E ON AG Form 20-F March 19, 2003

As filed with the Securities and Exchange Commission on March 19, 2003.

# **UNITED STATES** SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

# **FORM 20-F**

(Mark One)

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REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) **OF THE SECURITIES EXCHANGE ACT OF 1934** OR ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)

**OF THE SECURITIES EXCHANGE ACT OF 1934** 

For the fiscal year ended: December 31, 2002

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)

**OF THE SECURITIES EXCHANGE ACT OF 1934** 

For the transition period from to Commission file number: 1-14688

# E.ON AG

(Exact name of Registrant as specified in its charter)

# E.ON AG

(Translation of Registrant s name into English)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

**Federal Republic of Germany** 

(Jurisdiction of Incorporation or Organization)

Name of each exchange on which registered

New York Stock Exchange New York Stock Exchange\*

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

E.ON-Platz 1, D-40479 Düsseldorf, GERMANY (Address of Principal Executive Offices)

OR

Title of each class

American Depositary Shares representing Ordinary Shares with no par value

Ordinary Shares with no par value

#### None

#### (Title of Class)

Indicate the number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report.

As of December 31, 2002, 652,341,876 outstanding Ordinary Shares with no par value.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes þ No o

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 o Item 18 þ

\* Not for trading, but only in connection with the registration of American Depositary Shares.

As used in this annual report,

E.ON, the Company, the E.ON Group or the Group refers to E.ON AG and its consolidated subsidiaries.

VEBA or the VEBA Group refers to VEBA AG and its consolidated subsidiaries prior to its merger with VIAG AG and the name change from VEBA AG to E.ON AG. VIAG or the VIAG Group refers to VIAG AG and its consolidated subsidiaries prior to its merger with VEBA.

PreussenElektra refers to PreussenElektra AG and its consolidated subsidiaries and Bayernwerk refers to Bayernwerk AG and its consolidated subsidiaries, which merged to form E.ON s German and continental European energy business in the E.ON Energie division consisting of E.ON Energie AG and its consolidated subsidiaries (E.ON Energie ).

Powergen refers to Powergen Limited and its consolidated subsidiaries, which collectively comprise E.ON s U.K. and U.S. energy business in the Powergen division.

Degussa-Hüls refers to Degussa-Hüls AG and its consolidated subsidiaries and SKW Trostberg refers to SKW Trostberg AG and its consolidated subsidiaries, which merged to form E.ON s chemicals division consisting of Degussa AG and its consolidated subsidiaries (Degussa).

Real Estate refers to Viterra AG and its consolidated subsidiaries ( Viterra ), which collectively comprise E.ON s real estate division.

E.ON Telecom refers to E.ON Telecom GmbH and its consolidated subsidiaries and VIAG Telecom refers to VIAG Telecom Beteiligungs GmbH and its consolidated subsidiaries, which collectively comprised E.ON s telecommunications division.

VEBA Oel refers to VEBA Oel AG and its consolidated subsidiaries, which collectively comprised E.ON s oil division.

Distribution/Logistics or D/L refers to Stinnes AG and its consolidated subsidiaries (Stinnes), which collectively comprised E.ON s distribution/logistics division.

Aluminum refers to VAW aluminium AG and its consolidated subsidiaries (VAW), which collectively comprised E.ON s aluminum division.

Silicon Wafers refers to MEMC Electronic Materials, Inc. and its consolidated subsidiaries (MEMC), which collectively comprised E.ON s silicon wafers division.

Unless otherwise indicated, all amounts in this annual report are expressed in European Union euros (euros or EUR or ), United States dollars (U.S. dollars or dollars or \$) or British pounds (GBP). Beginning in 1999, the reporting currency is the euro. Amounts formerly stated in German marks (marks or DM), have been translated into euro using the fixed rate of DM 1.95583 per 1.00. E.ON s 1998 restated euro financial information depicts the same trends as would have been presented if E.ON had continued to present its financial information in German marks. E.ON s consolidated financial information for such periods will, however, not be comparable to the euro financial information of other companies that previously reported their financial information in a currency other than German marks. Amounts stated in dollars, unless otherwise indicated, have been translated from euros at an assumed rate solely for convenience and should not be construed as representations that the euro amounts actually represent such dollar amounts or could be converted into dollars at the rate indicated. Unless otherwise stated, such dollar amounts have been translated from euros at the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the Noon Buying Rate ) on December 31, 2002, which was \$1.0485 per 1.00. Such rate may differ from the actual rates used in the preparation of the consolidated financial statements of E.ON as of December 31, 2002, 2001 and 2000, and for each of the years in the three-year period ended December 31, 2002, included in Item 18 of this annual report (the

Consolidated Financial Statements ), which are expressed in euros, and, accordingly, dollar amounts appearing in this annual report may differ from the actual dollar amounts that were translated into euros in the preparation of such financial statements. For information regarding recent rates of exchange, see Item 3. Key Information Exchange Rates.

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Beginning in 2000, E.ON has prepared its financial statements in accordance with generally accepted accounting principles in the United States (U.S. GAAP). Formerly, the Company prepared its financial statements in accordance with generally accepted accounting principles in Germany (German GAAP) as prescribed by the German Commercial Code (*Handelsgesetzbuch*, the Commercial Code) and the German Stock Corporation Act (*Aktiengesetz*, the Stock Corporation Act). In connection with the change to U.S. GAAP, E.ON s financial statements for prior fiscal years have been restated according to U.S. GAAP. Sales and internal operating profit presented in this annual report for each of E.ON s divisions are based on the consolidated accounts of the E.ON Group as shown in Note 31 (Segment Information) of the Notes to Consolidated Financial Statements under the captions External sales and Internal operating profit. Internal operating profit is the measure pursuant to which the Group evaluates the performance of its segments and allocates resources to them. Internal operating profit, which includes income from equity interests, is equivalent to income from continuing operations before income taxes, adjusted to exclude material, non-operating income and expenses that are non-recurring or infrequent in nature. These adjustments primarily include net book gains resulting from large divestitures, as well as restructuring expenses. For a reconciliation of internal operating profit to income before taxes, see Note 31 of the Notes to Consolidated Financial Statements.

E.ON has calculated operating data for Group companies appearing in this annual report using actual amounts derived from Group books and records. The Company has obtained market-related data such as the market position of Group companies from publicly available sources such as industry publications. The Company has relied on the accuracy of information from publicly available sources without independent verification, and does not accept any responsibility for the accuracy or completeness of such information.

This annual report contains certain forward-looking statements and information relating to the E.ON Group that are based on beliefs of its management as well as assumptions made by and information currently available to E.ON. When used in this document, the words anticipate, believe, estimate, expect, intend, plan and project and similar expressions, as they relate to the E.ON Group or its management, are intend identify forward-looking statements. Such statements reflect the current views of E.ON with respect to future events and are subject to certain risks, uncertainties and assumptions. Many factors could cause the actual results, performance or achievements of the E.ON Group to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, among others, changes in general economic and business conditions, changes in currency exchange rates and interest rates, introduction of competing products by other companies, lack of acceptance of new products or services by the Group s targeted customers, changes in business strategy, lack of successful completion of planned acquisitions and dispositions and/or the realization of expected benefits and various other factors, both referenced and not referenced in this annual report. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this annual report as anticipated, believed, estimated, expected, intended, planned or projected. E.ON does not intend, and does not assume any obligation, to update these forward-looking statements.

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#### PART I

#### Item 1. Identity of Directors, Senior Management and Advisers.

Not applicable.

#### Item 2. Offer Statistics and Expected Timetable.

Not applicable.

#### Item 3. Key Information.

#### SELECTED FINANCIAL DATA

The selected financial data presented below in accordance with U.S. GAAP as of and for each of the years in the five-year period ended December 31, 2002 have been excerpted from or are derived from the Consolidated Financial Statements of E.ON as of and for the period ended December 31, 2002, 2001 and 2000, respectively, and of VEBA as of and for the periods ended December 31, 1999 and 1998.

On June 16, 2000, VEBA completed the acquisition of VIAG. For convenience reasons, June 30, 2000 has been chosen as the merger date. In 2000, the results of operations of VIAG are included in E.ON s financial data from July 1 to December 31.

The selected financial data set forth below should be read in conjunction with, and are qualified in their entirety by reference to, the Consolidated Financial Statements and the Notes to Consolidated Financial Statements.

	Year Ended December 31,							
	2002(1)	2002	2001	2000	1999	1998(2)		
	(in millions, except share amounts)							
Statement of Income Data:								
Sales	\$38,856	37,059	37,273	39,097	25,575	18,558		
Sales excluding electricity taxes(3)	37,878	36,126	36,579	38,748	25,434	18,558		
Earnings from companies accounted for under the								
equity method	632	603	765	329	312	121		
Income (loss) from continuing operations before								
income taxes	(738)	(704)	2,684	5,177	4,031	2,039		
Income from continuing operations after income		(70)	2 (15	2 200	2.072	1.000		
taxes(4)	(62)	(59)	2,615	3,380	3,072	1,080		
operations	(730)	(696)	2,155	2,967	2,932	1,054		
Income (loss) from								
discontinued operations(5)	3,441	3,282	(81)	603	60	120		
Net income	2,912	2,777	2,048	3,570	2,991	1,174		
Basic earnings per share from continuing operations	(1.11)	(1.06)	3.19	4.78	5.83	2.10		

	2002(1)	2002	2001	2000	1999	1998(2)
			(in millions, exc	cept share amounts)		
Basic earnings per share from discontinued operations(5)	5 27	5.03	(0.12)	0.97	0.12	0.24
Basic earnings per share from net	5.21	5.05	(0.12)	0.97	0.12	0.24
income(6)	4.47	4.26	3.03	5.75	5.95	2.34
<b>Balance Sheet Data</b>	:					
Total assets	118,549	113,065	101,659	106,215	56,219	45,552
Long-term financial						
liabilities	18,428	17,576	9,308	7,611	3,630	2,339
Stockholders equity	(7) 26,898	25,653	24,462	28,033	15,813	13,855
Number of authorize	d					
shares		692,000,000	692,000,000	763,298,875	502,797,780	502,797,780

Year Ended December 31,

- (1) Amounts in this column are unaudited and have been translated solely for the convenience of the reader at an exchange rate of 1.0485 = 1.00, the Noon Buying Rate on December 31, 2002.
- (2) The Consolidated Financial Statements as of December 31, 1998 and for the year then ended, have been prepared in marks and were translated into euros at the official fixed exchange rate.
- (3) As of April 1, 1999, German law requires the seller of electricity to collect electricity taxes and remit such amounts to tax authorities.
- (4) Before minority interest of 637 million for 2002, as compared with 460 million, 413 million, 140 million and 26 million for 2001, 2000, 1999 and 1998, respectively.
- (5) Excludes the sales and internal operating profit of certain activities now accounted for as discontinued operations. For more details, see Item 5. Operating and Financial Review and Prospects Acquisitions and Dispositions Discontinued Operations and Note 4 of the Notes to Consolidated Financial Statements.
- (6) Includes earnings per share from the first-time application of new U.S. GAAP standards of 0.29 and (0.04) for 2002 and 2001, respectively.
- (7) After minority interest.

#### DIVIDENDS

The following table sets forth the annual dividends paid per ordinary unit bearer share of E.ON AG (each, an Ordinary Share ) in euros, and the dollar equivalent, for each of the years indicated. Historically, both VEBA AG and VIAG AG declared and paid dividends in marks. For convenience, historical data regarding VEBA AG is translated from marks into euros at the fixed rate of 1.95583. The table does not reflect the related tax credits available to German taxpayers who receive dividend payments. Owners of Ordinary Shares who are United States residents should be aware that they will be subject to German withholding tax on dividends received. See Item 10. Additional Information Taxation.

Year Ended		Dividends Paid per Ordinary Share with no par value(1)		
December 31,			<b>\$(2)</b>	
1998		1.07	1.12	

1999	1.25	1.16
2000	1.35	1.18
2001	1.60	1.49
2002(3)	1.75	1.83

(1) In 1998: dividend paid per Ordinary Share with par value of DM 5 each.

(2) Translated into dollars at the Noon Buying Rate on the dividend payment date, which typically occurred during the second quarter of the following year, except for the 2002 amount, which has been translated at the Noon Buying Rate on December 31, 2002.

(3) The dividend amount for the year ended December 31, 2002 is the amount proposed by E.ON s Supervisory Board and Board of Management and has not yet been approved by its stockholders. Prior to the payment of the dividends, a resolution approving such amount must be passed by E.ON s stockholders at the annual general meeting to be held on April 30, 2003. See also Item 8. Financial Information Dividend Policy.

EXCHANGE RATES

Until December 31, 1998, the mark took part in the European Monetary System (EMS) exchange rate mechanism. Within the EMS, exchange rates could fluctuate within permitted margins, fixed by central bank intervention. Against currencies outside the EMS, the mark had, in theory, free floating exchange rates, although central banks sometimes tried to confine short-term exchange rate fluctuations by intervening in foreign exchange markets. As of December 31, 1998, the mark had a fixed value relative to the euro of 1.95583, and therefore was no longer traded on currency markets as an independent currency. As of January 1, 2002, the euro replaced the mark as legal tender in Germany.

Fluctuations in the exchange rate between the euro and the dollar will affect the dollar equivalent of the euro price of the Ordinary Shares traded on the German stock exchanges and, as a result, will affect the price of the Company s American Depositary Receipts (ADRs) traded in the United States. Such fluctuations will also affect the dollar amounts received by holders of ADRs on the conversion into dollars of cash dividends paid in euros on the Ordinary Shares represented by the ADRs.

The following table sets forth, for the periods and dates indicated, the average, high, low and/or period-end Noon Buying Rates for euros expressed in \$ per 1.00. For convenience, historical data is translated from marks into euro at the fixed rate of DM 1.95583 per euro.

Pe	riod	Average(1)	High	Low	Period-End
1998		1.1121			1.1733
1999		1.0588			1.0070
2000		0.9207			0.9388
2001		0.8909			0.8901
2002		0.9495			1.0485
August			0.9882	0.9640	
September			0.9959	0.9685	
October			0.9881	0.9708	
November			1.0139	0.9895	
December			1.0485	0.9927	
2003					
January			1.0861	1.0361	
February			1.0875	1.0708	
· · · ··- )					

(1) The average of the Noon Buying Rates for the relevant period, calculated using the average of the Noon Buying Rates on the last business day of each month during the period.

On March 10, 2003, the Noon Buying Rate was \$1.1062 per 1.00.

#### **RISK FACTORS**

On May 1, 1998, the German Control and Transparency in Business Act (*Gesetz zur Kontrolle und Transparenz im Unternehmensbereich*, or *KonTraG*), came into effect. The provisions of *KonTraG* include the requirement that the board of management of a German stock corporation establish a risk management system to

identify material risks to the corporation at an early stage. As part of their audit, the auditors of a stock corporation whose shares are listed on an official market assess whether the system meets the requirements of *KonTraG*. The audit requirement has been applicable to all fiscal years beginning after December 31, 1998, although the former VEBA underwent this audit voluntarily already in fiscal year 1998.

Even prior to the requirements introduced by *KonTraG*, the Company believes it had an effective risk management system which integrates risk management in its Group-wide business procedures. The system includes controlling processes, Group-wide guidelines, data processing systems and regular reports to the Board of Management and Supervisory Board. In 1998, a Group-wide project was launched to analyze, aggregate and document existing risks and control systems at the Group level. The reliability of the risk management system is reviewed regularly by the internal audit and controlling departments of the Company s business divisions and of the parent company as well as by the Company s independent auditors, based on requirements set forth in the German Stock Corporation Act. The documentation and evaluation of the Company s risk management system is updated annually throughout the Group in the following steps:

Standardized documentation of risks and control systems;

Evaluation of risks according to the degree of severity and the probability of occurrence, and assessment of the effectiveness of existing control systems; and

Analysis of the results and structured disclosure in a risk report.

The following discussion groups risks according to the categories of external, operational and financial risks, as used by the Company in its risk management system.

#### External

The Company faces the general risks of economic downturns experienced by all businesses, although certain of its operations, such as chemicals, are more exposed to economic cycles than its core energy business. The Company s worldwide operations were affected by the general economic slowdown that occurred in 2002 and may continue during 2003. The following are specific external risks the Company faces:

# The liberalization of the electricity industry in the EU has required and will require the Company to adapt to changing competition, including price competition in Germany that has lowered the Company s profit margins in this sector. The Company also faces strong competition in its other electricity markets, particularly in the United Kingdom and the unregulated markets in the United States.

Liberalization of the electricity market in the EU has greatly altered competition in the German electricity market. The private power industry in Germany was formerly characterized by numerous strong competitors. Due to liberalization, significant consolidation is occurring in the German electricity market as companies seek to cut costs, increase efficiency and adjust to new and changing market structures. As a result, the private power industry has been characterized by increased competition for asset purchases and development opportunities. The liberalization of the electricity market in Germany has also led to new market structures, and more than 200 companies, approximately 80 of which are owned by non-German firms, have entered the market. The electricity trading platform now includes approximately 100 companies and was responsible for a total trading volume of approximately 2,500 terawatt hours (TWh ) in 2002. The market for electricity has therefore become more liquid. Furthermore, electricity traders without assets have become increasingly active in the market. Consequently, both German and foreign companies have established extensive electricity sales and trading operations in Germany. Although the Company intends to compete vigorously in the changed electricity market, it cannot be certain that it will be able to develop its business as successfully as its competitors. Liberalization of the electricity market in Germany has caused electricity prices to decrease, in some market segments significantly. For more information about the development of electricity prices and the effects of lower electricity prices on the Company s results of operations, see Item 4. Information on the Company Business Overview E.ON Energie Competitive Environment and Item 5. Operating and Financial Review and Prospects Results of Operations , respectively.



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In addition to the emergence of new competitors and suppliers and the creation of European electricity exchanges, other factors contributing to the drop in electricity prices in Germany include significant power plant overcapacity in Germany and Europe and relatively high and increasing price transparency. Some groups of electricity users in Germany (for example, municipalities) have also entered into cooperative arrangements for the purpose of purchasing electricity at more favorable prices, thereby increasing price competition. Electricity prices in the German market increased only marginally in 2002 and deregulation is generally expected to result in prices remaining at unsatisfactory levels. Although the Company continues to implement cost-management measures at its electricity operations in Germany, the Company may not be able to fully regain its former high profit margins in this sector. The German Federal Cartel Office has instituted proceedings challenging the transmission fees of 10 regional and municipal electricity suppliers in Germany, including four companies of the E.ON Group Thüringer Energie Aktiengesellschaft ( TEAG ), E.DIS AG ( E.DIS ), Energie-Aktiengesellschaft Mitteldeutschland ( EAM ) and Avacon AG ( Avacon ). On February 19, 2003, the German Federal Cartel Office issued a decision requiring a 10 percent reduction in TEAG s network transmission fees. The decision rejected the basic principles of the tariff calculation guidelines that are used by all of the E.ON Group companies involved in the proceedings. TEAG has appealed the decision in the state Superior Court in Düsseldorf and petitioned the court to issue a temporary injunction preventing the immediate reduction of its tariffs. No decision on the petition has yet been issued. The German Federal Cartel Office has also recently instituted proceedings challenging the prices charged by E.ON Sales & Trading GmbH ( EST ) and other wholesale energy companies for balancing energy. As a first step, the cartel office has begun an inquiry in order to assess whether or not these prices constitute market abuse. If the Company is unable to reach a satisfactory resolution of these proceedings, it may have a material adverse impact on E.ON s transmission rate structure.

Outside Germany, the electricity markets in which the Company operates are also subject to strong competition, particularly in the United Kingdom and the unregulated markets in the United States. Following the acquisition in 2002 of Powergen and the U.K. retail business, certain gas supply contracts and three coal fired power stations from TXU Europe Group plc (TXU Group), the Company has significant U.K. operations in electricity generation, distribution and supply, on both the wholesale and retail levels. Increased competition from new market entrants and existing market participants could adversely affect the Company s U.K. market share in both the retail and wholesale sectors. The British electricity market has been characterized by a steep decline in wholesale prices over the course of the last few years. Among the principal reasons for this decline are overcapacity in the generation market, the continued fragmentation of that market and competitive pressures arising from the introduction of a new set of trading rules known as the New Electricity Trading Arrangements (NETA). The decline in wholesale prices has resulted in serious economic problems for pure generating companies such as British Energy. At the same time, however, margins in the supply of electricity to retail customers have currently increased, as retail prices have not fallen as sharply as those on the wholesale level. Nevertheless, margins in the retail sector are also subject to competition and the possibility of regulatory action. In the United States, LG&E Energy Corp. ( LG&E Energy ), the Company s primary U.S. subsidiary (which was acquired together with Powergen), is exposed to wholesale price and fuel cost risks with respect to its non-utility operations, whose rates are not set by governmental regulators, and which represent a minority of LG&E Energy s business. A significant deterioration in the market environment for Powergen s U.K. and U.S. operations triggered an impairment analysis in the third quarter of 2002 that resulted in an impairment charge of 2.4 billion, thus reducing the amount of goodwill associated with the Powergen acquisition to 6.5 billion. For additional details on this charge, see Item 5. Operating and Financial Review and Prospects Results of Operations . The Company cannot guarantee it will be able to compete successfully in the United Kingdom, the United States or other electricity markets where it is already present or in new electricity markets the Company may enter.

# Changes in laws and regulations which affect the Company s operations could materially and adversely affect the Company s financial condition and results of operations.

In each of its operations, the Company must comply with a number of laws and government regulations. For more information on laws and regulations in some of the industries in which the Company operates, see the description of the businesses contained in Item 4. Information on the Company Business Overview. From

time to time, changes in these laws and regulations may be introduced which may negatively affect the Company s business, financial condition and results of operations.

For example, the Company s nuclear power plants are among its cheapest source of power, and, along with hydroelectric and lignite-based power plants, are used primarily to cover the Company s base load power requirements in Germany. In June 2001, E.ON, together with the other German operators of nuclear power stations, reached agreement with the German federal government to phase out the generation of nuclear power in Germany; this agreement was reflected in an amendment of Germany s nuclear energy laws in April 2002. For more information about the planned phase-out of nuclear power stations in Germany, see Item 4. Information on the Company Business Overview E.ON Energie. The amended law provides that the delivery of spent nuclear fuel rods for reprocessing will be allowed until July 2005, during which time plant operators are to build storage facilities on the premises of their nuclear plants. The construction costs of these storage facilities are expected to be significant, and the Company may incur greater than anticipated costs in ending its nuclear energy operations.

Regulatory changes can also affect the prices the Company may charge customers. For example, regulators in the United Kingdom have established a price control framework for distribution customers that is in effect through March 31, 2005. The rates for LG&E Energy's retail electric and gas customers in Kentucky, its principal area of operations, are set by state regulators and remain in effect until such time that an adjustment is sought and approved. The rate structure for electric customers contains an earnings sharing mechanism. The initial earnings sharing mechanism expired on December 31, 2002, but prior to its expiration, LG&E Energy initiated a proceeding to continue it through 2005. The regulator allowed the continuation of the earnings sharing mechanism, pending the outcome of an audit of its first three years of operation. For additional information on these developments, see Item 4. Information on the Company Business Overview Powergen Regulatory Environment U.S. Business. Adverse changes in the price controls or rate structure could have an adverse effect on the Company's operating results.

The description of the Company s operations in Item 4. Information on the Company Business Overview contains information regarding other recent or proposed changes in law or regulations which could negatively affect the Company s operations. The Company is unable to predict the effect of future developments in laws and regulations on its operations and future earnings.

# Cyclicality and other effects on sales in the chemicals industry have resulted this year and may in the future result in reduced revenues or operating margins.

