

“The holy ghost of electricity industry – The power of organised interests” (1950-1980)

This article summarizes the results of the author’s dissertation. Its focus is what justified the persistence of regulation in the German electricity market. The energy law (*Energiwirtschaftsgesetz, EnWG*) of 1935¹ had been in force until the late 1990s. Pressure by the EU led to an amendment to the Law against Restraint on Trade and Competition (*Gesetz gegen Wettbewerbsbeschränkungen, GWB*)² and the promulgation of a new energy law³ in 1998. These legal modifications abolished the institutional, regulating structures of the energy industry since the Third Reich. From the foundation of the Federal Republic of Germany in 1949 onwards, both experts and the general public engaged in a vivid debate about the desirability of an (at least partial) opening of the electricity industry for reasons of competition. In order to understand the political backdrop and the economic ramifications of this conflict, this analysis focuses on the structure of the German electricity industry during the examination period, its players and the political decision-making process. Furthermore it examines evidence of some obvious consequences of governmental regulation, namely (i) the use of the electricity industry to subsidise coal; and (ii) the higher charges for small and medium-sized industrial consumers in cases of price increase. The question remaining is whether deregulation actually entails a positive price effect for consumers.

The German electricity industry has been regulated mainly through two bodies of law: the Energy Industry Act and the Law against Restraint on Trade and Competition. Although enacted in 1935, the *EnWG* has been maintained as a normative framework for the grid-bound energy supply in the constitutional structure of the Federal Republic of Germany⁴ and governed the industry until the *GWB* in 1998. Section 103 of the *GWB* also provided special exemptions for the grid-bound public utilities from antitrust law.⁵ This meant that not only demarcation, concession and joint supply contracts but also maximum price fixing had been exempted from § 1 *GWB* (prohibition of contracts with restrictive effects), § 15 *GWB* (prohibition of price fixing) and § 25 *GWB* (prohibition of concerted practices). The legislators aimed to prevent the electricity industry from abusing this exceptional position through the control of restrictive practices through the fair trade law.⁶ External price

¹ “Reichsgesetzblatt”, National Law Gazette (RGBl) 1935 I S. 1451

² *GWB* 1957, Federal Law Gazette (BGBl) I S. 1081; amendment to an act 26.08.1998, BGBl I S. 358

³ BGBl 1998 I S. 730

⁴ It was a basic principle after WWII that a law could stay in force as long as it was not in opposition to the German Constitutional Law (Art. 123 Abs. 1 GG), cf. Büdenbender (1982), page 24.

⁵ *GWB* § 103.

⁶ See for detailed information: Feuerborn, Alfred: Die kartellrechtliche Freistellung für Elektrizitätsversorgungsunternehmen und deren Kontrolle, Münster 1983, Diss.

and investment controls were also regulatory instruments designed to prevent abuse.⁷ Yet, despite these modest attempts at limiting the most extreme consequences of regulation, it remains open to question, why the electricity industry was deregulated only under the pressure of the European Union.

The structure of the German electricity industry

In the 19th century public utilities were not under governmental control and no special energy law was in force.⁸ Demands for governmental regulation first arose after the turn of the century.⁹ The energy law on December 13th in 1935 finally put the Reich in charge of the gas and electricity sector. It put the strategic planning of future investments and – to some extent – the pricing power of public utility companies under external control. It also affected the relationship between public utility companies and the industrial power industry. State control of the electricity industry was meant to ensure a more secure and cheaper electricity supply.¹⁰

Even though there is a technical distinction between production, transportation and distribution of electricity, the electricity industry can be divided into the following vertical segments: generation and national transmission, regional distribution and local supply of electricity to the end-consumers.¹¹ The German electricity industry showed a remarkable degree of concentration in the first segment. In 1974 the nine biggest companies generated about 65 % of the total supply of electricity in the Federal Republic.¹² The biggest electricity industry company, RWE AG, generated about 27 % of the total power output for industrial consumers in 1974. The three biggest companies already covered 36,7 % of output and the ten biggest covered more than half. The concentration in terms of end-user supply for private households was slightly lower: the ten biggest companies covered about 40 % of the total power out-

⁷ This is elaborated in detail in Büdenbender (1982); Tegethoff/Büdenbender/Klinger (1998).

