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Clash of Regulatory Cultures in the EU: The Liberalization of Energy Markets

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Outline

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. The command and control approach of EU energy regulations is then contrasted to a regulatory approach of collaborative governance drawing on the US experience and on recent developments in Great Britain where the effectiveness and practicability of the prevailing command and control approach is being reviewed by Ofgem. The essay concludes with a few suggestions on starting points for collaborative governance regulations in national energy markets.

The title of this essay is – as some readers may have noticed – an allusion to Samuel Huntington's book "The clash of civilizations and the remaking of world order" (1996). The choice of this slightly dramatic title for an essay on energy regulation is to highlight

- that EU policymaking and regulations are heavily influenced by political, administrative, and legal cultures of member states, and
- that, therefore, mono-disciplinary theoretical concepts – like neoclassical economic theory in the case of restructuring energy markets – are likely to fail in reality, because they do not survive the clash of regulatory cultures.

Ten years of EU command and control regulations aimed at liberalizing European energy markets have not resulted in truly competitive and integrated electricity and gas markets in Europe (European Commission 2009b). 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, ibid.).

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 governance[1].

I. Main Characteristics and Conceptual Foundations of EU Energy Regulations

1. EU Directives and Regulations 1996 – 2009

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 directives[2] and established general principles for limited competition, third

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1 The term "collaborative management" is often used synonymously with „collaborative governance" (see Bingham/ O'Leary/Carlson 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.

2 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

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 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 directives[3] which contained detailed regulations for third party access to the energy networks, legal unbundling of vertically integrated utilities, and the requirement to establish national regulatory authorities. The EU also issued two regulations on access to the networks for cross-border exchanges in electricity[4], and on access to the gas transmission networks[5].

In the third regulatory phase of 2009, the EU further tightened the regulatory screws by replacing the 2003/2005 legislation with two new directives[6] and three new regulations[7]. The new law prescribes inter alia[8]

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22 June 1998 concerning common rules for the internal market in natural gas.

3 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.

4 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.

5 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.

6 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.

7 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

– ownership unbundling of transmission systems and the functions of electricity generation or gas production respectively and energy supply in vertically integrated utilities[9] with three complicated exceptions:
  - the Independent System Operator (ISO) model[10],
  - the Independent Transmission Operator (ITO) model[11], and
  - existing national arrangements which guarantee more effective independence of the transmission system operator than the ITO model[12],
– legal unbundling of distribution system operators in vertically integrated utilities[13],
– non-discriminatory third party access to the transmission and distribution networks[14],

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of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005.

8 See the overviews of the 3rd legislative package by Lane 2009 and Gundel/Germelmann 2009.

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

10 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 ISO, to be designated by member states and complying, inter alia, with the rules of independence as outlined in the scheme of ownership unbundling.

11 Pursuant to Art. 17 of 2009/72/EC and 2009/73/EC the ITO model also allows vertically integrated utilities to retain ownership of their transmission networks if they transfer the technical and commercial operation of their transmission networks to a separate body, called ITO, to be designated by member states and complying, 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.

12 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.

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

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

– annual ten-year network development plans[15] for infrastructure investments,

– the establishment of a single regulatory authority with detailed and comprehensive duties and powers in each member state[16],

– 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 level[17],

– the establishment of a European Agency for the Cooperation of Energy Regulators to assist national regulatory authorities[18].

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 are addressed to utilities and other stakeholders of the energy markets. The rules must be implemented and enforced by 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. 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 model[19] is charac-

15 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.

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

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

18 Art. 1, 6-9 of Reg. 713/2009.

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

terized 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[20] 2009: 24/25) 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."

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):

– "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 up-stream markets of electricity generation and gas production, and in the down-stream 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

20 Office of Gas and Electricity Markets.

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/ 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.

II. Conflicts of Regulatory Cultures and Consequences for Energy Markets

1. 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 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.

2. 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.

Table 1: Characteristics of National Regulatory Cultures

Country / Characteristics of regulatory cultures	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 Central independent regulator Licence system with wide regulatory discretion	State ownership Central independent regulator with shared competencies Public service obligations	Private and government ownership Federal and Länder regulators Restricted regulatory discretion

a) 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"[21] 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.[22]. 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 2009 the following ownership pattern:

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

There are 18 electricity distributors, and 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.[23] Six companies are the most important generators and suppli-

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21 Some authors use the term "market capitalism" for the model, see Schmidt 2000: 39.

