

Conflicts between national regulatory cultures and EU energy regulations

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ABSTRACT

The research question is whether and to what extent the regulatory approach of command and control which is dominant in the energy sector accounts for implementation and enforcement deficits, and should be replaced or, at least, complemented by reform measures based on the public administration concept of collaborative governance. After a brief overview of the 2009 EU legislative package of energy regulations, three concepts of regulatory cultures are identified for Great Britain, France, and Germany which are based on the state paradigms of the enabling state (GB), the providing state (F), and the ensuring state (D). The main characteristics of the three national regulatory systems are outlined for the energy sector. Differences and conflicts between national regulatory cultures and EU energy regulations are identified, and linked to implementation and market deficiencies. Finally, alternative approaches to energy regulation are outlined on the basis of the concept of collaborative governance.

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1. Introduction

Fifteen years of EU command and control regulations¹ aimed at liberalizing European energy markets have not resulted in truly competitive and integrated electricity and gas markets in Europe (European Commission, 2009b, 2011). Incomplete implementation and enforcement of EU energy legislation by EU member states are held responsible for the shortcomings of the European liberalization efforts (European Commission, 2009b).

The question is whether and to what extent the dominant regulatory approach of command and control regulations based on neoclassical economic theory is a major cause for implementation and enforcement deficits, and should be replaced or, at least, complemented by reform measures based on the public administration concept of collaborative governance².

2. Main characteristics and conceptual foundations of EU energy regulations

2.1. EU directives and regulations

According to neoclassical market theory integrated competitive energy markets will emerge when the following requirements are met (Brunekreeft, 2003; 16 ff.; Joskow, 2008; 12 f.; Spanjer, 2009; 3251):

- the abolition of closed service areas which involves the introduction of free generation, imports, supply, trade and consumer choice of energy,
- non-discriminatory third party access to transmission and distribution grids,
- unbundling of vertically integrated utilities,
- the establishment of regulatory authorities.

In the first regulatory phase of 1996/1998, the EU issued two directives³ and established general principles for limited competition, third party access to the transmission and distribution grids, and unbundling. The establishment of regulatory authorities was left to EU member states. The directives were based on the

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¹ Command and control regulations consist of legal commands, prohibitions and permits (licenses) which are enforced through fines and physical coercion. Command and control regulations are binding on private and public regulatees, and, in the case of EU directives, on member states, which have to transpose the directives into national law.

² The term “collaborative management” is often used synonymously with “collaborative governance” (see Bingham et al., 2008: 3 f.). The latter term is preferred here, because it implies structural and procedural components of collaboration, and avoids the possible misunderstanding that collaboration is only an activity.

³ 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.

assumption that competitive markets would emerge “naturally” once legal barriers to competition were removed.

In the second regulatory phase of 2003/2005, the EU replaced the 1996/1998 directives with two new directives⁴ which contained detailed regulations for third party access to the energy networks, legal unbundling of vertically integrated utilities, and the requirement to establish national independent regulatory authorities. The EU also issued two regulations on access to the networks for cross-border exchanges in electricity⁵, and on access to the gas transmission networks⁶.

In the third regulatory phase of 2009, the EU further tightened the regulatory screws by replacing the 2003/2005 legislation with two new directives⁷ and three new regulations⁸. The new law prescribes *inter alia*⁹

- ownership unbundling of transmission systems and the functions of electricity generation or gas production respectively and energy supply in vertically integrated utilities¹⁰ with three complicated exceptions:
 - the Independent System Operator (ISO) model¹¹,
 - the Independent Transmission Operator (ITO) model¹², and
 - existing national arrangements which guarantee more effective independence of the transmission system operator than the ITO model¹³,

⁴ Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC; Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.

⁵ Regulation (EC) No 1228/2003 of the European Parliament and of the Council of 26 June 2003 on conditions for access to the networks for cross-border exchanges in electricity.

⁶ 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.

⁷ Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC; 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.

⁸ 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; 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; 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.

⁹ See the overviews of the 3rd legislative package by Lane (2009) and Gundel and Germelmann 2009.

¹⁰ Art. 9 (1) of 2009/72/EC and 2009/73/EC.

¹¹ Pursuant to Art. 13 of 2009/72/EC and Art. 14 of 2009/73/EC the ISO model enables vertically integrated utilities to retain the ownership of their transmission networks if they transfer the technical and commercial operation of the transmission networks to a separate body, called Independent System Operator (ISO), to be designated by member states and complying, *inter alia*, with the rules of independence as outlined in the scheme of ownership unbundling.

¹² Pursuant to Art. 17 of 2009/72/EC and 2009/73/EC the ITO model also allows vertically integrated utilities to retain indirect ownership of their transmission networks if they transfer the ownership including the technical and commercial operation of their transmission networks to a separate body, called Independent Transmission Operator (ITO) which belongs to the vertically integrated utility and is designated by member states. The ITO has to comply, *inter alia*, with a set of special organizational provisions like the establishment of a supervisory board, and with detailed procedural rules ensuring its independence from the vertically integrated utility.

¹³ Pursuant to Art. 9 (9) of 2009/72/EC and 2009/73/EC vertically integrated utilities can retain ownership of their transmission networks if national arrangements are in place which guarantee more effective independence of the transmission system operator than the ITO model.

- legal unbundling of distribution system operators in vertically integrated utilities¹⁴,
- non-discriminatory third party access to the transmission and distribution networks¹⁵,
- annual ten-year network development plans¹⁶ for infrastructure investments,
- the establishment of a single regulatory authority with detailed and comprehensive duties and powers in each member state¹⁷,
- the creation of two European Networks of Transmission Systems Operators (ENTSO) for electricity and gas through which all transmission system operators shall cooperate at Community level¹⁸,
- the establishment of a European Agency for the Cooperation of Energy Regulators to assist national regulatory authorities¹⁹.

This short overview of the three phases of regulating EU energy markets shows that the EU produced a large amount of detailed and complex regulations whose number increased in each regulatory phase. For instance, each of the two 2009 directives on the electricity and gas markets encompasses more than 20 additional articles as compared to its 2003 predecessor. The regulations consist of commands, prohibitions, permits, controls and sanctions which, after transposition into national laws, are addressed to utilities and other stakeholders of the energy markets. The rules must be implemented and enforced by national public authorities. It seems that the uncritical belief in the market forces of the first EU liberalization directives has now been replaced by an equally uncritical belief in the capacity of government to impose market competition by command and control regulations.

2.2. Transfer of the British regulatory model to the EU level

Conceptually, the EU regulations largely follow the British model of restructuring energy markets (Ranci, 2003: 121, Bulmer *et al.*, 2007: 2, 83, 91, 93 f.; Thatcher, 2007a: 159). The British model²⁰ is characterized by command and control regulations providing for ownership unbundling of transmission systems from energy generation and supply, a price cap regulation for tariffs on network services, and a central independent regulatory authority with far-reaching powers. In its annual report of 2008/2009, the British regulatory authority (Ofgem, 2009: 24/25)²¹ considered itself “the leading voice in Europe”, and reported as “key achievements for 2008–2009”, *inter alia*, that “Ofgem has provided the European Union with a strong steer in its bid to inject competition into its energy markets and its moves to consolidate the regulatory framework.”

2.3. Neoclassical economic theory as conceptual base of energy regulations

Conceptually, the British regulatory model and EU energy regulations are off-springs of neoclassical economic theory (Spanjer, 2009: 3251). While there are many facets of neoclassical economics, their common foundation are the following basic assumptions (Weintraub, 2002):

¹⁴ Art. 26 of 2009/72/EC and 2009/73/EC.

¹⁵ Art. 32 of 2009/72/EC and 2009/73/EC.

¹⁶ Art. 13 (2) lit. c, (4) and Art. 22 of 2009/72/EC; Art. 14 (2) lit. c, (4) and Art. 22 of 2009/73/EC.

¹⁷ Art. 35, 37 of 2009/72/EC and Art. 39, 41 of 2009/73/EC.

¹⁸ Art. 4 of Reg. 714/2009 and Reg. 715/2009.

¹⁹ Art. 1, 6–9 of Reg. 713/2009.

²⁰ See Littlechild 1983 who is considered the architect of the UK model, and the contributions in Bartle (2003).

²¹ Office of Gas and Electricity Markets.

- “People have rational preferences among outcomes.
- Individuals maximize utility and firms maximize profits.
- People act independently on the basis of full and relevant information.”