The chemicals industry is generally subject to sales cyclicality. This includes periods of low prices during periods of excess capacity which may negatively impact operating margins and may result in operating losses in E.ON s chemicals division. Moreover, the chemicals industry is susceptible to cycles in the world economy and to specific country events which may result in lower sales volumes or prices for the Company s chemicals business during specific periods. Although the Company is attempting to reduce its exposure to cyclicality in the chemicals business by focusing on the less cyclical field of specialty chemicals, and takes measures to anticipate and plan for cyclicality and other effects on sales of chemicals, the results of its chemicals operations were adversely affected in 2002 by the global economic slowdown, weak demand (particularly in North America) and increasing pressure on sales prices. Total sales declined due to the divestment of certain non-core operations. The Company can provide no assurances that it will not experience negative future effects from economic cycles, downward pressure on prices or other factors which could have adverse effects on the operating results of its chemicals business.

#### Rising fuel prices could materially and adversely affect the Company s results of operations and financial condition.

A significant portion of the expenses of the Company s E.ON Energie and Powergen divisions are made up of fuel costs, which are heavily influenced by prices in the world market for oil, natural gas, fuel oil and coal. The prices for such commodities have historically fluctuated and there is no guarantee that prices will remain within projected levels. The price of oil in particular could rise in 2003 as a result of geopolitical factors, including, but not limited to, a possible military conflict in Iraq, increased instability in other parts of the Middle East and/or a

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further deterioration of the economic and political situation in Venezuela. The Company does maintain some flexibility to shift power production among different types of fuel, and it is also partially hedged against rising fuel prices. However, increases in fuel costs could have an adverse effect on the Company s operating results or financial condition if it is not able (or not permitted by regulatory authorities) to shift production to lower-cost fuel or to adjust its rates to offset such increases in fuel prices on a timely or complete basis. The Company could also incur losses if its hedging strategies are not effective. For more information about the Company s hedging policies and the instruments used, see

Financial, Item 5. Operating and Financial Review and Prospects Results of Operations Exchange Rate Exposure and Currency Risk Management and Item 11. Quantitative and Qualitative Disclosures about Market Risks.

# Negative economic, political and regulatory developments in Argentina have adversely affected LG&E Energy s business in that country.

LG&E Energy s gas distribution business in Argentina has been, and will continue to be, affected by the ongoing economic crises in that country. In 2002, the operating environment in Argentina was affected by serious economic, social and political instability brought about by changes in local laws, regulations and standards; substantial depreciation and volatility in the national currency; the imposition of trade barriers, foreign exchange controls and wage and price controls; and defaults on Argentina s external debt. As a consequence, LG&E Energy wrote down the value of its Argentine investments significantly in 2002. LG&E Energy s investments in Argentina are subject to many additional risks, including, among others, risk of interruption of business; risk of expropriation and nationalization; risk of renegotiation or nullification of existing contracts; and risk of changes in tax policy. Further economic, political or regulatory developments in Argentina and other developing countries could have a negative effect on the Company s business, financial condition and results of operations. For details on LG&E Energy s write down of its Argentine investments, see Item 4. Information on the Company Business Overview Powergen and Item 5. Operating and Financial Review and Prospects Results of Operations.

#### Operational

The Company s E.ON Energie, Powergen and chemicals divisions operate technologically complex production facilities. Operational failures or extended production downtimes could negatively impact the Company s financial condition and results of operations. The Company s businesses are also subject to risks in the ordinary course of business such as the loss of personnel or customers, and losses due to bad debts. The Company believes it has appropriate risk control measures in effect to counteract and address these types of risks. The following are additional operational risks the Company faces:

# If the Company s plans to acquire operations and expand its core energy business are unsuccessful, the Company s future earnings and share price could be materially and adversely affected.

The Company s business strategy involves acquiring operations in its core business area of energy. This strategy depends in part on the Company s ability to successfully identify and acquire companies that enhance its business on acceptable terms. In order to obtain the necessary approvals for acquisitions, the Company may be required to divest other parts of its business, or to make concessions or undertakings which materially affect its operations. For example, the Company s efforts to obtain control of Ruhrgas AG (Ruhrgas), the German natural gas company, through a series of purchases from the holders of Ruhrgas interests, were initially blocked by the German Federal Cartel Office and then by a series of plaintiffs who succeeded in convincing the state Superior Court in Düsseldorf to issue a temporary injunction preventing the Company from completing the transaction. In order to receive the authorizations of the German Economics Ministry that overruled the initial decision of the Federal Cartel Office, the Company was required to make significant concessions, including committing to divest certain operations and to have Ruhrgas sell a significant quantity of natural gas at auction at below-market prices. E.ON has already announced that it will also make significant capital investments in Ruhrgas. Similarly, in settling the claims of the plaintiffs with energy supply contracts and network access, to make certain infrastructure improvements and provide marketing support, as well as making financial payments. For more information, see Item 4. Information on the Company History

and Development of the Company Ruhrgas. Each of these matters delayed completion of the Ruhrgas transaction and had the effect of increasing the cost of the transaction to the Company.

In addition, there can be no assurances that the Company will be able to achieve the benefits it expects from any acquisition or investment. For example, the Company may fail to retain key employees, may be unable to successfully integrate new businesses with its existing businesses, may incorrectly judge expected cost savings, operating profits or future market trends such as the expected consolidation of the U.S. energy market, or may spend more on the acquisition, integration and operations of new businesses than anticipated. Especially large acquisitions, such as those of Powergen (including LG&E Energy) in 2002, or more recently, the U.K. retail operations and other assets of TXU Group, which were purchased by Powergen at the end of 2002, or Ruhrgas, the purchase of which was completed in February 2003, present particularly difficult challenges. The Company has yet to develop a detailed plan on the integration of Ruhrgas into E.ON Group. Acquisitions of businesses in new areas such as natural gas require the Company to become familiar with new markets and competitors and expose the Company to commercial and other risks, as well as additional regulatory regimes relating to the acquisitions, any acquired businesses or investments may not achieve the profitability expected by the Company.

#### The U.S. Public Utility Holding Company Act imposes significant restrictions on the Company s business.

In order to acquire Powergen, the Company was required to register as a holding company under the U.S. Public Utility Holding Company Act of 1935, (PUHCA). Although the Company is non-U.S. businesses are generally (but not entirely) free from regulation under this statute, the Company and its U.S. businesses are subject to extensive regulation under PUHCA. The PUHCA regulations require prior U.S. Securities and Exchange Commission (SEC) approval for a wide range of capital raising, merger and acquisitions, intercompany transactions and non-utility activities and could interfere with the Company is timely implementation of business plans and its financial flexibility.

# The Company cannot be certain it will be able to divest its non-core businesses on acceptable terms or within required time periods, which could interfere with its declared business strategy and/or adversely affect its business.

The Company has agreed to sell all of its non-energy-related businesses except its telecommunications interests in connection with its acquisition of Powergen, and has agreed to divest additional businesses in connection with its acquisition of Ruhrgas. Although these divestments generally fit with the Company s declared strategy of focusing on its energy business, the Company cannot be sure that it will be able to divest the necessary businesses at the most favorable terms, or within the required divestment periods. In connection with certain of its divestitures, the Company has provided standard indemnities to the buyers which expose it to possible losses in certain circumstances. The Company may also be subject to sanctions if it is unable to divest within the required periods businesses it has undertaken to sell. The Company s business strategy, financial condition and share price may suffer if it is unable to complete its planned dispositions successfully.

# The Company could be subject to environmental liability associated with its operations that could materially and adversely affect its business.

In case of environmental damages caused by an electric power generation facility, the owner of the facility is subject under German law to liability provisions that guarantee comprehensive compensation to all injured parties. In addition, there has been some relaxation in the evidence required under the German Environmental Liability Law (*Umwelthaftungsgesetz*) to establish and quantify environmental claims. Under German law, the Company may still be subject to future environmental claims with respect to alleged historical environmental damage arising from certain of its discontinued and disposed of operations, including the VEBA Oel oil business, the VAW aluminum operations, the Stinnes and Klöckner distribution and logistics businesses and the VEBA Electronics business. The Company may also be subject to environmental claims with respect to its chemicals operations. If claims were to be asserted against the Company in relation to environmental damages and plaintiffs were successful in proving their claims, such claims could result in material losses to the Company.

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In case of a nuclear accident in Germany, the owner of the reactor, the factory or the nuclear materials storage facility is subject to liability provisions that guarantee comprehensive compensation to all injured parties. Under German nuclear power regulations, the owner is strictly liable, and the geographical scope of its liability is not limited to Germany. E.ON s Swedish nuclear power stations also expose the Company to liability under applicable Swedish law. The Company does not operate nuclear power plants outside of Germany, Sweden and Switzerland, including in the United Kingdom or the United States. The Company takes extensive safety and risk management measures in the operation of its nuclear power operations, and has mandatory insurance with respect to its nuclear operations as described in Item 4. Information on the Company Business Overview E.ON Energie. However, any claims against the Company arising in the case of a nuclear power accident could exceed the coverage of such insurance, and cause material losses to the Company.

The Company expects that it will incur costs associated with future environmental compliance, especially compliance with clean air laws. For example, the U.S. Environmental Protection Agency has introduced new regulations regarding the reduction of nitrogen oxide emissions from electric generating units. These regulations require LG&E Energy to make significant additional capital expenditures in nitrogen oxide (NQ) control equipment, which are currently estimated to be approximately \$539 million through mid-2004, of which approximately \$178 million has been incurred through 2002, although LG&E Energy expects to recover a significant portion of these costs from customers of its regulated utility businesses. Revisions to existing environmental laws and regulations and the adoption of new environmental laws and regulations may result in significant increases in costs. Those costs, if they cannot be recovered from customers, may adversely affect the Company s operating results or financial condition. See Item 4. Information on the Company Business Overview Powergen Regulatory Environment.

Although environmental laws and regulations have an increasing impact on the Company s activities in almost all the countries in which it operates, it is impossible to predict accurately the effect of future developments in such laws and regulations on the Company s future earnings and operations. Some risk of environmental costs and liabilities is inherent in particular operations and products of the Company, as it is with other companies engaged in similar businesses, and there can be no assurance that material costs and liabilities will not be incurred.

#### Financial

#### The Company is exposed to financial risks that could have a material effect on its financial condition.

During the normal course of its business, the Company is exposed to the risk of energy price volatility, as well as interest rate, commodity price, currency and counterparty risks. These risks are partially hedged on a Group-wide (or division-wide) basis, however, the Company may incur losses if any of the variety of instruments and strategies it uses to hedge exposures are not effective. For more information about these risks and the Company s hedging policies and instruments, see Item 5. Operating and Financial Review and Prospects Results of Operations Exchange Rate Exposure and Currency Risk Management and Item 11. Quantitative and Qualitative Disclosures about Market Risks.

The Company is also exposed to other financial risks. For example, it holds certain stock investments which may expose it to the risk of stock market declines. For information on the impairment charge taken with regard to E.ON s investment in Bayerische Hypo- und Vereinsbank AG in 2002, see Item 5. Operating and Financial Review and Prospects Results of Operations. Financial markets performed poorly in 2002, and markets may decline further or experience volatility. In addition, a significant portion of the Company and Powergen s outstanding debt bears interest at floating rates; the Company s interest expense will therefore increase if the relevant base rates rise.

The Company also faces risks arising from its energy trading operations. In general, the Company seeks to hedge risks associated with volatile energy-related prices by entering into fixed price bilateral contracts, futures and options contracts traded on commodities exchanges, and swaps and options traded in over-the-counter financial markets. To the extent the Company is unable to hedge these risks, or enters into hedging contracts that fail to address its exposure or incorrectly anticipate market movements, it may suffer losses, some of which could be material. In addition to the risks associated with adverse price movements, credit risk is also a factor in the

energy marketing, trading and treasury activities, where loss may result from the nonperformance of contractual obligations by a counterparty. The Company maintains credit policies and control procedures with respect to counterparties to protect it against losses associated with such types of credit risk, although there can be no assurance that these policies and procedures will fully protect the Company. In addition, LG&E Energy is exposed to potential losses under several fixed-price energy marketing contracts that its former merchant energy trading operations entered into in 1996 and early 1997, some of which run through 2008. Although the Company has used what it believes to be appropriate estimates for future energy prices, among other factors, in establishing a provision to cover anticipated losses on these contracts, no assurance can be given that higher than anticipated future prices or demand, among other factors, may not result in additional losses. For more information about the Company s energy trading operations, its hedging policies and the instruments used, see Item 4. Information on the Company Business Overview E.ON Energie Trading , Item 5. Operating and Financial Review and Prospects Results of Operations Exchange Rate Exposure and Currency Risk Management and Item 11. Quantitative and Qualitative Disclosures about Market Risks.

#### Item 4. Information on the Company. HISTORY AND DEVELOPMENT OF THE COMPANY

E.ON AG is a stock corporation organized under the laws of the Federal Republic of Germany. It is entered in the Commercial Register of the local court of Düsseldorf, Germany, under HRB 22315. E.ON s registered office is located at E.ON-Platz 1, D-40479 Düsseldorf, Germany, telephone +49-211-45 79-0. For U.S. federal securities law purposes, E.ON s agent in the United States is J.P. Morgan Chase & Co. of New York, 60 Wall Street (36th floor), New York, NY 10260.

The State of Prussia established VEBA in 1929 when it consolidated state-owned coal mining and energy interests (hence the original name VEBA, Vereinigte Elektrizitäts- und Bergwerks-Aktiengesellschaft). Ownership of VEBA was transferred from the dissolved Prussian state to the Federal Republic of Germany. VEBA was partially privatized in 1965, leaving the German government with a 40.2 percent share. After several subsequent offerings, privatization was completed in 1987 when the German government offered its remaining 25.5 percent share to the public. During and since the privatization process, VEBA AG evolved into a management holding company, providing strategic leadership and resource allocation for the entire Group.

#### **VEBA-VIAG MERGER**

On June 16, 2000, VEBA AG merged with VIAG AG, one of the largest industrial groups in Germany. VEBA AG was subsequently renamed E.ON AG. The merger of VEBA and VIAG to form E.ON has created the fourth largest industrial group in Germany, based on market capitalization at year-end 2002, with sales of 37.1 billion in fiscal 2002.

In order to effectuate the merger, VEBA and VIAG submitted an application to the Merger Task Force of the European Commission on December 14, 1999. The EU Commission examined the planned merger and, with its notification of June 13, 2000, declared it to be compatible with the common market. The EU Commission s approval required VEBA and VIAG to commit to make certain divestments in their combined electricity and chemical operations, and to give undertakings to 1) waive transfer charges for cross-zone deliveries of electricity within Germany, 2) purchase a certain minimum amount of electricity from VEAG Vereinigte Energiewerke Aktiengesellschaft (VEAG), a utility primarily active in the eastern part of Germany, at market rates during the period ending on December 31, 2007, and 3) provide additional interconnector capacity on the border between Germany and Denmark. For details about the divestments and other commitments made with respect to the Company s energy operations, see Business Overview E.ON Energie. For details about the Company s chemicals divestments, see Business Overview Chemicals.

The merger of VEBA and VIAG was legally implemented by merging VIAG AG into VEBA AG, with VEBA AG continuing as the surviving entity. The newly-merged company then received the new name E.ON AG. On June 16, 2000, the merger was entered into the Commercial Register in Düsseldorf. Upon registration with the Commercial Register in Düsseldorf, the merger was completed and became effective for

purposes of U.S. GAAP as of July 1, 2000. VIAG AG was dissolved and its assets and liabilities were transferred to VEBA AG. Simultaneously, each VIAG shareholder, with the exception of VEBA AG, received two shares of the new company in exchange for each five VIAG shares held. Pursuant to this exchange ratio, the former VIAG shareholders (with the exception of VEBA AG) therefore held 33.1 percent of the company immediately after the merger, while the former VEBA shareholders held 66.9 percent. For information about certain claims brought by former VIAG shareholders regarding the share exchange ratio used in the VEBA-VIAG merger, see Item 8. Financial Information Legal Proceedings.

#### GROUP STRATEGY

E.ON aspires to become one of the world's leading energy service providers while aiming to become best in class in the production, distribution and sale of electricity and gas. To achieve this goal, E.ON plans to grow its business through acquisitions and to continue to cut costs and implement restructuring programs throughout its energy activities. E.ON believes that the integrated utility business model is best suited for its target markets and its core competencies and consequently aims to extend this model to new markets. As an integrated energy company active in both production and retailing, E.ON believes it benefits from certain natural hedges against changes in energy prices, while being well placed to capitalize on possible synergy and arbitrage opportunities resulting from the ongoing consolidation in the industry, including convergence among suppliers of electricity and gas. In addition, E.ON believes its innovative brand character and attractive retail products, combined with its position as an energy service provider, distinguish it from its competitors.

As it focuses on energy, E.ON will seek to maximize the value of its non-core businesses by divesting them at an appropriate time. E.ON expects to use the proceeds from these disposals to play an active role in the ongoing consolidation of Europe s energy sector and to finance acquisitions in the U.S. energy market.

The transformation of the company into a focused energy service provider with a global presence is currently underway, with significant divestment and acquisition activities ongoing. For more detailed information on the principal activities in implementing the transformation, see Powergen Acquisition, Ruhrgas, Business Overview E.ON Energie and Business Overview Powergen.

#### **POWERGEN ACQUISITION**

On April 9, 2001, E.ON made a pre-conditional offer of 765 pence (12.19) per share to the shareholders of the London- and Coventry-based British utility Powergen. The pre-conditions of the offer included making certain government and regulatory filings and the approval of regulatory authorities in a number of jurisdictions, including approvals from the European Commission and the Office of Gas and Electricity Markets in the United Kingdom. Due to Powergen s U.S. businesses, it was also a pre-condition of the offer that E.ON obtained a number of U.S. regulatory approvals, including approvals from the state utility regulators in Kentucky, Tennessee and Virginia, the U.S. Federal Energy Regulatory Commission and the SEC, which administers PUHCA. All of these pre-conditions were satisfied. In connection with its SEC application, E.ON has agreed, among other things, to divest VEBA Oel, Degussa, Viterra, Stinnes and VAW over a period of three to five years, and to register with the SEC as a holding company under PUHCA following the consummation of the transaction. VEBA Oel, Stinnes and VAW have already been sold. E.ON has begun to divest Degussa through a two-step process with RAG Aktiengesellschaft (RAG), which will result in RAG holding a majority of Degussa by May 31, 2004. For more information, see Ruhrgas.

Under PUHCA, E.ON AG, Powergen, LG&E Energy and any other company in the E.ON/ Powergen holding structure between E.ON, Powergen and LG&E Energy are classified as holding companies. As holding companies, they are required to be registered with the SEC or to obtain an exemption. E.ON, Powergen and each of the companies between E.ON and LG&E Energy have registered as holding companies under PUHCA and are

subject to regulation by the SEC. The SEC requires registered holding companies and their subsidiaries to receive SEC approval for many transactions, including:

the issuance of securities;

the acquisition of securities, utility assets and other businesses; and

lending to or guaranteeing obligations of any other company in the registered holding company corporate structure.

As a result of the acquisition, all of E.ON s subsidiaries that own or operate facilities used for generation, transmission or distribution of electricity or the retail distribution of gas outside of the United States are classified under the PUHCA as foreign utility companies. Transactions between any E.ON subsidiary that is a foreign utility company and an E.ON subsidiary that is not a foreign utility company are subject to the SEC regulation.

Under PUHCA and the rules promulgated by the SEC thereunder, no registered holding company or subsidiary thereof may pay dividends out of capital or unearned surplus, except pursuant to an order of the SEC. LG&E Energy is generally only allowed to pay dividends out of retained earnings.

As agreed between E.ON and Powergen, upon satisfaction of all conditions E.ON implemented the transaction under an alternative U.K. legal procedure known as a scheme of arrangement instead of a tender offer. The scheme of arrangement provided for the acquisition of all outstanding Powergen shares by virtue of an order of the English courts following approval of the transaction at a meeting of Powergen shareholders on April 19, 2002, convened by order of the court. The scheme of arrangement was approved by 98.3 percent of the Powergen shares held by Powergen shareholders present and voting (either in person or by proxy). On June 12, 2002, E.ON received SEC approval for the acquisition. On July 1, 2002, E.ON completed its acquisition of Powergen, which is now wholly owned by E.ON.

The total purchase price amounted to 7.6 billion (net of 0.2 billion cash acquired), and the assumption of 7.4 billion of debt. Goodwill in the amount of 8.9 billion resulted from the purchase price allocation. A significant deterioration in the market environment for Powergen s U.K. and U.S. operations triggered an impairment analysis in the third quarter of 2002 that resulted in an impairment charge of 2.4 billion, thus reducing the amount of goodwill associated with the transaction to 6.5 billion. For additional details on this charge, see Item 5. Operating and Financial Review and Prospects Results of Operations.

E.ON s acquisition of Powergen is the Company s most important step to date in implementing its international expansion strategy. Powergen s strong position in the U.K. electricity market significantly expands E.ON s geographic reach in Europe, while the acquisition of LG&E Energy, Powergen s Kentucky-based subsidiary, provides E.ON with entry into the United States, the world s largest energy market and one in which E.ON expects to devote further resources for expansion through acquisitions in coming years. For more information on Powergen, see Business Overview Powergen.

#### RUHRGAS

A major element in E.ON s implementation of its strategy of expanding its gas operations and building an integrated power and gas company is its acquisition of control over Ruhrgas, Germany s leading transporter of natural gas. Management believes that Ruhrgas upstream and midstream operations complement E.ON s own primarily downstream gas holdings, thus providing potential protection against the supply risks and earnings volatility that can characterize retail gas operations, while E.ON s financial resources can help Ruhrgas increase the level of investment in the enhancement and expansion of its activities. At the same time, the regional overlap of the two groups holdings in Scandinavia, the Baltic countries and Eastern Europe is seen as presenting opportunities for operating synergies and a base for future expansion. In addition, management believes E.ON and Ruhrgas together can assist the German government in achieving its climate policy goals by increasing the country s use of natural gas.

Ruhrgas is not publicly traded, and was, prior to the completion of the acquisition by E.ON, owned by a number of holding companies, with indirect stakes dispersed among a number of major industrial and energy companies both within and outside Germany.

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In 2001, E.ON concluded contracts for the purchase of significant shareholdings in Ruhrgas with BP p.l.c. (BP) and Vodafone Group plc (Vodafone). The aggregate consideration paid for these stakes was 3.3 billion. E.ON also reached an agreement in principle with RAG to acquire its Ruhrgas stakes. In January and February 2002, the German Federal Cartel Office blocked the consummation of the transactions with the aforementioned parties on the grounds that the proposed purchase would have had a negative effect on competition in the German gas market. E.ON appealed the decision to the German Economics Ministry, which has the power to overrule the Cartel Office if it determines a transaction would result in an overriding general benefit to the German economy. In March 2002, E.ON agreed to acquire ThyssenKrupp AG s interest in Ruhrgas for total consideration of 0.5 billion.

In May 2002, E.ON reached a definitive agreement with RAG to acquire RAG s more than 18 percent interest in Ruhrgas and to sell E.ON s majority interest in Degussa to RAG. Under the arrangement, RAG would acquire a majority shareholding in Degussa in two steps at a price of 38 per share. In the first step, in June 2002, RAG made a cash tender offer to Degussa s shareholders at a price of 38 per share. The parties definitive agreement provided that after completion of the tender offer RAG and E.ON would hold equal shareholdings of Degussa and would manage Degussa jointly. In the second step, E.ON is to sell enough shares to RAG at the above price to give RAG a 50.1 percent interest in Degussa by May 31, 2004. Degussa s Board of Management and Supervisory Board welcomed RAG s strategic plan and the cash tender offer. RAG partially finances its acquisition of its Degussa stake through a bank loan in the amount of 2 billion. The shares tendered by E.ON and a portion of the other shareholders to RAG were transferred as security to the lenders in order to secure the repayment of the loan, and E.ON had undertaken to re-purchase such shares from the lenders, at a price calculated on the basis of the then-current market price in certain cases of RAG s default under the loan. The RAG transaction was subject to the completion of E.ON s acquisition of Ruhrgas, and was to lapse if the acquisition had not been completed by January 31, 2003.

