of Comité d'Etudes Economiques Gaz, and was appointed Deputy Secretary General in 1990 of Eurogas, then the organization representing integrated gas sector interests. Today Eurogas mainly represents the interests of wholesale and retail suppliers. Ms. Loudon's responsibilities within Eurogas focus on the internal market and related issues.

Tom Maes	ACER, CEER and Belgian regulatory au- thority	Chairman Tariff Task Force, Vice- Chairman Gas Working Group, and Principal Ad- visor	Belgian	Gas	Telephone, 27 May 2016
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Tom is vice-chairman of the Gas Working Group within CEER and ACER. In these organizations, he is responsible for the development of the Framework Guidelines on harmonized gas transmission tariff structures. He has been working for more than 10 years for the Belgian federal energy regulator CREG where he leads the gas team within the pricing and accounts control department.

Alberto Pototschnig	ACER	Director	Italian	Both po- wer and gas	Face-to-face, Ljubljana, 9 June 2016
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Alberto Pototschnig is the first Director of the European Agency for the Cooperation of Energy Regulators (ACER), established in 2010 pursuant to Regulation (EC) No 713/2009. Before joining the Agency, from January 2006 he was a Partner in Mercados EMI, a Madrid-based international consultancy specialising in the energy sector, where he served as CEO and Deputy Chairman. He previously worked at the Italian Transmission System Operators (from 2003 to 2005), served as first CEO of the Italian Electricity Market Operator (from 2000 to 2003) and in the Italian Energy Regulatory Authority (AEEG, from 1997 to 2000), with his final position being Director of Electricity Regulation. Alberto started his professional career in 1989 with London Economics, an international economic consultancy, where he was eventually in charge of the industrial economic advisory practice. Between 2003 and 2005 Alberto acted as an adviser to the Italian Government on environmental policy issues. Since 2004, he is an adviser at the Florence School of Regulation, where he regularly teaches on energy regulation and market design. Alberto holds a Degree in Economics from Bocconi University in Milan and an MSc in Econometrics and Mathematical Economics from the London School of Economics, University of London.

Dr. Martin Povh	ACER	Officer Framework Guidelines	Slovenian	Power	Face-to-face, Ljubljana, 9 June 2016
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Martin Povh obtained his university and Ph.D. degrees at the Faculty of Electrical Engineering, University of Ljubljana, in 2001 and 2009, respectively. Between 2001 and 2006 he was a Research Assistant at the Faculty of Electrical Engineering, carrying out research and education projects at the Laboratory for Energy Policy. During 2007 - 2011, Martin Povh was employed at ELES (Slovenia's Transmission System Operator) in the Market Monitoring Division. Now he works in the Electricity Department of ACER.

Thomas Querrioux	ACER	Gas Officer	French	Gas	Face-to-face, Ljubljana, 9 June 2016
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Thomas Querrioux is Officer for Framework Guidelines and Network Codes in the Gas Department of the Agency for the Cooperation of Energy Regulators (ACER). Among his areas of expertise, there is the regulation of network tariffs. Before joining ACER, Thomas worked as an analyst for CRE (the French Energy Regulatory Authority).

Prof. Pippo Ranci Ortigosa	CEER and Italian regulatory authority	Vice-President and President	Italian	Both power and gas	Email, 26 May 2016
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Until 2008 Pippo was director of the Florence School of Regulation at the European University Institute in Florence. Before that, he was president of the Italian regulatory authority for electricity and gas for seven years (1996 – 2003), co-founder and vice-president of the Council of European Energy Regulators (2000-2003), and often a consultant to the Italian government (1972-1993). Pippo Ranci is Professor of Economic Policy at the Università Cattolica in Milan.

Stephen Rose	Eurelectric and RWE	Chairman of Working Group Gas to Power and Head of Gas Market Design	British	Gas	Face-to-face, London, 25 May 2016
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Stephen Rose is an expert on gas regulation. He is Head of Market Design at RWE, as well as Chairman of the Working Group Gas to Power of Eurelectric, the Union of the European electricity industry.

Peter Styles	EFET	Chairman of the Electricity Committee	British	Power	Face-to-face, London, 28 July 2016
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Since 2000 Peter has been a Board Member of the European Federation of Energy Traders (EFET) and Chairman of the Electricity Committee of EFET. Since 2010 he has been an Honorary Associate at Dundee University, where he is attached to the Global Faculty. His career in the 1980s and 1990s encompassed project work in upstream oil and gas, power plant development, the management of a gas pipeline business and the establishment of the first and largest pan-European energy trading business.