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

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

ers (European Commission 2007a: 164). They include the two large German utilities RWE and EON, and the French state-owned utility Électricité de France (EDF) which hold together 43 % of the transmission entry capacity by generation owners (Ofgem 2009: no. 87). EDF is now Britain's biggest producer of electricity[24] after its acquisition of British Energy in 2009 which operates all nuclear power plants. The electricity transmission network is fully ownership unbundled. National Grid has no generation or supply assets (European Commission 2007a: 163). Most electricity suppliers, however, belong to company groups which own distribution networks (Ofgem 2008: no. 178). This means they are only legally unbundled.There are quite a few gas offshore producers and importers. In the gas downstream market, the six main electricity supply companies also have the bulk of customers (European Commission 2007a: 165). The largest market share is held by British Gas, the former gas monopoly supplier (Ofgem 2009: no. 230). The gas transmission system is fully ownership unbundled. Also most gas distributors are not affiliated with production and supply companies (Ofgem 2008: no. 297).

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 licences[25],
– 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).

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24 See British Energy at http://www.british-energy.com/

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>

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 include[27]

– issuing, modifying, enforcing and revoking licences,
– setting price controls in the natural monopoly licensed sectors (transmission and distribution networks),
– investigating and penalizing those in breach of licence 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).

Licence system with wide regulatory discretion: The generation/production, transmission, distribution and supply of gas and electricity require separate licences under the Gas Act 1986 and the Electricity Act 1989. The holder of a gas transmission licence must not be granted a gas supply licence and vice versa[28], while the same person may not be the holder of both an electricity distribution licence and an electricity supply licence[29]. The purpose of these provisions is to prevent cross-subsidization and discrimination of competitors.

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 ap-

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26 See Ofgem, The Gas and Electricity Markets Authority at <http://www.ofgem.gov.uk/About%20us/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.

proach (Vogel 1986: 220, Bell/McGillivray 2008: 237 ff.). The content of the gas and electricity licences 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 licence in a given case[30] (Simmonds 2002: 55). However, subsequent modifications of conditions in existing licences require either the consent of the licence holder[31]or, in the case of disagreement, a directive by the Competition Commission[32] (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 1986[33] and the Electricity Act 1989[34] 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).

b) 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 state[35] seeks to actively[36] influence the economic and social well-being of its citizens, for instance, through publicly owned enterprises, plans and programs,

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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://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/ Wegrich 2004: 195 ff.

regulations, and infrastructure projects.The market model corresponding to this state vision is the state-led model of market coordination[37] (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. 2004-803[39], 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. There are 169 local distribution companies[40] of which 160 companies supply the remaining 5 % of the market (CRE 2008: 38).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, while 23 local distribution companies[41], mainly in the hands of municipalities, operate the remaining distribution networks.

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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 2007: 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.

40 The figures are taken from table 8 in CRE 2008: 82.

41 See CRE, fn. 40.

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

There are three significant generating companies in the electricity market (CRE 2008: 32): EDF with 87 % of the installed generation capacity, Elactrabel-Suez, a subsidiary of GDF Suez with 4 %, and the private SNET with 2 % of the installed generation capacity. The remaining generation capacity belongs to a large number of small independent generation and distribution companies.

Independent central regulator with shared competencies: GDF Suez dominates the import and supply markets for gas, while some 22 local distribution companies account for about 4 % of gas supplies [42].

The Energy Regulatory Commission (Commission de régulation de l'energie – 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.

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

42 See European Commission, France – Internal market fact sheet at <http://ec.europa.eu/energy/energy_policy/doc/factsheets/market/market_fr_en.pdf>

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 law[43] 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/Varone 2007: 1052 f.).

c) 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

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43 See the overview by Lauriol 2007: no. 8.241 f., and Loi no. 2000-108 du 10 février 2000 relative à la modernisation 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'energie, Loi no. 2004-803 (fn. 39).

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"[44] 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 (Judgement of the Federal Constitutional Court of 20 March 1984, BVerfGE 66: 248, 258; Judgement of 10 September 2008 – 1 BvR 1914/02 –, no. 12). "Daseinsvorsorge" has been translated into English by the European Commission[45] 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).

