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FOREIGN LAW BRIEF

**GERMANY: DEREGULATION OF THE
ELECTRICITY SECTOR**

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ABSTRACT

Germany deregulated its electricity and natural gas sectors in April 1998. The reform eliminated exclusive franchises for electricity and allowed power companies to compete for commercial and residential customers. This was accomplished by requiring power companies to grant grid access (retail access) to competitors. The reform was enacted all at once, and no stranded cost recovery was provided; however, there were a few transitional benefits and some protections for combined heat and power plants, renewable sources of energy, and East German brown coal. To date, the reform has resulted in price cuts up to 50% for industrial users and up to 20% for residential customers. The now existing competition is leading to mergers between the handful of large power companies that operate the high voltage transmission grid and generate most of the electricity. Moreover, the process of concentration is also affecting the close to 1,000 municipal power companies, many of which may not survive under the new market conditions.

NEW DEVELOPMENT

After one and a half years of negotiations, the German Government and the German energy companies that own nuclear reactors reached a consensus on June 15, 2000, on the phase-out of nuclear power for civilian uses. The agreement calls for a shut-down of all nuclear power plants within 32 years from the time that the plants commenced operations and for a phase-out of fuel reprocessing by the year 2005. For each nuclear power plant, the remaining time of operation has been calculated in terms of the amount of nuclear power that may still be generated. Each power company is limited to generating only the amount of power that it allocated jointly to its power plants, but each has discretion to allocate this generation capacity among its power plants. The total amount of nuclear power that may still be generated by the German nuclear power plants is 2,516 terrawatt hours. [FRANKFURTER ALLGEMEINE ZEITUNG 1 (JUNE 16, 2000)].

ABBREVIATIONS USED IN THIS REPORT

BGBL.	BUNDESGESETZBLATT, official law gazette of the Federal Republic of Germany
CHP	Combined heating and power plant
DM	Deutsche Mark
EDF	ELECTRICITÉ DE FRANCE
EnBW	ENERGIE BADEN-WÜRTTEMBERG
IEA	International Energy Agency/Organization for Economic Cooperation and Development (see <i>Bibliography</i>)
OJ	OFFICIAL JOURNAL OF THE EUROPEAN COMMUNITIES
RGBl.	REICHSGESETZBLATT, official law gazette of the German Reich
RWE AG	RHEINISCHE-WESTFALISCHES ELEKTRIZITÄTSWERK AG
TPA	Third party access
VEBA	A German holding company
VEW AG	VEREINIGTE ELEKTRIZITÄTSWERKE WESTFALEN
VIAG GROUP	A German holding company

I. Background and Analysis

A. *The Course of Deregulation*

Deregulation of the German electricity sector was prompted by the high price of electricity and by the efforts of the European Union to create a common market for electricity. In December 1996, the European Electricity Directive [96/92 EC OJ 1997 L/27/20] was enacted. It required a gradual deregulation of the electricity sector in the member states for which national legislation had to be enacted by February 1999. Germany enacted its reform package in April 1998, thereby beating the European deadline by almost one year. Even though the European Directive permitted a gradual approach toward liberalization, Germany opened its electricity sector to a market-based system at once, for both industrial clients and consumers, while granting only a few protective devices or transitional privileges. The new German regime replaced the German Energy Act of 1935 [RGBl. 1935 I at 1451] and eliminated the formerly existing exemption from the Antitrust Act [BGBl. 1990 I at 235, §§ 103 and 103 a]. This abolished the former framework of territorial franchises and price regulation that had been rooted in the philosophy that the electricity sector requires special protections because of the costliness of the investments and the need for reliable service.

B. *Structure of the New Legislation*

The German Act on the Reform of the Energy Sector [Apr. 24, 1998, BGBl. I at 730, hereinafter: Reform Act] contains as its most important piece of legislation the new Act on the Supply of Electricity and Natural Gas [hereinafter: Energy Act], which provides the new regulatory framework for both natural gas and electricity. In addition, the Reform Act amends the Antitrust Act by eliminating exemptions from antitrust law heretofore enjoyed by the gas and electricity sectors. Amendments to the Act on the Mandatory Purchase of Electricity Generated from Renewable Sources [Dec. 7, 1990, BGBl. I at 2633] adapt the heretofore existing protection of electricity generated in an ecologically sound manner to the new regulatory framework. The Reform Act also contains a few transitional rules of a somewhat protective character.