⁸ Evers (1983), p. 31.

⁹ In 1907 the German Reichstag debated about the question whether the electricity industry was a natural monopoly and therefor should be regulated by law; cf. Tegethoff/Büdenbender/Klinger (1998), p. 2.

¹⁰ See the preamble of the Energy Industry Act, EnWG 1935.

¹¹ Monopoly Commission (1977), p. 382.

¹² VDEW: Statistics of the Year 1974, pp. 22-23. Analysis based on the companies' business volume.

put for that consumer group.¹³ The monopoly commission had already named this concentration in its first official report.

Another indicator of regulation of the grid-bound public electricity companies (*Elektrizitätsversorgungsunternehmen, EIUUV*) in Germany was the great number of companies that were publicly or part-publicly owned (chart 1). Indeed municipal and urban works companies did not cover more than 15 %. But in fact those *EIVU* with an own incorporated enterprise, which were either fully government-owned or had large amounts of public ownership, had the main share of the market. Out of 176 companies with mixed ownership, only twenty had public ownership less than 50 %. 13 of them were subsidiary companies of the RWE AG which were 70%-owned by public municipalities. The influence of public authorities was ubiquitous. In the mid-sixties, private companies had only about 7,6 % of the total power production.¹⁴ In the local distribution and the local end-user supply segment of the electricity industry, the market share of private companies was negligible.

Chart 1: Ownership structure of electricity industry companies and their share of total production (1964)

Company type	Number	Ownership structure	Share (%) of total production
municipality /urban works	466	solely municipality-owned	15,5
incorporated enterprise (mixed or government-owned)	176	municipality-owned or in other ways government-owned (≥ 75%)	76,9
private	130	private	7,6
In total	772		100,0

Source: Own design following Eckstein, Dieter: Die wirtschaftliche Betätigung der öffentlichen Hand im Bergbau und in der Elektrizitätswirtschaft der Bundesrepublik Deutschland (Beiträge zur Erforschung der wirtschaftlichen Entwicklung, Heft 11), Stuttgart 1966, p. 38. Data of the VDEW member statistics.

There was a paradox, a conflict of interest observable: the regulated entity was – at least partially – also the regulator. The conflict and inefficiencies in regulation were

¹³ Monopoly Commission (1977), pp. 387-389.

¹⁴ Eckstein (1966), pp. 40-57.

unsurprising and were already mentioned by the monopoly commission in their first official report in 1975.¹⁵

The persistence of regulation – tug-of-war of powers

Originally the 1935 energy law had been intended to be in force only until the energy supply shortage had eased and a new energy law had been conceived. On the occasion of the extension of the Law to guarantee a Secure Power Supply after WWII (*Energienotgesetz*), the German Council of Constituent States, the *Bundesrat* noted:

“As a matter of fact, the *Bundesrat* does not have any objections but strongly anticipates the draft of a new law for the energy supply through which the by-law of the Energy Industry Act and the extension of the *Energienotgesetz*” shall be revised and be adapted to the new economic and constitutional structures of Germany as soon as possible.”¹⁶

However, a new regulation of the energy industry was not legislated until 1998 even though there had been various earlier drafts. According to file records in the Federal Ministry of Economics as well as the Chancellor’s office, some attempts were made to create a new Energy Industry Act in the 1960s and 1970s. Yet none of these drafts were ever submitted to the German Federal Parliament (*Bundestag*).¹⁷ The debate about the reform of the grid-bound energy supply during the investigation period was based on the *GWB* and later connected to the amendments of the antitrust law. The debate was marked by specific conflicts between the actors with regard to the branch status.

The tug-of-war, an occasionally highly passionate debate, for the new regulation of the energy industry may be divided chronologically into three periods. Chart 2 demonstrates the main emphasis in terms of content, critical events and some key players.

The first period centred upon the conflict of the treatment of the grid-bound energy industry in the German antitrust law. In this respect the debate shifted the emphasis of the Energy Industry Act to competition law. The main arguments for or against the regulation remained the same during the whole three phases. The representatives of

¹⁵ Monopoly Commission (1977), pp. 400-401.