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44 The German term for these guarantees is „Gewährleistungsverantwortung".

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

The market model corresponding to this state vision is the "social market economy". This is a corporatist model of market coordination[46] characterized by industry associations, labour 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 small shares of some of these companies.

These market structures have basically remained unchanged after liberalization.[47] 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.[48]

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.[49]

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46 Thatcher's (2007a: 150) term „industry model of coordination" is too narrow because labour unions and other societal groups have a great influence on market coordination, too.

47 In 2007, there were about 700 gas companies and 900 electricity companies, see Schiffer 2009: 173, 210.

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

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

The third transmission network is owned by EnBW which is in the hands of German local governments (45 %) and the French state-owned EDF (45 %).

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.[50] There are five big companies (EON-Ruhrgas, RWE-Thyssengas[51], Ontras-VNG, Wingas, BEB) which own and operate interregional gas transmission networks (European Commission 2007a: 32). The largest network is owned by EON-Ruhrgas, 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.[52]

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 obli-

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

51 RWE plans to sell its transmission gas network owned by Thyssengas in fall of 2010; see:Dow Jones Deutschland of 23 March 2010 “Update: RWE verkauft Gasnetz später – Gasunie bietet nicht” at <http://www.finanzen.net/nachricht/aktien/UPDATE-RWE-verkauft-Gasnetz-spaeter-Gasunie-bietet-nicht-761516>

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

gations 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-Ruhrgas 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.[53] It is an undecided legal issue whether the Agency is also subject to case-specific ministerial directives (Franke 2008: 1056 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.[54]

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

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

54 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 2008: 1049, Theobald 2009: 276).

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 (II.2 c, before aa), 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. Differences and Conflicts Between National Regulatory Cultures and EU Energy Regulations

a) 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.

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.

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.

b) 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 1.) on the European level.[55] 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).

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55 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/ecomm/todays_framework/overview/index_en.htm>

"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 licence 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 fulfil 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 (Bauby/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 neo-classic 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.

4. National Implementation and Market Deficiencies

a) Implementation Deficiencies

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

Since EU energy legislation is modelled 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 flawless. 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).[56] 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[57], and observed[58] (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-

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56 See also press release of the European Commission of 10 March 2009 at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/376>

57 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.

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

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 utiltities 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. 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 2010: 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.[59] According to incremental theory (Braybrooke/Lindblom 1970, Hayes 2001 and 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 stuctures, principles and traditions, only occur under

59 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.

exceptional circumstances. Necessary conditions for non-incremental changes are

– a decision situation which is characterized by 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, or 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.

b) 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.

However, 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.

At least in theory, the main causes for dissatisfactory market results could also stem from conceptual shortcomings of the regulatory model pursued by the EU. Even in Great Britain doubts are rising whether the neo-classic regulatory approach delivers the desired results. Some experts claim that British end consumers have been suffering from increasing energy prices in recent years (Harker/Waddams 2007, Wright 2007, Waddams 2009).

Stephen Littlechild (2009a, b), the architect of the British reform model (Bartle 2003), deplores the fact that price-cap regulations have led to over-regulation and enormous bureaucratic burdens, and, therefore, calls for replacing the present regulatory approach with negotiated settlements.

Other experts (Pollitt 2008) criticize that network regulations have prompted utilities to delay necessary infrastructure investments, and impaired the quality of British transmission and distribution networks.

In light of these concerns, Ofgem (2009: no. 13, 14) has launched a critical review of the present regulatory reform model.

While the final verdict on the adequacy of the EU (and British) regulatory model is not yet in, it can be said that the European Commission's (2010: 2) claim that the third legislative package makes the opening of energy markets effective, "in the interest of achieving the lowest possible energy prices, better energy security and sustainability" is empirically and theoretically arguable. Therefore, this essay will close with an alternative perspective on energy regulation.

III. A Collaborative Governance Perspective on Energy Regulation

1. Implementation Constraints on Command and Control Regulation

EU energy regulations fall, by and large[60], into the category of command and control regulations (Koch 2008: 1). 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. Command and control regulations have traditionally been and still are the most frequently used government instruments to achieve the objectives of public policies. However, these regulations suffer from three inherent weaknesses[61]:

– 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

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60 The 3rd EU legislative package contains a few collaborative elements. Art. 4 of Reg. 714/2009 and Reg. 715/2009 provide for 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 level.