The main engine of deregulation is the granting of the access for each power company to the transmission and distribution lines of other companies. The Energy Act provides two alternative methods for this opening of the network. Of these, the primary method is the granting of third party access (TPA) under conditions to be negotiated between the power companies involved. The second method is the single buyer concept, which will only be available until the end of the year 2005, unless the legislature extends its applicability. Instead of seeking access to an existing network, a competing power company would also be entitled to build new lines; no electricity licenses would be needed for that purpose. This option, however, would be more expensive than making use of the existing facilities and also appears wasteful considering the high quality of the German high voltage grid and medium and low voltage distribution lines.

C. *Third Party Access*

The basic rules for the granting of TPA were laid down in the Energy Act, because industry was apprehensive that an access regime that was merely based on antitrust law, such as the U.S. *essential facilities doctrine*, might not provide enough certainty and predictability [Kühne]. The

statutory framework, however, leaves much room for self-regulation by the industry by encouraging negotiated terms and prices for access. The ensuing industry agreements, in turn, invite scrutiny by the antitrust authorities.

The Energy Act provides that access to transmission and distribution lines must be granted to requesting power companies under equally favorable terms as the company granting the access would grant within its own company or for affiliated companies. It is the intent of the law that the terms be agreed upon within the industry, by self-regulation. However, on a subsidiary basis, if the market-based arrangements cannot be established or do not work, the Federal Minister for the Economy has been delegated to regulate the terms of the contracts, and the criteria for the pricing of access. The operators of the grid must also establish fair and reasonable technical conditions for net access and these must be published. The distribution and transmission operations of each power company must be separated (unbundled) from its other operations, so as to allow for transparency in accounting. Beginning in the year 2000, the transmission or distribution prices must be published by the grid or line operators.

TPA must be granted to any requesting electricity provider, unless the requested distributor or transmitter proves that access would be unreasonably burdensome. Under this statutory rule, access could be denied due to the lack of network capacity. In addition, access could be denied if it would displace or have an unfavorable impact on electricity generated from renewable resources or from combined heat and power plants that are technically and economically feasible and that have a desirable environmental impact. Moreover, in the eastern part of Germany, access can also be denied if that would hurt the brown coal mining industry. These statutory exceptions from TPA are the main protective devices of the new regime.

The German industry is in the process of adjusting to grid access. Unbundling is being carried out through various organizational measures. In addition, industry has tried to work out pricing agreements. The one that is currently proposed would split Germany into a northern and a southern zone, and there would be one price within each zone but two fees for zone-crossing transmissions. This agreement may still require approval by the German and European antitrust authorities [Cordes; Atkins 1].

D. Single Buyer Districts

As an alternative to the granting of TPA, a local distributor may apply for a permit to operate a single buyer district. During the legislative process of the energy reform, the municipalities favored this option because they hoped that this system would come close to prolonging their territorial prerogatives. However, single buyer licenses will expire by the end of 2005, unless the law is changed.

In a single buyer district, there is only one distributor, yet the effects of price competition are attained by allowing the local customers to purchase electricity from a third party supplier. Such a contract then requires the exclusive territorial service provider to purchase the electricity for the customer from the third party supplier at the price agreed between customer and the third party, while the single buyer retains a transmittal or distribution fee. The schedule for these fees of the single buyer must be approved by the authorities and must also be published. The single buyer must unbundle

its operations to ensure transparency of distribution operations while protecting the business secrets of all the involved parties.