On July 3, 2002, E.ON reached agreements to acquire the 40 percent interest in Ruhrgas held indirectly by Esso Deutschland GmbH, Deutsche Shell GmbH, and TUI AG. The aggregate purchase price for this stake is 4.1 billion, and completion of these transactions would make E.ON the sole owner of Ruhrgas.

On July 5, 2002, E.ON was granted the ministerial approval it had requested for the acquisition of a majority shareholding in Ruhrgas. The ministerial approval was linked with stringent requirements designed to promote competition in the gas sector. Ruhrgas will have to auction 75 billion kilowatt hours ( kWh ) of natural gas to its competitors. In addition, E.ON and Ruhrgas are required to divest several shareholdings. These include the majority stake in Gelsenwasser AG ( Gelsenwasser ), the minority stakes in VNG AG, EWE Aktiengesellschaft and E.ON s stakes in Bayerngas GmbH ( Bayerngas ) and Stadtwerke Bremen Aktiengesellschaft ( Stadtwerke Bremen ). E.ON also announced that it will make significant capital investments in Ruhrgas. On the same day, E.ON completed the acquisition of 38.5 percent of Ruhrgas from BP, Vodafone and ThyssenKrupp AG.

A number of competitors with interests in the German energy industry filed complaints against the ministerial approval in the state Superior Court (*Oberlandesgericht*) in Düsseldorf and petitioned the court to issue a temporary injunction blocking the transaction. The court subsequently issued a series of orders in July, August and September 2002 that temporarily enjoined the Company s acquisition of a majority stake in Ruhrgas. In addition, the court prohibited the Company from exercising its shareholders rights with respect to the Ruhrgas stake it had acquired from BP, Vodafone and ThyssenKrupp AG until the takeover was approved. E.ON continued to maintain that the reasons given by the court in the summary proceedings leading to these orders did not justify its decision.

Following the issuance of the temporary injunction, on September 18, 2002, Germany s Federal Minister of Economics confirmed the essential aspects of the July 5 ministerial approval for E.ON s acquisition of Ruhrgas. However, the ministry linked its decision to a tightening of the requirements. Ruhrgas would also be required to sell its stakes in Bayerngas and Stadtwerke Bremen and all of the companies required to be disposed are to be granted special rights to terminate their existing purchase agreements with E.ON and Ruhrgas on a staggered basis. In addition, Ruhrgas will have to auction 200 billion kWh of natural gas to its competitors, with the minimum bid in such auctions being lower than the average border-crossing price. On this basis, the ministry asked the state Superior Court to lift its temporary injunction.



On December 17, 2002, the state Superior Court decided not to lift the temporary injunction, and formal proceedings (*Hauptverfahren*) regarding the injunction started in January 2003. On January 31, 2003, E.ON reached settlement agreements with all plaintiffs who had contested the validity of the ministerial approval. The settlement agreements with each of the nine plaintiffs differ in certain respects, though they can be divided into two groups. Those with EnBW Energie Baden-Württemberg (EnBW) and Fortum Oil and Gas Oy (Fortum) primarily entail the exchange of shareholdings in certain of the companies respective domestic and Northern European affiliates upon agreed conditions. In addition, E.ON has agreed to acquire a stake in Concord Power Verwaltungsgesellschaft GmbH (Concord Power) under an agreement with EnBW and the Saalfeld Group, the current owners of Concord Power. Concord Power plans to build a new Combined Cycle Gas Turbine Power Station in Lubmin on the Baltic Sea. The agreements with the remaining plaintiffs: Ampere AG, ares Energie AG, GGEW Gruppen- Gas- und Elektrizitätswerk Bergstraße AG, Stadtwerke Aachen Aktiengesellschaft, Stadtwerke Rosenheim GmbH & Co. KG and Trianel European Energy Trading GmbH, generally include commitments by E.ON to enter into gas and/or electricity supply contracts, make certain infrastructure improvements (particularly with regard to gas distribution), and provide specified access to the gas and electricity supply grids. Certain of these agreements also provide for the sale by E.ON of shareholdings or distribution assets and the related customer base at preferential prices or require E.ON to provide marketing support. These agreements also require E.ON to make other financial payments to the plaintiffs. In addition, Ruhrgas has reconfirmed to all the parties its commitment to open and fair competition in the gas market. The agreements are currently being reviewed by Germany s antitrust regulator.

In March 2003, E.ON acquired the remaining shares of Ruhrgas. E.ON s capital expenditures in 2003 for the completion of the acquisition of Ruhrgas will total approximately 4 billion. Beginning as of February 1, 2003, E.ON fully consolidated Ruhrgas.

Upon termination of the court proceedings, the Company completed the first step of the RAG/ Degussa transaction, *i.e.*, the Company acquired RAG s Ruhrgas stake for total consideration of 2.0 billion. E.ON tendered 37.2 million of its shares in Degussa to RAG at the price of 38 per share, receiving total proceeds of 1.4 billion. Following this transaction and the completion of the tender offer to the other Degussa shareholders, RAG and E.ON each hold a 46.5 percent interest in Degussa, with the remainder being held by the public.

According to publicly available sources, Ruhrgas is Germany s largest wholesaler of natural gas in terms of kWh. Ruhrgas imports gas from Russia, Norway, the Netherlands and the U.K. It provides gas supplies from these foreign and domestic sources based on long-term purchase contracts. The natural gas purchased on the markets is supplied to local distribution companies and industrial customers in Germany and increasingly also in neighbouring countries. For its supply and transmission business, Ruhrgas operates an approximately 11,000 km long pipeline system, as well as 12 underground storage facilities and 26 compressor stations. Ruhrgas holds several stakes in German and international gas transportation and distribution companies, including an approximately 5 percent investment in OAO Gazprom, Russia s main natural gas exploring and transporting company.

In 2001, the Ruhrgas group reported sales of 13,322 million and profit on ordinary activities of 791 million under German GAAP. In 2001, domestic production accounted for one-sixth of the company s supply portfolio. Ruhrgas AG sold 601 billion kWh of natural gas in 2001. Ruhrgas operations are primarily concentrated in the western part of Germany, but it has activities, particularly in gas distribution, throughout the country. Ruhrgas had 9,187 employees in 2001.

Certain selected financial data of Ruhrgas as of and for the year ended December 31, 2001 (prepared in accordance with German GAAP) are set forth in the table below. The Ruhrgas financial data set forth below, as well as all of the other information on Ruhrgas included in this annual report, have been obtained from publicly available sources, including Ruhrgas corporate website at www.ruhrgas.com. E.ON has not independently

verified such information. E.ON therefore does not accept responsibility for the accuracy or completeness of such information.

	Year Ended December 31, 2001
	( in millions)
Income Statement Data:	
Ruhrgas Group net sales	13,322
Raw material and consumables	11,510
Operating result	684
Participating interests and other interest	107
Profit on ordinary activities	791
Net income	491
Balance Sheet Data:	
Fixed assets	4,245
Current assets (including prepayments and accrued income)	3,806
Total assets	8,051
Gross debt	2,939
Provisions and extraordinary reserve items	2,320
Other liabilities (accruals and deferred income)	252
Stockholders equity(1)	2,540
Total liabilities and stockholders equity	8,051

(1) Includes minority interests of 42 million.

For more information of the impact of this transaction, see Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources.

#### OTHER SIGNIFICANT EVENTS

On January 17, 2003, E.ON agreed to sell its roughly 16 percent shareholding in Bouygues Telecom S.A. (Bouygues Telecom), the French wireless communications company, to Bouygues S.A. (Bouygues Group). Bouygues agreed to purchase the shares in two tranches.

In December 2002, E.ON arranged a credit facility of 15 billion with an international group of banks.

On October 21, 2002, Powergen acquired the U.K. retail energy business, certain gas supply contracts and three coal-fired power stations from the TXU Group.

On August 30, 2002, AV Packaging GmbH, a 49-51 joint venture of E.ON and Allianz Capital Partner GmbH, concluded an agreement to sell Schmalbach-Lubeca AG, the packaging company formerly owned by VIAG, to the U.S.-based Ball Corporation.

In July 2002, E.ON agreed to sell its 65.4 percent interest in Stinnes to Deutsche Bahn AG ( DB ) in connection with a cash tender offer DB later made to all Stinnes shareholders at a price of 32.75 per share. Under U.S. GAAP, Stinnes is accounted for as a discontinued operation.

On June 30, 2002, E.ON exercised the put option to sell its remaining 49.0 percent interest in VEBA Oel to BP. Under U.S. GAAP, VEBA Oel is accounted for as a discontinued operation.

In June 2002, E.ON exercised its put option to sell nearly 103 million shares of Orange S.A. to France Telecom.

In January 2002, E.ON agreed to sell VAW to the Norwegian company Norsk Hydro ASA. The closing of the transaction took place in March 2002. Under U.S. GAAP, VAW is accounted for as a discontinued operation.

During 2002, Degussa sold a number of non-core businesses, all of which are accounted for as discontinued operations under U.S. GAAP.

For details of these transactions, see the respective division descriptions in Business Overview and the description in Business Overview Discontinued Operations, Item 5. Operating and Financial Review and Prospects Acquisitions and Dispositions and Liquidity and Capital Resources.

#### CAPITAL EXPENDITURES

E.ON s aggregate capital expenditures for property, plant and equipment were 3.2 billion in 2002 (2001: 2.8 billion, 2000: 2.7 billion). For a detailed description of these capital expenditures, as well as E.ON s expected capital expenditures for the period beginning in 2003, see Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources.

#### **BUSINESS OVERVIEW**

#### INTRODUCTION

E.ON is the fourth-largest industrial group in Germany, measured on the basis of market capitalization at year-end 2002. In 2002, the Group was organized into four separate business divisions: E.ON Energie, Powergen, chemicals and real estate.

**E.ON Energie:** E.ON Energie is one of the largest privately owned European power companies in terms of electricity sales, with revenues of 19.5 billion (which included 933 million of electricity taxes that were remitted to the tax authorities) in 2002. E.ON Energie s core business consists of the ownership and operation of power generation facilities, the transmission and distribution/ supply of electric power, gas and heat and the supply of water and water-related services in Germany and continental Europe. The E.ON Energie division owns interests in and operates power stations with a total installed capacity of approximately 50,200 megawatts, of which E.ON Energie s attributable share is approximately 34,100 megawatts (not including mothballed, shut down and reduced power plants). Through its own operations, as well as through distribution companies, in most of which it owns a majority interest, E.ON Energie also distributes electricity, heat and gas to regional and municipal utilities, commercial and industrial customers and standard-rate customers, which together account for more than one-third of the electricity consumption of end users in Germany. E.ON Energie s minority interests in utilities are generally accounted for under the equity method. As a result, a portion of electricity-related earnings are recorded as income from equity interests and are not reflected in E.ON s consolidated revenues. Management views these associated companies as an integral part of the operations of E.ON Energie. In 2002, the E.ON Energie division contributed 52.7 percent of E.ON s revenues and recorded internal operating profit of 2.9 billion.

**Powergen:** Powergen is an international, integrated energy company with its principal operations in the United Kingdom and the United States. In the six months following E.ON s completion of its acquisition of Powergen on July 1, 2002, Powergen recorded revenues of 4.5 billion. Powergen and its associated companies are actively involved in the ownership and operation of power generation facilities, as well as the distribution and supply of electric power and gas. On October 21, 2002, Powergen acquired the U.K. retail energy business, certain gas supply contracts and three coal fired power stations from TXU Group, thereby adding approximately 5.5 million retail customers. The Powergen division owns interests in and operates power stations with a total installed capacity of approximately 24,300 megawatts, of which Powergen s attributable share is approximately 20,200 megawatts (not including mothballed and shut down power plants). In the six months following its acquisition, the Powergen division contributed 12.1 percent of E.ON s revenues and recorded internal operating profit of 0.3 billion.

**Chemicals:** Degussa is one of the major specialty chemical companies in the world. In May 2002, E.ON reached a definitive agreement with RAG to sell a portion of E.ON s majority interest in Degussa to RAG and to acquire RAG s more than 18 percent interest in Ruhrgas in a two step transaction. Upon termination of the court proceedings that had temporarily enjoined the Company from acquiring control of Ruhrgas in late January 2003, E.ON completed the first step of the RAG/ Degussa transaction by acquiring RAG s Ruhrgas stake and tendering 37.2 million of its shares in Degussa to RAG at the price of 38 per share, receiving total proceeds of 1.4 billion. Following this transaction and the completion of the tender offer to the other Degussa shareholders, RAG and

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E.ON each hold a 46.5 percent interest in Degussa, with the remainder being held by the public. In the second step, E.ON is to sell enough shares to RAG at the above price to give RAG a 50.1 percent interest in Degussa by May 31, 2004. Prior to that time, E.ON and RAG are to operate Degussa under joint control. Degussa focuses on specialty chemicals, which are grouped by business unit in six core divisions: Health & Nutrition, Construction Chemicals, Fine & Industrial Chemicals, Performance Chemicals, Coatings & Advanced Fillers, and Specialty Polymers. During 2002, Degussa disposed of most of the non-core businesses it had earmarked for divestiture and expects to divest its remaining non-core businesses by the end of 2003, subject to market conditions. In 2002, Degussa had revenues of 11.8 billion and internal operating profit of 0.7 billion, and contributed 31.7 percent of E.ON s revenues.

**Real Estate:** Viterra, E.ON s real estate group, is primarily engaged in two businesses: residential real estate and real estate development. Viterra is Germany s largest private owner of residential property, with a property portfolio at year-end 2002 of approximately 165,000 housing units. Viterra also held approximately 90 commercial units at year-end. In 2002, E.ON s real estate division had revenues of 1.2 billion and internal operating profit of 0.2 billion, and contributed 3.3 percent of E.ON s revenues.

Until the end of 2001, E.ON reported its telecommunications activities as a separate segment. These activities comprise a 50.1 percent interest in the Austrian mobile telecommunications network operator Connect Austria Gesellschaft für Telekommunikation GmbH (Connect Austria) and a minority interest in the French mobile telecommunications network operator Bouygues Telecom. E.ON considers its former telecommunications division to be of minor significance. Accordingly, as of January 2002, E.ON is reporting the results of these activities under Holding/others in its segment reporting. Effective January 1, 2002, Connect Austria is accounted for at equity in E.ON s Consolidated Financial Statements, as was Bouygues Telecom until divestment of the first tranche of the shares to the Bouygues Group.

For information on E.ON s discontinued operations, including its former oil, distribution/logistics, aluminum and silicon wafers divisions, as well as certain activities of the chemicals and real estate divisions, see Discontinued Operations.

The following table sets forth the revenues of E.ON by division for 2002, 2001 and 2000:

	2002	2002		2001		2000(1)	
	( in millions)	%	( in millions)	%	( in millions)	%	
E.ON Energie(2)	19,518	52.7	16,227	43.5	11,027	28.2	
Powergen(3)	4,476	12.1					
Chemicals(4)	11,765	31.7	16,337	43.8	17,435	44.6	
Real Estate(4)	1,226	3.3	875	2.4	947	2.4	
Holding/others(5)	74	0.2	3,834	10.3	9,688	24.8	
Total Revenues(6)	37,059	100.0	37,273	100.0	39,097	100.0	

- (1) Includes revenues of the former VIAG Group in the E.ON Energie and chemicals divisions, as well as in others , beginning as of July 1, 2000.
- (2) Includes electricity taxes of 933 million in 2002, 694 million in 2001 and 349 million in 2000.
- (3) Includes revenues of Powergen beginning as of July 1, 2002.
- (4) Excludes the revenues of activities accounted for as discontinued operations. For more details, see Discontinued Operations and Note 4 of the Notes to Consolidated Financial Statements.
- (5) Includes the parent company and effects from consolidation, as well as the revenues of the former telecommunications division, and of Klöckner and VEBA Electronics LLC (VEBA Electronics) of the former distribution/logistics division. For 2000, includes three months consolidated revenues of Schmalbach-Lubeca AG, a packaging company that had been 59.8 percent owned by the former VIAG Group, in 2000.

(6) Excludes intercompany sales.

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Most of E.ON s operations are in Germany. German operations produced 62.6 percent of E.ON s revenues (measured by location of operation) in 2002 (2001: 62.9 percent; 2000: 56.5 percent). E.ON also has a significant presence outside Germany representing 37.4 percent of revenues by location of operation for 2002 (2001: 37.1 percent; 2000: 43.5 percent). In 2002, approximately 55.6 percent (2001: 48.7 percent; 2000: 43.0 percent) of E.ON s revenues were derived from customers in Germany and 44.4 percent (2001: 51.3 percent; 2000: 57.0 percent) from customers outside Germany. For more details about the segmentation of E.ON s revenues by location of operation and customers for the years 2002, 2001 and 2000, see Note 31 of the Notes to Consolidated Financial Statements. At December 31, 2002, E.ON had 107,856 employees, approximately 60.9 percent of whom were employed in Germany. For more information about employees, see Item 6. Directors, Senior Management and Employees.

E.ON believes that as of December 31, 2002, it had close to 478,000 shareholders worldwide. E.ON s shares, all of which are Ordinary Shares, are listed on all eight German stock exchanges, as well as on the Swiss electronic stock exchange. They are also actively traded over the counter in London. E.ON s American Depositary Shares (ADSs), each of which represents one Ordinary Share, are listed on the New York Stock Exchange (NYSE).

#### **E.ON ENERGIE**

#### Overview

Following the VEBA-VIAG merger, the merger of PreussenElektra and Bayernwerk formed the new E.ON Energie on July 14, 2000. E.ON Energie, which is wholly owned by E.ON, is one of the largest European power companies in terms of electricity sales. E.ON Energie had revenues of 19.5 billion (which included 933 million of electricity taxes that were remitted to the tax authorities), 16.0 billion of which in Germany, and internal operating profit of 2.9 billion in 2002. E.ON Energie is responsible for all of E.ON s energy activities in Germany and continental Europe and is one of the four interregional electric utilities in Germany that are interconnected in the western European power grid.

The merger enabled E.ON Energie to realize cumulative cost savings of approximately 700 million through the end of 2002, as detailed below.

Combining the two companies procurement of raw materials and third party services, which resulted in more favorable price terms, and combining the two companies administrative operations, thus reducing overhead costs (225 million).

Combining trading, marketing and supply activities (175 million).

Combining the management and operation of the two companies power plants and transmission and distribution assets. In particular, E.ON Energie was able to optimize the operation sequence for the plants and lower reserve capacities, as well as reducing related overhead costs (250 million).

Merger of Synergis GmbH (Synergis), an IT services company in which E.ON Energie held a 49 percent stake, and Gedos mbH (GEDOS), a wholly owned subsidiary of E.ON Energie active in the IT services business forming is:energy GmbH. Synergies were also realized through the cooperation of the majority owned regional gas distributors Thüga and Contigas Deutsche Energie AG (Contigas) forming new Thüga (50 million).

By the end of 2002, E.ON Energie had realized all of the expected synergy benefits. E.ON Energie incurred transaction costs associated with the merger of PreussenElektra and Bayernwerk of approximately 300 million, all of which had been incurred as of December 31, 2002.

In order to further focus its energy business, E.ON Energie entered into the following transactions in 2002 and early 2003:

In 2002, E.ON Energie significantly strengthened its position in Germany by acquiring or increasing its share of the following three German regional distribution companies. Following these transactions, E.ON

Energie controls a majority stake in all but one of the German regional distribution companies in which it has an interest.

In May 2002, E.ON Energie increased its stake in EAM from 46.0 percent to a majority by acquiring additional shares from municipal shareholders. As of December 31, 2002, E.ON Energie held 73.3 percent of EAM, which is located in Kassel and supplied approximately 10 TWh of electricity to customers, mainly in Hesse, in 2002.

In June 2002, E.ON Energie acquired all of the shares in E.ON Wesertal Beteiligungsgesellschaft mbH (EWB), formerly Fortum Energie GmbH, from the Finnish utility Fortum. EWB is a holding company for the wholly owned Elektrizitätswerk Wesertal GmbH (EWW). EWW is located in Hameln and supplied approximately 3 TWh of electricity to customers, mainly in the Eastern Westphalia region and Lower Saxony, in 2002. By acquiring EWW and Elektrizitätswerk Minden Ravensberg (EMR), E.ON Energie increased its interest in the Grohnde nuclear power station to 83.3 percent.

In July 2002, E.ON Energie increased its stake in EMR from 25.1 percent to a majority by acquiring additional shares from municipal shareholders. As of December 31, 2002, E.ON Energie held 55.2 percent of EMR, which is located in Herford, and supplied approximately 3 TWh of electricity to customers, mainly in the eastern Westphalia region, in 2002.

In July 2002, E.ON Energie acquired the remaining 10.1 percent of the outstanding shares of Hein Gas Hamburger Gaswerke GmbH (Hein Gas) from BEB Erdgas und Erdöl GmbH. Following this acquisition, all of the shares of Hein Gas are held by members of the E.ON Energie group, with 71.9 percent of the shares being held directly by E.ON Energie. Hein Gas is a regional gas distributor mainly in the city of Hamburg and also supplies gas in the area around Schwerin through its subsidiary Hanse Gas GmbH. Its aggregate gas sales totaled 33 TWh in 2002.

In August 2002, E.ON Energie increased its stake in Thüga AG ( Thüga ) to 87.1 percent by acquiring an additional 25.1 percent of the outstanding shares from Bayerische Landesbank. The remaining shares of Thüga are held by Ruhrgas (10.0 percent) and the public market (2.9 percent). Thüga is an energy distributor that specializes in minority shareholdings in municipal and regional gas and electricity companies, many of which are controlled by local governments.

In 2002 and the beginning of 2003, E.ON Energie through its regional distributors and through Thüga purchased minority shareholdings in a number of smaller energy companies controlled by municipalities in Germany. Although most of these investments have been rather small in terms of the amounts paid, management believes that they have a significant strategic value in enhancing E.ON Energie s competitive position in the relevant markets.

In order to further streamline its German distribution business, E.ON Energie has begun to merge individual distribution companies in which it holds a majority interest into larger entities. E.ON Energie expects the mergers to generate cost savings and to improve operational efficiency.

In 2002, E.ON Energie started preparations to merge EWW, EMR and PESAG Aktiengesellschaft into a single larger regional distribution company, in which E.ON Energie will hold a majority stake. The three companies sold approximately 10 TWh of electricity and 5 TWh of gas in 2002. The merger is expected to be finalized in 2003.

In late 2002, E.ON Energie also started preparations to merge Schleswag AG (Schleswag), the northern German electricity and gas distribution company in which it holds a 65.3 percent stake, with regional gas distributor Hein Gas, which is wholly owned by E.ON Energie group companies. E.ON Energie will hold a majority stake in the merged company. In 2002, the two companies sold approximately 12 TWh of electricity and 45 TWh of gas to customers in Schleswig-Holstein, Hamburg and Mecklenburg-Western Pomerania. The merger is expected to be finalized in 2003.



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E.ON Energie also broadened its international scope by continuing to enhance its presence in its target markets, while divesting other shareholdings in Germany and abroad:

In January 2002, E.ON and E.ON Energie sold their indirect shareholdings of 6.5 percent each in STEAG AG (STEAG), a German independent power producer, to RAG.

In 2002, E.ON Energie increased its share of the Finnish municipal electricity company Espoon Sähkö Oyj (Espoon Sähkö) to 65.6 percent in several steps. First, E.ON Energie acquired a 34.0 percent stake from the city of Espoo. In addition, E.ON Energie acquired an additional 31.6 percent of the outstanding shares through a public tender offer and additional share purchases.

In July 2002, E.ON Energie divested its 24.5 percent equity interest in Swiss utility Watt AG ( Watt ) to Nordostschweizerische Kraftwerke AG, following management s determination that Watt s shareholder structure would not allow E.ON Energie to gain sufficient operational influence. E.ON Energie is now focusing its Swiss exposure on its 20 percent stake in the regional Swiss utility BKW FMB Energie AG ( BKW ).