Consequently, competitive markets are the most efficient mechanism for the allocation of goods and services, and, thus, for achieving the common welfare. Since vertically integrated utilities whose network ownership constitutes a natural monopoly have plenty of opportunities to impede competition in the upstream markets of electricity generation and gas production, and in the downstream markets of energy supply, ownership unbundling is the neoclassical recipe for ensuring competition in these markets (Spanjer, 2009: 3251). Similarly, price or revenue cap regulations of network charges simulate a market on the basis of efficiency benchmarking of network operators assuming that profit maximizing operators will increase network efficiency in order to keep network charges below the price or revenue cap. However, market activities are embedded in a context of regulations. The proper implementation of these regulations is often a prerequisite for the functioning of markets as is the case, for instance, in respect to the regulations on ownership unbundling. Neoclassical economics are not concerned with the effective implementation of regulations underlying the functioning of market concepts. In their models proper implementation is taken for granted. Implementation deficits are problems of politics and public authorities but not of (maybe ill conceived) market concepts. The neoclassical neglect of the impacts of regulations on market activities has led to the emergence of new institutional economics (Furubotn and Richter, 2005; Crouch, 2007). Regulations are considered institutions whose effects are taken into account in market analyses. However, these analyses tend to be confined to transaction costs issues of institutions (Spanjer, 2009: 3253), and do not (yet) focus on the political, administrative, personnel, legal, and other constraints of rulemaking and regulatory implementation. This is the realm of public administration research, and the topic of this essay.

3. Conflicts of regulatory cultures and consequences for energy markets

3.1. Theoretical framework

Actor-centered institutionalism (Scharpf, 1997) provides a theoretical framework for the analysis of regulatory systems

which accounts for implementation problems as well as political, administrative, and institutional constraints on regulatory policies (Bohne and Bauer, 2011: 263 ff.). Actor-centered institutionalism combines two perspectives: an interaction-oriented rational choice perspective, and an institutional perspective (Scharpf, 1997: 20 f.). Institutions are defined as legal rules and social norms (Scharpf, 1997: 38). Social interactions are explained by the interplay of (economic) self-interests of actors and institutions which influence and confine interactions. While the rational choice element is also part of neoclassical economic theory, the institutional element allows to go beyond neoclassical economic theory, and to account for legal rules and social norms which influence regulatory decision making in practice. Fig. 1 displays the elements of the theoretical framework.

Regulatory decision making is conceived as an institutionally structured interaction system between regulators and private and public actors. Regulators can be a legislative body, agencies, commissions or other public actors which are competent to make regulatory decisions. Dependent variables are these decisions which can be formal (laws, rules, individual case decisions, contracts) or informal (non-binding agreements), unilateral or the product of collaboration between regulators and regulatees.

Independent variables are the characteristics of actors, the problem situation, and the institutional context. Regulatory culture denotes a set of core variables of the institutional context. While it is difficult to operationalize regulatory culture, it is generally agreed that regulatory culture is all-important to understanding the regulatory process (Hall et al., 2000: 5).

This essay focuses on characteristics of regulatory cultures in Great Britain, Germany and France concerning energy systems, and on their effects on regulatory implementation and market competition.

3.2. Concepts of regulatory culture

The concept of regulatory culture is used to understand and explain the behavior of public authorities and private actors in regulatory arenas (Meidinger, 1987: 356 f.) like rulemaking and regulatory decisions in individual cases. The concept overlaps with notions of administrative and organizational culture. There is no generally accepted demarcation of these concepts. From a pragmatic perspective, the concept of regulatory culture can be considered narrower than the other two concepts because rulemaking constitutes a specific segment of administrative and

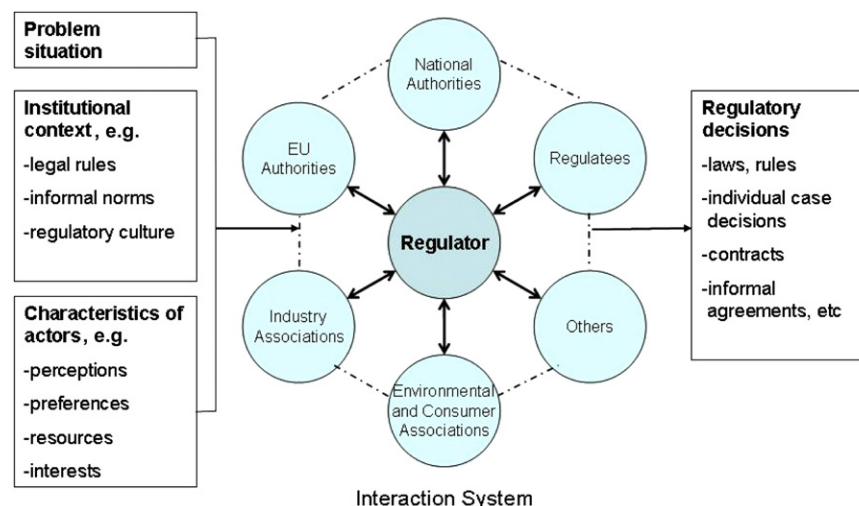


Fig. 1. Theoretical framework for Regulatory Analysis.

organizational tasks. Common element of all concepts of culture is the notion of shared understandings, beliefs, values, principles and attitudes which are based on traditions, common historical experience and fundamental norms which influence the regulatory, administrative or organizational behavior of public and private actors (Meidinger, 1987: 359, Kerandren, 1996: 73 f., Anechiarico, 1998: 17, Fisch, 2008: 23 f., Hill and Lynn, 2009: 52).

Regulatory cultures are specifically characterized by

- shared values and beliefs concerning the relationship between government, markets, and the individual,
- common legal and administrative traditions and principles,
- the extent to which public authorities enjoy regulatory discretion, and
- the distribution of regulatory competencies and related organizational structures.

3.3. National regulatory cultures and energy regulations in Great Britain, France and Germany

Shared values and beliefs concerning the relationship between government, markets, and the individual are reflected in three state models with corresponding market models which provide the conceptual base for the British, French and German regulatory systems. Table 1 presents the three state models with corresponding market models and ensuing characteristics of regulatory systems in British, French and German energy markets.

3.3.1. The British regulatory system

The British government supports the concept of the “strategic and enabling state” (HM Government, 2007: 4). The central idea of the enabling state is to “empower its citizens to develop their own lives” (Giddens, 2003: 13) and – according to HM Government (2007: 4) – “to hold public institutions to account” by “redistributing power to people”. The market model corresponding to this state vision is “a regulated competitive market”²² where the government operates at arm’s length from suppliers who are privately owned (Thatcher, 2007a: 151 f.). Regulations are supposed to ensure fair and effective competition. Independent regulatory agencies make and enforce rules for competition while suppliers seek maximization of profits and stock market value.

Private ownership: Until the mid-1980s, the electricity industry (generation, transportation, supply) and the gas industry (transport, supply) were nationalized; only gas producers were private companies.²³ The gas industry was privatized by the Gas Act 1986 (Dow, 2007: no. 15.141). The privatization of the electricity industry followed suit on the basis of the Electricity Act 1989 (Dow, 2007: no. 15.204). After various organizational modifications of the original privatization scheme, the British electricity and gas industries display in 2011 the following ownership pattern:

The transmission networks for electricity and gas are owned by the private National Grid Company (2008: 6), and are fully ownership unbundled. The electricity transmission grid in Scotland is not owned but operated by National Grid.

There are some 18 electricity distributors, and some 20 gas distributors (Ofgem, 2008: no. 60, 239, 240). National Grid does not only own the gas transmission network but is also the largest gas distributor.

Electricity is generated and/or supplied by over 20 private companies.²⁴ Six companies are the most important generators and suppliers (European Commission, 2007a: 164). Most electricity suppliers belong to company groups which own distribution networks (Ofgem, 2008: no. 178). This means they are only legally unbundled. However, most gas distributors are not affiliated with production and supply companies (Ofgem, 2008: no. 297). The largest gas supplier is British Gas, the former gas monopoly supplier (Ofgem, 2009: no. 230).

Independent central regulator: The electricity and gas industries of England, Scotland and Wales are regulated by the Office of the Gas and Electricity Markets (Ofgem) under the Utilities Act 2000, the Electricity Act 1989 and the Gas Act 1986. Ofgem is an independent central energy regulator and, in principle, free from political interference by the Department of Energy and Climate Change (DECC) and other government authorities. However, DECC has some indirect political influence on Ofgem (Dow, 2007: no. 15.28 f.), for instance, through its rights

- to veto any proposal by the regulator to modify licenses²⁵,
- to give non-binding guidance on social and environmental policies, and
- to appoint Ofgem’s chief executive and the members of the Gas and Electricity Markets Authority (GEMA).