61 See Moran's (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.

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.

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. In the past, the German Federal Network Agency, for instance, did not have sufficient personnel and time resources to fully control all relevant cost parameters when approving the network access fees of utilities (Monolpolkommission 2007: no 370).

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/Zeckhauser/Parson 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’ scarce resources and (factual) limitations on the power to impose sanctions.

2. Collaborative Governance – Smart Regulations

Collaborative governance is a normative model of collective decision making (Freeman 1997: 21). The model has been proposed in general (Donahue/Zeckhauser 2006: 496, 506, 511 f.), and for the energy sector in particular (Koch 2008) to cope with the constraints of traditional command and control regulations. President Obama announced in a memo of 21 January 2009 on "Transparency and Open Government" that "Government should be collaborative".[62]

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/Zeckhauser 2006: 496, Thomson/Perry 2006: 23, Ansell/Gash 2008: 544, Bauer 2010):

– 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/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/Gash 2208: 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/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/Zeckhauser 2006: 509).[63]

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

63 Some authors confine the definition of collaborative governance to formal collaboration (Ansell/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.

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 theoretical power of the concept of collaborative governance is limited to descriptive and normative functions; it's explanatory power is questionable.[64] However, 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/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 stake-

64 See the critical observations on the governance concept by Frederickson/Smith 2003: 225 f.; Offe 2008: 61 ff.

holders 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 2006[65] 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/Zeckhauser/Parson 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/Zeckhauser/Parson 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.

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65 See s. 43(1) no. 3 and annex 7. The "Joint Rules of Procedure" or 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?nn=441658>

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 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. However, 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 21th 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 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 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).[66]

66 Translation by the author.

3. Consequences for Energy Regulation

A US scholar, Charles 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/RTO[67] model.

a) The US ISO/RTO 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.[68] 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.[69] 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.[70] In the US, some 67 %, and in Canada over 50 % of electricity customers are served by ISO/RTOs (Koch 2008: 8).

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67 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.).

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

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

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

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.).

b) 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.

In *Great Britain*, Ofgem has launched a critical review of the present regulatory system. Even its former architect (Littlechild 2009a, b) and other 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/Littlechild 2006: 275 f. and 2009: 22 ff.; 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).

In *Germany*, the notion of collaborative governance has some affinity to the consensus-oriented, corporatist regulatory culture of the country. Central to the implementation of the first Electricity and Gas Directives of the 1990s were association agreements of the electricity and gas industries which set rules, standards and methods for network operation, access, and fees. However, these agreements were legally non-binding, and the negotiation processes were intransparent and did not include all stakeholders. These agreements were replaced by detailed command and control regulations of the Federal Energy Management Act 2005 which implemented the second Electricity and Gas Directives of 2003. But the Act also provides for legally binding agreements of cooperation between the operators of gas networks designed to foster competition.[71]

However, a regulatory approach of collaborative governance would require additional steps. In the (unlikely) event that the owners of the electricity and/or gas transmission networks agree on establishing a national grid company, it would be reasonable to create a non-profit organization which includes all stakeholders. Given the large number of utilities in Germany, the model of a non-profit organization could also be used to alleviate the information and resource problems of the regulatory authorities.[72] To this end, the regulatory competencies of controlling grid access, fees and unbundling could be legally bestowed upon a non-profit organization[73] which includes stakeholders, and operates under the legal supervision of the Federal Network Agency. This private non-profit organization would have easier access to necessary information held by utilities and public authorities. Stakeholder participation and the supervision by the Federal Network Agency would minimize the risks for the non-profit organization to be captured by

71 S. 20 (1b) of the Federal Energy Management Act.

72 The following proposal is modeled on the implementation of the „Eco-Management and Auditing Scheme“ (EMAS), Regulation (EC) No. 1221/2009 of 25 November 2009, through the German Environmental Auditing Act (Umweltauditgesetz).

73 The German legal term for this concept is „Beleihung“.

industries. Furthermore, independent private "energy verifiers"[74] 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.

"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 better market results than today which will be achieved at considerably lower regulatory costs than under existing command and control regulations.

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

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