¹⁶ National Archive of Germany (BArch) B 136 / 7670, Fiche 1, 16.02.1950, letter from the second vice-president of the German Federal Council to chancellor Konrad Adenauer concerning the extension of the law to guarantee a safe power supply after WWII.

¹⁷ Cf. Emmerich (1978), pp. 50-55. As an example one can list the draft from the year 1973. BArch 136 / 7670, Fiche 4 and 5.

the Industrial Power Industry (*Vereinigung Industrielle Kraftwirtschaft e.V., V.I.K.*) and the private industry association (*Bundesverband der Deutschen Industrie e.V., BDI*) strongly insisted on an easing of the monopolies and the complete submission of the energy industry to the antitrust law. They categorically rejected the notion that the concession and demarcation contracts were declared acceptable without any limitations.¹⁸ The industrial power industry wanted to be in the position to sell the over-capacities of self produced energy from one business to another. They also criticized the electricity supply contracts for industrial consumers. These contracts differed in terms of the price design from the standard prices of private consumers because the electricity price for industrial companies did not depend on the permission of the responsible Federal Ministry of Economics and they contained special clauses that allowed extra temporary charges.¹⁹

The representatives of the public *EIVU*, represented through the German Transmission Association (*Deutsche Verbundgesellschaft e.V., DVG*) and the Association of German Electric Power Stations (*Vereinigung Deutscher Elektrizitätswerke e.V., VDEW*), different local authority associations and politicians urged for a continuation of the regulations. They argued that, due to the inherent characteristics of the grid-bound energy industry, the insufficient capacity, high fixed costs and capital intensity, only a monopoly structure could provide social and economic stability.²⁰ This was clearly shown in the proposal of the congress of municipalities to design the corresponding paragraph in the law to not prohibit the demarcation and concession contracts themselves but rather to merely prohibit their abuse.²¹ The intentions were clear: if these contracts had been declared completely invalid, this would have led to disadvantages for the municipalities involved. For example the income of the licence tax would probably have been considerably lower and there would not have been a fixed planning size in public households. The public sector and especially the municipalities were obviously driven by financial interests to maintain the status quo of the regulations and to champion the exemption of the electricity industry in the

¹⁸ BArch B 102 / 17190, book 1, correspondence between the executive board of the industrial power association and the cartel department of the Federal Ministry of Economics, 07.01.1952.

¹⁹ Industry Archive of Rhine Westphalia (RWVA), various files.

²⁰ Industry Archive of Baden-Wuerttemberg (WABW) B 74 Bü. 2181, VDEW limited reproduction: „Probleme der öffentlichen Elektrizitätsversorgung in der Pressediskussion“, 1962, various articles, among others Strahinger, Wolfgang (president of VDEW): Wettbewerb für die Elektrizitätsmonopole (Competition for electricity monopolies)?.

²¹ BArch B 102 / 17190, book 1, 28.11.1955, letter from Dr. A. Gleiss to the Federal Ministry of Economics.

GWB.²² This period ended with the passing of the *GWB* in the summer of 1957 where the energy industry amongst others²³ was exempted from the scope of that law.²⁴

The second period ranged from the end of the 1950s to the late 1960s. The most important actors were the same as in phase 1. However, influential employees of the Federal Cartel Office (*BKartA*) entered the scene to promote the debate on the part of politics and to tackle with the antitrust law (chart 2). Demands for a reform of the law were soon voiced but the electricity industry remained unchanged. The amendment's priority considering paragraph 103 *GWB* was the admissibility of demarcation contracts and the onwards transmission of electricity²⁵ over the demarcation lines. This period was mainly characterized by a conflict between the *V.I.K.* and *VDEW* about the contract design and pricing for industrial consumers.

These demands also remained the central issue in the third period from the end of the 1960s until the early 1980s and were extended only by the question of how much concentration was justifiable within the grid-bound supply industry. In that context especially the monopoly commission appeared as critic. Later, during the 1970's, the main emphasis shifted due to the two oil price shocks, the economic situation and the change to a social-liberal government.²⁶ There was a groundswell of opinion for new regulations connected to the fact that Germany still followed the economic ideas of Keynesianism which marked the years with a German "planning euphoria" rather than efforts for liberalization. In 1968 the *CDU/CSU* congressional faction (Christian Democratic Party) gave new impetus to the debate about a new concept of the *EnWG* at a meeting of the Lower House (*Bundestag*) about the electricity supply in the German economy (see chart 2).²⁷ Phase 3 ended with the passing of the fourth amendment to *GWB* in 1980. This event tagged the turning point in the regulation

²² Emmerich (1978), pp. 24-25.