GEMA consists of executive and non-executive members, and governs Ofgem, inter alia by determining strategy, setting policy priorities, and taking decisions on a range of matters, including price controls and enforcement.²⁶

Ofgem’s principal objective is to protect the interests of consumers by promoting competition in the gas and electricity markets. Ofgem’s functions include²⁷

- issuing, modifying, enforcing and revoking licenses,
- setting price controls in the natural monopoly licensed sectors (transmission and distribution networks),
- investigating and penalizing those in breach of license conditions.

Given Ofgem’s independence from government, it is primarily held accountable by Parliament and the courts (Bremen, 2005: no. 15.121 f.).

The electricity and gas industries remain subject to competition law which is implemented by the Office of Fair Trading (OFT), an independent, non-ministerial government department, and the Competition Commission (Dow, 2007: no. 15.31; OFT, 2009).

License system with wide regulatory discretion: The generation/production, transmission, distribution and supply of gas and electricity require separate licenses under the Gas Act 1986 and the Electricity Act 1989. The holder of a gas transmission license must not be granted a gas supply license and vice versa²⁸, while the same person may not be the holder of both an electricity distribution license and an electricity supply license²⁹. The purpose of these provisions is to prevent cross-subsidization and discrimination of competitors.

²⁴ For a list of British electricity and gas suppliers, see UK Power at <http://ukpower.co.uk/home_energy/suppliers>.

²⁵ See DECC, Regulation of GB energy markets at <http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/markets/regulation/regulation.aspx>.

²⁶ See Ofgem, The Gas and Electricity Markets Authority at <<http://www.ofgem.gov.uk/About%2520us/Authority/Pages/TheAuthority.aspx>>.

²⁷ See DECC, fn. 25.

²⁸ S. 7 (3) and 7A (3) of the Gas Act 1986.

²⁹ S 6 (2) of the Electricity Act 1989.

²² Some authors use the term “market capitalism” for the model, see Schmidt 2000: 39.

²³ For the history of the energy industries, see Green 2010: chapt.7, and Dow 2007: n. 15.144 (gas), no. 15.208 (electricity).

Table 1
Characteristics of National Regulatory Cultures.

Characteristics of regulatory cultures	Country		
	Great Britain	France	Germany
State model	Enabling state	Providing state	Ensuring state
Market model	Regulated competitive market model	State-led model of market coordination	Corporatist model of market coordination (social market economy)
Regulatory system	Private ownership	State ownership	Private and government ownership
	Central independent regulator	Central independent regulator with shared competencies	Federal and Länder regulators
	License system with wide regulatory discretion	Public service obligations	Restricted regulatory discretion

The most important characteristic of the British licensing system which distinguishes it from the regulatory systems of other countries is the wide administrative discretion of the British regulator (Parker, 1999: 119, Coen, 2005: 378, 380, Dow, 2007: no. 15.152, 15.227 ff., Littlechild, 2009b: 3). This discretion is not unique to energy regulations but a fundamental characteristic of the British regulatory approach (Vogel, 1986: 220, Bell and McGillivray, 2008: 237 ff.). The content of the gas and electricity licenses is largely determined by standard conditions which are issued by the Ministry. The standard conditions are very detailed, complex and voluminous. Ofgem has the competence to modify these conditions or to add special conditions when granting a license in a given case³⁰ (Simmonds, 2002: 55). However, subsequent modifications of conditions in existing licenses require either the consent of the license holder³¹ or, in the case of disagreement, a directive by the Competition Commission³² (Newbery, 2006: 8). There are no substantive statutory criteria to guide or restrict Ofgem in exercising its regulatory discretion other than the general objectives of the Gas Act 1986³³ and the Electricity Act 1989³⁴ like consumer protection or energy security. Constitutional or other legal principles provide hardly any restrictions on the exercise of regulatory discretion (Sieckmann, 1999: 132, Spreng, 2005: 44–46). Finally, judicial review of regulatory decisions is very limited, and confined to procedural issues (Parker, 1999: 119, Coen, 2005: 378).

3.3.2. The French regulatory system

In contrast to the concept of enabling state, the providing state is more of a producer of goods and services than an enabler of people to help themselves (Giddens, 2003: 3). The providing state³⁵ seeks to actively³⁶ influence the economic and social well-being of its citizens, for instance, through publicly owned enterprises, plans and programs, regulations, and infrastructure projects. The market model corresponding to this state vision is the state-led model of market coordination³⁷ (Thatcher, 2007a: 151). This model is characterized by

- dirigiste industrial government policies, and government coordination of mayor market actors,
- state ownership of enterprises which provide essential goods and services to the public, and which often have a monopoly over supply,
- the establishment of public service obligations which replace market competition.

State ownership: The generation/production, transmission and distribution as well as the supply of electricity and gas are primarily in the hands of two large state-owned companies and their subsidiaries: EDF and Gaz de France (GDF) Suez.³⁸ Pursuant to Art. 24 of the law no. 2004-803³⁹, the state holds over 70% of the EDF capital and over 33% of the GDF Suez capital. The transmission network for electricity is owned and operated by the Réseau de transport d'électricité (RTE), a 100% daughter company of EDF. EDF also owns most of the distribution networks for electricity supplying 95% of customer sites. The two transmission networks for gas are owned and operated by GRTgaz (88%), a subsidiary of GDF Suez, and by TIGF (12%), a subsidiary of Total (CRE, 2008: 62). GDF Suez also operates some 96% of the distribution networks for gas.

The electricity and gas transmission networks are legally unbundled from the generation/production and supply activities of EDF, GDF Suez, and Total. The process of legal unbundling has not been completed at the level of distribution networks (CRE, 2008: 30, 79 and 2010: 6).

Independent central regulator with shared competencies: The Energy Regulatory Commission (Commission de régulation de l'énergie – CRE) is the single central regulator of the electricity and gas markets (Thatcher, 2007b; CRE, 2008). The nine commissioners enjoy legally ensured independence. Part of CRE is the Dispute Settlement and Sanctions Committee (Comité de règlements des différends et des sanctions – CoRDIS) which is responsible for settling disputes between the operators and users of the electricity and gas transmission and distribution networks. CRE's main competencies include

- to propose access tariffs for public electricity and gas networks,
- to regulate the terms and conditions for access to and use of the networks, and
- to approve the annual investment programs of the operators of the electricity and gas transmission networks.

³⁰ S. 7B (4) and 8 (3) of the Gas Act 1986, s. 7 (1) and 8A (2) of the Electricity Act 1989.

³¹ S. 23 (6) of the Gas Act 1986, s. 11 (1A) of the Electricity Act 1989.

³² S. 26 (1) and 26A of the Gas Act 1986, s. 14 (1) of the Electricity Act.

³³ S. 4AA.

³⁴ S. 3A.

³⁵ Related concepts are the "état-providence" (Wikipedia at <http://fr.wikipedia.org/wiki/%C3%89tat-providence>) and the welfare state which both focus on social aspects (e.g. social security) while the concept of providing state depicts an active mode rather than substantive policies of government.

³⁶ In the German debate the term "active state" (aktiver Staat) is used rather than providing state, see Jann and Wegrich 2004: 195 ff.

³⁷ Some authors use the term "state capitalism" for the model, see Schmidt 2000: 41.

³⁸ See the overview of the electricity and gas industries by the European Commission 2007a: 62–69.

³⁹ Loi no. 2004-803 du 9 août 2004 relative au service public de l'électricité et du gaz et aux entreprises électriques et gazières.

However, CRE must share some of its functions with other authorities. For instance, CRE may only propose network access tariffs to the Ministers for the Economy and Energy while the Ministers will accept or reject the proposals but cannot modify them (CRE, 2008: 16).

The electricity and gas industries remain subject to competition law which is implemented by the Competition Council (Conseil de la concurrence). CRE (2008: 8) also has the power to stop any anti-competitive practices that are based on refusing network access.

Finally, CRE (2008: 8) monitors the electricity exchange in cooperation with the Financial Market Authority.

Public service obligations: The main and distinctive characteristic of the French regulatory system for energy is a comprehensive system of public service obligations imposed by law⁴⁰ on EDF, GDF Suez and other utilities. Public service obligations represent aspects of the common welfare which must be observed in operating the electricity and gas networks and in exercising the functions of energy production and supply. According to Art. 3(2) and (3) of the Electricity Directive 2009/72/EC and Art. 3 (2) and (3) of the Gas Directive 2009/73/EC, public service obligations relate, for instance, to energy security, regularity, quality and price of supply, environmental protection, energy efficiency, energy from renewable sources, climate protection, and consumer protection, in particular vulnerable customers. The practical consequences of public service obligations are, pursuant to Art. 106 (2) of the Treaty on the Functioning of the EU (TFEU), to exempt utilities from the rules of market competition in so far as the application of such rules obstructs the achievement of the particular tasks assigned to them. Public service obligations have a long tradition in the French political system. They are considered a symbol of “social-Colbertism”, and of French interventionist industrial policies (“dirigisme”) both representing constitutive elements of the providing state. EDF and GDF Suez are strongholds of this model, and preserves of the powerful technical “grands corps” controlling large segments of the French economy (Cole, 1999: 173f, Bauby and Varone, 2007: 1052 f.).