Dr. Matti Supponen	Commission	Policy Coordinator Wholesale markets at DG ENER	Finnish	Power	Face-to-face, Brussels, 19 May 2016
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Dr. Matti Supponen works in the European Commission in DG Energy on electricity market issues. His current topics are the future market design and implementation of the existing legislation, in particular the electricity network codes. He has the degree of Doctor of Science in Technology from Aalto University in Espoo, Finland.

Ahead of each interview, the author sent a brief note introducing the relevant academic debates; identifying the gap, research question and case study; describing the provisional findings of each empirical chapter (Chapters 3-6); and presenting the then emerging argument and its broader implications (see below). Most of the interviews were conducted “face-to-face”, either in Brussels, Ljubljana (where the EU Agency for the Cooperation of Energy Regulators is based) or London. They lasted from thirty minutes to two hours, with an average of one hour and fifteen minutes. Interviews were “semi-structured”. After briefly reviewing the written material he had sent in advance, the author mainly asked open-ended questions, which were ordered flexibly. The main goal was to understand how far the author’s understanding that far emerged reflected the opinion of interviewees. This led to largely respondent-driven discussions. In some instances, on their own initiative interviewees offered suggestions about additional people who could be interviewed. Although in order to facilitate the interviews interviewees were offered the possibility of confidentiality or anonymity according to their own preferences, no interviewee decided to take advantage of either.

Note aiming to facilitate interviews on doctoral research of Bernardo Rangoni (LSE), provisionally titled “Uncertainty and experimentalist policymaking by the European Commission: regulating the internal market – the cases of electricity and gas policy”

Introduction to the relevant academic debates

‘New modes of governance’ that diverge in various respects from standard hierarchical or ‘command and control’ models have attracted considerable attention over the last two decades, both in academic debates and applications in practice.⁵⁰⁴ They involve a shift in emphasis away from command-and-control in favor of ‘regulatory’ approaches which are less rigid, less prescriptive, less committed to uniform outcomes, and less hierarchical in nature.⁵⁰⁵ A promising perspective for conceptualizing new governance is offered by the theory of ‘experimentalist governance’, defined in general terms as a recursive process of provisional goal-setting and revision based on learning from the comparison of alternative approaches to advancing them in different contexts.⁵⁰⁶ Experimentalist scholars understand the emergence and success of this novel form of governance as a response to a secular rise in volatility and uncertainty, which has overwhelmed the capacities of conventional hierarchical governance in many settings. Experimentalist architectures have thus spread across many domains and polities and are especially well-suited, experimentalists suggest, to heterogeneous but highly interdependent settings like the European Union (EU), where they appear to have found their way more quickly and consistently.⁵⁰⁷ There, local units face similar problems and can learn much from each another’s efforts to solve them, even though particular solutions will rarely be generalizable in any straightforward way. In this sense, experimentalism is said to be a normatively desirable machine for learning from diversity, thereby ‘transforming an obstacle to closer integration into an asset for achieving it’.⁵⁰⁸

⁵⁰⁴ For excellent reviews see Eberlein, B. and Kerwer, D. (2004) ‘New Governance in the European Union: A Theoretical Perspective’. *JCMS*, 42(1): 121-42; and De Burca, G. and Scott, J. (2006) *Law and New Governance in the EU and the US*. Oxford: Hart Publishing.

⁵⁰⁵ De Burca, G. and Scott, J. ‘New Governance, Law and Constitutionalism’. In de Burca, G. and Scott, J. (Eds.) *Law and New Governance in the EU and the US*. Hart Publishing, 2006. Draft available at: <http://www.ucl.ac.uk/laws/clge/docs/govlawconst.pdf> Accessed 21st August 2014.

⁵⁰⁶ “Recursive” is used in the sense that the output from one application of a procedure or sequence of operations becomes the input for the next, so that iteration of the same process produces changing results. See C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, p.170.

⁵⁰⁷ Sabel, C. F. and Zeitlin, J. (2010) ‘Learning from Difference: the New Architecture of Experimentalist Governance in the EU’. In C.F. Sabel and J. Zeitlin (Eds.) *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford: OUP, pp.9; C.F. Sabel and J. Zeitlin (2012) ‘Experimentalist Governance’. In D. Levy-Faur (Ed.) *The Oxford Handbook of Governance*. Oxford: OUP, pp.170-184.