²³ §§ 100 et seqq. *GWB* 1957.

²⁴ § 103 *GWB* 1957.

²⁵ One has to point out that "transmission of electricity" is not existing in a physical way, but there is a power feeding into the grid at one point and an its extraction at another point (a different geographical spot).

²⁶ The adjustment crisis in the 1970s is characterized by the return of Germany's economy to business cycles, the collapse of the Bretton Woods system, the international inflation process and the Vietnam war. Cf. Giersch/Paqué/Schmieding (1994), pp. 125-250.

²⁷ *Bundestag* printed paper, BT-Drucksache V/3668.

policy. The tight structures of regulation were loosened for the first time since 1935: demarcation contracts were no longer exempted from the German competition law.²⁸

Chart 2: The Debate's Periods (1950-1980)

Period	Main Aspects	Critical Events	Protagonists
Period 1 (1949 – 1957)	<ul style="list-style-type: none"> ▪ energy industry exception from antitrust law § 77 (103) GWB 	<ul style="list-style-type: none"> ▪ V.I.K. leaves SANE ▪ enacting GWB 	<ul style="list-style-type: none"> ▪ V.I.K (BDI) ▪ DVG, VDEW ▪ politicians
Period 2 (1958 – 1967)	<ul style="list-style-type: none"> ▪ application/reform of § 103 ▪ demarcation ▪ transmission 	<ul style="list-style-type: none"> ▪ conflict between V.I.K. and VDEW: contract design 	<ul style="list-style-type: none"> ▪ - " - ▪ BKartA
Period 3 (1968 – 1980)	<ul style="list-style-type: none"> ▪ demarcation ▪ transmission ▪ concentration 	<ul style="list-style-type: none"> ▪ Bundestag interpellation of CDU/CSU-fraction ▪ 4th antitrust law amendment 	<ul style="list-style-type: none"> ▪ - " - ▪ BKartA

Source: Own Design.

This first phase was a decisive factor for the ongoing course of the debate during the whole investigation period because the institutionalised channels of communication have been cemented. Due to the inquiries of the Federal Minister of Economics, Ludwig Erhard, a special committee named “New Energy Law” (*Sonderausschuss Neues Energierecht, SANE*) was founded in October 1949 to deal with reform of energy law.²⁹ This committee had five members: representatives from the different associations named above. There was one member of the transmission association, one from the management of a large transmission company, another from a middle-sized local distribution company, one from the German congress of municipalities and one from the industrial power association *V.I.K.*. In this respect, except for the member of the *V.I.K.* all parties involved were members of the *VDEW* and directly or indirectly involved in municipal and Federal politics.³⁰ In September in 1950 the *V.I.K.* retreated from the committee, citing their severe doubts about the appropriateness of the first draft of a new energy regulatory act.³¹ Despite successful negotiations between the two parties, the industrial side did not rejoin the committee.³²

²⁸ Tegethoff/Büdenbender/Klinger (1998), pp. 20-21.

²⁹ Historical Archive of the RWE AG, office files of Dr. Einnatz, new energy law (“Neues Energierecht”), RWE file no. 1520; Tegethoff/Büdenbender/Klinger (1998), p. 13.

³⁰ Ibidem, RWE file no. 1520, various correspondence.

³¹ Ibidem, RWE file no 1520, 20.9.1950, Letter from Reusch, president of the *V.I.K.* to Ministerialrat (deputy assistant under-secretary) Heyden, also chairman of the *SANE*-committee.

³² Ibidem.

Hence the political side consulted the public power generating and distribution associations of the electricity supply industry in the run-up to the development of an anti-trust law rather than the industrial party of the electricity industry. These channels of communication were favoured through the specific ownership structure and were institutionalised over many years.