3.3.3. The German regulatory system

The prevailing paradigm of the German regulatory system is the concept of the ensuring state. Its central idea is “shared responsibility” of state and citizens for the common good (Schuppert, 2003: 55). State and private actors must take part in setting and implementing public policy. No one has a monopoly over this. Consequently, the concept of the ensuring state emphasizes the responsibility of the state in areas where private actors play a dominant role in the provision of public services (Schuppert, 2003: 57). This means: the ensuring state should enable its citizens to develop their lives, but “after enabling” the ensuring state has the responsibility for the delivery of policy outcomes, and for the coordination of services many of which it does not directly provide (Giddens, 2003: 13). Unlike the providing state, the ensuring state does not necessarily deliver public services but often leaves this to private actors. However, the ensuring state “guarantees”⁴¹ that public services are delivered when their provision by private actors fails. Thus, the ensuring state can be ranked between the enabling and providing state.

A specifically German characteristic of the concept of the ensuring state is the notion of “Daseinsvorsorge” which includes all

public services that are indispensable for ensuring a humane existence (Judgment of the Federal Constitutional Court of 20 March 1984, BVerfGE 66: 248, 258; Judgment of 10 September 2008–1 BvR 1914/02 –, no. 12). “Daseinsvorsorge” has been translated into English by the European Commission⁴² as “services of general interest”. A subcategory are “services of general economic interest” within the meaning of Art. 14 and Art. 106 (2) TFEU. The German concept of “Daseinsvorsorge” and the EU concept of “services of general (economic) interest” overlap but are not identical (Ronellenfitsch, 2009: 43). The main difference between these concepts relates to their legal consequences. Services of general economic interest may be exempted from market competition (Art. 106 (2) TFEU), whereas services of “Daseinsvorsorge” are subject to restrictions of public and constitutional law but they are not necessarily exempted from market competition (Ronellenfitsch, 2009: 44).

The market model corresponding to this state vision is the “social market economy”. This is a corporatist model of market coordination⁴³ characterized by industry associations, labor unions, environmental and consumer organizations, and other societal groups having considerable influence on setting and implementing public policies including regulations. These organizations often enjoy the privilege of (regulated) self-regulation in certain, usually technical areas. Principles of “self-help, collaboration and self-organization” are said to make “for the marked difference between regulation in Germany and regulation in the Anglo-American politico-legal tradition” (Dyson, 1992: 260).

Private and government ownership: The German electricity and gas markets have traditionally been characterized by decentralization with some 1600 utilities most of which were owned by *municipal and county governments*. At the same time, both energy markets have been dominated by *a few large private companies*. Länder and local governments held shares of some of these companies.

These market structures have basically remained unchanged after liberalization.⁴⁴ However, market concentration of large utilities has increased since then, and foreign state-owned companies are now playing a major role on German electricity and gas markets.

There are four transmission networks for electricity. One network is owned by the Dutch company Tennet whose shares are held by the Dutch Government.⁴⁵

60% of the second transmission network are owned by the Belgian company Elia. Some 60% of its shares are held by Belgian municipalities and by Electrabel, a subsidiary of the French state-owned GDF Suez.⁴⁶

The third transmission network is owned by EnBW which is in the hands of German local governments (45%) and the State of Baden-Württemberg (45%).

⁴² See Communication from the Commission, Services of general interest in Europe [Leistungen der Daseinsvorsorge in Europa], OJ C17/4 of 19 January 2001.

⁴³ Thatcher's (2007a: 150) term “industry model of coordination” is too narrow because labor unions and other societal groups have a great influence on market coordination, too.

⁴⁴ In 2007, there were about 700 gas companies and 900 electricity companies, see Schiffer, 2008: 173, 210.

⁴⁵ See Tennet at <<http://tennet.org/english/tennet/organisation/holding/index.aspx>>.

⁴⁶ See Der Spiegel online of 12 March 2010: Vattenfall verkauft Stromnetz an Elia; see Elia at <<http://elia.be/repository/pages/5013a27370d5347ad801a6b5cc3abd634.aspx>>.

⁴⁰ See the overview by Lauriol (2007): no. 8.241 f., and Loi no. 2000-108 du 10 février 2000 relative à la modernization et au développement du service public de l'électricité, Loi no. 2003-8 du 3 janvier 2003 relative aux marchés du gaz et de l'électricité et au service public de l'énergie, Loi no. 2004-803 (fn. 39).

⁴¹ The German term for these guarantees is “Gewährleistungsverantwortung”.

The fourth transmission network of RWE has primarily private owners but the largest share (16%) is in the hands of local governments.

Most distribution networks for electricity are also owned by local governments although the two largest utilities EON and RWE which have private owners hold significant shares of over 200 local utilities.

In the gas market, private ownership of transmission networks prevails.⁴⁷ There are five big companies (EON-Ruhrigas, RWE-Thyssengas⁴⁸, Ontras-VNG, Wingas, BEB) which own and operate interregional gas transmission networks (European Commission, 2007a: 32). The largest network is owned by EON-Ruhrigas, a private company. The other network companies have private owners, too, with the exception of Wingas Transport, where Gazprom, a Russian state-owned company, holds 50% of the shares. Some ten other companies operate interregional or regional gas transmission networks (Bundeskartellamt, 2009: 7f, 32). Significant shares of some of these companies are held by foreign state-owned companies.⁴⁹

Most gas distribution networks are owned by some 700 local governments.

In general, electricity and gas networks are part of vertically integrated utilities which are also active on the upstream generation/production markets and/or on the downstream supply markets. Larger companies are unbundled in legal and functional terms. However, distribution system operators are exempted from these unbundling obligations if they are serving less than 100 000 customers (European Commission, 2007a: 30).

The market for electricity generation is dominated by four vertically integrated utilities (EON, RWE, Vattenfall, EnBW) whose accumulated market share amounts to 90% of total net electricity generation (European Commission, 2007a: 31). According to the Federal Cartel Office, EON and RWE with about 60% of the market share represent a duopol (Monopolkommission, 2007: no. 162).

Electricity supply is generally provided by some 800 municipal and county utilities. However, a great many of them are formally or informally controlled by the four big utilities.

Domestic gas production (18% of total gas supply) and gas imports are in the hands of the large companies which own interregional transmission networks. Gas supply is generally provided by over 600 municipal and county utilities which are formally or informally controlled by EON-Ruhrigas and other big gas companies.

Federal and Länder regulators: The Federal Network Agency is the main regulator for the access to grids, the approval of network access fees, and the implementation of the unbundling provisions (Theobald, 2009: 275). The Agency is not an independent regulatory agency in the Anglo-Saxon sense but subject to general directives by the Federal Ministry of Economics and Technology.⁵⁰ It is an undecided legal issue whether the Agency is also subject to case-specific ministerial directives (Franke, 2011: 1115 f).

Due to the principles of German federalism the *Länder* have retained some competencies of *energy regulation*. They regulate the networks and unbundling of utilities which serve less than 100 000 customers, and operate only in one Land.⁵¹

The Federal Cartel Office and the cartel authorities of the *Länder* are responsible for the implementation of anti-trust law concerning the control of mergers, and the abuse of market power if it is unrelated to grid access and grid connection, e.g. energy prices (Theobald, 2009: 277).

Restricted regulatory discretion: The German regulatory system is characterized by constitutional constraints on the exercise of administrative and regulatory discretion (Dyson, 1992: 260). Constitutional sources of these restrictions are

- the German version of the rule of law (principle of “Rechtsstaat”),
- the principle of the “social state” (Sozialstaat) which encompasses the notion of “Daseinsvorsorge” as outlined above and
- human rights.

The concept of “Rechtsstaat” establishes legal restrictions on discretionary decision making in terms of legal precision, consistency, predictability, proportionality, and judicial controls.

The concept of “Daseinsvorsorge” (services of general interest) imposes requirements of public interests, in particular consumer interests, on the exercise of administrative and regulatory discretion.

The constitutional provisions of human rights restrict discretionary decisions which entail negative consequences for individual rights. The constitutional protection of existing property rights (Bestandsschutz) tends to preserve the regulatory status quo.