In September 2002, E.ON Energie acquired a 49 percent share in Slovakian regional electricity distributor Západoslovenská energetika, a.s. (ZSE). Management believes that ZSE has a market share of about 33 percent and is Slovakia's largest energy electricity supplier. ZSE is located in the area around the city of Bratislava, where management believes the Slovakian energy market is growing most rapidly. The Slovakian state holds the remaining 51.0 percent interest in ZSE and has an option to sell this stake to E.ON Energie until 2008.

In November 2002, E.ON Energie increased its stake in Hungarian regional distributor Észak-dunántúli Áramszolgáltató Rt. (ÉDÁSZ) to 90.6 percent by acquiring an additional 62.9 percent of the outstanding shares through a public tender offer and additional share purchases. ÉDÁSZ sold approximately 7 TWh of electricity in 2002.

In connection with E.ON s acquisition of Ruhrgas, E.ON has committed to divest several of its subsidiaries. For more information, see History and Development of the Company Ruhrgas.

#### Strategy

E.ON Energie has primary responsibility for implementing the Group s energy strategy in the German and continental European energy markets, including the regions of Northern Europe, Central and Eastern Europe, the Benelux countries and the Alpine region. Management believes that the strong position in the German electricity market resulting from the merger of PreussenElektra and Bayernwerk provides E.ON Energie with a solid base to expand into the combined supply of electricity and gas, as well as other energy-related services throughout Germany and continental Europe.

In implementing its strategy, E.ON Energie focuses on two primary objectives:

**Growing the core business.** In Germany, E.ON Energie seeks to achieve market leadership in power and gas retailing. E.ON believes the launch of the E.ON brand has been a great success, with customer awareness of the company and its products reaching significant levels since introduction of the brand in 2000. E.ON also intends to grow further by playing an active role in the ongoing privatization of Germany s municipal utilities.

E.ON Energie is actively seeking to enlarge its European footprint, primarily in neighboring Northern Europe, Central and Eastern Europe, the Benelux countries and the Alpine region. E.ON Energie believes this approach creates opportunities to achieve synergies with E.ON Energie s current operations and capitalizes on the proximity of these countries to E.ON Energie s primary supply business in Germany.

**Continuing to deliver value.** As it continues to expand and consolidate its activities throughout Germany and continental Europe, E.ON Energie is focusing significant attention on the successful integration of the acquired businesses. Management believes that the division s extensive experience in Germany will facilitate this process of integration and enhance the larger group s ability to continue to deliver value to its customers. In

particular, the dissemination of best practice business methods throughout the E.ON Energie division and benchmarking with other Group companies is expected to improve operating efficiencies.

E.ON Energie aims to take advantage of economies of scale it expects to realize by consolidating the gas and electricity retail and distribution activities of its regional companies. In order to further strengthen the profitability of its business, E.ON Energie follows a margin-oriented sales strategy and expects to profit from rising wholesale prices.

#### **Operations**

Electricity generated at power stations is delivered to customers through an integrated transmission and distribution system. The principal segments of the electricity industry in the countries in which E.ON Energie operates are:

Generation:	the production of electricity at power stations;
Transmission:	the bulk transfer of electricity across an interregional power grid, which consists mainly of
	overhead transmission lines, substations and some underground cables (at this level there is a
	market for bulk trading of electricity, through which sales and purchases of electricity are made
	between generators, regional distributors, and other suppliers of electricity);
Distribution and Supply:	the transfer and sale of electricity from the interregional power grid and its delivery, across local
	distribution systems, to customers; and
Trading:	the buying and selling of electricity and related products for purposes of portfolio optimization,
	arbitrage and risk management.

E.ON Energie and its associated companies are actively involved in all segments of the electricity industry. The core business consists of the ownership and operation of power generation facilities and the transmission and distribution of electricity and, to a lesser extent, gas and heat to interregional, regional and municipal utilities, traders, industrial and special-rate customers and standard-rate customers (households and small businesses). In addition, E.ON Energie is increasingly active in the natural gas business.

The following table sets forth the sources of E.ON Energie s electric power in kWh in 2002 and 2001:

Sources of Power	2002 million kWh	2001 million kWh	% Change
Own production	155,736	141,796	9.8
Purchased power	106,188	93,338	13.8
from power stations in which E.ON Energie has an interest of 50 percent or less from other suppliers Total power supplied*	<i>14,725</i> <i>91,463</i> 261,924	<i>17,488</i> <i>75,850</i> 235,134	(15.8) 20.6 11.4
Power used for operating purposes, network losses and pump storage	(11,360)	(9,443)	20.3
Total	250,564	225,691	11.0

\* Excluding physically-settled electricity trading activities of 162,543 million kWh and 92,467 million kWh in 2002 and 2001, respectively.

In 2002, E.ON Energie procured a total of 261.9 billion kWh of electricity, including 11.4 billion kWh used for operating purposes, network losses and pumped storage. E.ON Energie purchased a total of 14.7 billion kWh of power from power stations in which it has an interest of 50 percent or less. In addition, E.ON Energie purchased 91.5 billion kWh of electricity from other utilities, 10.8 billion kWh of which were from Scandinavian utilities and 21.7 billion kWh of which were from VEAG/Vattenfall Europe AG (Vattenfall Europe ), the
eastern German interregional utility, for redistribution by eastern German regional distributors. In addition, E.ON Energie purchased power from local generators in Hungary totalling 8.5 billion kWh.

Following the abolition of separate geographic operating areas for utilities under the New Energy Law (as defined in Regulatory Environment) in 1998, E.ON Energie began to supply power nationwide and to broaden its activities in neighboring countries. E.ON Energie is thus significantly expanding beyond its traditional home markets, which include parts or all of the German states of Schleswig-Holstein, Lower Saxony, Hesse, North Rhine-Westphalia, Mecklenburg-Western Pomerania, Brandenburg, Saxony-Anhalt, Thuringia and Bavaria. E.ON Energie supplied about one-third of the electricity consumed by end users in Germany in 2002. Electricity accounted for 73.4 percent of E.ON Energie s 2002 sales (2001: 73 percent), gas revenues represented 16.8 percent (2001: 17 percent), water revenues 1.4 percent (2001: 2 percent), district heating 3.6 percent (2001: 2 percent) and other activities 4.8 percent (2001: 6 percent).

The following table sets forth the total distribution of E.ON Energie s electric power in 2002 and 2001:

Distribution of Power* to	Total 2002 million kWh	Total 2001 million kWh	% Change in Total
Non-consolidated interregional, regional and municipal			
utilities	139,547	104,672	33.3
Industrial and special-rate customers	70,605	86,671	(18.5)
Standard-rate customers	40,412	34,348	17.7
Total	250,564	225,691	11.0

\* Excluding physically-settled electricity trading activities of 162,543 million kWh and 92,467 million kWh in 2002 and 2001, respectively.

The changes in the volume of power distributed to the different classes of customers in 2002 compared to 2001 largely reflect changes in customer classifications, while the overall increase is primarily attributable to the contributions of newly-acquired companies. For further information on the distribution of power in Germany, see German Operations Distribution and Supply. For an explanation of changes in electricity distributed, see Item 5. Operating and Financial Review and Prospects Results of Operations. E.ON Energie s total gas sales volume amounted to 117.0 billion kWh in 2002, a 22.1 percent increase from 95.8 billion kWh in 2001.

E.ON Energie s company structure reflects the different characteristics of electricity, gas and water utilities, and in addition, reflects the individual segments of its electricity business: generation, transmission, distribution and supply and trading. The following chart shows the major subsidiaries of the E.ON Energie group, their respective fields of operation and the percentage of each held by E.ON Energie.

#### **E.ON ENERGIE GROUP**

#### **Holding Company**

E.ON Energie AG

Leading entity for the management and coordination of the group activities. Centralized strategic, controlling and service functions. **Conventional Power Plants** 

E.ON Kraftwerke GmbH (100%)

Power generation by conventional power plants. Waste incineration. E.ON Fernwärme GmbH (100%)

#### District heating. Nuclear Power Plants

E.ON Kernkraft GmbH (100%)

Power generation by nuclear power plants.

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### Hydroelectric Power Plants

E.ON Wasserkraft GmbH (100%)

Power generation by hydroelectric power plants. Transmission

E.ON Netz GmbH (100%)

Power transmission across high voltage grids (110 kilovolt-380 kilovolt). Load distribution. **Distribution, Supply and Trading of Electricity** E.ON Sales & Trading GmbH (100%)

Supply of electricity and energy services to large customers as well as to regional and municipal distributors.

Centralized wholesale functions. Optimization of energy procurement costs.

Physical energy trading and trading of energy-based financial instruments and related risk management.

Optimization of the value of the power plants assets in the market place.

Ten regional distributors across Germany (shareholding percentages range from 27 to 100 percent; nine of the ten are majority owned and consolidated).

Distribution and supply of electricity, gas, heat and water to retail customers. Energy consulting. Ruhr Energie GmbH (100%)

Customer service and electricity and heat supply to industrial customers in the Ruhr region. **Distribution and Supply of Gas** Hein Gas Hamburger Gaswerke GmbH (100%)

Distribution and supply of gas and heat to retail customers in the Hamburg and Schwerin regions. **Integrated Water Utility** 

Gelsenwasser AG (80.5%)

Regional water procurement and supply. Joint ventures in the field of wastewater treatment. Regional gas supply. **Municipal and Regional Shareholdings** Thüga AG (87.1%)

Minority shareholdings in municipal and regional distributors (mainly distributors and suppliers of electricity, gas and water) to which Thüga provides operational and managerial advice.

Own distribution and supply activities (electricity and gas).

Majority shareholding in gas distribution companies in Italy.

#### **Major International Shareholdings**

Sydkraft AB (55.2%)

Generation, distribution, marketing, trading and sale of electricity, gas and heat, mainly in Scandinavia. Espoon Sähkö Oyj (65.6%)

Generation, distribution, marketing, trading and sale of electricity and heat in Finland. E.ON Benelux Generation N.V. (100%)

Power generation by conventional power plants. District heating. E.ON Hungaria (100%)

Generation, distribution, marketing and sale of electricity and gas in Hungary through its group companies. E.ON Czech Holding AG (100%)

Generation, distribution, marketing and sale of electricity and gas in the Czech Republic through its shareholdings in regional distributors. Západoslovenská energetika, a.s. (49%)

Distribution, marketing and sale of electricity in Slovakia. Services/ Others E.ON Engineering GmbH (100%)

Group internal and external consulting and planning services in the energy sector. Marketing of expertise in the area of conventional, renewable, cogeneration and nuclear power generation. E.ON Energie Immobilien GmbH (100%); E.ON Energie Real Estate GmbH (100%)

Administration of real estate. E.ON Facility Management GmbH (51%)

Infrastructure services. Prüfungsgesellschaft für Energieversorgungunternehmen mbH (100%)

Internal auditing services. is:energy GmbH (74.8%)

IT services.

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### **German Operations**

### **Power Generation**

*General.* E.ON Energie owns interests in and operates electric power generation facilities in Germany with a total installed capacity of more than 33,500 megawatts (MW), its attributable share of which is approximately 25,300 MW (not including mothballed, shut down or reduced power plants). The power generation business division is subdivided into three units according to fuels used: E.ON Kraftwerke GmbH (E.ON Kraftwerke) owns and operates the power stations using fossil fuel energy sources, as well as waste incineration plants and renewable generation facilities, E.ON Kernkraft GmbH (E.ON Kernkraft) owns and operates the nuclear power stations and E.ON Wasserkraft GmbH (E.ON Wasserkraft) owns and operates the hydroelectric power plants.

Based on the consolidation principles under U.S. GAAP, E.ON Energie reports 100 percent of revenues and expenses from majority-owned power plants in its consolidated accounts without any deduction for minority interests. Conversely, 50 percent and minority-owned power plants are accounted for by the equity method. Power generation capacity in jointly owned plants is reported based on E.ON s ownership percentage.

The following table sets forth E.ON Energie s major electric power generation facilities (including cogeneration plants) in Germany, their total capacity, the stake held by E.ON Energie and the attributable capacity to E.ON Energie for each facility as of December 31, 2002, and their start-up dates.

### E.ON ENERGIE GERMAN ELECTRIC POWER STATIONS

		E.C	E.ON Energie s Share	
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date
Nuclear				
Brokdorf	1.370	80.0	1.096	1986
Brunsbüttel	771	33.3	257	1976
Emsland	1.329	12.5	166	1988
Grafenrheinfeld	1.275	100.0	1.275	1981
Grohnde	1,360	83.3	1,133	1984
Gundremmingen B	1,284	25.0	321	1984
Gundremmingen C	1,288	25.0	322	1984
Isar 1	878	100.0	878	1977
Isar 2	1,400	75.0	1,050	1988
Krümmel	1,260	50.0	630	1983
Stade (1)	640	66.7	417	1972
Unterweser	1,345	100.0	1,345	1978
Total	14 200		8 890	
Total	1,200		0,070	
Lignite				
Arzberg 5	104	100.0	104	1966
Buschhaus	330	100.0	330	1985
Kassel (1)	33	50.0	17	1988
Lippendorf S	865	50.0	433	1999
Schkopau	900	55.6	500	1995
Total	2,232		1,384	
Hard Coal				
Bexbach 1	714	33.3	238	1983

Buer (CHP)	70	100.0	70	1985
Datteln 1	95	100.0	95	1964
Datteln 2	95	100.0	95	1964
Datteln 3	113	100.0	113	1969
Farge	325	100.0	325	1969
GKW Weser/ Veltheim 2	100	51.7	52	1965

		E.ON Energie s Share		
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date
Hard Coal (continued)				
GKW Weser/ Veltheim 3	320	51.7	166	1970
Glückstadt	14	100.0	14	1983
Heyden	865	100.0	865	1987
Kiel	323	50.0	162	1970
Knepper C	345	100.0	345	1971
Mehrum C	654	50.0	327	1979
Rostock	508	50.4	256	1994
Scholven B	345	100.0	345	1968
Scholven C	345	100.0	345	1969
Scholven D	345	100.0	345	1970
Scholven E	345	100.0	345	1971
Scholven F	676	100.0	676	1979
Shamrock	132	100.0	132	1957
Staudinger 3	293	100.0	293	1970
Staudinger 5	510	100.0	510	1992
Wilhelmshaven	747	100.0	747	1976
Zolling	449	100.0	449	1986
Total	8,728		7,310	
Natural Gas	10	73	7	1003
Enden GT	50	100.0	50	1993
Enden OT	392	100.0	382	1972
Franken I/2	582 440	100.0	382	1975
GKW Weser/ Veltheim 4 GT	440	51.7	238	1970
GT Ummeln	400 60	51.7	31	1973
Huntorf	290	100.0	290	1975
Irsching 3	415	100.0	415	1974
Jena-Siid	109	73.0	145	1996
Kirchmöser	178	100.0	178	1994
Robert Frank 4	487	100.0	487	1973
Mersleben	2	73	1	1997
Mühlhausen-Grabe	10	73	7	1996
Staudinger 4	622	100.0	622	1977
Total	3.605		3.293	
	- ,		- ,	
Fuel Oil				
Audorf	87	100.0	87	1973
Hausham GT 1	25	100.0	25	1982
Hausham GT 2	25	100.0	25	1982
Hausham GT 3	25	100.0	25	1982
Hausham GT 4	25	100.0	25	1982
Ingolstadt 3	386	100.0	386	1973
Ingolstadt 4	386	100.0	386	1974
Itzehoe	87	100.0	87	1972
Wilhelmshaven	56	100.0	56	1973
Zolling GT 1	25	100.0	25	1976

Zolling GT 2	25	100.0	25	1976
Total	1,152		1,152	
Hydroelectric				
Aufkirchen	27	100.0	27	1924
Braunau-Simbach	100	50.0	50	1953
Egglfing	81	100.0	81	1944
Eitting	26	100.0	26	1925
	25			

		E.ON Energie s Share			
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date	
Hydroelectric (continued)					
Ering	73	100.0	73	1942	
Erzhausen	220	100.0	220	1964	
Feldkirchen	38	100.0	38	1970	
Gars	25	100.0	25	1938	
Happurg	160	100.0	160	1958	
Hemfurth	20	100.0	20	1915	
Jochenstein	132	50.0	66	1955	
Kachlet	54	100.0	54	1927	
Langenprozelten	164	100.0	164	1975	
Neuötting	26	100.0	26	1951	
Nußdorf	48	76.5	37	1982	
Oberaudorf-Ebbs	60	50.0	30	1992	
Passau-Ingling	86	50.0	43	1965	
Pfrombach	22	100.0	22	1929	
Reisach	105	100.0	105	1955	
Rosenheim	35	100.0	35	1960	
Roßhaupten	46	100.0	46	1954	
Schärding-Neuhaus	96	50.0	48	1961	
Stammham	23	100.0	23	1955	
Tanzmühle	28	100.0	28	1959	
Teufelsbruck	25	100.0	25	1938	
Töging	85	100.0	85	1924	
Walchensee	124	100.0	124	1924	
Waldeck 1	120	100.0	120	1931	
Waldeck 2	440	100.0	440	1975	
Wasserburg	24	100.0	24	1938	
Other run-of-river, pump storage and storage	889		843	n/a	
Total	3,402		3,108		
Others	185		150		
E.ON Energie Total Germany	33,504		25,287		
Mathballad/Shutdown/Daduard					
Arzberg 6	252	100.0	252	1074	
Arzberg 7	121	100.0	121	1974	
Aschaffenburg 21	150	100.0	150	1963	
Aschaffenburg 31	143	100.0	143	1971	
Finden 4	430	100.0	430	1972	
Franken II/1 (1)	206	100.0	206	1966	
Franken II/2 (1)	200	100.0	200	1967	
Irsching 1	151	100.0	151	1969	
Irsching 2	312	100.0	312	1972	
Offleben	280	100.0	280	1988	
Pleinting 1	292	100.0	2.92	1968	
Pleinting 2	402	100.0	402	1976	
Rauxel 2	164	100.0	164	1967	
Schwandorf D	292	100.0	292	1972	

Staudinger 1 (2)	249	100.0	249	1965
Staudinger 2	249	100.0	249	1965
Westerholt 1	138	100.0	138	1959
Westerholt 2	138	100.0	138	1961
Total	4,175		4,175	
Shutdown				
Scholven G (3)	672	50.0	336	1974
	26			

		E.O	N Energie s Share	
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date
Shutdown (continued)				
Scholven H (3)	672	50.0	336	1975
Schwandorf B (4)	99	100.0	99	1959
Schwandorf C (4)	99	100.0	99	1961
Total	1,542		870	

(1) For these power plants, the amount of attributable capacity as compared to E.ON Energie s ownership interest is varied by contract.

(2) Operates in winter, shutdown in summer.

(3) Not included in October 2000 shutdown program discussed below.

(4) Closed down before the shutdown program discussed below.

#### (CHP) Combined Heat and Power Generation.

In addition, E.ON Energie s international businesses have a total installed capacity of approximately 16,700 MW, of which approximately 8,900 MW is E.ON Energie s attributable share. For detailed information about E.ON Energie s international power generation facilities, see International Shareholdings.

In response to intense competition in Germany over wholesale prices, E.ON Energie has been forced to assess all of its production facilities very carefully with respect to actual and, in the medium term, expected profitability. In October 2000, as a result of this analysis, E.ON Energie decided to shut down or permanently suspend operations at certain power plants with a total installed capacity of 4,900 MW by the end of 2003. This decision primarily affects older and smaller units. E.ON Energie is in close contact and discussions with the affected communities and employees about this matter in order to achieve generally acceptable solutions. As of the end of 2002, E.ON Energie had already shut down or permanently mothballed power plants with a total installed capacity of 4,175 MW under this program.

E.ON Energie s German plants generate electricity with nuclear power, bituminous coal (commonly referred to as hard coal ), lignite, gas, fuel oil and water. The existing nuclear and hydroelectric power plants are E.ON Energie s cheapest source of power and, together with lignite-based power plants, are used mainly to cover the base load. Hard coal is utilized mainly for middle load, while the other energy sources are used primarily for peak load.

*Nuclear Power*. E.ON Energie operates its German nuclear power plants through the holding company E.ON Kernkraft. These nuclear power plants are required to meet applicable German safety standards, which are among the most stringent standards in the world (see

Environmental Matters ). For the reprocessing of their nuclear waste, E.ON Energie s nuclear power plants have contracts with Cogema in France and BNFL in the United Kingdom. The delivery of spent nuclear fuel rods for reprocessing is restricted by German law until June 30, 2005. Under German law, the Federal Republic of Germany is responsible for the final storage of all domestic nuclear waste at the expense of the generator.

Operators of nuclear power plants are required under German law to establish sufficient financial provisions for future obligations that arise from the use of nuclear power. The three required provisions are for: (1) management of spent nuclear fuel rods, which also includes the final storage of non-usable residual substances, (2) disposal of contaminated operating waste and (3) the eventual decommissioning of nuclear plants. At year-end 2002, E.ON Energie had a total of approximately 12.3 billion provided for these purposes in respect of nuclear power plants included in the consolidated accounts, consisting of 5.2 billion for management of spent nuclear fuel rods, 0.5 billion for disposal of operational waste and 6.6 billion for decommissioning costs. These provisions are stated net of advance payments of 0.8 billion. In determining its pro rata share of these provisions, provisions attributed to minority interests included in E.ON Energie s consolidated accounts have been deducted and

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provisions for nuclear plants in which E.ON Energie has a minority interest are added. At

year-end 2002, on such a pro rata basis, E.ON Energie s provisions for these purposes totalled 12.9 billion, as compared to 12.2 billion at year-end 2001. The increase reflects E.ON Energie s greater stake in the Grohnde power station. For additional details on these and other provisions, see Note 24 of the Notes to Consolidated Financial Statements.

In May 1995, PreussenElektra decided to shut down its nuclear power plant at Würgassen for economic reasons and, in October 1995, it applied for and received permission from the German authorities to decommission and dismantle the Würgassen plant in accordance with German nuclear energy legislation. E.ON Energie expects the decommissioning of Würgassen, which began in October 1995, to take approximately 12 years. E.ON Energie has provided 1.0 billion for the decommissioning of Würgassen, including the management of spent nuclear fuel rods and the dismantling of the plant.

After the German Social Democratic Party and the German Green Party (*Bündnis 90/ Die Grünen*) (together, the Coalition ) were elected to lead the German federal government in 1998, the Coalition agreed to phase out the generation of nuclear energy in Germany. The Coalition also agreed to hold consensus-forming discussions with operators of nuclear power plants in order to find a solution to various issues in the area of nuclear energy agreeable to all parties. The discussions began in January 1999 and resulted in an agreement on nuclear power in June 2001 and in an amendment of the German Nuclear Power Regulations Act (*Atomgesetz*, or AtG ), which was passed by the German parliament in December 2001 and took effect in April 2002.

Among other things, the amendment provides as follows:

**Termination of Fuel Reprocessing:** The transport of spent fuel elements for reprocessing will be allowed until June 30, 2005 at the latest. Following this deadline, the operators must store spent fuel in interim facilities on the premises of the nuclear plants. Such storage requires the approval and construction of interim storage facilities. E.ON believes this transition period from reprocessing to on-site storage will allow it to satisfy its obligations under its reprocessing contracts with Cogema and BNFL.

**Nuclear Phase-out:** The operators of the nuclear plants have agreed to a specified number of operating kilowatt hours for each nuclear plant. This number has been calculated on the basis of 32 years of plant operation using a high load factor. The operators may trade allotted kilowatt hours among themselves. This means that if one nuclear plant closes before it has produced the allotted amount of kilowatt hours, the remaining kilowatt hours may be transferred to another nuclear power plant.

As part of the agreement, the German federal government has agreed not to institute any future changes in German tax law which discriminate against nuclear power operations in comparison with other forms of power generation.

The Company considers its provisions with respect to nuclear power operations to be adequate with respect to the costs of implementing the agreement. E.ON Energie has no plans to construct any new nuclear power plants. Independent from this agreement on nuclear power, in 2000 E.ON Kernkraft decided to decommission the nuclear power plant in Stade for economic reasons beginning in 2003.