⁵⁰⁸ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 276.

However, experimentalist concepts and new modes of governance have recently faced a major challenge from the literature on the ‘shadow of hierarchy’. Skeptical commentators suggest that the experimentalist architecture may just represent an ‘empty shell’, disguising for example ‘policy transfer’.⁵⁰⁹ Others point out that ‘peer review’ means different things in different policies and the related processes can break down at several points.⁵¹⁰ Still others recognize that Open Method of Coordination (OMC) processes, which have often been presented as an archetypal example of experimentalist architecture in the EU, actually vary considerably in their modalities and procedures.⁵¹¹ The core of this critique is that new modes of sectoral governance in themselves do not contribute to the efficacy of policymaking. Instead, they require the shadow of hierarchy, i.e. legislative and executive decisions, in order to deal effectively with the problems they are supposed to solve.⁵¹² The experimentalism that emerges under the shadow of hierarchy is dependent on state authority for its existence - with the upshot that experimentalism is a complement or extension to traditional state authority, rather than an alternative to it.⁵¹³ Seen this way, the experimentalist architecture might be simply a capacity-increasing extension of the formal hierarchical, principal-agent decision-making apparatus rather than a networked, deliberative alternative to it.⁵¹⁴

Gap, research question and case study

Despite the wealth of contributions, images about experimentalist and new modes of governance more generally therefore remain different if not contrary. Questions regarding the effects of experimentalist architectures, rather than their diffusion, largely remain unsolved. In order to establish causal relations between background conditions and the actual use of experimentalist architectures (i.e., experimentalist policymaking), the thesis asks under what conditions the Commission engages in experimentalist policymaking. Experimentalist policymaking is conceptualized and measured as a process whereby 1) Member State public authorities and/or regulated companies are allowed to experiment distinct approaches, 2) their alternative experiments are compared, and 3) agreements on reforms and/or performance metrics are developed based on such comparisons. A point of departure taken in the thesis is therefore that, in the course of regulatory policymaking, the Commission finds itself in a situation in which it can engage in distinct types of policymaking.

⁵⁰⁹ Lavenex, C. (2008) 'A governance perspective on the European neighbourhood policy: integration beyond conditionality?'. *Journal of European Public Policy*, 15(6): 938-955.

⁵¹⁰ Radaelli, C. (2008) 'Europeanization, policy learning and new modes of governance'. *Journal of Comparative Policy Analysis*, 10 (3): 239-254.

⁵¹¹ Zeitlin, J. (2005) 'Conclusion'. In Zeitlin, J. and Pochet, P. (Eds.) *The Open Method of Coordination in Action*. Brussels: PIE – Peter Lang, pp. 447–503; Chalmers, D. and Lodge, M. (2003) 'The open method of co-ordination and the European welfare state'. *CARR Discussion Papers*, DP 11; Radaelli, C. (2008) 'Europeanization, policy learning and new modes of governance'. *Journal of Comparative Policy Analysis*, 10 (3): 239-254; Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 271–327.

⁵¹² Heritier, A. and Lehmkuhl, D. (2008) 'The Shadow of Hierarchy and New Modes of Governance'. *Journal of Public Policy*, 28: 1-17.

⁵¹³ Sabel, C.F. and Zeitlin, J. (2012) 'Experimentalism in the EU: Common ground and persistent differences'. *Regulation & Governance*, 6: 413.

⁵¹⁴ Sabel, C. F. and Zeitlin, J. (2008) Learning from difference: The new architecture of experimentalist governance in the European Union. *European Law Journal* 14: 307-308.

The thesis analyses four cases by looking at two specific issue-areas (i.e., congestion management and tarification of cross-border exchanges) in both the electricity and gas domains, from the late 1990s to the early 2010s. Since the late 1990s, in both domains the regulation of these two issue-areas could rely on analogous experimentalist architectures, which developed in parallel (e.g., Florence and Madrid fora, regional initiatives). It has seen a similar decrease of conflicts over time, between incumbents and new entrants (i.e., due to progressive unbundling) as well as between EU and national policymakers (i.e., due to the gradual creation and empowerment of independent national regulators). It has been affected by an almost identical increase over time of the Commission's formal rulemaking powers (i.e., first it could develop rules only by proposing EU legislation, since 2003 and 2005 it could also develop implementing acts through comitology, and since 2009 it could also produce network codes).

