Rwe and the proposal essay

9-702-053 REV: JULY 1, 2004 ALEXANDER DYCK JOSE GOMEZ-IBANEZ CHRISTOPH MEIER RWE and the Proposal for a German Electricity Regulator At the end of April 2001, Dietmar Kuhnt, CEO of RWE, was sitting in his office overlooking Essen in the Ruhr, Germany's industrial heartland. In the last several decades the Ruhr had been transformed from the one of Europe's most polluted areas into a classic example of how to combine industry with a healthy environment.

RWE had changed as well, expanding from its core business as one of Germany's eight large interregional electricity companies into other areas such as petrol stations, construction and printing presses. In the last year, under Kuhnt's leadership, RWE had redefined its self as a multi-utility and become one of the leading players in the liberalized European electricity and utility markets. The company had merged with VEW, the fifth-biggest German electricity company, and acquired Thames Water, a major international water company based in Britain, while it disposed of several non-core activities in petrol and telecommunications.

RWE's new slogan was " one group, multi-utility". A key issue on Kuhnt's agenda was to define a strategy towards electricity regulation in Germany. In the past six years, Germany's electricity market had been liberalized without too much government involvement. The former conservative government had preferred a very light-handed approach that relied on self-regulation with policing by competition authorities, rather than the creation of an industry-specific regulator.

However, a recent report of the Bundeskartellamt, the German anti-trust agency, had documented the failures of self-regulation, including the ways municipal and regional utilities had tried to block fair competition. Kuhnt faced a difficult choice: should he support the status quo or join forces with some of the other utilities and with independent supplier and consumer groups in lobbying for a national regulator? The choice was troubling and difficult because an open electricity market was essential to RWE's multi-utility strategy.

_____ Professor Alexander Dyck, Professor Jose Gomez-Ibanez (Kennedy School of Government) and Christoph Meier (MPA Kennedy School of Government, 2002) prepared this case. This case was developed from published sources. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management. 02-053 RWE and the Proposal for a German

Electricity Regulator The German Electricity Industry1 The German electricity industry began in 1866, when Werner von Siemens invented the dynamo that allowed the production of electricity at a large scale. The first small power plants were built by private investors, but soon the various levels of government took over Germany’s electrification. The structure of the electricity industry established in the 1920s would last for over seventy years. To serve urban areas, most city governments founded municipal utilities, beginning with Berlin in 1884.

The municipal utility that provided electric service usually provided other utility services as well, such as water, gas and waste collection. To serve rural areas, city or state governments founded regional utilities. Neighboring regional and municipal utility networks were soon interconnected to increase reliability by allowing the companies to trade power in emergencies. In the first decades of the 20th century, eight large interregional utilities developed to exploit the economies of building largescale generating stations by selling power in bulk to others.

The interregional utilities’ networks were interconnected soon after World War II, and the German high-voltage system was integrated into West Europe’s UCTE grid in the decades that followed. The municipal and regional utilities bought most of the electricity they sold from the interregional companies. The interregional companies also sold directly to the largest industrial customers and built and maintained the high-voltage transmission lines that transported their power to the regional and local networks.

In 1998, on the eve of reform, there were still eight interregional utilities, about 80 regional utilities and more than 900 municipal utilities. The three levels had become intertwined, however, because the interregional utilities had acquired significant interests in both the regional and the municipal utilities. Detailed information about the German electricity market, its demand and supply as well as the market-concentration, is shown in Exhibits 1-6. Two things distinguished electricity from some other utilities, most notably the telephone and postal services.

First, the electric utilities were private companies while the telephone and postal services were owned by the federal government and provided by a government department. Second, the electricity companies were not legally protected monopolies, unlike the telephone and postal services. To manage competition, the electricity industry had developed private concession and demarcation contracts, which were exempted from antitrust laws in 1957. Concession contracts gave electric utilities the right to build their lines above or below city streets.

Most cities awarded one electric company an exclusive concession contract to use their streets and, in return, received a concession fee. The fee typically varied between 2. 60 and 4. 69 pfennigs (pf.) per kilowatt-hour (kWh) sold to local customers. 2 Demarcation contracts between interregional utilities established the exclusive right of each interregional utility to supply the municipal and regional utilities that were connected to its transmission network. There were demarcation contracts between municipal and regional utilities as well, which guaranteed each a local distribution monopoly.

These private contracts had emerged in response to the “ elektro-war” in the 1920s, when the interregional utilities fought to extend their transmission lines to cover areas not yet connected to competing high-voltage transmission networks. Conflicts arising from this competition were costly, such as the Prussian government delay in 1 IZDE (2000a) “ Vom Monopol zum Wettbewerb”, in: Strombasiswissen, Nr. 133. 2 Bundeskartellamt (2001) „ Bericht der Arbeitsgruppe Netznutzung der Kartellbehoerden der Laender und des Bundes. “, th

April 19 2001. 2 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. RWE and the Proposal for a German Electricity Regulator 702-053 granting RWE permission to build a line connecting RWE’s network with the city of Frankfurt, so that the government’s own subsidiary, Preussenelektra, could build a connection to Frankfurt first. Thus the government took a back seat to industry participants in defining the industry’s structure.

The main role of the state and federal governments was to regulate electricity prices on a cost-plus basis in order to protect customers from the possibility of monopoly abuse. Liberalization The tranquility of the industry was shaken not by German developments but by European Commission directives in 1996 and 1997 requiring member states to introduce competition into their markets for infrastructure services, including telecommunications, electricity and gas. Germany, under its long-ruling, moderate-right government, moved to implement these directives much more quickly than most of its European neighbors.