In March 1999, the German parliament passed the Tax Relief Act 1999/2000/2002 (the Tax Relief Act ). The Tax Relief Act contains new rules for the tax treatment of nuclear provisions. Furthermore, the German tax authorities have adopted a more stringent interpretation of the previous law with respect to the years before 1999. The changes to the tax status of the provisions include the following:

The accrual period for decommissioning costs has been extended from 19 to 25 years. This requires E.ON Energie to release a portion of the provisions it had previously established for tax purposes based on the shorter accrual period.

Certain parts of the provisions concerning MOX fuel elements, which are fuel elements containing plutonium produced in the reprocessing process, have to be reversed. The costs must be capitalized as incurred instead.

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Those portions of the provisions that have been established in past years relating to the financing and operational costs for final storage of nuclear waste have been disallowed. The costs of these items now will be tax-deductible when they are actually expensed.

In accordance with the new general rule for long-term provisions, all types of provisions for nuclear power must now be discounted. The Tax Relief Act sets the discount rate at 5.5 percent. This also applies to provisions that have previously been established, which must be released to the extent they do not reflect this discounting.

The Tax Relief Act provides that the tax payments resulting from the reversal of provisions necessitated by the extension of the accrual period, the disallowance of portions of the provisions related to costs of final storage of waste and the discounting of the provisions are spread over a period of ten years beginning in 1999.

In 2002, the Company concluded its general discussions with the tax authorities regarding the treatment of the years prior to 1999, and the tax calculations for these years have been agreed in principle. Part of the resulting tax has already been paid and the Company has established a provision to cover the remaining amounts, which are expected to be paid in 2003. The years from 1999 are still under review.

None of the changes to the tax treatment of nuclear provisions described above cause any changes to the financial statements the Company prepares for other purposes. Due to the recognition of a related deferred tax asset generated by temporary differences between the balance sheet prepared for financial reporting purposes and the balance sheet for tax purposes, the changes in the tax status of the provisions for nuclear waste disposal had no material adverse effect on the Company s consolidated net income in 1999. However, the Tax Reduction Act, which was enacted in October 2000, included a lowering of the corporate income tax from 40 percent to 25 percent, which has resulted in a reduction of the deferred tax asset relating to the provisions. The increase of the corporate tax rate to 26.5 percent for the year 2003 only under the Flood Victims Solidarity Act has no significant impact on deferred taxes. For a general description of the Tax Reduction Act and the Flood Victims Solidarity Act, see Operating Environment Economic Background Germany.

E.ON Kernkraft purchases fuel elements for nuclear power plants from independent domestic and international suppliers. E.ON Energie considers the supply of uranium and fuel elements on the world market to be adequate.

*Hard Coal.* In 2002, approximately 40 percent of the hard coal used by E.ON Energie's German operations was mined in Germany. Traditionally, hard coal is mined in Germany under much more difficult conditions than in other countries. Therefore, German coal production costs are substantially above world market levels, and E.ON Energie strongly believes they will continue to remain high. Although electricity producers were in the past required to purchase German coal, they are now free to purchase coal from any source. To encourage the purchase of German coal, the German federal government has been paying direct subsidies to German producers enabling them to offer domestic coal at world market prices, although it is now in the process of reducing such subsidies. Due to high production costs and the reduction in subsidies, the volume of German coal production has shown a relatively steady decline in the past and is expected to continue to decline further. However, E.ON Energie expects that adequate supplies of imported coal for its operations will be available on the world coal market at acceptable prices. Hard coal is generally available from multiple sources, though prices are determined on international commodities markets and are therefore subject to fluctuations.

*Lignite.* German lignite, also known as brown coal, has approximately one-third of the heating value of hard coal. E.ON Energie participates in lignite-based energy generation in western Germany through Braunschweigische Kohlen-Bergwerke AG and in eastern Germany through Kraftwerk Schkopau GbR and a portion of one unit of Kraftwerk Lippendorf. Lignite is a readily available domestic fuel source that E.ON obtains from its own reserves or under long term contracts with German producers. The price of lignite is not generally volatile and is generally determined by reference to published indices in Germany. However, the price can fluctuate based on the underlying price of hard coal in global commodities markets.

*Gas and Oil.* In Germany, the price of natural gas is linked to the price of oil. This mechanism has been enforced in order to reduce the influence of, and dependence on, gas-producing countries. Only about 18 percent of gas demand in Germany is satisfied by German deposits, while about 82 percent is satisfied through imports

from foreign producers, primarily from Russia, Norway and the Netherlands. Fuel oil power plants are only used for peak load operations. E.ON Energie purchases its fuel oil from traders or directly from a number of oil companies. As with natural gas, the price of fuel oil depends on the price of crude oil.

*Water*. This domestic source of energy is primarily available in southern Germany due to the presence of mountains and rivers. The variable costs of production are extremely low in the case of run-of-river plants and consequently, these plants are used to cover base and middle load requirements. Conversely, pump storage facilities impose quite high variable costs and are, therefore, used to meet peak demand.

Demand for power tends to be seasonal, rising in the winter months and typically resulting in additional electricity sales by E.ON Energie in the first and fourth quarters. E.ON Energie believes it has adequate sources of power to meet foreseeable increases in demand, whether seasonal or otherwise. In order to benefit from economies of scale associated with large stations, E.ON Energie has built large capacity power station units in conjunction with other utilities where it does not require all of the electricity produced by such plants. In these cases, the purchase price of electricity is determined by the production cost plus a negotiated fee.

Although E.ON s power plants are maintained on a regular basis, there is a certain risk of failure for power plants of every fuel type. Depending on the associated generation capacity, the length of the outage and the cost of the required repair measures, the economic damage due to such failure can vary significantly. In order to meet contractual commitments, electricity which cannot be generated at these plants has to be bought from other generators or has to be generated from more expensive plants. Thus, power plant outages can affect the division s internal operating profit (for example, the breakdown of a generator in the non-nuclear part of the Unterweser power plant in 2002 resulted in the plant being out of service for a significant part of the year).

#### Transmission

The German power transmission grid of E.ON Energie is located in the German states of Schleswig-Holstein, Lower Saxony, Mecklenburg-Western Pomerania, Brandenburg, North Rhine-Westphalia, Saxony-Anhalt, Hesse, Thuringia and Bavaria, and reaches from the Scandinavian border to the Alps. The grid is interconnected with the western European power grid with links to the Netherlands, Austria, Denmark and Eastern Europe. With a system length of over 37,000 km and a coverage area of nearly 170,000 km<sup>2</sup>, the grid covers more than one-third of the surface area of Germany. The high-voltage network allows long-distance power transport at low transmission losses. The system is operated from two main circuit control headquarters, one in Lehrte near Hanover and one in Karlsfeld near Munich. In addition, there are more than twenty smaller regional control and service units at decentralized locations within the grid area. The system is mainly, but not completely (depending on regional locations), operated by E.ON Netz GmbH.

Access to E.ON Energie s power transmission grid is open to all potential users. The Company believes its usage fees and conditions comply with existing German regulations governing grid access. For further information, see Regulatory Environment Electricity Grid Access.

The Baltic Cable links E.ON Energie to Scandinavia and is the longest (250 km) direct current submarine cable in the world, currently transmitting approximately 372 MW to 456 MW of its maximum designed capacity of 600 MW. E.ON Energie group companies currently own two-thirds of the cable, with the remaining one-third being owned by the Norwegian utility Statkraft SF (Statkraft). Nevertheless, the parties contractual arrangements allocate two-thirds of the Baltic Cable s capacity to Statkraft.

#### Distribution and Supply

*Electricity.* The German utilities historically established defined supply areas which were coextensive with their supply networks. However, the supply of electricity in Germany is in a state of significant change. See Regulatory Environment and Competitive Environment. The following map shows E.ON Energie s



current supply area in Germany through its majority and minority shareholdings in regional electricity distribution companies:

E.ON Energie supplied about one-third of the electricity consumed by end users in Germany in 2002. Its customers are interregional, regional and municipal utilities, traders, industrial and special-rate (commercial) customers and, through regional distributors, standard-rate customers predominantly in those parts of Germany highlighted on the above map. In compliance with the EU Commission s conditions upon approving the VEBA-VIAG merger, E.ON Energie s majority owned regional distributors E.DIS and TEAG in eastern Germany purchase power from E.ON Energie s competitor Vattenfall Europe. E.ON Energie s majority owned distributor Avacon likewise purchases its power primarily from Vattenfall Europe for those of its customers situated in the eastern German state of Saxony-Anhalt. In 2002, E.ON Energie sold 162.1 billion kWh of electricity in western Germany and 27.2 billion kWh in eastern Germany.

The following table sets forth the distribution of E.ON Energie s electric power (excluding that used in physically settling its trading activities) in Germany in 2002 and 2001:

Distribution of Power to	Germany 2002 million kWh	Germany 2001 million kWh	% Change in Total(1)
Non-consolidated interregional, regional and municipal utilities	106,901	83,731	27.7
Industrial and special-rate customers	53,548	64,083	(16.4)
Standard-rate customers	28,857	25,815	11.8
Total	189,306	173,629	9.0

(1) The changes in the volume of power distributed to the different classes of customers in 2002 compared to 2001 largely reflect changes in customer classifications, while the overall increase is primarily attributable to the contributions of newly-acquired companies.

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In order to offer optimized services to major customers and to equalize supply and demand at all times with respect to the costs of procurement, E.ON Energie has integrated the main parts of its trading and sales operations into EST. EST focuses on the national and international wholesale business for regional utilities, large municipal utilities and major industrial customers, and is also responsible for E.ON Energie s trading operations. Regional sales centers in Dresden, Düsseldorf and Stuttgart, which supply electricity to customers in areas that are not covered by E.ON Energie s regional distributors, are allocated to EST as well. The regional distribution companies manage the main part of E.ON Energie s retail business, which is the supply of power to municipal utilities, industrial and commercial customers, as well as private households. The following chart sets forth the principal supply structure of E.ON Energie s electricity sales.

The supply contracts under which E.ON Energie s regional distributors (all but one are majority-owned) regularly order their required load for upcoming years historically have had relatively long terms. Typical supply contracts now last for two to five years and, in the case of large industrial customers, may be shorter. Potential alternative sources of electricity include the purchase of electricity from other utilities and auto-generation by municipalities, regional distributors or industrial customers. The regional distributors contracts with municipal utilities contain varying terms and conditions. Long-term concession contracts permit municipal utilities and regional distributors to supply electricity to customers within a municipality.

Primarily through the regional distribution companies, E.ON Energie offers a variety of products targeted at the nationwide retail market.

*Gas.* Most of the distribution subsidiaries of E.ON Energie supply natural gas to households, small businesses and industrial customers in many parts of Germany. In addition to its wholly owned subsidiaries, E.ON Energie owns a 87.1 percent interest in Thüga. Thüga currently has primarily minority shareholdings in approximately 130 regional and municipal electricity and gas utilities all over Germany. As an active minority shareholder, it offers operational competence as well as other services and advice to the companies in which it owns minority equity interests. The E.ON Energie group also owns 100 percent interest in Hein Gas, a northern German gas and heat distributor which also operates gas storage facilities, a 24.9 percent equity interest in the German gas distributor GASAG Berliner Gaswerke AG (Gasag) and a 5.26 percent equity interest in Verbundnetz Gas AG, the long-distance gas distribution network company in eastern Germany. E.ON Energie s gas sales volume in Germany in 2002 amounted to 107 billion kWh.

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*Heat.* E.ON Energie is one of the leading suppliers of district heating in Germany. It operates its own district heating networks for six cities in the Ruhr area and supplies four additional networks owned by other companies. E.ON Energie s regional distributors are also involved in district heat and steam delivery. E.ON Energie s total district heat deliveries increased 41.0 percent in 2002 to 19.3 billion kWh, of which 8.3 billion kWh were supplied in Germany.

*Water and Waste Water Treatment.* E.ON Energie s principal water-related activities are centered in the German stock exchange-listed company Gelsenwasser. E.ON Energie holds an 80.5 percent equity interest in Gelsenwasser through its wholly owned subsidiary E.ON Aqua GmbH. Though its volume of water deliveries decreased 1.6 percent to 207.4 million cubic meters in 2002, Gelsenwasser is still the largest privately held (non-state-owned) water utility in Germany (based on volume of water deliveries). On a smaller scale, E.ON s water business is also conducted through certain of its distribution companies, particularly Schleswag and Avacon, in which E.ON Energie has shareholdings of 65.3 percent and 56.5 percent, respectively. The E.ON Energie group owns a 20.8 percent interest in the interregional water utility Harzwasserwerke GmbH, as well as other shareholdings in companies with water activities belonging to the Thüga group and a joint venture of Gelsenwasser in the field of waste water with Stadtwerke Bremen (hanseWasser Ver- und Entsorgungs-GmbH and hanseWasser Bremen GmbH). In 2002, water deliveries in Germany by the E.ON Energie group as a whole (including Gelsenwasser) increased 6.3 percent to 250.3 million cubic meters.

*Consulting and Support Services.* E.ON Engineering GmbH offers internal and external consulting, planning and construction services in the energy sector in fields such as chemical analytics, electrical, mechanical and civil engineering, with a focus on conventional and renewable power generation, cogeneration, use of biomass, development of energy strategies and CO<sub>2</sub>-emission reduction. Building on their shareholdings in municipal and regional utilities, E.ON Energie, Thüga and the regional distributors also establish partnerships and cooperative relationships with local authorities. E.ON Energie, Thüga and the regional distributors operate their own electricity and gas supply systems, and provide the local authorities with consulting, technical and managerial support to promote the efficient use of electricity, water and gas. In addition, E.ON Energie Projects GmbH, a wholly owned subsidiary of E.ON Energie, is engaged in the project development business, *i.e.* renewable generation and customized energy solutions for industrial customers.

*E-Commerce.* The regional distribution companies of the E.ON Energie group own a 77.8 percent stake in Mercateo.com AG, a German internet-based marketplace. This platform currently provides business-to-business procurement functions for companies.

*Customers*. Through its subsidiaries and companies in which it has significant shareholdings, E.ON Energie serves approximately twelve million electricity customers (households) in Germany. E.ON Energie s German operations also supply more than nine million individuals with water and approximately six million customers (households) with gas.

#### Trading

Historically, the former VEBA supplemented its generating capacity as necessary to satisfy demand requirements and meet required reserve capacity only by purchasing power on a long- and short-term basis from jointly-owned power plants and from other utilities. In December 1998, PreussenElektra began operating a trading floor in Hanover for the trading of contracts on electricity products on a national and international basis, thus extending its electricity trading activities to third parties. In addition, PreussenElektra was the first energy supply company to promote the introduction of an electricity price index in Germany. Since March 1999, Dow Jones has been publishing the Central European Power Index based on information it obtains from E.ON Energie and other market participants.

In October 2000, E.ON Energie merged the two formerly separate trading floors of PreussenElektra and Bayernwerk into a single facility in Munich, combining the know-how and the resources of both companies at one location. In 2002, E.ON Energie integrated the main parts of the trading and sales operations into EST. An international team of traders buys and sells electricity on the spot and futures markets. E.ON Energie s trading operations offer customized products that are traded on a bilateral basis, as well as trading in standard exchange-traded instruments. E.ON Energie s trading focuses on Germany, but also includes the rest of continental Europe and Scandinavia, including the European Energy Exchange in Leipzig, the Scandinavian electricity exchange

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NordPool (where E.ON Energie s trading activities are conducted through Sydkraft AB (Sydkraft )), the Amsterdam Power Exchange in the Netherlands, Powernext in France and Energy Exchange Austria in Austria. E.ON Energie also has formed a 75-25 percent joint venture with the management of D-Gas B.V. (D-Gas), an experienced British team of gas traders, in order to improve its gas trading capabilities and expand its gas trading business.

E.ON Energie believes that its trading activities provide it with valuable market insight and have strengthened its competitive position in the European electricity market. E.ON Energie s trading activities are focused on asset-backed trading in order to optimize the value of its generation portfolio, though E.ON Energie also engages in a limited amount of proprietary trading within its established risk limits.

E.ON Energie s trading business has incorporated a complete and systematic risk management system in compliance with legal and regulatory requirements of the German Federal Supervisory Office for Banking, including the minimum requirements for trading activities of credit institutions. An important aspect of the system is that the trading activities are monitored by a board independent from the trading operations. For more detailed information on E.ON Energie s management of the risks related to its trading activities, see Item 11. Quantitative and Qualitative Disclosures about Market Risk Commodity-Price Risk Management.

The volume of E.ON s energy trading activities increased significantly in 2002. The following table sets forth the total volume of E.ON Energie s traded electric power in 2002 and 2001:

Trading of Power	2002 million kWh	2001 million kWh	% Change in Total
Power sold(1)	386,203	173,019	123.2
Power purchased(1)	374,836	163,796	128.8
Total	761,039	336,815	126.0

(1) Any negative balance of power purchased as compared to power sold is satisfied by the delivery of electricity generated by E.ON Energie.

E.ON Energie s overall physically-settled and proprietary electricity trading volume amounted to 761.0 billion kWh in 2002. In 2001, physically-settled electricity trading volume amounted to 187.8 billion kWh, including 92.5 billion kWh of power sold and 95.3 kWh of power purchased.

#### **International Shareholdings**

E.ON Energie participates in a number of European energy markets with shareholdings and cooperation agreements in more than a dozen countries, including Austria, the Baltic region, the Czech Republic, Finland, Hungary, Italy, the Netherlands, Poland, Russia, Scandinavia, Slovakia and Switzerland. Part of this participation is through Thüga, which primarily holds a number of majority shareholdings in Italian gas distribution companies. In those regions in which E.ON Energie has already built up a portfolio of activities, national holding companies such as E.ON Scandinavia, E.ON Czech Holding, E.ON Hungaria and E.ON Benelux coordinate E.ON Energie s activities.

*Scandinavia and Finland.* E.ON Energie is the largest shareholder in Sydkraft, the second-largest Swedish utility (on the basis of electricity sales and production capacity), with a 55.2 percent equity and a 56.5 percent voting interest. In October 2001, E.ON Energie concluded a put option agreement which allows the remaining major minority shareholder Statkraft to sell any or all of its shares to E.ON Energie at any time through December 15, 2005, which may be extended. Sydkraft is active in the generation, transmission, distribution and retail sales of electricity. In 2002, it had a total installed generation capacity of 6,724 MW, and generated 28,850 million kWh of electricity. Sydkraft generates about 61 percent of its electric power at nuclear power plants and about 35 percent at hydroelectric plants. The remaining four percent is generated using gas turbines, hard coal and oil. For detailed information on Sydkraft s power plants, see the table below.

In Sweden, nuclear waste is transported to intermediate storage under the responsibility of Svensk Kärnbränslehantering AB, a company owned by the domestic producers of nuclear power and controlled by various state institutions. In 1997, a law concerning the phase out of nuclear power was passed pursuant to which

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the government can decide to revoke a license to conduct nuclear operations, but must compensate the owner of the nuclear plants that are phased out. Sydkraft has one nuclear reactor, Barsebäck 1, which has been closed under this law and for which Sydkraft received compensation. The Swedish parliament has also decided that the other reactor at Barsebäck, Barsebäck 2, in which Sydkraft has a 25.8 percent stake, should be phased out, but the initial closure date of 2002 was postponed by the Swedish parliament due to certain conditions that could not be fulfilled, principally that the power production of Barsebäck 2 be replaced by other means of production that do not increase emissions. Ongoing evaluation by the Swedish government is expected to lead to a decision about the possible closure of Barsebäck 2 in summer 2003. Apart from these two reactors, Sydkraft has no other nuclear power plants that have been targeted for early phase-out by the Swedish government. Management believes that public opinion in Sweden has become more favorable towards nuclear power since the original phase-out decision, and that it is unclear if and to what extent Sydkraft will need to shut down other nuclear power plants. In 2002, the Swedish parliament decided that negotiations should be started with all owners of nuclear power plants in Sweden.

Sydkraft also supplies heat and gas and conducts electricity trading activities. In 2002, Sydkraft had sales of 2.1 billion. Electricity contributed approximately 67 percent, heat 13 percent and gas 7 percent of 2002 sales. Sydkraft traded 96 TWh of electricity in 2002. Sydkraft also has a 23.0 percent interest in the Swedish utility Graninge AB (Graninge). In addition, E.ON Energie holds a 13.3 percent interest in Graninge through E.ON Scandinavia.

Electricity prices rose sharply in the fourth quarter of 2002 in the Scandinavian electricity market and on its associated electricity exchange NordPool, due to a shortage of supply. A significant portion of electricity in Scandinavia is generated from hydroelectric sources. During 2002, rainfall was significantly below normal in Scandinavia, causing reservoir levels to drop. This decline in the volume of water available for hydroelectric generation, coupled with rising demand for electricity during the cold winter months led to rising prices on NordPool, as producers turned to more expensive types of generation (i.e., gas turbines) to balance the shortage. As a net generator, Sydkraft enters into fixed price forward contracts for a certain portion of its expected electricity generation in order to hedge its generation exposure and secure its expected margins. The hedging transactions are settled during the same period in which Sydkraft sells the related electricity produced from its generating assets, with settlement resulting in Sydkraft s receipt of the expected margins. Under U.S. GAAP, these hedging instruments are valued on a mark-to-market basis. In order to minimize income fluctuations arising from changes in the fair value of these contracts, Sydkraft applies hedge accounting consistent with Statement of Financial Accounting Standards (SFAS) No. 133, Accounting for Derivative Instruments and Hedging Activities (SFAS 133), to a majority of these contracts. Nevertheless, changes during 2002 in the fair value of the contracts for which hedge accounting was not applied produced a negative result in the required valuation, although no economic loss resulted. Sydkraft expects to benefit from the increase of market electricity prices with respect to the portion of its generation which is not hedged through the use of such contracts.

E.ON Energie s position in the Scandinavian market is supplemented by its shareholdings in Norway, which include a 21.4 percent stake in the utility Hafslund ASA, a 49.0 percent stake in the utility Fredrikstad Energiverk AS and a 35.0 percent stake in the grid operator Fredrikstad EnergiNett AS. The municipality holds the remaining 51 percent interest in the Fredrikstad utility, as well as an option to sell that stake to Sydkraft/ E.ON Energie that expires at the end of 2003. In addition, E.ON Energie now holds 100.0 percent of both of the grid operator Østfold Energinett AS and the sales company Østfold Kraftsalg AS following the Østfold group s exercise of a put option to sell its 51 percent interests in these companies to Sydkraft in January 2003. Sydkraft also owns 49 percent of Østfold Energi Varme AS, a supplier of district heat.

In 2002, E.ON Energie entered the Finnish energy market by acquiring a 34.0 percent interest in the Finnish energy supplier Espoon Sähkö from the city of Espoo. During 2002, E.ON Energie increased its share to 65.6 percent by acquiring 31.6 percent of the outstanding shares through a public tender offer and additional share purchases.

*Central and Eastern Europe*. E.ON Energie has significant shareholdings in Hungary. Its shareholdings in regional electric utilities include equity interests of 92.4 percent in Dél-dunántúli Áramszolgáltató Rt. (DÉDÁSZ), 90.6 percent in ÉDÁSZ and 92.4 percent in Tiszántúli Áramszolgáltató Rt. (TITÁSZ).