As we shall see, initially, it has witnessed similar levels of uncertainty. At the very beginning of the liberalization and re-regulation process, the Commission had only vague policy preferences about how to regulate these issue-areas, but when agreement on reforms emerged, it developed more specific policy preferences. Since the mid-2000s, however, substantial variation in uncertainty emerged in both paired cases across the electricity and gas domains. For regulating congestion management, in the power domain the Commission was confronted with new policy questions about which it did not have specific preferences, while in the gas domain it continued to hold previously established preferences for specific policies. In the tarification of cross-border exchanges, conversely, in the power domain it maintained its existing preferences for specific policies, while in the gas domain a question emerged about whether further harmonization was needed and if so how it ought to be pursued, a policy about which the Commission did not have straightforward preferences (Table 1).

Table 1. Variation in uncertainty in congestion management and the tarification of cross-border exchanges across the power and gas domains

	Part One: late 1990s - early 2000s		Part Two: mid-2000s - early 2010s	
	Power domain	Gas domain	Power domain	Gas domain
Congestion management	Strong and then weak	Strong and then weak	Strong	Weak
Tarification of cross-border exchanges	Strong and then weak	Strong and then weak	Weak	Strong

Provisional empirical findings

The empirical analysis was organized into two parts. The first part covered the regulatory policymaking by the Commission from the late 1990s to the early 2000s, while the second part examined it from the mid-2000s to the early 2010s.

In both the power and gas domains, at the very beginning of the liberalization and integration of the European markets in the late 1990s, the policy preferences of the Commission were broad, namely in favor of access to the system based on objective, transparent and non-discriminatory criteria.⁵¹⁵ Since the Commission did not have precise preferences about how to regulate the management of scarce interconnection capacity, uncertainty was strong. In these conditions of strong uncertainty, even in the absence of a strong shadow of hierarchy supposedly needed to induce strongly conflictual parties to cooperate, the Commission employed experimentalist architectures to seek dialogue with Member State public authorities and private regulated companies, and this led to experimentalist policymaking by allowing actors experimenting distinct solutions, stimulating their comparison, and facilitating agreement on reforms on this basis. In the power domain, it used the Florence Forum to compare experiments of most experienced markets such as the UK, Spain and the Nordic countries, and on this basis Forum actors agreed in 2000 on voluntary Guidelines on Congestion Management suggesting market-based approaches (i.e., auctions) rather than administrative-based methods (e.g., pro-rata, first-come-first-served).⁵¹⁶ In the gas domain, the Commission used the Madrid Forum and smaller Working Groups to compare experiments in the UK, Spain and the Netherlands, overview arrangements adopted throughout Europe, and survey views of industry actors from a variety of Member States. On this basis, Madrid Forum participants voluntarily agreed in 2002 on Guidelines for Good Practice emphasizing the importance of TPA to open markets to competition,⁵¹⁷ and in 2003 on revised GGP suggesting to free up unused transport capacity through market-based approaches, namely ‘interruptible’ Use-It-Or-Lose-It (UIOLI) rules and secondary trading.⁵¹⁸

By agreeing on these reforms, the Commission developed the much more specific policy preferences just described. Compared to the previous phase, uncertainty therefore declined. In these conditions of weaker uncertainty, the Commission did not employ experimentalist architectures even though still present. Instead, it assessed compliance with the voluntary reforms and on this basis formalized, through other than experimentalist policymaking, reforms previously agreed through experimentalist processes, making a single solution binding on all Member States and regulated companies. This contrasts with the hierarchy-based hypothesis, which expected the Commission to engage with experimentalist policymaking much, given its limited rulemaking powers. In the power domain, the Commission and CEER assessed implementation experiences for monitoring compliance with the voluntary Guidelines, rather than for comparing alternative solutions; Regulation (EC) No 1228/2003 was not developed based on comparisons of distinct experiments, but formalized the voluntary Guidelines previously agreed through experimentalist processes; and it did so precisely to make a single solution binding and avoid distinct approaches, instead of allowing distinct experiments. In the gas domain, similarly, the Commission assessed implementation experiences for monitoring compliance, rather than for comparing alternative solutions; Regulation (EC) No 1775/2005 was not developed based on comparisons of distinct experiments, but formalized the voluntary GGP previously

⁵¹⁵ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity; 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.