The German electricity market was liberalized in April 1998. The new Energy Act required that the integrated utilities divide their generation, high-voltage transmission, and local distribution activities into separate business units with separate accounts. In addition, the Energy Act declared the old demarcation contracts and exclusive concession contracts3 illegal and required that each electric utility grant other parties the right to use its high-voltage and local distribution networks at prices comparable to those it charged internally.

The Energy Act vested authority for supervising the transition from reguation towards deregulation in hand of the private parties with oversight by antitrust authorities rather than an industry-specific regulator. The conditions of network access were individually negotiated between the distribution company and the third party (e. g. an alternative electricity supplier). The “ negotiated third party access” (NTPA) approach meant that an alternative energy supplier had to negotiate and sign a separate access contract for each one of the almost thousand German distribution networks that it wanted to use.

If the industry was unable to develop a general framework for network usage contracts, the Energy Act allowed the Department of Commerce to step in and set the rules by decree. The Bundeskartellamt was granted the power to investigate whether a network owner was misusing its market dominance by denying access or setting network usage charges too high. The state governments retained their powers to set retail electricity prices, although these soon proved to be irrelevant as retailers reduced their tariffs below the regulated prices.

Three major trade associations took the initiative to develop the basic rules for access: one association, BDI, represented German industry in general; a second, represented major energyconsuming industries; while the third, VDEW, represented the electric utilities. On April 2, 1998, the three association issued the “ Associations’ Agreement on Criteria to Determine Charges for Electric Energy”, or VV-I. VV-I contained rules for determining the network usage charges until September 1999, when the agreement would be updated.

The technical and procedural details of the usage to the transmission and distribution network were set out in the Grid Code 1998 (DVG July 1998) and Distribution Code 1998 (VDEW May 1999). The light-handed approach to deregulation was different from those adopted in other European countries for electricity. It was also different from the German government approach to regulating access to telecommunications. Germany’s long-distance telecommunication market was liberalized on January 1, 1998 with almost no transition, and was an immediate success and very popular.

Germany used “ regulated third-party access” (or RTPA) to open up the market for long 3On a non-exclusive basis concession contracts remain valid and the municipal government retains the right to charge a concession fee. 3 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. 702-053 RWE and the Proposal for a German Electricity Regulator distance calling.

Under this scheme, a new independent regulatory agency for telecommunications and postal services (RegTP) was created out of the former Department for Telecommunication and Postal Services and the federal agency responsible for setting the technical telecommunication standards. Deutsche Telekom, the former state owned monopoly, was left in place but had to allow third parties to use its network under tariffs and conditions set by RegTP. The low interconnection rates established by RegTp attracted many new providers.

German telecommunications seemed to suggest some of the opportunities available for entry in the retailing segment. In 2000 they reached a market share of 53%of the long-distance market. 4 This phenomenal growth made the IPO of these companies a spectacular success. One of the biggest new providers, Mobilcom, tripled its share price during 1998 after its IPO. It was one of the hottest stocks at the Neuer Markt, the German equivalent of the NASDAQ. RWE was involved in this market via its subsidiary otelo, too. Using one of these new providers is very easy for consumers with the so called call-by-call-system. Most kept their basic plan with Deutsche Telekom. 6 If other providers were cheaper they just dialed the individual five number digit of their provider of choice. Via newspapers and the internet it was very easy to get list of the cheapest provider depending on time of day and call destination. The intense competition drove down prices by 85% until the end of 1999. 7 New Entrants

Despite using negotiated rather than regulated third party access, electricity deregulation like Telecom deregulation, attracted many new entrants, most who proposed to buy power wholesale from the generators and then sell it

retail to certain classes of electricity consumers. The basic business model of these new electricity retailers or marketers was to make money by aggregating the demands of their customers, thereby increasing their bargaining power with the generators. The model also depended on negotiating reasonable access charges with the distribution companies that would deliver the power to their customers.

Some of the new companies—like Ampere— concentrated on small and medium-sized industrial customers; while others—like Yello, Best-energy or Riva—served the broad mass market. Within the mass market some marketers—like Lichtblick— focused even more by providing " Oko-Strom", that is electricity from renewable sources, at a premium. The new retailers had several sources for their power. Some bought directly from one of the eight interregionals. Others bought on the two new German wholesale energy exchanges that opened in 2000: the EEX (European Energy Exchange) in Frankfurt and the LPX (Leipzig Power Exchange). A third source was generators from other European countries, including EDF, the French state owned monopolist that owned many nuclear plants with low marginal generating costs. 9 The new marketers faced competition from many of the existing electric utilities (municipal, regional and interregional) that sought to enter the retail supply business outside their old monopoly territories. 4 RegTp (2001) Annual Report 2000. 5 It was sold in 2000 to its competitor Arcor. 6 This basic plan includes the costs for the phone line itself. RegTP (1999): " Tatigkeitsbericht 1998/1999", Dezember 1999, Bonn. 8 www. eex. de and www. lpx. com 9 France overall, which is more or less equal to EDF, had a net generation of 500 billion kWh in 1999, but only a consumption of

430 billion kWh. VDEW (2000), p. 62. 4 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. RWE and the Proposal for a German Electricity Regulator 702-053 Electricity consumers were benefiting from liberalization.

Competition for big industrial customers was intense from the outset, as they saw the prices they paid fall by 40 to 50 percent during peak periods and 30 percent on average (Exhibit 9). Competition for private households was limited until August 1999, when several big utilities and new marketers began aggressive programs to attract new residential customers. The advertising budgets of the utilities quadrupled as residential competition heated up. 10 Entrants, however, had difficulties finding a way to profitably build a presence in the market. Criticism focused on four problems:

Load Profiles VV-I required that the electricity marketer and the distribution company agree on a detailed load profile which specified exactly at which time of the day what amount of electricity was transported through the grid. 11 Those detailed load profiles were feasible for big industrial customers, but they were prohibitively expensive to draw for small households. Network Usage Charges VV-I, and its successor VV-II, gave only general guidelines as to how to calculate the network usage charge. Consequently the network usage charges varied considerably between companies (Exhibit 7).