Finally, regulatory decisions are subject to comprehensive judicial controls. Given the many legal restrictions on the exercise of regulatory discretion, there is an ongoing debate on whether and to what extent regulatory discretion should be exempted from some of these restrictions (Oster, 2009: 158 ff.).

3.4. Differences and conflicts between national regulatory cultures and EU energy regulations

3.4.1. Differences between national regulatory cultures

British energy regulations represent the lead model for the liberalization of EU energy markets. The British regulatory system is based on the state paradigm of the enabling state, and reflects a regulated competitive market model. Its main characteristics are

- private ownership of electricity and gas networks, and of generation/production and supply companies,
- an independent central regulatory agency, and
- a license system with wide regulatory discretion of the competent authority.

The wide regulatory discretion allows for flexible and pragmatic solutions. However, it is an unwritten norm that the regulator should keep regulatees “at arm’s length”.

In contrast, the French regulatory system is based on the state paradigm of the providing state, and reflects a state-led model of market coordination.

State ownership of the two largest electricity and gas utilities (EDF, GDF Suez), political influence over the central regulatory authority (CRE) and veto powers of the competent ministry concerning certain decisions of the regulatory authority as well as the extensive use of public service obligations – absent in both the British and German energy systems – constitute a dirigiste energy policy in the French mercantilist tradition. These characteristics distinguish the French regulatory system significantly from the British and German regulatory systems.

⁴⁷ For a geographic overview of gas networks see BDEW at <<http://www.gasnetzkarte.de/index.html>>.

⁴⁸ Thyssengas was owned by the vertically integrated RWE but sold in 2011 to an international investment fund, see RWE at <<http://www.rwe.com/web/cms/de/37110/rwe/presse-news/pressemitteilung/?pmid=4005662>>.

⁴⁹ Examples are: Dong Energy – Denmark, Statoil Deutschland – Norway, Gasunie Deutschland – Netherlands, GRTgaz Deutschland – France, Eni Gastransport – Italy.

⁵⁰ S. 61 of the Energiewirtschaftsgesetz (Federal Energy Management Act).

⁵¹ S. 54 (2) of the Federal Energy Management Act. There is an exception to this rule for six smaller *Länder*, which have delegated the regulatory competencies under the Act to the Federal Network Agency (Franke, 2011: 1107, Theobald, 2009: 276).

The German regulatory system is based on the state paradigm of the ensuring state, and reflects a corporatist model of market coordination. The most visible difference between the German regulatory system and the British and French systems is the large number (app. 1600) of municipal and county utilities acting primarily on the energy supply markets. These activities represent the German version of services of general interest (*Daseinsvorsorge*) which – unlike the French public service obligations – are not exempted from market competition.

Another distinctive feature of the German regulatory system is the federal structure of regulatory authorities. Unlike Great Britain and France, Germany has no single central regulator but, in principle, 16 *Länder* regulators which are competent for utilities with less than 100,000 customers. However, six *Länder* have delegated their regulatory competencies to the Federal Network Agency. In sum, there are one federal and 10 *Länder* regulatory authorities.

Furthermore, German regulatory authorities are not independent regulatory agencies in the British sense which are not subject to ministerial oversight and directives. The exclusion of this oversight would contradict the German constitutional doctrine of democracy which requires an uninterrupted chain of political oversight and accountability from the administrative authorities up to the elected government and parliament. Finally, the regulatory decision powers of the German regulatory authorities are to a much greater extent subject to legal restrictions and detailed judicial controls than the decision powers of the British and French counterparts.

3.4.2. Conflicts between national regulatory systems and EU energy regulations

Given these characteristics and differences of national regulatory systems, the question is whether and to what extent these systems are compatible with EU energy regulations.

There is no specific regulatory culture as defined above (II 2) on the European level.⁵² Terms like “*acquis communautaire*”, community method or better regulation could suggest cultural aspects of regulation. However, they have a technical meaning in practice.

The “*acquis communautaire*” is simply the body of existing EU legislation (European Commission 2009a: 2).

The “community method” denotes the formal legislative and judicial procedures of the European institutions (European Commission, 2001: 8).

“Better regulation” is a reform concept of the European Commission (2001: 18 ff., 2009a) for improving existing and future EU legislation.

European legislation has been shaped by national regulatory concepts. Member states compete on the EU level for political dominance of their national regulatory concepts in the legislative process (Young, 2010: 58 f.). As outlined above (I 2.) EU energy legislation follows the British regulatory model.

From a legal perspective, the wording of EU energy directives and regulations is generally broad enough to allow for certain national differences in the implementation.

From a practical perspective, though, EU liberalization of energy markets will only be successful, if the basic functional prerequisites of the British model are, at least in principle, met by national regulatory systems. These functional prerequisites are

- (1) primarily private ownership of networks and utilities,
- (2) existence of a central independent regulatory agency which is largely removed from ministerial oversight,
- (3) decision powers of the regulatory authority for detailed market regulations as exemplified by the British license system with wide regulatory discretion,
- (4) a manageable number of companies to be regulated.

These functional prerequisites are not met in the French and German regulatory systems due to different regulatory cultures. Therefore, EU energy regulations conflict with the regulatory systems of these countries.

The French energy system does not fulfill the first three prerequisites. The system is dominated by two state-owned companies. This ownership enables close interactions and interdependencies between company and government executives, and ensures strong government influence on company policies, and company influence on government policies. State ownership is the basis for French government interventions into energy markets, particularly through imposing public service obligations and energy tariffs (Thatcher, 2007b: 1040). The ownership-based government influence is institutionally backed by the establishment of a central regulatory authority (CRE) which has to share decision powers with the competent ministry. The dirigiste energy policies are reinforced by a closely knit network of a technocratic and political elite produced by a few elite schools (*grandes écoles*) and belonging to the influential technical and administrative “*grands corps*” of the state. It has been observed that despite regulatory reforms under EU energy regulations, the old “complicity between political elites and EDF technocrats” continues to exist (Baubly and Varone, 2007: 1056 f.), and that regulatory authorities “have overwhelmingly been colonized by the ‘*grands serviteurs de l’Etat*’ (or more pejoratively, ‘technocrats’) drawn from the ‘*grandes écoles*’ and state ‘*grands corps*’ (Thatcher, 2007b, 1035).

The German energy system does not meet any of the aforementioned functional prerequisites of the British regulatory model underlying EU energy legislation.

Ownership of local distribution networks and energy supply companies lies primarily in the hands of municipal and county utilities. Their activities are motivated by providing services of general economic interest and less by market competition. Moreover, German corporatist culture values cooperation over competition.

There is no central independent regulatory authority in the British sense. Regulatory competencies are divided between the Federal Network Agency and *Länder* authorities. Administrative discretion of the regulatory authorities is restricted by law and detailed judicial controls. The German regulatory authorities do not have the British Ofgem’s powers to impose and enforce competitive market structures. Last but not least, a system of detailed regulatory intervention like the British license system would not be manageable with over 1600 utilities on the German electricity and gas markets.

All in all, the heavy reliance of the EU on the British regulatory model (and neoclassic economic theory) has led to “clashes of regulatory cultures” in France and Germany (and in other countries with regulatory traditions different from the British model) which generate enormous bureaucratic burdens and impede the realization of an integrated European energy market.

3.5. National implementation and market deficiencies

3.5.1. Implementation deficiencies

Conflicts between national regulatory cultures and EU energy legislation generate a deficient implementation of EU regulations into national laws.

⁵² For instance, the European Commission announced in 2007 to “develop a European regulatory culture” as a mid-term objective for the electronic communications sector; see “Overview of the EU regulatory framework for the electronic communications sector” at http://ec.europa.eu/information_society/policy/ecomms/todays_framework/overview/index_en.htm.

Since EU energy legislation is modeled on the British regulatory system, it does not come as a surprise that the [European Commission \(2007a: 166\)](#) considers the implementation of EU energy legislation in the UK to be, by and large, adequate. However, the implementation of EU energy legislation in the other EU member states, particularly in France and Germany, has been slow and partly deficient. Germany, for instance, was dubbed “the heavy weight laggard of the EU reform process” ([Newbery, 2009: 49](#)). The most prominent example of questionable government intervention into the French electricity and gas (retail) markets, is the introduction of regulated tariff-contracts which represent an alternative to market-price contracts ([CRE, 2008: 35, 85](#)). Regulated tariff-contracts can be offered only by EDF, GDF Suez and other incumbent suppliers designated by the government. Beneficiaries of these contracts are all customers, and not only small businesses and private households. The tariffs are well below negotiated market prices, and financed by cross-subsidization of different tariffs and state taxes ([European Commission, 2007a: 65](#)).⁵³ Consequently, the great majority of energy costumers opts for regulated tariff-contracts. These contracts clearly distort fair market competition. The European Commission has started an investigation into this practice,⁵⁴ and observed⁵⁵ ([European Commission, 2007a: 65](#)) that the tariff-contracts are neither justified as state aid under Art. 108 (2) TFEU (ex Art. 88 (2) TEC) nor as public service obligations under Art. 3 of the Electricity and Gas Directives (2009/72/EC and 2009/73/EC). The tariff-contracts reflect the French “providing state” and the country’s traditional dirigiste industrial policies.