⁵¹⁶ Conclusions of the 6th Florence Forum, “Guidelines on Congestion management”, 9-10.11.2000.

⁵¹⁷ Conclusions of the 5th Gas Regulatory Forum. 7-8 February 2002.

⁵¹⁸ Conclusions of the 7th meeting of the European Gas Regulatory Forum Madrid, 24-25 September 2003. ANNEX 1 The Guidelines for Good TPA Practice - revised version, Art.8.1-8.2.

agreed through experimentalist processes; and it did so precisely to make a single solution binding on all Member States and regulated companies.

Tarification from the late 1990s to the early 2000s (Chapter Four)

In both domains, at the very beginning of the liberalization and integration of the European markets, the policy preferences of the Commission were broad, namely in favor of objective, transparent and non-discriminatory tariffs.⁵¹⁹ Since the Commission did not have precise preferences about how to regulate the tarification of cross-border exchanges, uncertainty was strong. In these conditions of strong uncertainty, even in the absence of a strong shadow of hierarchy hypothetically needed to induce strongly conflictual parties to cooperate, the Commission employed experimentalist architectures to seek dialogue with Member State public authorities and private regulated companies, and this led to experimentalist policymaking by allowing actors experimenting distinct solutions, stimulating their comparison, and facilitating agreement on reforms on this basis. In the power domain, by employing for about six years the Florence Forum, a Working Group and a technical subgroup, it stimulated comparisons of experiments of the most experienced markets such as the UK, Sweden, and US, which were complemented by the Aachen study's overview of national and cross-border transmission pricing arrangements. On this basis, Forum actors agreed in 1999 on voluntary Guidelines suggesting non-transaction based postage stamp tariffs and an associated inter-TSO compensation mechanism, in 2002 on the details of how to implement such inter-TSO compensation mechanism, and in 2003 on a harmonized range of G charges.⁵²⁰ In the gas domain, alternative experiments were compared notably by the Brattle Group, GTE, and CEER, and debated for about five years within the Madrid Forum and a smaller Joint Working Group. On this basis, Forum actors developed reforms based on cost-reflective tariffs and entry-exit systems, as reflected in the agreements reached in 2002.⁵²¹

After agreements on reforms emerged, however, the Commission developed much more specific policy preferences, precisely in favor of the content of the agreed reforms. In these conditions of reduced uncertainty, the Commission did not continue to engage in experimentalist policymaking, even though the same experimentalist architectures remained available. This contrasts with the hierarchy-based hypothesis, which expected the Commission to keep being engaged with experimentalist policymaking, given its still limited hierarchical rulemaking powers. Instead, backed by specific policy preferences, the Commission pursued much more formalized, faster, and less inclusive other than experimentalist policymaking processes. In the power domain, the Commission did not compare implementation experiences, while in the gas domain it did so to assess compliance with the agreed reforms. In both cases, rather than allowing Member States and companies to experiment alternative solutions, it formalized reforms previously agreed through experimentalist processes precisely to make them binding on

⁵¹⁹ Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity; 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.

⁵²⁰ Towards EU cross-border electricity trade: regulatory remarks and guidelines on tariffs and congestion (text as amended after the first Florence Working Group of 8 December 1999); Conclusions Eight Meeting of the European Electricity Regulatory Forum. Florence, 21-22 February 2002, p.1; Conclusions Tenth Meeting of the European Electricity Regulatory Forum. Rome, 8-9 July 2003, p.4.

⁵²¹ Conclusions of the 5th meeting of the European Gas Regulatory Forum. Madrid, 7-8 February 2002; Conclusions of the 6th Gas Regulatory Forum. 30/31 October 2002.

all Member States and companies, namely through Regulation (EC) No 1228/2003 and Regulation (EC) No 1775/2005.