Many distribution companies used thi discretion to shift costs from their marketing or generation operations to the distribution operations. Sometimes the network usage charges were more than half the all-inclusive

price if a household bought the electricity directly from his local distributor. (Exhibit 8). Supplier Switching Charges Often local distributors demanded a switching charge to transfer a customer to a new electricity supplier. The switching charge was intended to compensate for the additional costs due to the transfer and was generally between DM 100 and DM 150.

Some local distributors demanded that each electricity marketer that wanted to operate in its territory had to register with the distributor for a one-time charge of DM 1, 000 (in the case of Stadtwerke Hannover) or pay monthly charges of DM 200 (Stadtwerke Munster). Network Usage Contract VV-I required that a switching customer sign a separate network usage contract with its local distributor. During this process local distributors often tried to discourage the customer from switching by, for example, demanding. unnecessary additional signatures (e. g. f the landlord or the spouse), warning the customer in longwinded letters about alleged traps in the competitor’s contracts, or demanding that the customer give up any right to be supplied in future by the local distributor. 12 The potential importance of these tactics was revealed in February 2000 with the spectacular bankruptcy of Vossnet, a new marketer that had been advertising very low prices. Almost 30, 000 private persons had paid an admission charge of DM 60, but Vossnet never started to supply them with electricity. Investigations by the state attorney lead to the prosecution of Vossnet officials for fraud. 3 10 Fokus (2000): Der Markt der Energieversorgung, Munich, p. 30. 11IZDE (2000b) “ Die Sache mit der Durchleitung”, in: Strombasiswissen 132 12Spiegel (2000): “ Ausbluten und zermurben”, September 30th 2000, www. spiegel. de. 13 http://www. strom-magazin. de/news. phtml? action=

Show&NewsID= 2979 5 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. 702-053 RWE and the Proposal for a German Electricity Regulator Industry Responses to Liberalization

As the German electricity industry saw its overall revenues decline by 19 percent (from DM 80 billion to DM 65 billion), companies began to search for strategies that would be successful in the newly competitive environment. Initial strategies focused on mergers and acquisitions. The conventional wisdom was that the small municipal utilities would be unable to compete with gigantic and well-financed interregionals like RWE. The municipals typically weren’t in the generation business, and the small municipals did not buy enough power to have much clout in their negotiations with wholesalers.

Moreover, many municipal companies were responsible for public transit as well as other utilities, and were weakened by the need to cross-subsidize losses in their public transit operations with profits from their electricity, gas or water sales. The municipal utilities responded in several ways. 14 Some sold all or part of their company to an interregional utility. Others merged with neighboring municipal utilities to form bigger, more competitive units. Another variant was to establish a cooperative of neighboring utilities to reach a critical size in electricity trading and purchasing.

Many municipal utilities also took advantage of a court ruling15 that allowed them to cancel long-run fixed-price supply contracts with interregional utilities and negotiate new ones at significantly reduced prices. The eight interregional utilities also felt the pressures of competition, and most

responded by merging or acquiring other utilities so as to reduce costs by eliminating duplicate facilities and closing surplus generating capacity. The consolidations began in the summer of 1999, when the second and third biggest interregional utilities, Veba and VIAG, announced their merger to form E. ON.

Soon after, EnBW, the fourth largest interregional, formed an alliance with EDF, the giant French utility, in which EDF acquired a 25 percent interest in EnBW. Vattenfall of Sweden and Mirant from the United States created a powerful competitor by buying up several of the remaining interregionals and merging them into HEW. RWE, which had been the largest of the original eight, found that it could not resist the trend and in November 2000 merged with VEW, which operated in an adjacent territory and had been the fifth largest interregional. By the beginning of 2001 there were only four interregionals left: RWE, E.

ON, HEW, and EnBW. For a map of the interregionals' territories see Exhibit 4. There were also efforts to improve self-regulation, an issue of increasing importance as the integrated firms found themselves in different regions negotiating from the perspective of generators and distributors. In September 1999 VV-II, the revised version of " Associations' Agreement on Criteria to Determine Charges for Electric Energy", was issued. In particular, VV-II made standardized load profiles obligatory for supplying small consumers of electricity, like households. The History of RWE

Mergers and acquisitions in the electric supply industry was just one element of strategic repositioning of incumbent utilities like RWE. RWE (Rheinisch-

Westfalische Elektrizitatswerk, or Rhine-Westphalia Electricity Company) had been founded in 1898 by private investors to supply the city of Essen with electricity. The new company expanded rapidly throughout the Rhineland in the years before World War I. The key to RWE’s expansion was its close cooperation with municipalities. The pattern was set in 1905 when two cities, Muhlheim and Gelsenkirchen, were given shares in RWE in return or allowing RWE to build the distribution network in their cities. By 1910, RWE had given 14 Fokus (2000): Der Markt der Energieversorgung, Munich, p. 11. 15 Compare IZDE (2000) “ Stromwirtschaft im Wettbewerb”, in: Strombasiswissen 115. 6 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. RWE and the Proposal for a German Electricity Regulator 702-053 various municipalities so many shares that they controlled a majority of RWE’s board of directors.

A decade later, the articles of incorporation of RWE were amended to give a municipal share twenty times the voting rights of a normal share, thus ensuring the cities’ control for the next seventy years. From the outset, RWE was an innovator in the industry. It built the first high-voltage transmission line, for example, to connect its distribution networks in the Rhineland and Southern Germany. The company its self was a microcosm of the German electricity industry. In many cities of the Ruhr Valley and the Rhineland, RWE fulfilled the role of the municipal utility.