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Management believes that together with its other shareholdings in Hungary, E.ON Energie has a market share of approximately 45 percent in the Hungarian electricity distribution market. E.ON Energie also holds a 100.0 percent stake in the generator Debreceni Kombinált Ciklusú Erömü Kft. ( DKCE ) and a 31.2 percent stake in the gas distribution and supply company Közepdunántuli Gázszolgáltato Rt. ( KÖGÁZ ). E.ON Energie complemented these holdings with several investments in Czech electricity and gas distribution companies in Bohemia and Moravia in 2000. Through a combination of share ownership, as well as allocation of voting rights and dividend rights, E.ON Energie controls significant participations in the Czech energy sector. In the electricity distribution sector, E.ON Energie controls a 45.0 percent stake in Jihomoravská Energetika a.s. ( JME ), a 41.7 percent stake in Východoceká Energetika a.s. ( VCE ), a 35.1 percent stake in Západoceská Energetika a.s. ( ZCE ), a 30.3 percent stake in Severomoravská Energetika a.s. ( SME ) and a 13.6 percent stake in Jihoceská Energetika a.s. ( JCE ). In the gas distribution sector, E.ON Energie has signed an agreement of cooperation with the Austrian utility Energie AG Oberösterreich concerning the Czech electricity market. The intent of the arrangement is to pool interests and achieve joint control over certain regional distribution companies in the Czech Republic. In 2002, E.ON Energie entered the Slovakian energy market by acquiring a 49 percent interest in the Slovakian electricity supplier ZSE.

In the Baltic region and Russia, E.ON Energie owns an equity interest of 9.5 percent in AO Lenenergo, the utility which provides St. Petersburg, Russia with electricity and heating, and a 18.8 percent equity interest in Latvijas Gaze, the only gas supplier in Latvia. E.ON Energie also owns a 10.9 percent equity interest in the successor companies of the formerly fully integrated Lithuanian utility Lietuvos Energija and a 14.2 percent stake in Lietuvos Dujos, the Lithuanian gas company.

*The Netherlands.* E.ON Energie s acquisition of the Dutch power producer E.ON Benelux Generation N.V. ( E.ON Benelux Generation ), formerly known as Electriciteitsbedrijf Zuid-Holland N.V. ( EZH ), in January 2000 was a significant step into the important electricity market in the Netherlands. E.ON Benelux Generation operates hard coal and natural gas power plants for the supply of electricity and heat to bulk customers and utilities in the Netherlands. In 2002, it had a total installed generation capacity of 1,770 MW, and generated 9.6 billion kWh of electricity.

*Alpine Region.* E.ON Energie owns a 20.0 percent equity interest in BKW, a Swiss utility that owns important hydropower assets, as well as a single nuclear power station and interests in other nuclear power stations. In the spring of 2002, E.ON Energie divested its 24.5 percent equity interest in Swiss utility Watt, following management s determination that Watt s shareholder structure would not allow E.ON Energie to gain sufficient operational influence. E.ON Energie therefore decided to focus its Swiss operations on its BKW stake. In Italy, where E.ON Energie operates through E.ON Italia, Thüga holds majority interests in a number of local gas distribution companies. In Austria, E.ON Energie owns a 30.0 percent equity interest in Rohöl-Aufsuchungs Aktiengesellschaft, which engages in the exploration of gas and potential oil reserves in Austria.

The following table sets forth E.ON Energie s major international electric power generation facilities (including cogeneration plants), their total capacity, the stake held by E.ON Energie and the attributable capacity to E.ON Energie for each facility as of December 31, 2002, and their start-up dates.

#### E.ON ENERGIE INTERNATIONAL ELECTRIC POWER STATIONS

		E.0	N Energie s Share	
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date
Nuclear				
Barsebäck 2 (S)	600	25.8	155	1977
Forsmark 1 (S)	961	9.3	89	1980
Forsmark 2 (S)	959	9.3	89	1981
Forsmark 3 (S)	1,155	10.8	125	1985

		E.C	N Energie s Share		
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date	
Nuclear (continued)					
Oskarshamn I (S)(2)	445	54.5	243	1972	
Oskarshamn II (S)(2)	602	54.5	328	1974	
Oskarshamn III (S)(2)	1,160	54.5	632	1985	
Ringhals 1 (S)	835	25.8	215	1976	
Ringhals 2 (S)	872	25.8	225	1975	
Ringhals 3 (S)	920	25.8	237	1981	
Ringhals 4 (S)	915	25.8	236	1983	
Total	9 4 2 4		2 574		
Hard Cool	7,424		2,374		
Maggylakta = 1 (NL)(2)	520	100.0	520	1000	
Maasylakte 2 (NL)(3)	520	100.0	520	1988	
Suomeneia (EIN)	320 80	100.0	320	1987	
Suomenoja (FIN)	80	100.0	80	1977	
T-4-1	1 120		1 120		
Total	1,120		1,120		
Natural Gas					
Barsebäck GT (S)	84	100.0	84	1974	
Debrecen, DKCE (H)(1)	95	100.0	95	2000	
Galileistraat (NL)	209	100.0	209	1988	
Halmstad G11 (S)	78	100.0	78	1973	
Halmstad G12 (S)	172	100.0	172	1993	
Heleneholm G11, G12 (S)(CHP)	130	100.0	130	1966 + 1970	
Leiden (NL)	81	100.0	81	1986	
Öresundsverket GT (S)	126	100.0	126	1971 + 1972	
Oskarshamn GT (S)(2)	80	54.5	44	1973	
RoCa 3 (NL)(3)	220	100.0	220	1996	
Suomenoja GT (FIN)	50	100.0	50	1989	
The Hague (NL)	78	100.0	78	1982	
Other (<50 MW installed capacity)	240		239	n/a	
Total	1,643		1,606		
Fuel Oil					
Abyverket G1, G2, G3 (S)(CHP)	151	100.0	151	1962-1974	
Händelö (Norrköping)(S)(CHP)	100	100.0	100	1983	
Karlshamn G1 (S)	330	70.0	231	1971	
Karlshamn G2 (S)	330	70.0	231	1971	
Karlshamn G3 (S)	328	70.0	230	1973	
Karskär G4 (S)	125	50.0	62	1968	
Other (<50 MW installed capacity)	37		37	n/a	
m ( )	1 101		1.0.12		
Total	1,401		1,042		
Hydroelectric					
Balforsen (S)	86	100.0	86	1958	

Bergeforsen (S)	160	44.0	70	1955
Bjurfors nedre (S)	75	100.0	75	1959
Blasjön (S)	60	50.0	30	1957
Edensforsen (Aseleälven)(S)	67	4.7	3	1956
Edsele (S)	59	100.0	59	1965
Gulsele (Aseleälven)(S)	64	15.0	10	1955

		E.C		
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date
Hydroelectric (continued)				
Hällby (Aseleälven)(S)	84	15.0	13	1970
Hammarforsen (S)	79	100.0	79	1928
Harrsele (S)	216	50.6	109	1957
Hiälta (S)	176	100.0	176	1949
Järnvägsforsen (S)	100	94.9	95	1975
Korselbränna (Fjällsjöälven)(S)	123	100.0	123	1961
Moforsen (S)	139	100.0	139	1968
Olden (Langan)(S)	112	100.0	112	1974
Pengfors (S)	56	65.0	37	1954
Ramsele (S)	157	100.0	157	1958
Rätan (S)	60	100.0	60	1968
Stensiön (Harkan)(S)	94	50.0	47	1968
Storfinnforsen (S)	109	100.0	109	1953
Trangfors (S)	73	100.0	73	1975
Other (<50 MW installed capacity)	820		740	n/a
Total	2,969		2,402	
Wind Dowon				
Tatal	12		11	nla
10141	15		11	II/a
Other Power Plants				
Jjoensuu Bio (FIN)	80	100.0	80	1986
Karskär G3 (S)	48	50.0	24	1968
Unicorn (NL)	6	100.0	6	1996
Total	134		110	
Shutdown				
Barsebäck 1 (Nuclear)		25.8		1975
E.ON Energie Total International	16,704		8,865	

(1) For these power plants, the amount of attributable capacity as compared to E.ON Energie s ownership interest is varied by contract.

(2) E.ON Energie is additionally leasing 2.5 percent of the power plant s capacity.

- (3) Power station, under long-term cross-border leasing transactions; operated by E.ON Benelux Generation.
- (FIN) Located in Finland.
  - (H) Located in Hungary.
- (NL) Located in the Netherlands.

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### (S) Located in Sweden.

## (CHP) Combined Heat and Power Generation.

None of E.ON Energie s companies outside of Germany, Sweden and Switzerland operate nuclear power plants.

In addition, E.ON Energie holds a number of minority shareholdings in generation assets in countries such as the Czech Republic, Norway and Switzerland.

#### **Regulatory Environment**

*General.* In order to promote competition in the energy production, transmission and distribution sectors, the EU adopted a directive (EU Directive on the Single Electricity Market, or the Electricity Directive ) in December 1996 that was intended to open access to the internal markets of EU member states to power producers from other EU member states. Germany implemented the Electricity Directive by enacting a new Energy Law (*Energiewirtschaftsgesetz*, or the New Energy Law ) that came into effect on April 29, 1998. The New Energy Law modified the old Energy Law (the Old Energy Law ), the German legal framework governing utilities that sets forth the general obligations required of electricity Directive and defines which segments of the industry are subject to regulation. The following paragraphs discuss the Electricity grid access and rate regulation, and German gas regulation. E.ON Energie s operations outside of Germany are subject to national and local regulations in the relevant countries.

*The Electricity Directive.* The Electricity Directive allows monopoly and competitive systems to co-exist. Member states can choose to have either a single-buyer system or a system permitting negotiated or regulated third-party access (NTPA or RTPA ). All EU member states were required to implement the Electricity Directive by February 19, 1999.

Under the Electricity Directive, the EU electricity market is expected to be opened gradually to competition. The Directive also requires integrated utilities to keep separate accounts for their transmission and distribution activities, as well as for other activities not relating to transmission and distribution, in their internal accounting. Member states that elected the NTPA system are required to publish frameworks for network charges.

*The Gas Directive*. The EU Gas Directive on the common rules for an internal market in natural gas (the Gas Directive ), was adopted in June 1998, with all EU member states being required to implement its provisions by August 10, 2000. The Gas Directive is based on the same principles agreed on in the Electricity Directive, namely a gradual opening of the market with due respect for the consumer and environmental and public service obligations to ensure security of supply, as well as the general EU principles of reciprocity and subsidiarity.

The Gas Directive provides for a gradual opening of EU member states natural gas markets to competition, initially requiring the liberalized market to encompass at least 30 percent of the total amount of gas consumed annually in the relevant member state, and providing that this minimum threshold increase to 38 percent after five years and to 43 percent after ten years. The Gas Directive also stipulates that interconnection of national grids should be facilitated by establishing compatible gas quality standards. It also requires the establishment of technical rules for the interoperability of systems.

Under the Gas Directive, the EU has the power to grant derogations or waive the obligation of member states to apply the rules of the directive if it would create serious economic difficulties for companies committed to existing take-or-pay contracts. Each member state may also opt for regulated or negotiated third party access, similar to the provisions of the Electricity Directive.

Germany adopted legislation prior to the adoption of the Gas Directive which implemented certain parts of the Gas Directive and will implement the remaining provisions within the new Draft Energy Act which is to be adopted in 2003.

*Completion of the Internal Electricity and Gas Market.* On November 25, 2002, the EU Energy Council reached an agreement on the full opening of the EU energy market to competition on July 1, 2004 for commercial customers and on July 1, 2007 for household customers at the latest. The agreement covers two proposed directives establishing rules for the internal markets in electricity and gas. The agreement also includes a proposed regulation on conditions of access to the network for cross-border exchanges in electricity.

Although the final text of the directives has not yet been agreed, the agreement provides for general rules on the organization of the European gas and electricity sectors, including public service obligations, customer protection measures and provisions for monitoring the security of supply. The existing framework of negotiated

third-party access in Germany can be maintained, provided the methodology for calculating the grid tariffs is approved by a regulatory body meeting the requirements to be set forth in the directives.

This body is required to be independent of the interests of the electricity and gas industries and is responsible for ensuring non-discrimination, effective competition and the efficient functioning of the market. It will be responsible for fixing or approving the terms and conditions for connection and access to national networks (or the methodologies to calculate such terms), including transmission and distribution tariffs, and the provision of balancing services. It will also have the authority to require transmission and distribution system operators, if necessary, to modify their terms and conditions in order to ensure that they are proportionate and applied in a non-discriminatory manner. In both the electricity and gas sectors, it shall be independent at least in terms of its legal form, organization and decision making from other activities not relating to transmission. This requirement shall not imply or result in the requirement to separate the ownership of assets of the transmission network from the vertically integrated undertaking.

The liberalization package enables member states to postpone their implementation of provisions for legal unbundling of distribution system operations until July 1, 2007 at the latest. Derogations may also be granted to distribution companies serving less than 100,000 customers or small isolated networks. Member states will also be able to request an exemption from this obligation if they can prove that total and non-discriminatory access to the distribution networks can be achieved by other means.

Electricity suppliers will have to specify in or with bills, as well as in promotional materials for end user customers, the following information:

The contribution of each energy source to the overall fuel mix of the supplier over the preceding year; and

A reference to where information is publicly available on the environmental impact of the supplier s activities, including the amount of CQ and radioactive waste produced.

Household customers and where member states deem it appropriate small companies will be required to be provided with universal service, *i.e.*, the right to be supplied with electricity and gas of a specified quality at reasonable prices, which are to be determined on a cost plus basis.

*The New Energy Law.* The Energy Law of 1998 abolished exclusive supply contracts, thereby introducing competition in the supply of electricity to all consumers, and provided for non-discriminatory NTPA for all utilities. The German market was opened for all customers in one step, going far beyond the requirements of the Electricity Directive and also beyond the steps taken by Germany s neighboring countries. Specifically, in assessing a request for energy transmission, the Energy Law requires a transmission company to take into account the extent to which such transmission displaces electricity generated from CHP plants, renewable energy sources and, in eastern Germany, lignite-based power plants, and the extent to which it impedes the commercial operation of such power plants.

Draft legislation amending the Energy Act of 1998 was adopted by the German government on December 20, 2000. It is intended to complete the implementation of the Gas Directive into national law. However, this draft Energy Act still awaits adoption by the German Parliament, which is expected to take place in 2003.

Apart from provisions to facilitate the opening of the gas market, the proposed amendments include commercial access to storage facilities and a modified reciprocity clause. Furthermore, the amendment proposal includes modifications in cartel law provisions, such as direct applicability of abuse control filings issued by the Federal Cartel Office. In addition, the proposed amendments would formally recognize the association agreement (*Verbändevereinbarung Strom II+*, *Verbändevereinbarung Gas II*, see Gas Regulation below), which is the main basis for the negotiated third party grid access system for electricity and gas in Germany.

*The Electricity Feed-in Law and the Renewable Energy Law.* Under the German *Stromeinspeisungsgesetz* (law governing renewable electricity fed into the power grid, or Electricity Feed-In Law ), which came into effect simultaneously with the New Energy Law in April 1998, all regional utilities with standard rate customers were required to pay for energy produced from renewable resources, including wind-generated electricity, fed into the grid. The price paid by the regional utility to the generator of renewable energy, determined by the average electricity price to the end user nationwide, typically exceeded the regional utilities procurement costs,

thereby forcing regional utilities to pay part of the costs of renewable sources of energy. Regional utilities in whose supply area the feeding plants are located must bear these costs.

As this led to distortions in competition, the German *Bundestag* passed another change in the Electricity Feed-in Law, which came into effect April 1, 2000. Important aspects of the changed law, which is called the Renewable Energy Law, include:

**Fixed tariffs for renewable energies:** Tariffs for renewable energies are fixed. For wind turbines coming online in 2003, the tariff is fixed at 8.8 cent/kWh. This tariff is limited in time, with a general term of five years that may be extended up to 20 years depending upon the actual production volume of the installation. After five years, the tariff is reduced to 6.0 cent/kWh. In addition, the fixed tariff is reduced by 1.5 percent for new wind turbines every year. For wind turbines coming online in 2004, this means a reduction to 8.7 cent/kWh and 5.9 cent/kWh respectively.

**National burden sharing:** The Renewable Energy Law assumes that the subsidy obligation would be passed on in full to the supplying companies. At the transmission company level, there is an equalization process covering the whole country. Each transmission company first determines how much electricity it takes up under the Renewable Energy Law and how much electricity in total flows through its grid to end users. An equalization will then be effected among all transmission companies so that all transmission companies take on and subsidize proportionally equivalent amounts of renewable electricity under the statute. The transmission company will then pass these quantities of electricity and the corresponding costs on to the suppliers delivering electricity to end users in its region in proportion to their respective sales.

The Renewable Energy Law has abolished regional differences in electricity costs for consumers and the related competitive disadvantages for E.ON Energie. However, the growing production of energy from wind turbines leads to growing costs for balancing power and for grid extensions. These costs are not part of the national burden sharing mechanism. They are a growing burden for E.ON Energie, as almost 50 percent of Germany s wind turbines are situated in the grid control area of E.ON Energie AG. In their coalition agreement, the German government has agreed to amend the Renewable Energy Law. E.ON Energie hopes that these costs will also be part of the burden sharing mechanism in the future. E.ON Energie believes that the tariffs for renewable energies are still much too high, and supports the amendment of the Renewable Energy Law, hoping that it will introduce a more competitive remuneration system and more equitable burden sharing.

*Co-Generation Protection Law.* In order to protect existing CHP plants, the so-called Co-Generation Protection Law (*Kraft-Wärme-Kopplung-Vorschaltgesetz*) came into effect on May 18, 2000.

The government decided to amend this law, which was especially protective of municipal CHP plants. The government was originally considering a CHP quota system, which would have required electricity suppliers to buy a rising share of their demand from CHP plants. The aim of such a law would have been to reduce  $CO_2$  emissions from power production through phased-in reductions, reaching a reduction of 23 million tons a year by 2010.

In opposing these plans, E.ON argued that such interference with the recently liberalized electricity market would be economically harmful, would lead to a devaluation of capital and would endanger employment at existing power stations. For this reason, E.ON, in alliance with other energy utilities, proposed the Action Program for Climate Protection (*Aktionsprogramm Klimaschutz*). Under this plan, the energy utilities offered to implement CO<sub>2</sub> reductions of up to 45 million tons a year phased in by 2010 on a voluntary basis if the government abandoned the CHP quota system. Part of this proposal is a bonus system for CHP plants, focusing on support to modernize existing CHP plants. The German government accepted the Action Program for Climate Protection as a viable alternative and, together with the energy associations and the German Association of Electric Utilities (*Verband der Elektrizitätswirtschaft e.V.* (VDEW) for electric utilities, *Bundesverband der deutschen Gas-und Wasserwirtschaft* e.V. (BGW) for gas utilities, *Verband kommunaler Unternehmen e.V.* (VKU) for municipalities, *Bundesverband der deutschen Industrie e.V.* (BDI) for German industry and the *Verband der Industriellen Energie- und Kraftwirtschaft e.V.* (VIK) for industrial electricity producers), proposed a binding agreement between the government and the energy utilities with respect to the voluntary CO<sub>2</sub>



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reductions proposed by the utilities. As a precondition to the agreement, which was not signed by all participants, the German government passed a new Co-Generation Protection Law (*Kraft-Wärme-Kopplung-Gesetz*) on March 1, 2002, which came into effect on April 1, 2002.

The new law, which expires at the end of 2010, requires local network operators to pay CHP plants the following bonus payments for electricity that is produced in combination with heat and fed into the public grid:

CHP plants that were commissioned before 1990 receive 1.53 cent/kWh in 2002 and 2003, 1.38 cent/kWh in 2004 and 2005, and 0.97 cent/kWh in 2006;

CHP plants that were commissioned after 1990 receive 1.53 cent/kWh in 2002 and 2003, 1.38 cent/kWh in 2004 and 2005, 1.23 cent/kWh in 2006 and 2007, 0.82 cent/kWh in 2008, and 0.56 cent/kWh in 2009;

CHP plants that are modernized receive 1.74 cent/kWh in 2002, 2003 and 2004, 1.69 cent/kWh in 2005 and 2006, 1.64 cent/kWh in 2007 and 2008, and 1.59 cent/kWh in 2009 and 2010; and

Small CHP plants with under two MW of installed capacity receive 2.56 cent/kWh in 2002 and 2003, 2.4 cent/kWh in 2004 and 2005, 2.25 cent/kWh in 2006 and 2007, 2.1 cent/kWh in 2008 and 2009, and 1.94 cent/kWh in 2010.

The local network operators are in turn allowed to pass on the costs of the bonus payments to the grid operators, which may pass on the costs of the bonus system to their customers. A nationwide equalization process among the utilities was implemented in order to ensure the equal distribution of the costs of the bonus system across utilities. In 2003, every consumer will have to pay an additional 0.31 ct/kWh. Industrial costumers only have to pay 0.05 ct/kWh for that portion of their electricity consumption exceeding 100,000 kWh per year. For those customers whose electricity costs are higher than 4 percent of their total turnover, this fee for the consumption exceeding 100,000 kWh per year is limited to 0.025 ct/kWh.

*Electricity Grid Access.* In 1948, the major utilities in Germany at that time established the association *Deutsche Verbundgesellschaft* (DVG), now partly managed by the Association of System Operators (*Verband der Verbundnetzbetreiber*, or VDN) to interconnect German regions through a single high-voltage electricity grid.

The Electricity Directive was implemented in Germany with a framework for negotiated third-party access agreed by all German utilities and certain large industrial customers for access to high, medium and low-voltage transmission systems (*Verbändevereinbarung*, amended as *Verbändevereinbarung II* and *Verbändevereinbarung II*+). As of January 1, 2002, *Verbändevereinbarung II*+ provides for an amended framework for objective and non-discriminatory grid access by increasing transparency with respect to grid prices in order to make grid access more customer friendly. In addition, traders are offered more flexibility and the option of booking intra-day capacities. This agreement will be valid for two years.

At the EU level, a provisional tariff system for cross-border electricity trading came into effect in March 2002. It is based on the proposals by the European Transmission System Operators Association and will be extended with slight modifications until the end of 2003. The system provides a mechanism to cover costs resulting from cross-border trades. Money for the fund is raised from two sources: a charge on exports and socialized costs which are charged to all electricity customers.

The future cross-border tariffication system will be based on principles set up in regulations of the European Commission.

*Electricity Rate Regulation.* Prices at which local and regional distributors sell electricity to standard-rate customers are currently regulated by the economics ministries of each of the German states (as provided in the Federal Electricity Tariff Regulation (*Bundestarifordnung Elektrizität*, or BTO Elt )) and are reset at least every two years. The rates are set at a level to assure an adequate return on investment on the basis of the costs and earnings of the distribution company. However, these governmentally-set ceiling rates do not represent the actual market situation, with numerous rates which are below the regulated tariffs designed to meet different customers special needs. The average prices per kWh for sales to regulated tariff customers charged by E.ON Energie s consolidated distribution companies were 16.92 cent and 18.58 cent in western and eastern Germany,

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respectively, as of January 1, 2003. The average price charged by utilities for an average standard-rate customer in Germany with an annual consumption of 3,500 kWh was, according to the VDEW, 17.15 cent per kWh as of January 1, 2003 (all taxes included). The average price per kWh charged by E.ON Energie for industrial customers was 5.63 cent, which is consistent with the average price per kWh quoted by the German Association for Energy Consumption (VEA) for Germany as of January 1, 2003 (net of tax). E.ON Energie s consolidated distribution companies in eastern Germany operate in the northern region, where the population is less dense and the distribution costs are higher compared to other parts of eastern Germany. As standard-rate customers may choose between different suppliers, rate regulation is generally viewed as no longer necessary, and E.ON Energie believes it may be abandoned. Prices for sales of electricity by E.ON Energie to regional distribution companies, municipal utilities and large industrial customers are not regulated by the BTO Elt; however, they are governed by the Law Against Unfair Competition (*Gesetz gegen Wettbewerbsbeschränkungen*, or GWB ), which requires that no patently unreasonable rates are set.