Congestion management from the mid-2000s to the early 2010s (Chapter Five)

The arguments that emerged from Chapters Three and were confirmed in Chapter Four were further tested in Chapters Five and Six, which looked at the period from the mid-2000s to the early 2010s, when substantial variation in uncertainty emerged in both paired cases across the electricity and gas domains, despite continuing similarities across them in terms of hierarchy and its shadow, as well as experimentalist architectures and degrees of conflicts. In both domains, analogous experimentalist architectures were present and developed in parallel. Since the mid-2000s, in both electricity and gas the rulemaking powers of the Commission were strengthened very similarly (i.e., first with the power of adopting implementing acts through comitology and then with the network codes procedure), hence both hierarchy and its shadow grew stronger. By contrast, both the conflicts between EU and national policymakers and those between distinct types of regulated companies decreased (the creation of national regulatory authorities was made compulsory and their powers and independence strengthened; ownership unbundling became more common). Instead, heterogeneities across the two domains emerged in terms of uncertainty. In the power domain uncertainty grew stronger because the Commission was confronted with new policy questions about which it did not have specific preferences, namely what type of auctions be used and through which arrangements be implemented. In the gas domain, on the contrary, uncertainty remained weak, because the Commission continued to hold previously established preferences for specific policies, namely UIOLI provisions.

The chapter's central finding is that the heterogeneities in uncertainty that emerged since the mid-2000s made a difference in the prevailing type of policymaking, despite continuing similarities across domains in hierarchy and its shadow, as well as in experimentalist architectures and degrees of conflicts. It has shown that in the power domain the Commission returned to have vague policy preferences by becoming exposed to new questions about what type of auctions be used and through which arrangements; how in these conditions of uncertainty it employed experimentalist architectures such as the Mini-Fora and Regional Initiatives, Project Coordination Group and Florence Forum to seek dialogue with Member State public authorities and regulated companies even in the presence of stronger hierarchical powers that it could have used to develop rules through other than experimentalist policymaking; and how this process led to experimentalist policymaking by allowing actors experimenting distinct types of auctions and arrangements, stimulating their comparison, and facilitating agreement on reforms on this basis, namely in favor of implicit rather than explicit auctions and price rather than volume coupling arrangements for extending the target model from the Trilateral Market Coupling project to neighboring regions.⁵²² By contrast, it has shown that in the gas domain the Commission continued to hold specific policy preferences for UIOLI rules and how in these conditions of enduringly weak uncertainty it did not employ experimentalist architectures even

⁵²² http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Flor-ence%20Fora/PCG/meeting_17_2_pcg_proposal_presentation.pdf; http://www.ceer.eu/portal/page/portal/EER_HOME/EER_WORKSHOP/Stakeholder%20Fora/Flor-ence%20Fora/PCG/PCG%20WS%20Day%20Ahead%20Markets%202009-10-07%20Annex%202.pdf. Accessed on 18th April 2010.

though present. Instead, once it had assessed the inefficacy of the single policy solution imposed by Regulation (EC) No 1775/2005 (i.e., interruptible UIOLI)⁵²³, notably through the Sector Inquiry,⁵²⁴ it made it stricter (i.e., firm UIOLI) and binding all over Europe, by adopting the Commission Decision 2012/490/EU.⁵²⁵ This finding runs contrary to the shadow of hierarchy hypothesis, which expected the Commission to engage with experimentalist policymaking more, given the larger shadow it could loom on parties to induce them to cooperate.

Tarification from the mid-2000s to the early 2010s (Chapter Six)

These arguments were eventually tested in Chapter Six, which kept looking at the Commission's regulatory policymaking from the mid-2000s to the early 2010s in the power and gas domains, but shifted focus to the tarification of cross-border exchanges. In both domains, analogous experimentalist architectures were present and developed in parallel. Since the mid-2000s, in both electricity and gas the rulemaking powers of the Commission were strengthened very similarly, hence both hierarchy and its shadow grew stronger. By contrast, both the conflicts between EU and national policymakers and those between distinct types of regulated companies decreased. Instead, heterogeneities across the two domains emerged in terms of uncertainty, reversely compared to the paired case of the management of scarce interconnection capacity analyzed in Chapter Five. In the power domain uncertainty remained weak because the Commission continued to hold throughout the 2000s previously established preferences for specific policies, namely the detailed methods for the inter-TSO compensation mechanism and the harmonized range of G charges. In the gas domain, by contrast, uncertainty resurfaced because the Commission was confronted with new policy questions about which it did not have straightforward preferences, namely whether the existing heterogeneities in arrangements used to apply entry-exit systems were distorting competition and cross-border trade and if so what kind of harmonization was best to pursue.