Overall, in all three periods, the public electricity supply companies prevailed throughout the whole political decision-making process. That is a main reason for the persistence of regulation. However, there was also another important reason. The debate about government intervention in the electricity industry and the actors' motives were influenced by the nascent nuclear industry. This technology opened up new possibilities of large-scale generation of energy. But at the same time, new problems arose like the question of financing, the safety of nuclear power stations and later the treatment of nuclear waste.³³ This called for governmental control and supervision.³⁴ The files in the federal and economic archives give evidence for the meaning of the nuclear energy in that debate. They suggest that a reform of the energy industry was postponed to settle to the more immediate problem of the organization of the nuclear economy.³⁵

Apart from that, the securing of the national coal-mining came on the agenda due to the increasing use of oil in the 1950's and 1960's. The three coal laws³⁶ – the first one being legislated in the mid-sixties – were meant to ensure the use of coal for the conversion in secondary energy on a long term basis.³⁷ In fact the construction of coal power stations was strongly subsidized by the public sector. Beyond that the state government of North Rhine-Westphalia made the support and permission for the construction of a nuclear power station subject to the commitment of the *EIVU* to

³³ First disputes about how to finance (public vs. private investment) and realize the first nuclear plant projects arose in the mid 1950s. Cf. in particular Fischer, Peter: *Atomenergie und staatliches Interesse: Die Anfänge der Atompolitik in der Bundesrepublik Deutschland 1949-1955* (Internationale Politik und Sicherheit, Bd. 30, Baden-Baden 1994, pp. 179-190.

³⁴ Cf. for detailed information Zängl, Wolfgang: *Deutschlands Strom. Die Politik der Elektrifizierung von 1866 bis heute*, Frankfurt / M 1989, pp. 233-260.

³⁵ Cf. BArch B 136 / 7670 and 7711; RWWA 1-535 -1, 1-544-1 and 28-136-1.

³⁶ These laws are as follows: "Gesetz zur Förderung der Verwendung von Steinkohle in Kraftwerken" (BGBl 1965 I S. 777), "Gesetz zur Sicherung des Steinkohleneinsatzes in der Elektrizitätswirtschaft" (BGBl 1966 I S. 545), "Gesetz zur weiteren Sicherung des Einsatzes von Gemeinschaftskohle in der Elektrizitätswirtschaft" (BGBl 1974 I S. 3473).

³⁷ Stier (1999), pp. 492-493.

convert more than the compulsory amount of coal into electricity.³⁸ Even contemporary investigations about electricity generation costs show that compared to nuclear energy coal energy was more cost-intensive.³⁹ Electricity policy was thus effectively a subsidy policy for coal, with a key aim securing employment for the mining industry.⁴⁰ This was an important aspect of the debate's second period. Apart from that after the years of bottleneck in the post-war period and the shocks of oil prices, the electricity policy worked for the securing of energy in general. These problems permanently influenced the debate and at the same time gave new arguments for the advocates of the regulation.

The consequences of regulation

The consequences that ultimately followed from regulation are not easily analysed. Many sources like the tax balance sheets and the documents of the board of management and directors are still inaccessible, forcing historians to take recourse to indirect indicators. However, there is evidence that disadvantages for the some consumers arose from regulation. The basis for all regulating laws has been the notion that the electricity industry was a natural monopoly. Still, this applies at best to the stage of electricity transmission.⁴¹ That other European countries already had alternative systems has been shown in an article by Wilhelm Hacker in the trade journal in March of 1962⁴². He mentioned that in Belgium it was already possible for an industrial power plant to obtain the right to provide distant power stations and branch offices with their generated power. Consumers whose personal use exceeded 1000 kWh were also allowed to choose their provider themselves.

Due to the monopoly structure of the electricity industry during the investigation period also the question of pricing arises. The recurring debates about customer prices are somewhat conspicuous especially in the cases that concerned industrial consumers. The regional chambers of industry and commerce (*Industrie- und Han-*

³⁸ Historical Archive of the RWE AG, V 5 / 60, 23.3.1977, protocol of the executive board meeting of the VEW AG.

³⁹ Cf. Schmitt/Junk/Ebersbach/Prechtel (1978). The survey was based on imputed costs of different power plant stations. It considered also specific proxies (estimated) for cost increase and inflation rate amongst others.