E. Regulatory Supervision

The new Energy Act eliminates the regulatory supervision of electricity generators and transmitters. Likewise, no energy license is required for the building of electric lines, which activity is merely governed by generally applicable building codes and environmental provisions. Furthermore, no licenses are required for feeding electricity into transmission or distribution lines, nor for supplying electricity outside of a local district, if this electricity comes predominantly from renewable sources, combined heat and power plants, or co-generation.

The new Energy Act limits supervision to distributors. These are regulated, whether they have service territories or merely special customers. This supervision is carried out through licensing and continued monitoring of regulatory compliance. A license is required for new distributors and for distributors applying for a different service territory, while existing franchises remain in existence and merely are monitored according to the new rules.

A license can be denied (or lost) for two types of reasons. First, it can be denied if the applicant does not have the necessary technical, personal, and economic qualifications to ensure reliable service. Second, the license can be denied if it would result in an unfair situation for a particular area. The latter rule aims at preventing distributors from shaping service territories so as to supply only a profitable area, to the detriment of less lucrative adjacent areas. Now as before deregulation, distributors have to offer service to all consumers within a service territory, under generally applicable prices and conditions, and price discrimination is prohibited. Exceptions from this general duty to provide service may be granted if the circumstances are particularly burdensome. The consumer price tariffs of the local distributors remain subject to supervision [Federal Electricity Tariff, Nov. 26, 1971, BGBl. I at 1865, as amended].

Now as before the Reform Act, regulatory supervision is carried out by the authorities designated by the laws of the individual states. This practice is in keeping with the German system of administration wherein state agencies are frequently called upon to implement Federal legislation [Constitution, art. 83]. In addition to the regulatory supervision by the states, the Federal Ministry for the Economy has a mandate to monitor developments in the electricity sector, inform Parliament accordingly, and recommend legislation or provide regulations, as delegated; this involves, in particular, the monitoring of the transitional regimes. On the whole, however, it appears that the regulatory apparatus will have less of an impact on the development of the electricity sector than the German Antitrust Agency and the European Commission in its role as antitrust authority.

F. Antitrust Aspects

The repeal of the antitrust exemption for gas and electrical utilities resulted in the full governance of German antitrust law for the energy sector and also expanded the applicability of the European antitrust regime. Both the German Antitrust Act and the European antitrust regime [EC Treaty, arts. 85 *et seq.*] void agreements in restraint of trade, guard against abuse by market-dominating enterprises and exclusive dealing agreements, prohibit vertical agreements, and provide

for merger control. The German Antitrust Act protects the German market, whereas the European regime looks for effects within the European Union. Given the structure of the German electricity sector, watchdog activities by both agencies may occur with some frequency. Yet, given the complexity of both the European and the German antitrust regime and the amount of flexibility that the antitrust agencies have in the finding of violations and shaping of remedies, it would be difficult to predict how the decisions of European and German authorities will affect the energy sector.

On the whole, it appears likely that antitrust supervision will provide various protections against abuse and review of pricing agreements and mergers. Some of this supervision is already taking place, with the European and German scrutiny of two major mergers and an industry-wide TPA agreement and with the issuance of some decisions in abuse cases in which TPA was granted under unnecessarily cumbersome conditions. Nevertheless, it has been alleged by some that the absence of a special regulatory agency for electricity makes it easier for larger companies to deny or impede network access to suppliers. While such cases can be brought before the German Federal antitrust authority, it may take six months for a decision to be handed down. This state of affairs has prompted some commentators to recommend the creation of a Federal energy agency [*Power failure*], while others praise the simplicity of the German reform and the elimination of unneeded bureaucracies [Terzic].

G. Stranded Cost Recovery--Protective Measures

The German deregulation has no provisions for stranded cost recovery. Nevertheless, the new legislation contains some protections of investments. These are contained in transitional provisions and exceptions to the TPA; lately, the government has added to these protections by granting subsidies. The main beneficiaries of these protective devices are combined heating and power plants (CHPs) and heating plants of the municipalities, the East German lignite industry, the generators of electricity from renewable resources, and, possibly, the territorial franchise holders that might obtain permission to act as single buyers.