In the rest of the Rhineland the company served as the regional utility. In addition, it owned the largest transmission network in Germany and supplied many municipal and regional utilities with electricity from its many power

plants. After World War II, RWE concentrated on rebuilding and expanding its system of lignite and nuclear power plants and lignite strip mines. RWE’s strip mines in the Rhineland provided cheap fuel for its lignite power plants, which accounted for 40 percent of the company’s total generating capacity and were the backbone of its electricity production.

RWE’s rapid expansion was necessary to satisfy the explosive demand for energy, which was fueled by the German “ Wirtschaftswunder” (German economic miracle). RWE had always been something of a conglomerate, with considerable experience in managing companies outside the electricity industry. 16 In the first half of the century, for example, it bought holdings in Heidelberger Druckmaschinen, which would become the world market leader in printing presses, and in Hochtief, Germany’s largest construction company. The incentives for RWE to diversify increased during the 1980s.

RWE was required to fund provisions for future employee pension claims and for the anticipated expenses of closing its nuclear power plants and lignite strip mines. Most of these provisions were retained within RWE, and invested by the company in electricity and other industries. In the 1970s, however, environmental concerns and slower economic growth severely cut the rate of growth in electricity consumption. With fewer investment opportunities in electricity, RWE began to look elsewhere to invest both the cash flow generated by its electricity division and the provisions it had to retain to cover pension and closure liabilities.

By the end of the 1980s, RWE had acquired one of the largest network of petrol stations in Germany (RWE-DEA), expanded into recycling, and built up

several fixed-line and mobile telephone subsidiaries. In the energy area, RWE’s lignite division (Rheinbraun) acquired Consol, the fourth largest U. S. hard-coal producer. 17 RWE reorganized in 1990 to reflect the company’s expansion and diversification. Until then, one holding company, RWE AG, had run the electricity business and managed the portfolio of other companies.

To improve transparency and managerial freedom, the electricity activities were moved from the holding company to a new subsidiary, RWE Energy. This structure reflected better the new RWE, which was now considerably more than an electricity company (Exhibit 10). In 1998, RWE took a further step to modernize the company by abolishing the twenty-times voting rights of its municipal shareholders. Dieter Kuhnt’s predecessor as CEO, Friedhelm Gieseke, had been forced to resign early over his failed attempt to adjust the voting rights.

Kuhnt, found an acceptable solution by having the owners of non-voting stock buy the excess voting rights from the cash-strapped municipalities. The reform meant that the municipalities no longer controlled RWE’s 16 RWE/VEW (2000): Verschmelzungsbericht, p. 32-33. 17 RWE (1999) Annual Report 1998/1999, p. 31. 7 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. 702-053 RWE and the Proposal for a German Electricity Regulator oard, although they still remained the largest shareholder group (with 30 percent of the stock)18 and had several representatives on the supervisory board. RWE and the Multi-utility Strategy In 1999, RWE shifted course by adopting a multi-utility strategy. 19 The liberalization of the European electricity, gas and water markets had opened

new growth opportunities in its traditional core utility business, which was still the most significant source of profits. RWE seized this chance by restructuring the company around the utility business. As RWE explained in its annual report to shareholders:

The only way to prevail in an environment of heightened competition at the customer interface and strong pressures on marketing costs is through vigorous cross-selling. … The focus [of the multi-utility strategy] is on the advantage of horizontal integration at the customer interface … We can provide customer-friendly bundled offers, more intensively utilize our customer base through cross-selling, make multiple use of marketing channels, and thus achieve cost advantages from economies of scale. 20 As part of its multi-utility strategy, RWE worked hard to win new business in electricity.

Soon after liberalization, RWE initiated and won an important test case that affirmed its right to supply a large customer via the distribution network of another distributor21. In August 1999, it was the first company to offer households all over Germany electricity at a single, uniform price with its new product RWEavanza. RWE invested DM 30 million in an advertising campaign that created a brand awareness for RWEavanza of over 60 percent. 22 The company would not reveal how many new RWEavanza customers it had recruited, but other companies soon followed suit and the competition for private households intensified.

RWE also continued to fight against impediments to network access. RWE underlined its commitment to competition by being the first company to

publish its network access charges. It went to arbitration to force a medium-size municipal utility in Northrhine-Westfalia, Stadtwerke Munster, to significantly simplify the network access agreement for customers. RWE’s efforts were soon reflected in increased electricity sales (Exhibit 11). Electricity sold to industrial customers increased by almost 10 percent in the 1999/2000 fiscal year.

RWE was also successful in selling electricity to retailing and service companies. These companies were often chains with branches all over Germany. In the past they had to buy their electricity for each branch from the local electricity distribution company. RWE gave them a better price if they pooled their demand from branches all over the country and bought all of their power from RWE. Since RWE distributed electricity in about one-sixth of Germany, this meant much of this new “ retail/service” business involved delivering power over other distribution companies’ networks.

RWE’s retail/service segment grew by 460 percent in the 1999/2000 fiscal year, albeit from a small base. The rapid growth in retail/service segment seemed to confirm the wisdom of RWE’s multi-utility strategy and its strong customer focus. 18 RWE/VEW (2000): Verschmelzungsbericht 19 RWE (1999) Annual Report 1998/1999, p. 30-33. 20 RWE (1999) Annual Report 1998/1999, p. 32. 21 Bundeskartellamt (1999) Verfahren 8-40100-T99/99, BEWAG vs. RWE Energie AG: 22 VDEW (2000) Electricity market Germany 1999, Frankfurt, p. 38. 8

2013. RWE and the Proposal for a German Electricity Regulator 702-053 RWE also continued to innovate and reduce costs in its network and transmission business. Especially important was the introduction of “ Powerline Technology” that allowed RWE customers to use their electricity lines to access internet and telephone services. After extensive testing in 2000, Powerline Technology was introduced in selected markets in March 2001.