Germany has been slow to implement and enforce EU unbundling provisions. Ownership unbundling is generally viewed as an unjustified intrusion into constitutional property rights. However, the European Commission forced the large utilities EON and RWE in the context of anti-trust law proceedings to voluntarily sell the electricity transmission network (EON) and the gas transmission network (RWE) to third parties ([Gussone, 2011: 50, 74](#)). While EU unbundling provisions have been properly transposed into German law ([European Commission, 2007a: 30](#)), the enforcement of these regulations is deficient. In 2009, the Federal Network Agency ([Bundesnetzagentur, 2010a: 173](#)) has, therefore, started investigations into the unbundling practice of EON and its regional subsidiaries.

How can one explain that conflicts between national regulatory cultures and EU legislation lead to implementation deficits of EU directives and regulations in EU member states?

The theoretical concepts of political incrementalism are best suited to explain this relationship.⁵⁶ According to incremental theory ([Braybrooke and Lindblom, 1970](#); [Hayes, 2001, 2006](#); [Bohne, 2002: 114–124 and 2006: 540–543](#)), political decision making tends

- to be incremental under normal circumstances, i.e. to deviate only marginally from the existing political status quo, and
- to be caused by
 - cognitive and informational constraints on decision makers,
 - lack of resources and

- the beneficiaries of the status quo who wish to preserve the existing power balance.

Non-incremental decision making, e.g. changes of existing political and regulatory structures, principles and traditions, only occur under exceptional circumstances. Necessary conditions for non-incremental changes are

- a decision situation which is characterized by major political, economic, ecological or other crises,
- a public or strong interest groups which support a major departure from the status quo,
- a strong political leadership which pursues policy changes.

The implementation of EU energy regulations in Great Britain, France and Germany only brought about incremental changes of existing national market structures. Causal factors were the complexity of the regulatory problems with ensuing information and resource constraints on political and regulatory authorities as well as existing political power structures and power relations which benefited the main actors on the energy markets.

In Great Britain, incremental changes of national energy regulations sufficed to implement EU regulations, since the latter followed the British model.

In France and Germany, however, full implementation of EU energy regulations would have required a partial breach with existing regulatory cultures. The conditions for non-incremental changes of this sort were not met in these countries:

- there was no major political or economic crisis demanding non-incremental changes of energy markets.
- The public was, by and large, disinterested in the liberalization project, and several powerful interest groups opposed it.
- National political leadership only half-heartedly supported the reforms.

In sum, the deficits in the implementation of EU energy regulations were pre-programmed in France and Germany.

3.5.2. Market deficiencies

The [European Commission \(2007a, 2009b, 2010\)](#) has frequently maintained that implementation shortcomings of EU energy legislation are the main causes for deficient market results like high market concentration, too high energy prices, unsatisfactory competition.

While this sounds plausible, there are no systematic empirical studies on the implementation of EU and national energy regulations restructuring the internal electricity and gas markets. The evidence on the relationship between implementation shortcomings and market deficiencies is only anecdotal.

However, the regulatory culture and political “climate” of the dirigiste French “providing state” and of the corporatist German “ensuring state” are not supportive of competitive energy markets. Vertically integrated utilities in these countries tend to evade market competition by applying discriminatory practices to network customers and competitors. The European Commission prosecuted,⁵⁷ for instance, the large German utilities EON and RWE and the French utility GdF for denying transport customers access to the gas network falsely claiming a lack of necessary grid capacity. EON and GdF were fined with half a billion Euro each for agreeing on refraining from supplying gas to customers of the other party.

⁵³ See also press release of the European Commission of 10 March 2009 at <<http://europa.eu/rapid/pressReleasesAction.do%3Freference=IP/09/376>>.

⁵⁴ See the Commission’s decisions on state aid C17/07 of 13 June 2007 (2007/C164/05), OJ C164/9 of 18 July 2007, and of 10 March 2009 (2009/C96/08), OJ C96/18 of 25 April 2009.

⁵⁵ See the Commission’s decision of 2009 (fn. 57), OJ C96/19/31f of 25 April 2009.

⁵⁶ The frequently used “misfit concept” ([Knill, 2001](#); [Falkner et al., 2005](#)) for explaining implementation deficits lacks operationalized criteria for determining misfits between national and EU structures and institutions, and does not explain why “misfits” cause implementation deficits. For a critique of this concept see [Bohne 2006: 539 f.](#)

⁵⁷ See for a description of the following cases: [Gussone 2011: 50 ff, 74ff.](#)

EON was charged with manipulating electricity prices on the wholesale market by withholding available generation capacities, and was then forced by the Commission to sell its transmission network. EDF was prosecuted for exclusive long-term supply contracts with clauses prohibiting the resale of electricity.

Finally, the effects of market competition are not highly valued by most energy customers. In Germany, the general change rate of gas suppliers was 5.2% in 2009 (Bundesnetzagentur, 2011: 175). The change rate of electricity suppliers was 5% for private households, 7% for small enterprises and 14.7% for large commercial customers. In contrast, the British switching rate of customers was, in 2008, 20% in electricity and 19% in gas (Ofgem, 2009: 30,54).

All in all, German customers are not fully making use of the potential of energy markets to reduce energy prices (Bundesnetzagentur, 2010b: 10).

Another set of factors causing market deficiencies are conceptual shortcomings of the regulatory model pursued by Great Britain and the EU. The model translates neoclassical economic theory into a command and control approach to energy regulation (above sub I.3).

In Great Britain, no lesser authority than the architect of the British price cap regulation RPI-X, Stephen Littlechild, criticizes the model for having evolved into an overly detailed complex, and cumbersome regulatory scheme (Littlechild, 2009a, b). He notes (Littlechild, 2011: 4) that “the total length of regulatory documents issued during the price control review of the electricity distribution companies increased from about 250 pages when I did the first review in 1995, to ... about 3–4000 pages in 2010”. This is, at least, a twelve-fold increase. Ofgem’s Chief Executive, Buchanan (2008: 5f.) criticizes that “it takes two years of extensive consultation to complete a price control ... even after 20 years experience when arguably the most debatable aspects of price controls have been thoroughly debated”. He further observes that “while undoubtedly very clever, some schemes in our price controls, such as the IQI [Information Quality Incentive] scale, are virtually unfathomable to those outside the cognoscenti.” The regulatory complexity is also partly due to the fact that ex post interference with the ex ante price cap regulations has become commonplace in order to accommodate case-specific needs (Helm, 2008: 3). Littlechild (2011: 4) concludes that “the pressure for regulatory conformity limits the ability to tailor regulation to particular circumstances. There is less innovation, less learning from experience, than one would expect in a competitive market.”

In Germany, similar complaints of the existing revenue cap regulations have been expressed. In particular, the mathematical and statistical methods of the regulations have been refined to an extent that they fail to account for the practical needs and conflicts of the energy markets (Lippe 2009: 72).

Interviews with the German Federal Network Agency and industries⁵⁸ indicate that informal negotiation processes between the Agency and regulatees are commonplace in order to cope with the complexity of the revenue cap regulations. These negotiation processes are bilateral and intransparent. Consumers and other affected parties are not involved. Only large utilities have the know-how and resources to fully account for all the aspects of the regulations during the negotiation process. Therefore, they tend to be advantaged in comparison to smaller utilities.

3.5.3. Conceptual constraints on command and control regulations

The aforementioned regulatory shortcomings do not result from deficient implementation processes. Rather they reflect conceptual

constraints on command and control regulations. This type of regulation is designed to make regulatees comply with the rules through commands and prohibitions which are backed by coercion, inspections, and sanctions. They suffer from three inherent weaknesses⁵⁹:

- information asymmetries disadvantaging regulatory authorities,
- limited resources for controls,
- limited power to impose sanctions.