Many German municipalities have CHPs and central heating systems. Until a few years ago, these were operated on the basis of subsidized coal. With the demise of the coal subsidies, the municipal CHPs have become uneconomical. To soften the burden of these failed investments, the CHPs are protected to some extent from the competitiveness of the new electricity sector in that their operations may justify a denial of TPA (see above). Moreover, the Federal Government recently decided to subsidize electricity generation in municipal CHPs. It is expected that the subsidy will cost all consumers a surcharge of Deutsche Mark 0.002 [U.S. \$ 0.001] per kilowatt hour [Schwenn].

Brown coal mining in Eastern Germany enjoys special protection until the end of 2003, or possibly 2005. Until then, the German states of former East Germany may refuse grid access if this would hurt the mining interests. Moreover, until that time, preferring electricity generated from brown coal will not be considered an antitrust violation. In keeping with the philosophy of these statutory provisions, the former East German power company VEAG AG is subsidizing brown coal mining in the former East German states. Furthermore, guarantees have been given by VEAG that the company would accept the power generated from brown coal at prices covering the production costs while selling electricity at market prices. It remains unclear whether this scheme will work. The gap between generating costs and the lower market prices has been estimated as amounting to 1.5

billion DM [0.7 billion U.S.\$] for the year 2000 [*Finanzspritze*].

Protection against the importation of electricity is provided until 2006. Until then, access may be denied to electricity from a country that does not provide third party access. To what extent the German electricity sector will make use of this protection is doubtful, however. Germany may require more imports in the near future to compensate for the proposed phase-out of nuclear energy. Moreover, the ongoing wave of transnational investments in the European energy sector may serve to import electricity to Germany. In particular, this has been alleged for the recent purchase of a substantial participation in a major German power company by the state-controlled French power company ELECTRICITÉ DE FRANCE. The French implementation of the European Electricity Directive was one year late and has not provided for retail wheeling [*Energy*]. In any event, the common market of the European Union generally prohibits discrimination against the movement of goods and services within member countries [EC Treaty, art. 2].

Now as before the German reform, electricity from renewable sources has been given preferential treatment inasmuch as the producers of such electricity have the right to sell it to other power companies. The current provisions require power companies to buy electricity generated from renewable resources at regulated prices ranging from 65% to 90% of the average return for electricity sold to consumers. Currently, a company is not required to buy more than 5% of its total electricity from renewable resource generators. However, a raising of this percentage and additional protective rules for renewable energies are currently under discussion, much to the dislike of industry [*Spitzenverbände*].

H. Structure of the German Electricity Sector

The most prominent players in the German electricity sector are the eight major holding companies that operate the high voltage transmission grid [Terzic]. These companies are also the main generators of electricity, and they hold ownership in regional and local power plants, in resource industries, and in other industries. Several of these companies are currently engaged in a merger process that will further concentrate the industry (see below). In turn, these companies themselves are owned to a large extent by state and local governments and their mixed economy power plants, and this system of mutual ownership resulted in a 70% governmental ownership of the electricity sector in the early 1990s, despite several privatization initiatives [Walz at 320].

In addition to the major grid-operating companies, Germany has some 950 municipal power companies and some 50 regional power companies. Many municipal companies also provide other utility services, such as natural gas and transportation, and many operate CHPs. Before the 1998 deregulation, the approved rate structure and the exclusive territorial franchises made the electricity business very profitable for the municipal utilities and allowed them to subsidize local transportation, libraries, and other municipal services. The 1998 reform has not mandated any changes in the structure of the electricity market, but changes may be brought on by new dynamics of the market.

I. Effect of the Reform on the Price of Electricity

The reform's impact on electricity prices has been dramatic. By the end of 1999, prices for industrial customers had fallen by 30%, wholesale prices by 50%, and consumer retail prices by 10

or 20%, with an overall decline of 9.4% in the price of electricity in the yearly consumer price index. Prices for electricity are expected to fall another 12% in the year 2000, and yet another 8% during the year 2001, at which time, analysts predict, the market will have reached bottom [Atkins 2]. Many of the price cuts were offered by the current suppliers so as to prevent their customers from switching. In addition, larger companies advertise the sale of electricity under various conditions; some offer electricity at different prices, depending on the degree to which it was generated in an ecologically beneficial manner and on whether nuclear power was used.