The most significant expansion of RWE’s electricity business came in 2000 through its merger with VEW, Germany’s fifth largest interregional utility. RWE predicted that the merger would save the combined company Euro 725 million (DM 1. 5 billion) per year by reducing overlap in administration, power stations and the network. These savings were part of a larger program to save RWE Euro 2. 6 billion until 2003/2004 by such strategies as reducing the headcount by 12, 500 employees and the closing 5000 MW of excess generating capacity.

RWE expected this program to reduce its lignite generation costs by 30 percent to 3. 8 Pf. per kWh. As part of the merger, RWE adopted a new structure with five separate electricity divisions, one for each step in the value chain: lignite coal production (RWE Rheinbraun), electricity generation (RWE Power), high-voltage transmision and low-voltage distribution networks (RWE Net), wholesale trading (RWE Trading), and retail marketing (RWE Plus) (see Exhibit 12). To the extent possible, the transfer prices between each business unit were set at external market prices.

Although VEW was primarily an electricity company, the merger also supported RWE’s multi-utility strategy because VEW had subsidiaries in gas

and environmental services. Other acquisitions soon followed that were explicitly designed to develop a multi-utility. In cooperation with Vivendi (a large French water and multi-utility), for example, RWE bought 49 percent of the Berlin water utility and increased its share of Thyssengas, the number 5 in the German gas market, from 50 percent to 75 percent. Later in 2000 RWE paid Euro 6. billion for Thames Water, which was the largest water utility in Britain and owned an impressive international portfolio of water companies. 23 RWE also bid for Hidrocantabrico, the number four electrical utility in Spain, but withdrew after a heated battle. 24 Despite the growing competition in the electricity market, RWE increased its net profit slightly from Euro 1. 1 billion in fiscal year 1998/1999 to Euro 1. 2 billion in fiscal 1999/2000. By the first quarter of 2001 RWE was the market leader in electricity and waste recycling in Germany and number two in the German gas market. In water it was the third largest company in the world. 5 (See Exhibit 13 for the financial performance of RWE in recent years and Exhibit 14 for the financial performance of three interregional and three large municipal utilities.) The Political Context Kuhnt’s ability to design and implement his multi-utility strategy was affected not only by the presence and response of his competitors, but equally as importantly by policies and institutions established by political actors. Recent events in Germany suggested both the presence of formidable actors that might hinder his discretion to implement his strategy as well the potential political influence of large established companies like RWE.

Environmental Regulation and Policy. Environmental groups traditionally had a powerful voice in energy policy in Germany, and their role was

strengthened after a Social-Democratic/Green coalition won control of the Federal Parliament in the 1998 elections. The electricity industry had felt 23 RWE (2001): Thames Water – International Growth Opportunities: February 28th 2001, analyst presentation 24 RWE (2001a): Recommended Offer for Hidrocantabrico by RWE, analyst presentation, 7th Februar 2001. 25 RWE (2001): Inaugural Euro & Sterling Bond Offering, bond investor road how, March/April 2001. 9 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. 702-053 RWE and the Proposal for a German Electricity Regulator the environmentalists' influence in negotiations on nuclear power, the recent passage of the Renewable Energy Act and the Act to Protect Electricity by the Combined Heat and Power Cycle. The Green Party had campaigned on a promise to close Germany's nuclear power plants, and this became a central topic of energy politics in the new government.

After a year and a half of negotiations, the interregional utilities that owned Germany's nuclear plants and the government agreed to close each plant once it had finished 32 years of service. The planned shutdown of the nuclear plants raised the question of how they should be replaced, especially since nuclear plants generated 35 percent of Germany's electricity. 26 The Greens strongly favored replacement with electricity from renewable energy sources, which was more costly than electricity from nuclear and fossil fuels.

The Green Party argued that the cost differentials would decline over time, and sponsored the Renewable Energy Act to encourage the development of renewable sources in the interim. The Act came into effect in April 2000 and

obliged network owners to buy any renewable energy that was produced in their territory at a specified minimum price. The minimum price declined each year on the theory that renewables would gradually become cost competitive. 27 If that were not enough, the Green Party was counting on cogeneration as one of the environmentally friendly energy sources for the future.

In the previous decades many municipal utilities had build cogeneration plants, which produce electricity and use the hot water vapor to heat apartment buildings. By combining uses, cogeneration is very fuel-efficient and helps reduce CO2 emissions and global warming. The decline in wholesale electricity prices after liberalization made these plants a huge financial burden for the municipal utilities, however, and their closure threatened to eliminate an environmentally friendly source of electricity, not to mention cutting the heat for 4. 3 million households. 28.

As a first, ad-hoc measure, the government passed the “ Act to Protect Electricity by the Combined Heat and Power Cycle”. Like the Renewable Energy Act, the Act to Protect the Combined Cycle mandated that network owners buy the electricity produced in cogeneration plants at a minimum price of 9 Pf. /kWh, with that minimum declining by half a pfennig each year. 29 The government recognized that this measure was only temporary and immediately began to discuss with the affected parties a long-term solution under which cogeneration could continue to contribute to the reduction of the emission of greenhouse gases.

The government also introduced a tax on electricity that was not produced by renewable sources to help further promote energy efficiency. 30 Postal and Telecommunications Regulation. While legislation could be passed that seemed at odds with the interests of dominant utilities, recent developments in postal and telecommunications regulation suggested that incumbent utilities did not lack leverage over government policy. The incident began in the Spring of 2000 when Deutsche Post AG, which was still wholly owned by the Federal Government, petitioned the RegTP for an increase of in mail prices, which were already the highest in Europe.