The chapter's central finding was the same but reserved compared to that of Chapter Five, and namely that the heterogeneities in uncertainty that emerged since the mid-2000s made a difference in the prevailing type of policymaking, despite continuing similarities across domains in hierarchy and its shadow, as well as in experimentalist architectures and degrees of conflicts. It has shown that in the power domain throughout the 2000s the Commission continued to hold the specific policy preferences it had developed at the beginning of the decade, namely for a harmonized range of G charges between 0 and a positive value and specific methods for the inter-TSO compensation mechanism as agreed in the Florence Forum in 2002 and 2003.⁵²⁶ It has shown how under these conditions of persistently weak uncertainty it did not engage in experimentalist policymaking, but rather formalized and gave binding power to the single, long

⁵²³ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks.

⁵²⁴ COMMUNICATION FROM THE COMMISSION Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report); DG COMPETITION REPORT ON ENERGY SECTOR INQUIRY. Brussels, 10 January 2007, SEC(2006) 1724.

⁵²⁵ Commission Decision 2012/490/EU of 24 August 2012 on amending Annex I to Regulation (EC) No 715/2009 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks.

⁵²⁶ Conclusions Eight Meeting of the European Electricity Regulatory Forum. Florence, 21-22 February 2002, p.1; Conclusions Tenth Meeting of the European Electricity Regulatory Forum. Rome, 8-9 July 2003, p.4.

preferred approach on which Member States and regulated companies had converged, by adopting Commission Regulation (EU) No 774/2010 through its comitological powers.⁵²⁷ This finding runs contrary to the shadow of hierarchy hypothesis, which expected the Commission to engage with experimentalist policymaking more, given the larger shadow it could loom on parties to induce them to cooperate. By contrast, it has shown that in the gas domain the Commission returned to have generic policy preferences by becoming exposed to new questions about whether the existing heterogeneities in tariffication approaches were creating distortions to competition and cross-border trade, and if so through what kind of harmonization they could be addressed. It has shown how under these conditions of increased uncertainty, even in the presence of stronger powers it could have used to develop rules through hierarchical policymaking, the Commission re-employed experimentalist architectures such as the Madrid Forum and an ad hoc informal group of experts advising ACER as well as support from members of the epistemic community (e.g., KEMA, Florence School of Regulation) to compare for about five years alternative experiments being carried out by Member States and regulated companies, and how reforms were developed based on and by making explicit reference to such comparisons, namely the ACER Framework Guidelines on harmonized transmission tariff structures introducing a set of common parameters for all aspects of tariff setting including cost allocation methodologies.⁵²⁸

Currently emerging argument and implications

The central finding emerging from the empirical analysis is that, over time, there is a persistent pattern of interactions between experimentalist and other types of policymaking: they regularly alternate with each other, with important reforms often being first agreed through the former and then being formalized and given binding power through the latter. It showed that when the Commission had vague policy preferences, it employed experimentalist architectures to seek dialogue with Member State public authorities and private regulated companies, and how this allowed actors experimenting distinct solutions, comparing them, and agreeing on reforms and performance indicators on this basis. By contrast, it showed that when the Commission had specific policy preferences, it did not employ experimentalist architectures even though present, but instead used its powers to minimize dialogue with Member States and regulated companies. It showed how this did not lead to distinct experiments, their comparison, and reforms based on them, but rather to the development of reforms through highly hierarchical and formalized, other than experimentalist policymaking. It also showed that, contrary to the hierarchy-based expectations, in conditions of uncertainty the Commission engaged in experimentalist policymaking even when it had the hierarchical powers to pursue other types of policymaking and, contrary to the shadow of hierarchy expectations, it did so even in the absence of a strong shadow of hierarchy supposedly needed to induce actors with conflictual policy preferences to cooperate. Moreover, neither the hierarchy-based nor the shadow of hierarchy hypothesis can explain why the Commission engaged in distinct types of policymaking despite similarities in hierarchy and its shadow, and taking into account degrees of conflict and presence of experimentalist architectures.

⁵²⁷ Commission Regulation (EU) No 774/2010 of 2 September 2010 on laying down guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging.