The price cuts in German electricity have been possible to some extent because prices were high before the reform. From 1992 to 1996, the average price for electricity was 50% higher in Germany than in the U.S., measured both in terms of currency conversions and comparisons of purchase power, and this price difference prevailed both for industrial and residential electricity [IEA Energy at 353]. In fact, the high price of electricity has led the German consumer to use it sparingly. In Germany, private households use a lesser percentage of electricity than in the United States [Walz at 308 and 318].

The primary reason for the formerly high price of electricity in Germany was the territorial monopoly position of the utilities. This state of affairs allowed the German municipalities to subsidize communal services with the profits from electricity; beneficiaries were in particular, transportation systems, libraries, theaters, and recreational facilities. The municipal transportation systems alone have received an annual subsidy of 3 billion DM [1.5 billion U.S. \$] in recent years [Schwenn]. With the enactment of the reform, an end was set to the practice of financing the municipalities through electricity prices, and the price cuts reflect this change. However, the recent governmental efforts to subsidize CHPs may again lead to price increases.

There are, however, other factors that contribute to the high price of electricity in Germany that have not been alleviated by the reform legislation. For instance, it has been alleged that the German environmental standards for already existing power generating facilities are higher and more costly than those prevailing in the United States [Walz at 254]. In addition, the price of electricity for German consumers was increased in 1999 by a controversial environmental tax reform that imposes a tax of DM 20.00 on each megawatt hour of electricity. The tax is imposed on the distributor or importer of electricity, yet may ultimately be borne by the consumer. Industry is also affected, yet to a lesser extent due to various exemptions. Environmentally generated electricity is also exempt [Electricity Tax Act, March 24, 1999, BGBl. I at 378].

J. Concentration of the German Energy Sector

Since the 1998 reform, the German energy sector has experienced mergers among the big companies and the formation of cooperative structures among the small companies. This concentration was brought on by the need to streamline operations in order to offer lower prices and the need to bundle demand to achieve a better bargaining position. In addition, this process is part of the ongoing concentration in the European energy sector, in which German companies acquire participations in other European countries while non-German companies invest in Germany.

Among the German grid operators, VEBA GROUP which owns the power company Preussen Elektra AG, intends to merge with VIAG GROUP, which owns the power company Bayernwerk AG.

In addition, RWE AG intends to merge with VEW AG. On April 14, 2000, the German Antitrust Agency notified the German energy giants RWE AG and VEW AG of its intention to deny their merger application. At the same time, the Commission of the European Union voiced strong misgivings about the merger of the other two major energy providers in Germany, the holding companies VEBA GROUP and VIAG GROUP. The concerted action of the German and European authorities is based on their concern over the 80% market share of the electricity market that the two remaining companies of the two mergers would have. The final decisions of the European and German antitrust authorities are expected by the summer of 2000. For the time being, the companies are negotiating with the authorities on how to modify the mergers so as to make them acceptable by offering the divestitures of certain holdings.

In the state of Baden-Württemberg, the company ENERGIE BADEN-WÜRTTEMBERG [EnBW], the fourth-largest electric power company in Germany, was created from a merger of two large municipal companies which in turn were owned by numerous municipalities, large cities, and the state of Baden-Württemberg. The municipal owners are grouped into associations through which they pursue their shareholder interests. Only 1.7% of the shares EnBW were traded on the stock exchange. Recently, the French company Electricité de France [EDF] bought a significant share in EnBW [Hibbs, *Shareholders*]. The structure of EnBW is an example of the extent of state and municipal ownership in German power companies.