Before RegTP could issue a ruling, Werner Muller, the 26 In 1999, 35 percent of Germany’s energy was generated by nuclear, 26 percent by lignite, 25 percent by hard coal, 7 percent by natural gas, and 5 percent by hydro. VDEW (2000) Electricity market Germany 1999, Frankfurt, p. 43 27 The initial minimum prices per kWh varied by energy source as follows: hydropower 15 Pf. , Biomass 14-17 Pf. , wind power 12. 1-17. 8 Pf, Photovoltaic: 99 Pf. 28 VDEW (2000) Electricity Market Germany 1999, Frankfurt, p. 53. 29 In total this minimum price increased the costs per kWh by . 53 Pf. As the costs due o the EEG, they are included in the network usage charge. 30 For households the tax per kWh is Pf. 2. 5 (2000), Pf. 3 (2001), Pf. 3. 5 (2002) and Pf. 4 (2003). For industry the tax is Pf. 0. 5 (2000), Pf. 0. 6 (2001), Pf. . 7 (2002), and Pf. . 8 (2003). 10 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. RWE and the Proposal for a German Electricity Regulator 702-053 Secretary of Commerce stepped in and ordered the RegTP to keep the mail price constant for the next two years31.

Public reaction was mostly critical of Secretary Muller. One issue was whether Muller had the right to issue his directive. The Post Act of 1997 and the Telecommunication Act of 1997 allowed the Secretary of Commerce to issue general policy guidance to RegTP, but not directives on specific decisions. In the eyes of many observers, Muller's order could be interpreted as a specific directive that threatened to undermine RegTP's independence. A second issue was whether mail prices should have been reduced rather than held constant.

Linda Gries-Lamberts, the press spokesperson for RegTP had suggested as much in a statement released after Deutsche Post petitioned for the price increase but before the Secretary of Commerce's request to hold prices constant: The Regulator for Postal Services and Telecommunication was surprised by the plans to increase mail prices. ... Our information about the financial situation of Deutsche Post AG points in a rather different direction. 32 Some observers questioned the motivation of the government in ordering the price freeze.

The government had announced its intention to sell part of its stake in Deutsche Post AG in an IPO in autumn 2000. The lower the mail prices, the less it would get for the shares. Wilhelm Hubner, president of the DVPT, a trade association of competitors of Deutsche Post AG, complained: Muller [the Secretary of Commerce] has violated the law. The customers of Deutsche Post AG have been denied a long-overdue price reduction. 33 But the final victim of this battle seemed to be the president of RegTP, Klaus-Dieter Scheurle, rather than Secretary Muller.

The overall relationship between the Federal Government and Scheurle (CSU)34, had deteriorated after the new SPD/Green coalition won the general election in 1998. Scheurle's tough regulatory approach had reduced the bottom line not just for Deutsche Post but also for Deutsche Telekom, which the Federal Government still owned half of. When Scheurle resigned suddenly in November 2000 to go to an investment bank, he was widely praised for his role as architect of the successful and popular telecommunications liberalization. But doubts about the true reasons for his resignation lingered.

Jurgen Grutzner, the president of VATM, a trade association of competitors of Deutsche Telekom, stated the suspicions of many: Everyone in the industry knows that this [Scheuerle's resignation] was the result of strong and sustained pressure by Deutsche Telekom and the Treasury. 35 The Proposal for an Electricity Regulator During the first months of 2001, the problems of the electricity liberalization became more obvious as several of new marketers/retailers went bankrupt or merged. Several trade associations 31 Spiegel Online (2000): " Briefporto wird nicht erhoht", 20. Marz 2000, www. spiegel. e/wirtschaft/politik/0, 1518, 69698, 00. html. 32 Spiegel Online (2000, March 20th) " Briefporto wird nicht erhoht", www. spiegel. de/wirtschaft/politik/0, 1518, 69698, 00. html 33 Spiegel Online (2000, March 29th) " Wirtschaftsminister Muller untersagt Portosenkung", www. spiegel. de/wirtschaft/politik/0, 1518, 70999, 00. html 34 The CSU was one member of the coalition that lost the 1998 election. 35 www. zdnet. de/story/0,, s2054380, 00. html 11 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July

2013 to December 2013. 02-053 RWE and the Proposal for a German Electricity Regulator released an analysis that showed that the network access charges varied by more than a factor of two. For households, for example, access charges varied from a low of 5. 42 Pf/kWh at an EnBW subsidiary in Karlsruhe to a high of 12. 56 Pf/kWh at E. Dis, a regional subsidiary of E. ON (Exhibit 7). Although RWE's access charges were relatively low, an analysis by a consulting firm commissioned by Riva, one of the new electricity retailers, claimed that the RWE charges could be reduced by 30 percent. 36

Building on this information, the Bundeskartellamt opened an investigation into E. Dis, the regional distributor and subsidiary of E. ON that charged the highest network access charges for households in Germany. 37 The Bundeskartellamt was aware of its limitations, however, and in a report released in April 2001 it warned: The Bundeskartellamt will explore the effectiveness of its anti-trust sanctions ... Even if they prove effective, however, the Bundeskartellamt can only investigate model cases. Given our current resources, we can not undertake an exhaustive examination of the network usage charges of the approximately 800 network owners. 8 Nevertheless the extensive report did shed some light on important questions. For example, the Bundeskartellamt expressed its doubt that special charges for changing electricity suppliers were legal. On March 13, 2001 the European Commissioner for Energy, Loyola de Palacio, presented the draft of a new energy directive that would create European and national regulators and speed the liberalization process. Although the directive was not passed at the European summit in Stockholm at the end of March, it

stimulated the debate about the need for an electricity regulator in Germany.