Issuing and implementing commands and prohibitions usually require detailed information on the given problem situation, possible solutions, and on the characteristics of the regulatees (Majone, 1996: 9). In technically and economically complex problem situations regulatory authorities, by and large, lack sufficient information. These information lie with the regulatees. Since it is them and not the regulator who are operating energy networks, import gas, or supply customers with electricity, regulatees are familiar with cost structures, technological innovation, or development of markets, whereas regulatory authorities do not have this knowledge. The information asymmetries disadvantaging regulatory authorities are further increased by legal (constitutional) information requirements derived, for instance, from the principles of calculability, consistency, or proportionality which have to be met by regulatory decisions in order to survive judicial controls. As a result of information asymmetries regulators must frequently adapt previous decisions to unforeseen circumstances and developments. In this way, command and control regulations are becoming increasingly complex as one regulation tends to entail a sequence of follow-up regulations.

Even if all necessary information is available, regulations will only be complied with if the relevant activities of regulatees are subject to effective inspections and supervision by the competent authorities. In case of deficient controls, non-compliance cannot be punished. Consequently, regulations will be ignored.

Inspections and other control activities in complex sectors like energy markets are generally very resource-intensive in terms of personnel, funds, technical equipment, and time.

Finally, economically powerful actors like large utilities and industry associations tend to have the political power to prevent or alleviate regulatory decisions and enforcement actions which would severely impair their economic interests.

In sum, the main problem of the implementation of command and control regulations is for national regulatory authorities to cope with information asymmetries (Coglianese et al., 2004). These asymmetries do not only often prevent necessary regulatory decisions. They can also increase the detailedness and complexity of regulatory decisions in an attempt to find adequate case-specific solutions where technical and economic issues are often poorly understood, and where regulatory decisions, therefore, have an experimental character (Eberlein, 2010: 65). The elusiveness of “the right solutions ... in the face of imperfect knowledge and uncertainty about the future” (Littlechild, 2009a: 3) has been considered a major factor for the quantitative expansion of British energy regulations. The implementation constraints following from information asymmetries are aggravated by the regulatory authorities’

⁵⁸ The interviews are part of a research project which the author is conducting on the implementation of German energy regulations at the German Research Institute for Public Administration in Speyer.

⁵⁹ See Moran (2003: 22 f.) critique of command law, though his contention is exaggerated that “command law is bound to be mired in failure through a combination of unintended consequences, subversion, circumvention, direct defiance, and the sheer impossibility of fitting general rules into particular circumstances” (ibid. 23). While this kind of criticism has become fashionable in recent years, it ignores the fact that command law ensures social security and stability in a political system.

scarce resources and (factual) limitations on the power to impose sanctions. Consequently, the implementation of command and control regulations tends to be cumbersome, and to put high administrative burdens on regulators and regulatees.

4. A collaborative governance perspective on energy regulation

4.1. Collaborative governance – smart regulations

Collaborative governance is both (Donahue and Zeckhauser, 2011: 24) a conceptual framework for understanding interaction and decision making processes in and between organizations as well as a normative model of collective decision making (Freeman, 1997: 21). President Obama announced in a memo of 21 January 2009 on “Transparency and Open Government” that “Government should be collaborative”.⁶⁰ The model has been proposed for the energy sector in particular (Koch, 2008) to cope with the constraints of traditional command and control regulations. Thus, collaborative governance is used, in this context, as a normative model.

There is no generally accepted definition of collaborative governance. However, there are three basic elements of collaborative governance which can be found in almost all definitions of the concept (Freeman, 1997: 22, Donahue and Zeckhauser, 2006: 496, Thomson and Perry, 2006: 23, Ansell and Gash, 2008: 544):

- collaboration of public authorities and private actors in making or implementing public policies,
- shared discretion, and
- transparent decision processes.

Collaboration involves all private stakeholders (Freeman, 1997: 22, Ansell and Gash, 2008: 546).

Shared discretion means that public authorities and private stakeholders act consensus-oriented, and have some leeway in making their decisions. Shared discretion distinguishes collaborative governance from mere consultation processes (Ansell and Gash, 2008: 544) on the one hand, and, on the other hand, from interactions between public authorities and private actors which are unilaterally dominated by one party (Donahue and Zeckhauser, 2006: 509 f.).

Transparent decision processes will usually require a certain degree of formalization; however, informal relationships are not excluded from collaborative governance (Donahue and Zeckhauser, 2006: 509).⁶¹

The concept of collaborative governance resembles the state paradigm of the ensuring state. Both concepts are based on the notion of shared responsibility between government and citizens. However, the concept of collaborative governance emphasizes the requirements of transparency and participation of all stakeholders in the interactions between government and private actors while the German ensuring state has traditionally been characterized by a certain degree of corporatism of large societal groups.

The concept of collaborative governance may help reconcile the divergent regulatory cultures of the enabling, providing, and ensuring state by forging a mix of regulatory instruments which is rooted in these state paradigms but enables regulators to move

intelligently between different regulatory modes according to circumstance. This approach has been dubbed “the smart regulatory state” (Moran, 2003: 24).

A “smart” set of regulatory instruments combines the regulatory modes of

- command and control,
- negotiation and self-regulation, and
- public controls.

The notion of shared responsibility between government and citizens underlying the concepts of collaborative governance and the ensuring state does not exclude command and control regulations. Even when sharing responsibility the government ultimately remains responsible for protecting the common good. This may require unilateral command and control decisions by public authorities when consensus with stakeholders cannot be reached (Ansell and Gash, 2008: 546). Thus, command and control regulations are compatible with the concept of collaborative governance and the paradigms of the enabling, providing and ensuring state. In comparison to the paradigms of the enabling and providing state, the concepts of collaborative governance and the ensuring state add the requirement to seek consensus with stakeholders and to check options of collaboration or self-regulation before issuing command and control regulations. In Germany, the “Joint Rules of Procedure of the Federal Ministries” of 1 December 2006⁶² have incorporated this requirement in the rulemaking process.

Instruments of collaborative governance are designed to overcome or mitigate the implementation constraints of command and control regulations caused by information deficits and asymmetries, lack of resources for controls, and limited power to impose sanctions. The basic form of collaboration are formal and/or informal negotiations between public authorities and private actors like regulatees, recipients of public services and other stakeholders. Negotiations are a way for public authorities to create incentives for private actors to disclose information needed by the authorities. Incentives include (Coglianese et al., 2004: 35 ff., 49 ff.)

- providing regulatees and other stakeholders with the opportunity to influence government decisions and to have their specific interests taking into account (e.g. by forestalling more stringent or costly regulations),
- offering reduced administrative burdens concerning monitoring and reporting obligations, enforcement scrutiny etc. in exchange for needed information and compliance with regulations,
- rewarding the disclosure of information and regulatory compliance with public recognition and positive publicity.

Informal negotiations are particularly well suited to provide regulatees and stakeholders with incentives which help mitigate implementations constraints (Coglianese et al., 2004: 63 ff., 75 ff.). This is because informal interactions allow private actors to provide information without being publicly exposed. The negative side of this is the intransparency of informal interactions and the risks of making decisions at the expense of stakeholders who are excluded from the interactions.

Consequently, the concept of collaborative governance seeks to strike a balance between the requirements of confidentiality and publicness of formal and informal negotiations. This means that

⁶⁰ Federal Register 74, no. 15 of 26 January 2009: 4685.

⁶¹ Some authors confine the definition of collaborative governance to formal collaboration (Ansell and Gash, 2008: 546). This restriction would render the concept of collaborative governance impracticable, because it excludes large parts of interactions between public authorities and private actors which have an informal character, and are relevant for reaching consensus.

⁶² See s. 43(1) no. 3 and annex 7. The “Joint Rules of Procedure” are accessible at <http://www.bmi.bund.de/cln_174/SharedDocs/Downloads/DE/broschueren/EN/Joint_Rules_of_Procedure_of_the_Federal_Id_90695_en.html%3Fnn=441658>.

basic “rules of the game” for informal interactions must be established concerning transparency and stakeholder participation. Violating these rules will generate negative publicity for authorities and private actors involved. Industries and other private organizations fear negative publicity and tend to avoid it. Therefore, a certain degree of public controls must be built into a regulatory approach of collaborative governance.

The European Commission (2007b: 12) stressed in its communication of 20 November 2007 on “A Simple Market for the 21st Century Europe” its commitment “to using a ‘smarter’ mix of tools-instruments that are simple and take subsidiarity, proportionality and different national traditions fully into account” in carrying forward the single market. The European Commission (2007b: 4) promised that “more attention will be paid to implementation and enforcement; further strengthening impact assessments and consultation of stakeholders; simplifying existing legislation where possible, cutting unnecessary red tape; and subjecting policies and laws to systematic evaluation.”