*Gas Regulation.* Market access for gas in Germany is based on negotiated third party access. Similar to electricity, the association agreement for gas (*Verbändevereinbarung Gas*) signed in July 2000 provides the framework for gas grid access and implements the provisions of the EU gas directive. It has been amended twice. The first amendment in March 2001 included, among other provisions, commercial access to storage facilities. The second amendment includes access for small customers and provides a dispute settlement mechanism. The current *Verbändevereinbarung Gas (Verbändevereinbarung Gas II)* came into force on October 1, 2002, with the objective of simplifying access conditions and achieving a greater degree of cost transparency. It will be valid until September 30, 2003. Gas and heat rates are not regulated in Germany, although the GWB does apply.

*Emission trading.* On December 9, 2002, the European Council of Ministers reached agreement on a proposal for a new directive that would establish a trading system for greenhouse gas emission allowances as part of the EU s efforts to reach the emission reduction targets set by the Kyoto Protocol. The directive still must be discussed in the European Parliament, and is currently expected to be adopted by the end of 2003. According to the current proposal, operators of identified types of industrial installations within the EU (including fossil fuel-fired power plants with a thermal input exceeding 20 MW) will be obliged to acquire an emission permit that will entitle the installation to emit a specified quantity of greenhouse gases, starting with  $CO_2$  in 2005. Other greenhouse gases may be included in the permit system later. Beginning in 2005, emission allowances will be allocated to installations. Entities and industrial activities covered by the directive may opt out of the trading system will obligatory, even for operations that had met the 2007 requirements for opting out. Allowances will be allocated free of charge until 2007. If an installation exceeds the level of emissions covered by its allowances, it will be obliged to buy additional allowances on the market or to pay a penalty fee. During the period from 2008 to 2012, up to 10 percent of the allowances can be auctioned by a national authority. E.ON expects that many of its gas, oil and coal powered generating facilities will be covered by the final directive. However, given that no approved text of the directive yet exists and that many of details of the proposed system remain to be worked out, E.ON is as yet unable to quantify the potential impact of this proposed directive on its operations.

#### **Competitive Environment**

Liberalization of the electricity markets in the EU has greatly altered competition in the German electricity market. As a result of the new regulatory environment, new methods of competition have manifested themselves in the German electricity market, with a growing number of utilities marketing electricity to regional and local distribution companies as well as to industrial customers outside their traditional supply areas. This development was also supported by the increasing demand of many multi-site customers for all of their sites throughout Germany to be supplied by a single electricity company. In addition, the private power industry in Germany was formerly characterized by numerous strong competitors. Due to liberalization, significant consolidation is occurring in the German electricity market as companies seek to cut costs, increase efficiency and adjust to new and changing market structures. There have been three mergers of major interregional utilities in recent years: VEBA and VIAG, RWE and VEW, and Hamburgische Electricitäts-Werke AG (HEW)/Bewag Berliner Kraft und Licht Aktiengesellschaft (BEWAG)/VEAG/Lausitzer Braunkohle Aktiengesellschaft (LAUBAG)

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(which formed Vattenfall Europe in 2002). In 2002, E.ON, RWE and the other two major interregional utilities, EnBW and Vattenfall Europe, supplied approximately 65 percent of the total electricity production in Germany. These entities own the high-voltage transmission lines in their traditional supply areas and are active in all phases of the electricity business. In addition to the interregional utilities, there are about 900 electric utilities in Germany at the state, regional and municipal level, many of which are partly or wholly owned by state or municipal governments. These utilities may be involved in various combinations of the generation, transmission, distribution and supply and trading functions. Consolidation has also affected these entities, as larger competitors seek asset purchases and development opportunities. Approximately 25 percent of total electricity production in Germany in 2002 was supplied by other utilities and the remaining 10 percent was produced by the manufacturing sector and Deutsche Bahn for their own use. The liberalization of the electricity market in Germany has also led to new market structures with new market participants. Approximately 200 new electricity suppliers have entered the German market, more than half of them being engaged in electricity trading. The market for electricity has become more liquid and more competitive, and the volume of electricity trading has increased, reaching a trading volume of 2,500 TWh in 2002. Foreign companies have also established aggressive electricity sales and trading operations in Germany, with every sixth customer being supplied by a foreign supplier.

Liberalization of the electricity market in Germany caused electricity prices to decrease in 1998, with significant declines in some market segments. The rate of price declines began to slow in the second half of 2000, and prices increased slightly in 2001, but developed differently in each of the customer segments. In 2002, electricity prices in Germany have continued to recover. Nevertheless, in the retail business, prices paid by customers in 2002 were 6 percent lower than in the liberalization year 1998, while in the large industrial customers and regional distributors segment, prices were 10 percent lower than in 1998. Excluding taxes and charges retail prices have decreased by up to 25 percent and industrial prices by up to 22 percent since 1998. The emergence of new competitors and suppliers and the creation of European electricity exchanges, as well as other factors such as significant power plant overcapacity in Germany and Europe and relatively high and increasing price transparency, have contributed to the drop in electricity prices in Germany. Some groups of electricity users (for example, municipalities) have also entered into cooperative arrangements in Germany for the purpose of purchasing electricity at more favorable prices, thereby increasing price competition. See also Item 5. Operating and Financial Review and Prospects Results of Operations.

However, market structures and the costs faced by generators have changed since the beginning of liberalization. Among these new or increased costs are the electricity tax (introduced in 1998 and subject to annual increases), duties and additional costs attributable to compliance with new legislation, including the, Renewable Energy Law and Co-Generation Protection Law, as well as higher costs incurred in procuring balancing power to cover fluctuations in the availability of electricity from renewable resources such as wind. As most distributors have tried to pass these increases through to their customers, electricity prices have risen more rapidly than the associated margins for generators in recent years. Taxes and duties accounted for approximately 40 percent of German electricity prices in 2002, compared with about 25 percent before deregulation in 1998. E.ON Energie expects electricity prices in Germany to further improve and to reach pre-liberalization levels in 2003.

German electricity prices for industrial customers are no longer among the highest in Europe. However, high environmental and nuclear safety standards, as well as high investments in new lignite power plants, taxes on electricity, the requirements of the Co-Generation Protection Law and the Renewable Energy Law s requirement that regional utilities purchase electricity generated from renewable resources impose a considerable burden on German electricity prices. E.ON Energie still believes that it will be able to compete effectively in the European Union. In addition, E.ON Energie believes that the liberalization of the gas and electricity markets may open new business opportunities. However, E.ON Energie may be unable to compete as effectively as other electricity companies. This could be due to higher electricity production or procurement costs, lack of an effective marketing program, unprofitable, inefficient or loss-making results from trading operations or other factors. Any of these factors could materially and adversely affect E.ON s financial condition and results of operations. See also Item 3. Key Information Risk Factors.

Outside Germany, the energy markets in which the Company operates are also subject to strong competition. The Company cannot guarantee it will be able to compete successfully in electricity markets where it already is present or in new electricity markets the Company may enter.

#### **Environmental Matters**

*Air Pollution.* All of E.ON Energie s plants are subject to EU and/or national regulations, and are equipped where necessary with pollution removal devices. The most important pollution law applicable to E.ON Energie s German plants is the German Federal Pollution Control Act (*Bundesimmissionsschutzgesetz*, or BImSchG) and its implementing ordinances. One of such ordinances, the Ordinance on Large Combustion Plants (*Großfeuerungsanlagen-Verordnung*), sets stringent emission limits for power stations for all known air pollutants, such as sulfur dioxide, nitrogen oxides and dust. The emissions of E.ON Energie s power plants are continuously measured and reported. Because of the extensive installation of scrubbers, catalysts and other pollution control devices, E.ON Energie s power plants comply with all relevant requirements.

*Nuclear Energy.* Details of E.ON Energie s nuclear power operations in Germany, Sweden and those of its 20 percent minority investee BKW in Switzerland can be found under German Operations Power Generation and International Shareholdings Scandinavia above. E.ON Energie does not own or operate any nuclear power facilities in any other country. German safety standards for nuclear power stations are among the most stringent in the world. German nuclear power regulations are found in the AtG and a number of national regulations, guidelines and technical rules. The German regulatory framework regarding nuclear power regulations is also governed by international agreements, including the Euratom Agreement, dated March 23, 1957 (*Euratomvertrag*), the Paris Liability Agreement, dated July 29, 1960 (*Pariser Haftungsübereinkommen*), and the Non-Proliferation Treaty, dated July 1, 1968 (*Nichtverbreitungsvertrag*).

Under the AtG, the import, export, transportation or storage of nuclear materials (*Kernbrennstoff*) requires the approval and supervision of regulatory authorities. The building, operating, owning or materially altering by any entity of any plants or installations that produce, fission or otherwise process or reprocess nuclear materials (Nuclear Plants) also requires approvals of, and is supervised by, regulatory authorities. Approvals can be subject to limitations or conditions, including conditions subsequent, and may also be subsequently revoked if they are not complied with or one of their preconditions has ceased to exist. The regulatory authorities may also give orders to obtain information from, enter and inspect any Nuclear Plants.

According to the AtG, radioactive wastes and dismantled radioactive parts must either be recycled or permanently disposed of by any entity handling or otherwise using nuclear power. The AtG follows the so-called polluter pays principle, which requires such entity to pay for the recycling or permanent disposal of nuclear waste.

In 1998, there was public debate about contamination in connection with radioactive waste transport facilities. In May 1998, the German Ministry for Environment, Nature Conservation and Nuclear Safety ordered all nuclear transport to cease until the reasons for such contamination were clarified and countermeasures were taken. Transport container loading procedures have been identified as the cause of contamination and improvements in such procedures have been implemented. The ministry therefore has issued a new permit for the transport of spent nuclear fuel elements and transport resumed in 2001.

In Sweden, the regulatory framework regarding nuclear power regulations is also governed by the above-mentioned international agreements. In addition, Swedish nuclear power regulations are governed by Swedish law, mainly the Law Concerning Nuclear Activity, the Law Concerning Nuclear Liability and the Law Concerning Financing of Treatment of Nuclear Waste. Under Swedish law, the owner of a nuclear power station is obliged to conduct operations in such a manner that the required safety standards are maintained and is responsible for nuclear waste storage. The owner must also carry out the phase out of nuclear operations, including plant decommissioning. A license is required in order to own a nuclear facility, which is granted by the Swedish government on recommendation by the Swedish Nuclear Authority, which supervises all nuclear facilities in Sweden.



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According to the Law Concerning Financing of Treatment of Nuclear Waste, the owner of a nuclear facility in Sweden is under the obligation to pay an amount determined by the Swedish government for each kWh produced in the facility to the Swedish Nuclear Waste Fund. The amounts thus paid, together with any capital gains on the amounts, are to cover the costs for phase out and closure of the facility based on a 40-year operating life for each reactor. In accordance with Swedish law, Sydkraft has also given guarantees to governmental authorities to cover possible additional costs related to the disposal of high-level radioactive waste and nuclear power plant decommissioning. See also Note 26 of the Notes to Consolidated Financial Statements.

*Liability.* In case of environmental damages, the owner of a German facility is subject to liability provisions that guarantee comprehensive compensation to all injured parties. Because of achievements in pollution control, the issue of environmental damage due to air pollutants from electric utilities has not recently been a subject of public debate in Germany. In general, subjects such as acid rain, as well as high concentrations of ground level ozone have been linked to accumulated deposits from many emission sources or, in the case of the ozone, predominantly from traffic emissions. There has been some relaxation in the evidence required under the German Environmental Liability Law (*Umwelthaftungsgesetz*) to establish and quantify environmental claims. If claims were to arise in relation to environmental damages and plaintiffs were successful in overcoming problems of proof and other issues, such claims could result in costs to E.ON Energie that might be material. So far as E.ON Energie is aware, no material environmental claims have been made against it and, under current circumstances, E.ON Energie does not believe that there is a significant risk of material liability in respect of any potential claims.

In case of a nuclear accident in Germany, the owner of the reactor, the factory or the nuclear materials storage facility (the Proprietor ) is subject to liability provisions that guarantee comprehensive compensation to all injured parties. Under German nuclear power regulations, the Proprietor is strictly liable, and the geographical scope of its liability is not limited to Germany or the contractual territory of the Paris Liability Agreement. Because the Proprietor is subject to unlimited liability, the AtG and the Regulation regarding the Provision for Coverage pursuant to the AtG (*Atomrechtliche Deckungsvorsorge-Verordnung*, or AtDeckV ) require every Proprietor to provide liability coverage by either self-insurance, third-party warranty obligations or third-party indemnifications against liability. The Proprietor is responsible for all damages that exceed its insurance coverage, and the amount of coverage required is reevaluated every five years. In February 2002, the AtG was amended and the required liability coverage for the additional amounts required by the AtG amendment, the German nuclear power plant operators entered into a solidarity agreement to cover the increase, which provides that the costs of liability exceeding the operator s own resources and those of its parent company in the event of a nuclear accident will be covered by a pool, with the nuclear facility operators having a mutual responsibility to cover each other s damages. For details, see Note 26 of the Notes to Consolidated Financial Statements. For this reason, the AtG amendment has resulted in only a slight cost increase for liability coverage.

In Sweden, the owner of a nuclear facility is liable for damages caused by accidents in the nuclear facility and accidents caused by nuclear substances to and from the facility. The liability is limited to an amount equal to 425 million, which amount must be insured according to the Law Concerning Nuclear Liability. Sydkraft has the necessary insurance for its nuclear power plants.

*Nuclear Package/Directives for Nuclear Security, Decommissioning and Disposal.* The European Commission has announced its intention to pass the so called Nuclear Package, which will consist of directives concerning nuclear security and decommissioning and the disposal of nuclear waste. Drafts of these directives are being discussed with experts from the EU member states, and the European Commission expects to propose final drafts for adoption during 2003.

The directive on nuclear disposal is expected to set forth definite deadlines by which member states will be required to find sites for the permanent storage of nuclear waste. The directive on nuclear security and decommissioning is expected to set forth general nuclear security standards that would be applicable in all EU member states. It is also expected to mandate that each member state require its nuclear power producers to create a separate fund that can be drawn on for expenses relating to decommissioning of nuclear power plants and the

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permanent storage of waste materials. The current proposal of the European Commission would allow producers, including E.ON Energie, to satisfy this requirement through the establishment of internal accounting provisions. E.ON believes that adoption of this proposal would not require E.ON Energie to increase its existing provisions and would therefore not have an immediate impact on cash flow. However, the definitive text of the directives has not yet been determined and no assurance can be given that the adoption and implementation of the directives would not have an adverse effect on the Company s results of operations and financial condition. The German Government has made clear that it will only approve the directives if their final provisions are compatible with its current agreement with the operators of the nuclear power plants in Germany and the parties existing plans for decommissioning and waste disposal.

#### POWERGEN

#### Overview

E.ON completed the acquisition of Powergen on July 1, 2002. For more information on this acquisition, see History and Development of the Company Powergen Acquisition. Powergen, which is now wholly owned by E.ON but continues to be operated as a separate division from E.ON Energie, is an international, integrated energy company with its principal operations in the United Kingdom and the United States. On October 21, 2002, Powergen acquired from TXU Group its U.K. retail energy business (comprising 5.5 million customer accounts), certain gas supply contracts and three coal fired power stations for 2.1 billion (net of 0.1 billion cash acquired). In the six months following its acquisition by E.ON, Powergen had revenues of 4.5 billion and internal operating profit of 329 million (including results of the former TXU Group operations for the period from October 21, 2002).

In the third quarter of 2002, E.ON determined that a number of negative factors had caused the market environment for Powergen s U.K. and U.S. business units to significantly deteriorate over the period since April 2001, when E.ON s conditional offer effectively fixed the price it was to pay for Powergen. These negative factors triggered an impairment analysis of the 8.9 billion in goodwill originally recognized at the time of the Powergen purchase price allocation. The impairment analysis resulted in an impairment charge of 2.4 billion, thus reducing the goodwill amount to 6.5 billion. For additional information on this impairment charge, see Item 5. Operating and Financial Review and Prospects Results of Operations and Notes 4 and 12 to the Notes to Consolidated Financial Statements.

#### Strategy

Powergen has adapted its strategies to address differing conditions in its two principal markets, the United Kingdom and the United States.

An integrated and balanced model in the U.K. The British electricity market has been characterized by a steep decline in wholesale prices over the course of the last few years. Among the principal reasons for this decline are overcapacity in the generation market, the continued fragmentation of that market and competitive pressures arising from the introduction of the NETA system described in more detail below. The decline in wholesale prices has resulted in serious economic problems for pure generating companies such as British Energy. At the same time, however, margins in the supply of electricity to retail customers have recently increased, as retail prices have not fallen as sharply as those on the wholesale level.

Management believes that these market developments have clearly demonstrated the merits of pursuing an integrated business model with a balanced position in the generation and retail segments of the U.K. market. Powergen has achieved this balanced position through its acquisition of the TXU Group activities in late 2002, which added 5.5 million customer accounts, making Powergen the leading provider of electricity to retail customers in the U.K. and the second largest retail provider of natural gas (based on data from Datamonitor, an international business information service).

Powergen expects that the expansion of its retail customer base in 2002 will allow it to effectively balance its expected generation output in 2003 with expected demand from its residential and small and medium sized enterprises electricity customers. This will allow Powergen to serve its industrial and commercial customers

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primarily with power purchased from the market on terms that provide Powergen with satisfactory margins. Powergen is focused on reducing its retail cost base through the increased use of lower cost sales channels, such as the sale of additional products to existing customers and inbound leads, while delivering back office savings through system investment and realizing synergies from the TXU Group integration.

Powergen continues to seek cost savings across all of its businesses. Cost savings initiatives include the closure of inefficient generating facilities and the centralization of service activities. Management also expects to realize cost savings and efficiency gains through the exchange and implementation of operating best practices with other E.ON companies.

There is also an increased emphasis on generation from renewable sources. Powergen plans to increase its investment in renewable generation to mitigate the impact of new legislation introduced during 2002 to incentivize investment in renewable sources.

**Expansion in the U.S.** Margins in the United States electricity industry have suffered in recent years from the relatively weak economy and overcapacity resulting from the construction of new power plants. These developments have resulted in declining wholesale prices and severe financial problems at utilities with significant unregulated exposure (*i.e.*, those businesses, for which rates are not set by government regulators). Because the regulated and integrated utilities operated by LG&E Energy, Powergen s principal U.S. subsidiary, only sell wholesale power in excess of their native load demand, these utilities are exposed to this development to a lesser extent. To date, the governmental authorities in Kentucky, LG&E Energy s largest market, have neither adopted nor announced a plan or timetable for introducing retail electric industry competition in the state. Management expects that Kentucky will continue to be a regulated electricity market, thereby allowing LG&E Energy s regulated utilities to continue to benefit from more limited exposure to wholesale price declines. LG&E Energy s regulated utilities also benefit by having some of the lowest operating costs and highest customer satisfaction ratings of any U.S. utility (based on data from the Federal Energy Regulatory Commission and J.D. Power and Associates).

E.ON aspires to grow its U.S. operations in the coming years. Management believes that the currently depressed stock prices of U.S. utilities might provide E.ON with good buying opportunities, while the potential for the transfer of LG&E Energy s operating practices can provide a base for achieving cost savings and operational synergies.

#### **Operations**

In the United Kingdom and the United States, electricity generated at power stations is delivered to consumers through an integrated transmission and distribution system. The principal segments of the electricity industry are:

Generation:	the production of electricity at power stations;
Transmission:	the bulk transfer of electricity across an interregional power grid, which consists mainly of
	overhead transmission lines, substations and some underground cables (at this level there is a
	market for bulk trading of electricity, through which sales and purchases of electricity are made
	between generators, regional distributors, and other suppliers of electricity);
Distribution:	the transfer of electricity from the interregional power grid and its delivery, across local
	distribution systems, to consumers;
Retail:	the purchase of electricity from generators and the sale to consumers; and
Trading:	the buying and selling of electricity and related products for purposes of portfolio optimization,
	arbitrage and risk management.

In the United Kingdom, Powergen and its associated companies are actively involved in generation, distribution, retail and trading. All electricity transmission in England and Wales is operated by National Grid Transco plc ( National Grid ). In the United States, Powergen is currently actively involved in all segments of the electricity industry in the states in which it has utility operations. However, the commercial elements of the
electricity industry in the United States can vary from state to state, depending on the level of deregulation enacted in each jurisdiction.

Powergen also operates significant wholesale and retail gas businesses in the U.K. and the U.S., as well as offering telecommunications services to its U.K. retail customers. For the six months following the completion of its acquisition on July 1, 2002, electricity accounted for 69 percent of Powergen s sales, gas revenues represented 18 percent and other activities (including telecommunications) 13 percent.

Powergen has two principal subsidiaries:

Powergen Group Holdings Limited, which is the holding company for Powergen s U.K. and international businesses and is the indirect parent of Powergen UK plc ( Powergen U.K. ), and

Powergen U.S. Holdings Limited, which is the holding company for Powergen s U.S. business and is the indirect parent of the U.S. energy company LG&E Energy.

As of March 1, 2003, E.ON transferred LG&E Energy and its direct parent (Powergen U.S. Investments Corp.) from a Powergen subsidiary to E.ON US Holding GmbH, a direct subsidiary of E.ON AG.

In the six months from its acquisition on July 1, 2002, Powergen accounted for total sales of 4.5 billion. The U.K. business accounted for 3.2 billion or 71 percent of this total, while the U.S. business accounted for the remaining 1.3 billion or 29 percent of Powergen s sales.

#### **U.K. Business**

Powergen U.K. is one of the U.K. s leading integrated electricity and gas companies. It was formed as one of the four successor companies to the former Central Electricity Generating Board as part of the privatization of the U.K. electricity industry in 1989. In 1998, Powergen U.K. acquired East Midlands Electricity plc, an electricity distribution and supply company.

On October 21, 2002, Powergen acquired the U.K. retail energy business of TXU Group, certain gas supply contracts and three coal-fired power stations for 2.1 billion, net of 0.1 billion cash acquired. As noted under Strategy above, the acquisition of the TXU Group retail business has enabled Powergen to balance its generation output with its retail demand, thereby limiting exposure to wholesale price fluctuations.

Powergen s U.K. operations include electricity generation, distribution and retail, gas retail, energy trading, CHP and renewable generation businesses. As of December 31, 2002, Powergen U.K. owned or through joint ventures had an attributable interest in 10,183 MW of generation capacity, including 613 MW of CHP plants and 163 MW of operational wind and hydroelectric generation capacity. The company served approximately 9.1 million customer accounts at December 31, 2002, including approximately 6.1 million electricity customer accounts, 2.6 million gas customer accounts, 0.2 million telephone customer accounts and 0.2 million industrial and commercial electricity and gas customer accounts. For the six months following the completion of its acquisition by E.ON on July 1, 2002, Powergen s U.K. operations had sales of 3.2 billion.

The following table sets forth the sources and sales channels of electric power in Powergen s U.K. business during the periods presented:

Sources of Power	Total 2002 million kWh	July - December 2002 million kWh
Own production	33,574	17,749
Purchased power from power stations in which Powergen		
has an interest of 50 percent or less	4,581	2,320
Power purchased from other suppliers	22,573	16,894
Power used for operating purposes, network losses and pump		
storage	(3,215)	(1,665)
Net Power supplied	57,513	35,298
••		,

Sales of Power	Total 2002 million kWh	July - December 2002 million kWh
Mass Market sales (residential customers and small and		
medium sized enterprises)	20,369	13,551
Industrial and commercial sales	16,362	10,586
Market sales	20,782	11,161
Net Power sold*	57,513	35,298

\* Excluding proprietary trading volumes. For information on proprietary trading volumes, see Energy Trading.
 The following table sets forth the sources and sales channels of gas in Powergen s U.K. business during the periods presented:

Sources of Gas	Total 2002 million therms	July - December 2002 million therms
Long term gas supply contracts	1,558	645
Market purchases	2,373	1,547
Total gas supply	3,931	2,192

#### Sale and Use of Gas

Gas used for own generation	1,307	626
Sales to Retail Major Account customers	949	552
Sales to Retail Mass Market customers	1,140	688
Market sales	535	326
Total gas used and sold*	3,931	2,192
	—	

\* Excluding proprietary trading volumes. For information on proprietary trading volumes, see Energy Trading. U.K. Market Environment

Powergen U.K. operates in the England, Wales and Scotland energy markets. The principal commercial features of the U.K. electricity industry in recent years have been increasing competition in supply through a principle of open access to the transmission and distribution systems. Suppliers are free to compete with each other in supplying electricity to consumers anywhere within England, Wales and Scotland. All electricity supply (retail) and distribution activities were separated in England and Wales in 2001, splitting the market into a liberalized supply sector and a regulated network distribution sector. On March 27, 2001, England and Wales introduced a new set of trading rules known as NETA.