⁵²⁸ ACER Framework Guidelines on rules regarding harmonized transmission tariff structures for gas. FG-2013-G-01, 29 November 2013

The arguments emerging from the empirical analysis have important implications for the theoretical frameworks from which distinct hypotheses were drawn. First, by showing that the Commission engaged in experimentalist policymaking despite the absence of a strong shadow of hierarchy supposedly needed to induce parties, especially if conflictual, to cooperate, they disconfirm the views put forward by the major critics of new and experimentalist governance, that emphasize the importance of the shadow of the state for their effectiveness. Second, by showing that the Commission engaged in experimentalist policymaking despite the presence of strong hierarchical rule making powers, they undermine the views put forward by some shadow of hierarchy scholars that interpret new and experimentalist modes of governance as attractive only in the absence of more traditional, hierarchical routes, as well as the views put forward by experimentalist scholars themselves, that have been stressing the importance of a polyarchic distribution of powers to avoid the most powerful actors imposing their preferred solution. Third, they strengthen the importance of uncertainty, showing that it has significant influence not only for the diffusion of experimentalist architectures, as argued by experimentalist scholars, but also for engagement in experimentalist policymaking through the use of those architectures.

In turn, these findings allow us moving beyond the different if not contrary images about the new and experimentalist modes of governance. By identifying the conditions under which key actors, such as the Commission in the EU, do or do not engage in experimentalist policymaking, these findings advance our understanding of the conditions under which new and experimentalist modes of governance actually have important effects on policymaking.

Acronyms

ACER – Agency for the Cooperation of Energy Regulators

CEER – Council of European Energy Regulators

CEFIC – European Chemical Industry Council

EFET – European Federation of Energy Traders

ENTSO-E – European Network of Transmission System Operators for Electricity

ENTSO-G – European Network of Transmission System Operators for Gas

ERGEG – European Regulators Group for Electricity and Gas

ETSO – European Transmission System Operators

EURELECTRIC – Union of the European electricity industry

EUROGAS – Association representing the European gas wholesale, retail and distribution sectors

EUROPEX – Association of European Energy Exchanges

GEODE – Voice of local Energy Distributors across Europe

GTE – Gas Transmission Europe

IFIEC – International Federation of Industrial Energy Consumers

PCG – Project Coordination Group

Glossary

Auctions – a market-based congestion management method. This contrasts with pro-rata and first come, first served

Congestion management – the management of situations in which demand for network capacity exceeds the amount of available network capacity

Cost reflectivity – the principle according to which tariffs reflect the underlying costs. This contrasts with cross-subsidization

Cross-subsidization – the practice of charging higher prices to one group of consumers or companies to subsidize lower prices for another group. This contrasts with cost-reflectivity

Entry-exit system – a gas network access model which allows network users to book capacity rights independently at entry and exit points, thereby creating gas transport through zones instead of along contractual paths. This contrasts with the point-to-point system

Explicit auctions – specific type of auctions in which transport rights and commodity are traded through distinct auctions. This differs from implicit auctions

Firm capacity – transport capacity contractually guaranteed as uninterruptible by the transmission system operator. This differs from interruptible capacity

First come, first served – traditional congestion management method in which requests for transport capacity are accepted until capacity limit is reached. This differs from auctions

Implicit auctions – specific type of auctions in which transport rights are not explicitly auctioned, but rather made available implicitly while participating to auctions concerning commodity. This differs from explicit auctions

Interruptible capacity – transport capacity that can be interrupted by the transmission system operator according to the conditions stipulated in the transportation contract. This contrasts with firm capacity

Inter-transmission system operator compensation mechanism – a mechanism which ensures that transmission system operators are compensated for the costs of hosting cross-border flows on their networks

Natural monopoly – a situation in which the market can most cheaply be supplied by a single firm

Point-to-point system – the traditionally used network access model which mandated gas transport to be based on contractual paths. This contrasts with the entry-exit system

Postage-stamp – tariffication method that provides access to the entire grid at a flat rate. This contrasts with transit fees

Price coupling – a method to implement implicit auctions in which both flows and prices are determined by the coupler. This differs from volume coupling

Pro-rata – traditional congestion management method in which all requested transactions are carried out and each transaction quantity is cut by the same percentage. This differs from auctions

Secondary market – the market of the transport capacity traded otherwise than on the market of the capacity traded directly by the transmission system operator

Tariffication – the regulation of prices for accessing and using network capacity

Transit fees – traditional tariffication method that imposes charges for each transactions network users engage in

Use-it-or-lose-it – congestion management method that imposes the use of transport rights or else their loss

Volume coupling – a method to implement implicit auctions in which only the flows between two markets are determined in the first stage, and prices are calculated subsequently by the local power exchanges

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