Among the municipal utilities, there is some effort to counteract the threatening aspects of price competition through the formation of purchaser's cooperatives. These aim at obtaining electricity at cheaper prices; however, the question is still unresolved as to what extent they are permissible under antitrust law and the manner in which such cooperation will be permitted will depend ultimately on the supervision by the antitrust authorities. The formation of cooperative structures may be a matter of survival for the municipal utilities. So far, they have been able to survive due to the large profit margin they enjoyed in the past. Yet many of them may be too small to compete effectively, while the laws of many of the German states limit the operations of municipal utilities to the territory of the municipalities. A recent court decision helped the municipalities in this struggle by ruling that municipal utilities may service areas outside of the municipal territory [Oberlandesgericht Düsseldorf, Decision, Jan. 2000, docket number Verg. 3/99].

K. Phasing Out of Nuclear Power

Currently, the government is negotiating a voluntary agreement with industry that would phase out nuclear reactors over a period of 30 years. If the industry does not accept these conditions, the German Government is threatening legislation to achieve that result. The issue is not resolved. The industry would prefer a 35 year phase-out time, and it has also been argued that the shutdown without compensation violates constitutional property rights [Constitution, art. 14]. However, German industry appears almost reconciled to the prospect of phasing out nuclear power, because of the unfavorable conditions in the German states. In many of these, protests against nuclear power in particular against the transportation and storage of nuclear wastes, and a hostile regulatory environment that oversees the safety aspects of the reactors has made life difficult for the German power companies [Hohenthal].

Germany has 19 nuclear power reactors that are used for the generation of electricity. These

are owned by the large holding companies VEBA, VIAG, RWE, and EnBW. One third of German electricity comes from nuclear power [IEA OIL at 527]. The pressure to shut down the nuclear power plants in Germany comes from the Green Party, and it is based on the strong dislike for nuclear power in a large segment of the German population. Since the fall of 1998, the Green Party has been part of the governing coalition, and since then the shut-down of the nuclear reactors has been on the agenda of the government with increased pressure of the Green Party in recent months.

The banning of nuclear power in Germany might result in higher energy prices because it is planned that more electricity would be generated from coal and from renewable resources. Alternatively, the phasing out of German nuclear power might lead to increased imports from France, which relies to a great extent on nuclear power, or from Central and Eastern Europe, where safety and environmental standards are lower, and coal power plants are operated without adequate environmental filters and nuclear reactors with questionable safety standards [Johnstone]. These prospects already appear to have had an effect on the prices of German utility stocks, which have fallen. This decline in stock prices may also be caused by the overall competitive situation [Hibbs, DAX].

L. Conclusion

The 1998 reform of the electricity sector puts Germany in the forefront of the European deregulation movement. The spectacular decreases in German electricity prices vindicate the German initiative. So far, increased competition appears to have been achieved without sacrificing quality of service; however, it remains to be seen what effect it will have on municipal services. Furthermore, the German reform process is by no means complete. Future developments will depend on many factors, among them, the conditions of the self-regulatory third party access agreements, the rulings of German and European antitrust agencies, and the development of prices after the ongoing concentration process is completed. Much will also depend on future government policy, in particular, whether the spirit of competition and deregulation of the reform legislation will be retained or whether it will be displaced piece by piece by further subsidies and protective schemes. Future environmental policy also will have an impact. To date, however, the German reform deserves to be studied as an example of successful deregulation.

II. CHRONOLOGY

- 6/15/00: German State and power companies reach phase-out agreement.
- 2/1/00: France enacts deregulating legislation.
- 1999: German electricity prices continued to fall for both industrial and residential use.
- 12/98: German electricity prices averaged for Industry U.S. \$/toe 782.7; for residential use U.S. \$/toe 1847.
- 4/24/98: The German Energy Act is enacted.

- 12/19/96: The European Electricity directive is enacted, giving member states until February 1999 to deregulate.
- 1992 – 1996: German electricity prices ranged for industry from U.S \$/toe 1081.6 to U.S. \$/toe 1161.2; for residential use, from U.S. \$/toe 1851 to U.S. \$/toe 2361.
- 1989: Privatization of electricity commences in England and Wales in 1989 under the guidance of the 1989 Electricity Act.

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