In stark contrast to these promises, the third legislative package of energy regulations of 2009, in particular the Electricity Directive (2009/72/EC) and the Gas Directive (2009/73/EC) represent a bureaucratic monster of command and control regulations written in a meandering language, full of opaque provisions (for instance, the unbundling provisions), and totally oblivious of the needs of implementation and enforcement. The transposition of these directives into national laws will produce equally monstrous national regulations. This has been the experience with German regulations which transposed the similarly complex previous Electricity and Gas Directives into German law. Students of German energy law then expressed the suspicion that the authors of the German regulations “had not always been in possession of full clarity about what and with which consequences they were regulating” (Britz, 2006: 95).⁶³

4.2. The US ISO/RTO model

A US scholar, Koch (2008: 1, 18, 20) has characterized EU energy regulations and the third legislative package as “federalized command and control regulations”. He observes that the US experience with restructuring energy markets suggests “that the EU is trying to ‘do it the hard way’”, while the US is trying to escape ‘the command and control box’ by moving to an organizational model of ‘collaborative governance’ known as the ISO/RTO⁶⁴ model.

This model is based on the notion of regulated self-regulation. An ISO/RTO is a non-profit organization which independently operates the grids of different utilities in a given region. The utilities are members of the ISO/RTO and transfer control of their transmission facilities to the ISO/RTO. This is comparable to legal unbundling (Koch, 2008: 6) but ownership unbundling can be voluntarily established.⁶⁵ Other members of the ISO/RTO include private and public stakeholders, e.g. industries, consumers, other public authorities (Koch, 2008: 9). There is no prescribed organizational form for ISO/RTOs.⁶⁶ A possible governance structure of ISO/RTOs could consist of a “Board of Managers”, a Members Committee, various specialized committees and a Market

Monitoring Unit guarding against the abuse of market power by any market member (Koch, 2008: 11). ISO/RTOs engage in self-regulation by various members under the supervision of the competent regulatory authorities which must also approve of the establishment of ISO/RTOs.⁶⁷ In the US, some 67%, and in Canada over 50% of electricity customers are served by ISO/RTOs (Koch, 2008: 8).

The key differences between ISO/RTOs and EU-type ISO/ITOs regulated in the 2009 Electricity and Gas Directives are the absence of profit motives, and the requirements of transparency and participation of all stakeholders in the ISO/RTO governance structure (Koch, 2008: 7, 9). The ISO/RTO model is no panacea for all ills of the energy markets. Cost and effectiveness problems have been attributed to its non-profit and participatory features (APPA, 2004; Kwoka, 2008: 193). However, the collaborative design of the model is considered to be better suited for alleviating the negative effects of information asymmetries and lack of controls and sanctions than the adversarial approach of command and control regulations (Koch, 2008: 9 f.). Thus, the EU is advised to abandon its confrontational restructuring approach and replace it with a collaborative regulatory model (Koch, 2008: 20 f.).

4.3. Starting points for collaborative governance in EU energy markets

A “smart” set of regulatory instruments following the concept of collaborative governance is based on the notion of shared responsibility between government and citizens, and combines command and control regulations, negotiations and self-regulation and transparent and participatory structures and procedures. Given the differences in European regulatory cultures, there is no uniform European-wide solution for the right mix of instruments. National solutions have to be developed, while EU regulations must be modified, where necessary, to allow for national collaborative solutions. In many instances, however, a (re-) interpretation of EU regulations in the spirit of collaborative governance is likely to suffice to accommodate the implementation of “smart” regulatory instruments.

4.3.1. Negotiated settlements versus the RIIO model in Great Britain

Students of British energy regulations propose a new regulatory strategy which can be subsumed under the concept of collaborative governance. They call for replacing or complementing command and control regulations with negotiated settlements between utilities, consumer organizations, and other stakeholders in areas like network investments (Doucet and Littlechild, 2006: 275 f.; Pollitt, 2008: 80), price controls and other issues (Littlechild, 2008: 34). These agreements have to be approved by the regulatory authority which will apply command and control instruments in the event that a settlement is not reached. These proposals are expected to mitigate the problems of information asymmetries and to reduce over-regulations generated by the existing regulatory system (Littlechild, 2009a: 9, 43 and 2011: 5).

In 2008–2010, Ofgem reviewed the effectiveness and efficiency of the existing regulatory framework and its adequacy to meet the future challenges of the energy markets. It also examined alternative regulatory approaches including negotiated settlements. In October 2010, Ofgem (2010b) adopted the RIIO model⁶⁸ as “a new way to regulate energy networks”. Basically, RIIO retained the regulatory philosophy of the existing price control regulations but added some modifications. The price control period will be eight

⁶³ Translation by the author.

⁶⁴ ISO stands for “Independent Systems Operator” which is a non-profit organization and, therefore, “almost the exact opposite” from the EU ISO in the third legislative package (Koch, 2008: 7). RTO means “Regional Transmission Organization” and is a regional ISO (Koch, *ibid.*).

⁶⁵ See Federal Energy Regulatory Commission (FERC), Order No. 2000 of 20 December 1999, introduction, p. 6.

⁶⁶ For the core characteristics and functions of the ISO/RTO model see Vince et al., 2006: 71 ff.

⁶⁷ See FERC, Order No. 2000 (fn. 67), p. 7.

⁶⁸ RIIO stands for “Revenue using Incentives to deliver Innovation and Outputs”.

years in future. The output orientation of the controls will be strengthened. A new RIIO component is “enhanced engagement” which will give stakeholders greater opportunities to influence Ofgem and network company decision making. However, the concept of negotiated settlements was explicitly rejected on the grounds that there were no representatives to negotiate on behalf of future consumers, and that not all parties wishing to participate in the negotiations were able to represent the interests of consumers effectively. Therefore, it was decided that GEMA should continue to take decisions regarding the outcome of the price control process (Ofgem, 2010a: 12).

These arguments are not convincing. Since negotiated settlements require the final approval of the regulator, the interests of future consumers would be protected. Stakeholders lacking technical expertise could be assisted by the regulator and experts. Ofgem’s decision leaves all the problems unresolved which follow from a complex and cumbersome command and control approach as outlined above (II.5.b,c). It remains to be seen whether the concept of “enhanced engagement” can alleviate the regulatory burdens of British price controls.

4.3.2. Collaborative approaches in Germany and France

Interviews⁶⁹ with regulatory authorities and network operators show that extensive negotiations between these actors are taking place during formal regulatory procedures. Therefore, the choice is not between unilateral regulatory decision making and negotiations but between existing intransparent and exclusive negotiations and future transparent and inclusive negotiations.

Theoretically, negotiated settlements between network operators and stakeholders as proposed for Great Britain could also serve as an alternative approach to present revenue cap regulations in Germany. However, given the high number of network operators (over 1600) in Germany negotiated settlements do not seem to be a practicable option.

In the German context, a modified collaborative approach to price controls is worth to be taken into consideration.

The associations of network operators, customers, consumers, and other stakeholders should set up a non-profit organization with the task to negotiate price controls and other issues with network operators. The agreements would be subject to approval by the Federal Network Agency or Länder regulators which would ensure that the agreements meet the public interest, e.g. the interests of stakeholders who have not joined the non-profit organization. In case, agreements cannot be reached the regulatory authorities would regulate price controls and other issues the normal way.

The private non-profit organization would have easier access to necessary information held by network operators and stakeholders than regulatory authorities because the representatives of the former are running the non-profit organization. Furthermore, independent private “energy verifiers”⁷⁰ could assist the new regulatory body in controlling network operators and utilities. This would considerably increase the control resources of the regulatory body, while, at the same time, private energy verifiers are likely to be more trusted by utilities than government inspectors.

In France, the introduction of transparent and participatory collaborative structures and procedures is probably more difficult than in Great Britain and Germany given the dirigiste tradition of

the French providing state. However, the country is likely to be forced by the European Court of Justice to change its legally questionable tariff structure. This could provide an opportunity to introduce stakeholder participation and more transparent decision making processes of the state-owned EDF and GDF Suez.

5. Conclusions

“Smart” energy regulations of collaborative governance will probably not bring about market competition as prescribed in text books of energy economics. However, one can expect market results which will be achieved at lower regulatory costs than under existing command and control regulations. The existing British regulatory model and its cousins the EU concept of energy regulation and national regulations implementing this concept are on the wrong track toward market liberalization. They will end up in monstrous EU and national regulatory bureaucracies.

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⁶⁹ See fn. 58.

⁷⁰ Verifiers are licensed or accredited persons or organizations which carry out verifications and validations within the meaning of Art. 2 no. 20 of the EMAS Regulation (EC) No. 1221/2009. The concept could be applied analogously to control activities in the energy sector.

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