⁴⁰ Schweickardt, Paul Erich (1968), pp. 79-110; Rudhart, Hendrik (1971), pp. 154-188.

⁴¹ Brunekreeft/Keller (2000), p. 128-129.

⁴² Handelsblatt (German daily newspaper) No. 63, 30.3.1962: "Competition in the energy industry. An entry to the debate about the energy law reform". WABW B 88 Bü. 167.

delskammer, IHK) had received many complaints from companies about tremendous price increases.⁴³ Contractual provisions that allowed the national *EIVU* to adjust the prices when there was a price increase for the primary energy source coal were criticized. The industrial consumer generally was not able to change the power supply company because due to the demarcation and concession agreements, only one *EIVU* was in charge of the electricity supply in one specific region. In 1957, the director of the municipalities Cologne, Mink, admitted to the German chamber of industry and commerce (*Deutscher Industrie- und Handelstag, DIHT*) on the occasion of a conference about the price increase that the price increase had burdened the commercial customers: “The contracts for the industrial consumers are the valve most easily to be opened to pass on the costs of the electricity provider to the consumers.”⁴⁴ In view of these facts it has been profitable for many smaller businesses and companies to conclude one of the contracts for private consumers rather than one for industrial consumers.⁴⁵ Thus obviously, there have been cases of price discrimination and maybe monopoly profits for public electricity suppliers who misused their special position.

Conclusion

The European electricity market is still highly concentrated and (at least partial) inefficient. On the wholesale market the three biggest European power generation companies (GDF Suez, E.ON, EDF) control more than 70 %. In Germany the Federal Network Agency (*Bundesnetzagentur*) is necessary to control and “regulate” the deregulation process.⁴⁶ Chart 4 displays a brief comparison of competitiveness indicators of some European countries and their electricity markets. Despite a broad deregulation policy within the European Union there is no clear evidence for an explicit positive price effect for electricity consumers.

⁴³ By way of example: RWWA 1-535-2, IHK Cologne, this file is dealing with many complaints about high prices which reached the chamber of commerce and industry in Cologne; also: WABW B 88 Bü. 34, this file shows a price comparison made after some consumers handed in official complaints about high power prices at the Federal price control department.

⁴⁴ RWWA 1-535-2. 19.1.1957, protocol of a meeting of members of the chamber of industry and commerce in Cologne.

⁴⁵ Ibidem.

⁴⁶ § 56 EnWG 1998 authorizes the Federal Network Agency to regulate the network and transmission conditions for all participants within the electricity industry.

Chart 3: Some competitiveness indicator of European electricity markets

	Final Market opening	Number of retail companies with $\geq 5\%$ market share	Number of TSOs*	Number of TSOs ownership unbundled	End-User regulated prices in open market	Annual switching rate in small industry and households in 2008 (%)	\emptyset Standard consumer Energy price** (€/MWh)
UK	1990	6	1	1	No	19,1	139,13
De	1998	3	4	0	Yes	3,18	57,9
Dk	2003	7	1	1	Yes	2,8	52
Be	2007	4	1	0	No	NA	68
F	2007	1	1	0	Yes	2,2	47,5

Source: ERGEG 2008 Annual Reports and Status Reviews

http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_Annuak-Report-2008.pdf

*transmission system operators

**Standard Consumer Energy Price: Energy Price = total Price – Network Charges – Taxes – Levies-Source

Summary of Results

Result 1:

The impact of the public electricity companies on the political decision making process using institutionalized communication channels was notably higher than that of the private power industry.

Result 2:

The regulation of the electricity industry was used to accomplish other political objectives. On the one hand it was an instrument of the German coal subsidy policy; on the other hand it functioned as a public financing tool and prevented the municipalities in particular from losing influence.

Result 3:

The regulation of electricity industry caused higher charges for specific consumer groups (small- and medium-sized industrial consumers in particular).

Result 4:

Deregulation has had no observable positive price effect.

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Historical Archives of RWE AG, Essen and *EnBW AG*, Stuttgart; e.g. advisory board meeting files

Several *city archives* (e.g. Cologne, Duesseldorf)

Some data also originate from the *Federal Office of Statistics in Germany* and diverse industry statistics.