Pro-Wettbewer (“ Pro-Competition”), a joint initiative of several new electricity suppliers, strongly supported the need for a regulator: Internationally, Germany is the only government that does not regulate network access. This experiment has failed. If the government does not guarantee network access without discrimination, consumers will be unable to take advantage of their new freedom to change their supplier. This is a severe problem for the new suppliers, who are the guarantors of attractive offers, innovative concepts and a marketplace that is prosperous and attractive to customers. 9 The VEA, a trade association of medium-sized industrial electricity users concurred: The German practice of ex-post supervision through the anti-trust law can only prevent extremely bad contracts, but it cannot create good ones from the beginning. This task can be accomplished only by an independent regulator. 40 But VIK, a trade association that represented the largest industrial electricity consumers41, disagreed: 36 LBD-Beratungsgesellschaft (2000): “ Analyse zu den Durchleitungsentgelten der RWE AG”, 8. 12. 2000, Berlin 37 Bundeskartellamt (2001) „ Investigations opened against e. is Nord for abusing monopoly power in setting network usage th charges”, press release, February 8 2001.! 38 Bundeskartellamt (2001) „ Bericht der Arbeitsgruppe Netznutzung der Kartellbehoerden der Laender und des Bundes. “, th April 19 2001. 39 www. pro-wettbewerb. de (2001) Forderungskatalog vom 14. Marz 2001. 40 VEA press release 15. 3. 2001, Strom-Magazin 41 http://www. vik-online. de/wir-ueber-uns/default. htm 12

This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. RWE and the Proposal for a German Electricity Regulator 02-053 Germany has decided to use negotiated third party network access. The creation of new governmental regulatory agency would be a severe setback and would lead to delays in the process of liberalizing the German electricity and gas market. 42 Within the electricity industry, opinions also varied. Gerhard Goll, CEO of EnBW, the third biggest utility, supported a regulator: The hope that the Associations' Agreement would result in a breakthrough to fair and workable competition all over Germany has been disappointed. Therefore there is no avoiding the need for compulsory rules for network access and a governmental regulator. 3 But Ulrich Hartman, the CEO of the second largest utility, E. ON, disagreed: It cannot be in Germany's interest to stifle our industry's pragmatic solution with a new bureaucracy. 44 Finally on April 29, 2001 the Secretary of Commerce, Werner Mueller, who had been a manager in the electricity industry, used blunt language in complaining about the impediments to competition: Let me speak plainly: There is a lot of swindle involved [by the old monopolistic suppliers] … If that does not change, we will intervene via the course of law …[And] I don't need a regulator to remove the swindle. 45

As CEO of the biggest German utility, Dietmar Kuhnt, was aware that his position on the need for a regulator might be very influential. And the outcome was clearly important to RWE, since the presence of a regulator might significantly change the company's prospects—for the better or the worse. Kuhnt looked forward to meeting with his top advisors in the few next

days, hoping that they would help him decide what position was the best for RWE. 42 VIK press release 22. 3. 2001 Strom-magazin 43 EnBW (2001) “ Goll: Kartellamt soll al Regulierungsinstanz die Behinderung des Strommarktes bekampfen”, press release th

April 6 2001. 44 Hartmann, Ulrich (2001) “ Ausfuhrungen auf der Analysstenkonferenz der E. ON am 27. 3. 2001”, p. 7 45 Spiegel Online, 2000, April 29th: “ Da ist viel Beschiss im Spiel. ” 13 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. 702-053 RWE and the Proposal for a German Electricity Regulator Exhibit 1 Overview of the German Electricity Market Number of inhabitants (106) GDP at 1995 prices (109 DM) Net electricity consumption (109 kWh) Consumption per inhabitant (kWh) Electricity revenues (109 DM)

Large industrial customers under special contract Households and small commercial Total Electricity consumption (109 kWh) Large industrial customers under special contract Households and small commercial Total Electricity customers Large industrial customers under special contract Households and small commercial (106) Consumption per residential customer (kWh) 1998 82. 024 3, 679 485. 4 5915 1999 82. 088 3, 732 486. 2 5923 % change 0. 1% 1. 5% 0. 2% 0. 1% 36 44 80 25 40 65 -30. 6% -9. 1% -18. 8% 276. 9 179 456. 6 279. 3 179. 8 457. 6 0. 9% 0. 4% 0. 2% 304, 982 43. 2 3297 310, 000 43. 4 3315 1. 6% 0. 5% 0. % 1998 18. 8 151. 8 122. 5 121. 9 33. 0 2. 1 6. 2 456. 6 1999 21. 1 159. 2 119. 0 115. 6 33. 9 1. 5 7. 0 457. 6 Source: Adapted from VDEW (2000) Electricity Market in Germany 1999, pp. 3 and 24-25. Exhibit 2 German Electricity Supply (billions of kWh)

Source of power Water Nuclear energy Lignite Hard coal Natural gas Heating oil Others(1) Total 1995 21. 4 145. 1 122. 2 109. 8 21. 8 3. 5 4. 2 428. 1 1996 19. 0 151. 9 125. 3 119. 3 27. 1 3. 2 4. 7 450. 7 1997 18. 5 160. 1 123. 4 112. 0 29. 4 2. 5 5. 9 452. 0 Source: Adapted from VDEW (2000) Electricity Market in Germany 1999, p. 79. Includes renewables.

Exhibit 3 German Electricity Demand (billions of kWh) Type of user Industry Transportation/rail Public institutions Farms Households Small enterprises Total 1997 200. 3 9. 6 36. 9 7. 6 130. 8 63. 0 448. 4 1998 200. 4 9. 4 37. 0 7. 8 130. 4 66. 4 455. 8 1999 209. 2 9. 6 36. 6 7. 7 131. 2 64. 6 459. 0 Source: Adapted from VDEW (2000) Electricity Market in Germany 1999, p. 76. 14 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013. RWE and the Proposal for a German Electricity Regulator 702-053

Exhibit 4 Map of Distribution and Transmission Areas in Germany Source: Bundeskartellamt. This map shows the distribution areas of the regional; utilities as well as the transmission areas of the interregional utilities (number 1-8) as of 1999. By 2001, mergers had reduced the number of interregionals to four. In order of size, they were: !! RWE: zones 6 (the original REW territory) and 8 (former VEW territory) !! E. ON: zones 1 (former Bayernwerk territory) and 8 (former PreussenElektra) !! HEW: zones 2 (the original HEW territory), 2 (Berlin) and 3 (East Germany) !! EnBW: zone 3 (the original EnBW territory).

EnBW is allied with EDF. 15 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School

from July 2013 to December 2013. 702-053 RWE and the Proposal for a German Electricity Regulator Exhibit 5 Electricity Market Concentration in 1999 Transmission lines VEW affiliate E. On Generating capacity far above 20% more than 5% above 30% E. ON affiliate EnBW VEAG about 10% RWE RWE affiliate VEW BEWAG HEW Other interregional utilities Non-utility supplier other utilities – far below 20% High voltage (> 220 kV) More then 25% about 5% Medium voltage 100 kV Above 20% Below 0% Above 40% Medium voltage (1-60kV) about 15% about 5% Low voltage (!? @! ! ! A+5+6())3. , B 64&,(. -! 4. /! =+45! >-&4&+! ! ! ! ! ! >. +'CD! ! ! ! E,. ,. C! ! ! ! =. J,'(. B)+. &! ! =;>! K)L+5&!? @ ! ! I>?!? @ ! ! ! ! ! ! ! #. /3-&', 45! %D-&+)-! H(. -&'36B &,(.! ! ! A+–4CB M+,/+5B F+'C+'! M(6! NK%#O>%%> %! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! > 5+6&', 6,&D! ! ! ! @4-! ! ! ; 4&+'! ! ; 4-&+! E4. 4C+B)+. &! ! ! ! ! ! ! =;>! S53-! !? @! 1PQQR7! ! =;>! A'4/,. C! @)F! O+&! !? @! 1PQQR7>! ! =;>! S(L+'! ! 1TR7! ! ! ! ! ! Source: Adapted from RWE Annual Report 1999/2000. Created by casewriter. 20 This document is authorized for use only in Business government & society 2013 by Prof. C. Garcia at IE Business School from July 2013 to December 2013.

RWE and the Proposal for a German Electricity Regulator 702-053 Exhibit 13 Financial Data for RWE Group (in millions of Euros) Consolidated Income Statement Net sales Less mineral, oil/gas and electricity taxes Net sales excluding taxes Changes in stocks and works in progress or in other own work capitalized Costs of materials, payroll and depreciation Other operating income !"#$%$&'()*+%,-$)%.)%*/+&$-%. 0) Results from investments Financial results 1+%,-$)#/,%+/)$&2) Taxes on income 1+%,-$)&,$/+)$&2) Minority interest 3/$)*+%,-$) Earnings per share RWE (new) July-Dec. 2000

29, 519 -3, 012 July-Dec. 1999 22, 860 2, 787 RWE (old) Fiscal year Fiscal year 1999/2000 1998/1999 47, 918 38, 415 -5, 492 -4, 533 26, 507 20, 073 42, 426 33, 882 33, 298 280 179 196 132 306 -23, 754 -1, 625 1, 408 286 - 724 970 -283 687 -194 493 0. 87 -17, 315 -1, 449 1, 488 97 -534 1, 051 -460 591 -163 428 0. 78 -37, 625 -4, 868 129 (*) 2, 912 -890 2, 151 -595 1, 556 - 344 1, 212 2. 24 -27, 647 -3, 423 2, 944 357 -579 2, 722 -1, 177 1, 545 -396 1, 149 2. 07 -27547 -3221 2, 836 157 -412 2, 581 -1166 1, 415 -417 998 1. 80 RWE (old) Fiscal year Fiscal year 1999/2000 1998/1999 8750 9948 571 469 n. a. 882 2820 2375 443 124 13, 536 13, 674 12, 959 9159 5049 4442 18, 008 13, 601 1524 1480

Fiscal year 1997/1998 10, 280 462 821 1587 33 13, 150 9930 4224 14, 154 1032 Fiscal year 1997/1998 37524 -4226 Note: 1 Euro equals 1. 95583 DM. (*) Includes restructuring costs of 2. 2 billion Euros. Source: RWE Annual Reports and Quarterly Reports. External Net Sales by Activity Electricity Gas District heat, water, other Mining and raw materials Electricity and gas tax collected ‘()*+*,-. $/0/123$ Petroleum and chemicals Petroleum tax collected “#$%&%'()! *+%,&(+#-! ‘. /! 01+-20′(3! 4. 52,&. -+. %'(! 3+, 520+3! 6. /#3%, 2′(! 3+, 520+3! 78+33’9! ‘. /!!!!!!!!!!!!!!!!!! :+2/+($+, 9;! #25′(+. %! Subtotal current assets

Prepaid taxes Prepaid expenses ;%$&’)&00/$0) Shareholder equity and liabilities !!!!! “ 1′,+1&(/+, 3?! +;#2%@! Minority interest !”#$%$&’)0:&+/: %’8/+)/C”-$6)&. 8)7-. %+-$6) -. $/+/0$0) A,&5232&. 3! 7B;! Liabilities Deferred taxes Deferred income Total shareholder equity and liabilities June 30, 2000 RWE (old) June 30, 1999 June 30, 1998 3777 20850 24094 48721 1421 17344 15728 34493 1582 17125 10403 29110 1307 13593 9392

24292 3750 12835 3603 1804 21992 7559 244 78516 3282 9959 7339 2812 23392 6881 223 64989 3382 7123 6620 2980 20105 5830 187 55232 3169 6560 7609 2832 20170 3885 153 48500 7238 2992