NETA provides the framework for energy trading and wholesale sales in the U.K., and is based on the principle that parties wishing to buy and sell electricity should be able to enter into freely negotiated contracts to do so. The NETA market is characterized by bilateral contracts for the purchase and sale of bulk power, which are traded both on exchanges and over the counter, thus facilitating energy trading operations. NETA provides mechanisms for the settlement of imbalances that may arise due to energy trading activity and also provides the system operator, National Grid, with a mechanism to maintain the stability of the network, balancing the demand and supply of power on a real time basis. The

Office of Gas and Electricity Markets ( Ofgem ) is responsible for regulatory oversight of NETA.

The combined pressure of overcapacity, an increasingly fragmented generation market and the introduction of NETA has led to significant downward pressure on wholesale electricity prices in recent periods, creating difficult trading conditions for many companies. 2002 was marked by the near financial collapse of the U.K. s largest generator, British Energy, which required a Government loan to remain solvent, and the withdrawal of many U.S.-based traders from the U.K. energy trading markets. Wholesale electricity prices fell through most of

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the year, and 2003 forward prices at the end of 2002 were at levels that are approximately 35 percent below the prices in 1999.

As noted previously, Powergen s exposure to these low prices in the U.K. is partially hedged by the balance provided by its recently-expanded retail business. The retail energy market in the U.K. has consolidated over the last few years into six major competitors. Based on data from Datamonitor, Centrica, previously the monopoly gas supplier branded as British Gas, is currently the market leader in terms of size with 18 million customer accounts. Following the acquisition of TXU s U.K. retail business, Powergen has become the second largest energy retailer with approximately 9 million accounts, followed by Innogy Holdings plc with approximately 7 million accounts. The market is highly competitive, with substantial levels of customers switching supplier in any given year. Powergen believes its annual retail churn rate is in line with the industry average of approximately 17 percent.

Total electricity demand in England and Wales (net of embedded generation and directly connected demand; *i.e.*, station load and inter-connectors) for the twelve months to December 31, 2002 was 314 TWh. In the medium term, Powergen expects electricity demand in the U.K. to grow by an average of between 1 to 2 percent per annum under normal weather conditions. It also expects a growing proportion of that demand to be met by smaller CHP and renewable source power stations embedded within local distribution networks.

In the context of demand characteristics similar to those in the electricity market, Powergen expects gas demand in the U.K. to grow, though at a rate slower than that of growth in the economy as a whole. The growth of demand for gas among smaller businesses can be expected to increase as these customers seek to reduce their emissions in line with Government regulations, and therefore favor gas over oil and coal (each of which is higher in sulphur). Wholesale gas prices in the U.K. market fell in 2002, with prices in the fourth quarter being approximately 16 percent lower than those in the same period of 2001. However, prices started to rise again in early 2003.

The U.K. market also has a number of environmental initiatives that impact market activity, including:

The U.K. government has put in place a renewable obligation requiring electricity retailers to source 10.4 percent of all electricity from certified renewable sources by 2010/2011. In addition, the energy review published by the Policy and Innovation Unit (a U.K. government policy advisory body) recommended that 20 percent of electricity should come from renewable sources by 2020. Any failure to comply with their obligation will result in the retailer being required to pay a buyout , which will then be transferred to retailers who have complied with their obligations. Renewable Obligation Certificates ( ROC ) are tradeable.

The government has placed a climate change Levy Exemption Certificate (LEC) charge on most large retail customers of £4.30 per MWh. This LEC can be offset if power is purchased from a renewable power generator. LECs are not currently tradable, however, there are proposals to make them tradable. The U.K. government is currently planning to allow some CHP stations to qualify for LECs.

Carbon trading has started within the U.K. markets. However, generators are not currently obliged to participate. This market is still in its early stages of development. *Power Generation* 

Powergen focuses on maintaining a low cost, efficient and flexible electricity generation business in order to compete effectively in the wholesale electricity market. As of December 31, 2002, Powergen owned either wholly, or through joint ventures, power stations in the U.K. with an attributable registered generating capacity of 10,183 MW, including 613 MW of CHP plants and 50 MW of hydroelectric plant. Powergen s attributable portfolio of operational wind capacity currently stands at 113 MW.

Powergen s share of the generation market in England and Wales remained relatively stable in 2002, equalling approximately 10 percent without considering the impact of the TXU plant acquisitions. If generation from these plants is included from the acquisition date of October 21, 2002, then Powergen s market share would increase slightly to around 11 percent.



Powergen generates electricity from a diverse portfolio of fuel sources. In the six months ended December 31, 2002, 58 percent of Powergen s electricity output was fuelled by coal and approximately 42 percent by gas, with a total of less than one percent being generated from hydroelectric, wind and oil-fired plants. Powergen is continuing its effort to secure a balanced and diverse portfolio of fuel sources, giving it the flexibility to respond to market conditions and to minimize costs.

The following table sets forth details about Powergen s electric power generation facilities in the U.K., including their total capacity, the stake held by Powergen and the attributable capacity to Powergen for each facility as of December 31, 2002, and their start-up dates:

## POWERGEN ELECTRIC POWER STATIONS

		Powergen s Share			
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date	
Hard Coal					
Drakelow U9	333	100	333	1965	
Drakelow U10	333	100	333	1965	
High Marnham U1	189	100	189	1959	
High Marnham U2	189	100	189	1960	
High Marnham U3	189	100	189	1960	
High Marnham U5	189	100	189	1962	
Ironbridge U1	485	100	485	1970	
Ironbridge U2	485	100	485	1970	
Kingsnorth U1	485	100	485	1970	
Kingsnorth U2	485	100	485	1971	
Kingsnorth U3	485	100	485	1972	
Kingsnorth U4	400	100	400	1973	
Ratcliffe U1	500	100	500	1968	
Ratcliffe U2	500	100	500	1969	
Ratcliffe U3	500	100	500	1969	
Ratcliffe U4	500	100	500	1970	
Total	6,247		6,247		
			,		
Natural Cas					
Cottam Davalanmant Contra (CDC) Madula	400	50	200	1000	
Connabs Quay 11	345	100	200	1999	
Connabs Quay U2	345	100	345	1990	
Connabs Quay U2	345	100	345	1990	
Connahs Quay U/	345	100	345	1990	
Corby Module	401	50	200	1993	
Killingholme Module 1	450	100	450	1992	
Kimigiome Wodde 1		100		1772	
Total	2 621		2 220		
10181	2,031		2,250		
Oil					
Grain U1	675	100	675	1982	
Total	675		675		
Hydroelectric	50	100	50	10/0	
Kheidol	50	100	50	1962	

Total	50	50
		—
	52	

		Powe	ergen s Share	
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date
Other				
Grain Aux GT1	28	100	28	1979
Grain Aux GT4	27	100	27	1980
Kingsnorth Aux GT1	17	100	17	1967
Kingsnorth Aux GT4	17	100	17	1968
Ratcliffe Aux GT2	17	100	17	1967
Ratcliffe Aux GT4	17	100	17	1968
Taylors Lane GT2	68	100	68	1981
Taylors Lane GT3	64	100	64	1979
Windfarms	134	varies	113	Various
Total	389		368	
CHP schemes	613	100	613	Various
Total Capacity	10,605		10,183	
Mothballed/shutdown	—			
Killingholme Module 2	450	100	450	1993
Grain U4	675	100	675	1984
Drakelow U12	333	100	333	1967
High Marnham U4	189	100	189	1961
Total	1,647		1,647	

Powergen does not operate any nuclear power plants.

Following an announcement in October 2001, Powergen began mothballing a 450 MW gas-fired module at Killingholme. In late summer 2002, a 485 MW coal-fired unit at Kingsnorth, which had been out of service since 1996, was re-commissioned. In October 2002, Powergen announced its intention to mothball the remaining two oil-fired units at Grain and the remaining gas-fired module at Killingholme. One of the Grain units was withdrawn immediately. In January 2003, following a review of power station economics, Powergen announced plans to withdraw High Marnham and Drakelow C, two old and inefficient coal stations acquired from TXU Group. Powergen expects the withdrawals to lead to the closure of both power stations in spring of 2003. In addition, Powergen confirmed the plan to mothball the remaining module at Killingholme and the unit at Grain with effect from April 1, 2003.

*Renewable Energy.* Powergen plans to grow its renewable generation business in response to the U.K. regulatory initiatives summarized above. Since 1999, Powergen s wind generation projects have been developed by Powergen Renewables Ltd, which in 1999 became a joint venture with Abbot Group plc ( Abbot ). Given the importance of renewable generation growth in Powergen s overall strategy, Powergen bought out Abbot s share in the joint venture in October 2002. Powergen is already one of the United Kingdom s leading developers and owner/operators of wind farms, with interests in 17 operational onshore and offshore wind farms in the United Kingdom and Ireland with total capacity of 134 MW, of which 113 MW is attributable to Powergen. As a part of its balanced approach, Powergen seeks to fulfill its renewables obligation through a combination of its own generation and renewable energy purchased from other generators under contracts.

*CHP*. Powergen also operates large scale CHP schemes. CHP is an energy efficient technology which recovers heat from the power generation process and uses it for industrial processes such as steam generation, product drying, fermentation, sterilizing and heating. Powergen s total operational CHP electricity capacity is 613 MW with clients ranging across a number of sectors, including pharmaceuticals, chemicals, paper and oil-refining. Three projects with a total capacity of 112 MW were commissioned during 2002, with a further 30 MW due to be commissioned in 2003.

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Powergen s generation and trading activities are very closely linked. For example, trading is responsible for purchasing the fuel burned in power stations that are managed by generation. Trading also decide whether Powergen should generate or purchase electricity to cover its retail obligations, depending upon the prevailing market price of electricity. For this reason, for financial reporting purposes generation and trading are treated as a single business unit. However, for the purpose of describing the business activities of Powergen it is helpful to discuss them separately since they each cover distinct areas of activity.

#### **Energy Trading**

Powergen engages in asset-based energy marketing in gas and electricity markets through the energy trading unit to assist in commercial risk management and the optimization of its U.K. gross margin. The energy trading unit plays a key role in Powergen s integrated electricity and gas business in the U.K. by acting as the commercial hub for all energy transactions. It manages price and volume risks and seeks to maximize the integrated value from Powergen s generation and customer assets.

Energy trading activities include:

Purchasing of coal, oil and gas for power stations;

Dispatching generation and selling the electrical output and ancillary services provided by Powergen s power stations;

Purchasing gas and electricity as required for Powergen s retail portfolio;

Managing the net position and risks of Powergen s generation and retail portfolio;

Managing renewable obligations for the retail portfolio through long term purchases and trading of ROCs;

Purchasing and/or trading of other environmental products, including LECs and emissions products; and

Achieving portfolio optimization and risk management.

Powergen also engages in a controlled amount of proprietary trading in gas, power, coal and oil markets in order to take advantage of market opportunities and maintain the highest levels of market understanding required to support optimization and risk management activities. The following table sets forth Powergen s electricity and gas proprietary trading volumes for the full year 2002:

Proprietary Trading Volumes	Electricity billion kWh	Gas billion therms
Energy bought(1)	22.4	5.07
Energy sold(1)	23.2	5.07
Gross Volume	45.6	10.14

(1) Any negative balance of power bought as compared to power sold is satisfied by the delivery of electricity generated by Powergen.

In its energy trading operations, Powergen uses a combination of bilateral contracts, forwards, futures and options contracts and swaps traded over-the-counter or on commodity exchanges. All of Powergen s energy trading operations, including its limited proprietary trading, are subject to E.ON s risk management policies for energy trading. For additional information on these policies and related exposures, see Item 11. Quantitative and Qualitative Disclosures about Market Risk.

Powergen has in place a portfolio of fuel contracts of varying volume, duration and price, reflecting market conditions at the time of commitment. Coal contracts with a variety of suppliers within the U.K. and overseas ensure that supplies are secured for Powergen s coal-fired plants, while maintaining enough flexibility to minimize the cost of generation across the total generation portfolio. Powergen s coal import facilities at Kingsnorth power station and Gladstone Dock, Liverpool, provide secure access to international coal supplies.

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The supply of gas for the Company s Combined Cycle Gas Turbine (CCGT) and CHP plants is sourced through non-interruptible long-term contracts direct with gas producers, as well as market purchases. Risk management arrangements in respect of the volume and price risks associated with Powergen s gas supply contracts are conducted through trading on the spot, over-the-counter and bilateral markets. For additional details on these contractual commitments, see Item 5. Operating and Financial Review and Prospects Liquidity and Capital Resources and Notes 25 and 26 to the Notes to Consolidated Financial Statements.

#### Retail

Powergen sells electricity, gas, telecommunications and other services to residential, business and industrial customers throughout Britain. As of December 31, 2002, Powergen supplied 9.1 million customer accounts, of which 8.9 million were residential and small and medium sized business customer accounts and 0.2 million industrial customer accounts. Powergen also continues to focus on reducing the costs of its retail business, seeking to increase margins through the use of lower cost sales channels by generating sales to the existing customer base and inbound leads, and implementing systems to reduce back office costs. These include increased automation of service and credit management processes, combined with the outsourcing of certain activities.

The acquisition of TXU s Group retail business added 5.5 million customer accounts, more than doubling the total. Powergen has begun the process of integrating the former TXU Group activities and plans to consolidate its retail business on sites in the East Midlands, where Powergen already has a major presence, and in Ipswich, where the former TXU Group activities were headquartered. Powergen s current integration plans (including savings in non-retail areas) target a headcount reduction of approximately 1,000 people (or approximately 14 percent of the current work force), thus enabling Powergen to realize synergies while maintaining high levels of business efficiency and customer service.

*Residential and small and medium sized business customers.* The residential business had 8.3 million customer accounts at December 31, 2002, including 5.2 million customer accounts acquired from TXU Group. The number of accounts in the small and medium sized business sector totalled 0.6 million at year-end 2002. 68 percent of Powergen s retail customer accounts are electricity customers, 29 percent are gas customers and 3 percent are fixed line telephone customers. Individual retail customers who buy more than one product (*i.e.*, electricity, gas or fixed line telephone services) are counted as having a separate account for each product, although they may choose to receive a single bill for all Powergen-provided services. The average product penetration for Powergen s retail customer base (calculated as the number of products used by each residential electricity customer, and not including former TXU Group customers) was 1.51 at December 31, 2002, up from 1.36 at December 31, 2001, reflecting Powergen s increasing success in cross-selling.

Powergen targets residential and small and medium sized business customers through national marketing activity such as media advertising (including print, television and radio), targeted direct mail, public relations and online campaigns. Powergen also seeks to continue to exploit the high level of national awareness of its brand and has taken steps to enhance the strength of its brand, including the sponsorship of a high profile, national sports competition, the Powergen Cup in Rugby Union. In addition to the selective use of face-to-face sales, Powergen continues to operate telemarketing centers in Dearne Valley in Yorkshire and at Tannochside near Glasgow, as well as running several customer service call centers across the Midlands.

Powergen launched its Capped Price Electricity product for residential customers in July 2002. Customers sign a two-year commitment and benefit from a price promise that fixes the kWh price of electricity for the first year and then rewards customers with a price decrease in the second year. Retail customers may also view or query current and past bills, submit meter readings, set up and amend direct debit, and view or change their account details directly through Powergen s website.

*Industrial & Commercial.* In the industrial and commercial sector, Powergen sold 10.6 TWh of electricity and 16.3 TWh of gas in the period from July 1 to December 31, 2002. Annualized volumes, including the TXU Group operations acquired in October, would amount to approximately 37 TWh of electricity. This means Powergen is a leading player in this market, and will continue its focus on the higher margin parts of the industry.

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Powergen also consolidated its position as one of the leading gas suppliers in the U.K. industrial and commercial market, with annualized sales of approximately 48 TWh.

In support of changing buyer needs and market developments, sales in this sector are conducted through a variety of channels ranging from traditional face-to-face account management through E-Sales. Powergen also continues to develop innovative added value services, and has successfully launched its new E-Data energy management product.

### Distribution

The distribution business in the U.K. is effectively a natural monopoly within the area covered by the existing network due to the cost of providing an alternative distribution network. Accordingly, it is highly regulated. However, new distribution licenses are available, including for those areas already covered by an existing distribution license, and distribution could also face indirect competition from alternative energy sources such as gas. For details on the licence system, see Regulatory Environment U.K. Business.

East Midlands Electricity Distribution plc. ( EME ), a wholly owned subsidiary of Powergen U.K., owns, manages and operates an electricity distribution network within the East Midlands service area. The area covers approximately 6,200 square miles, extending from Coventry to the Lincolnshire coast and from Milton Keynes to Chesterfield and containing a resident population of nearly five million. EME distributes electricity to approximately 2.4 million homes and businesses in the service area, and virtually all electricity supplied to consumers in the service area (whether by Powergen s retail business or by other suppliers) is transported through EME s distribution network.

Building on the changes to organizational structures and rationalization of operational sites in 2000, EME implemented a program of change projects during 2001 and 2002 focussing on process, system and technology improvements, thereby increasing the effectiveness of the field force and office-based staff. An outsourcing program, initiated in 2000, has resulted in a more flexible and cost effective mix of internal and external resources.

The following table sets forth the total distribution of electric power by Powergen s U.K. business for the periods presented:

Distribution of Power to	Total 2002 million kWh	July December 2002 million kWh
Large non-domestic customers	13,040	6,345
Domestic and small non-domestic customers	15,310	7,771
Total	28,350	14,116

Distribution customers are billed on the basis of published tariffs.

#### Asian Asset Management

Directly and through its wholly owned subsidiary Powergen International Ltd, Powergen U.K. currently holds joint venture equity and operating interests in independent power production (IPP) activities in India, Australia and Indonesia, though management intends to dispose of all such activities by the end of 2004, subject to market conditions. As of December 31, 2002, Powergen's Asian Asset Management interests in IPP included the equivalent of 825 MW of generation capacity in plants in operation. In November 2002, Powergen agreed to sell its remaining interests in the operating plants in India and Australia and in a development project in Thailand to CLP Power International. The sale of the interest in the project in Thailand was completed in January 2003 and Powergen expects the remaining sales to be completed later in 2003. Following completion of these sales, Powergen's Asian activities will consist only of its 35 percent interest in the 1,220 MW Jawa power plant at Paiton in Indonesia, pending its eventual disposal.

## U.S. Business

LG&E Energy is a diversified energy services company with businesses in power generation, retail gas and electric utility services and project development, as well as asset-based energy marketing. Asset-based energy marketing primarily involves the marketing of power generated by physical assets owned or controlled by LG&E Energy and its affiliates. LG&E Energy s power generation and retail electricity and gas services are located principally in Kentucky, with a very small customer base in Virginia and Tennessee. At December 31, 2002, LG&E Energy owned or controlled aggregate generating capacity of approximately 9,199 MW, including LG&E Energy s interest in independent power plants of 461 MW. In 2002, LG&E Energy served more than one million customers.

LG&E Energy divides its operations into regulated utility and non-utility businesses. Utility operations are subject to state regulation that sets rates charged to retail customers.

In the regulated utility business, which accounted for 73 percent of LG&E Energy s revenues in 2002 (63 percent electricity, 10 percent gas), LG&E Energy operates two wholly owned utility subsidiaries: 1) Louisville Gas and Electric Company (LG&E), an electricity and natural gas utility based in Louisville, Kentucky, which serves customers in Louisville and 17 surrounding counties, and 2) Kentucky Utilities Company (KU), an electric utility based in Lexington, Kentucky, which serves 77 Kentucky counties and five counties in Virginia.

LG&E Energy s non-utility business, which accounted for 27 percent of LG&E Energy s sales in 2002, is primarily comprised of the operations of LG&E Capital Corp. (LCC), its primary holding company, and LG&E Energy Marketing Inc. (LEM), its asset-based energy marketing subsidiary, each of which is wholly owned by LG&E Energy. LCC operates nine coal-fired and one oil-fired electricity generation units in Western Kentucky, through its wholly owned subsidiary Western Kentucky Energy Corp. and affiliates (WKE), as well as owning minority interests in three Argentine gas distribution companies and stakes in a number of power plants in the United States through its wholly owned subsidiary LG&E Power Inc. LG&E Energy also owns 100 percent of CRC-Evans International, Inc. (CRC-Evans), a company that leases equipment and provides services to the oil and gas pipeline industry.

#### **U.S. Market Environment**

In the United States, the market environment for electricity companies varies from state to state, depending on the level of deregulation enacted in each jurisdiction.

The electric power industry remains highly regulated at the retail level in much of the U.S., including Kentucky, although in some parts of the country, including Virginia, it is becoming more competitive as a result of price and supply deregulation and other regulatory changes. In approximately one-third of the U.S., retail electricity customers can now choose their electricity supplier. To better support a competitive industry, federal regulators are transforming the manner in which the electric transmission grid is operated. Transmission owning entities are being required to transfer individual control over the operation of their transmission systems to regional transmission organisations (RTOs). These RTOs are intended to ensure non-discriminatory and open access to the nation s electric transmission system. Depending on the specifics of deregulation in the states in which they operate, U.S. electric utilities have adopted different strategies and structures, sometimes divesting one or more of the generation, transmission, distribution or supply components of their businesses.

LG&E Energy s electric service territories are located in Kentucky, Virginia, and Tennessee. At present, due to the absence of customer choice or competitive market requirements in Kentucky and Tennessee and a waiver from the recently-enacted liberalization measures in Virginia (which expires in 2005), none of LG&E Energy s utility operations are subject to customer choice or competitive market conditions. LG&E Energy s customers are therefore generally required to purchase their electric service from LG&E Energy s utility subsidiaries at prices set by state governmental regulators.

LG&E Energy s primary electric service territories are located in Kentucky, which accounted for 60 percent of LG&E Energy s total revenues in 2002. To date, neither the Kentucky General Assembly nor the Kentucky Public Service Commission have adopted or announced a plan or timetable for retail electric industry competition

in Kentucky. However, the nature or timing of any new legislative or regulatory actions regarding industry restructuring or the introduction of competition and their impact on LG&E and KU cannot currently be predicted.

Although retail choice became available for many customers in Virginia in January of 2002, KU was able to obtain an extension of the effective date for its Virginia customers to January of 2005, pursuant to the Virginia Electric Restructuring Act. Prior to the receipt of the waiver, KU, as required, had filed unbundled rates that would become effective when its customers were able to receive energy from a supplier other than KU. During 2002, KU s Virginia operations accounted for approximately 5 percent of KU s total revenues and approximately 2 percent of LG&E Energy s total revenues. LG&E Energy s very limited Tennessee operations accounted for less than one percent of total revenues in 2002.

LG&E Energy has moved aggressively over the past decade to be positioned for any shift to customer choice and a competitive market for energy services. Specifically, LG&E Energy and its subsidiaries have taken many steps to prepare for the expected increase in competition in its business, including support for performance-based ratemaking structures, aggressive cost reduction activities; strategic acquisitions, dispositions and growth initiatives; an increase in focus on commercial and industrial customers; an increase in employee training; and necessary corporate and business unit realignments.

In contrast to the relatively stable market environment in which LG&E Energy s utility businesses operate, its non-utility businesses are largely exposed to changes in wholesale prices for electricity, which have decreased significantly in recent periods, as well as being exposed to increases in fuel costs. The gas distribution businesses in Argentina have also suffered significantly from the severe economic crisis facing that country. Deterioration in the market environment for LG&E Energy s non-utility businesses was partially responsible for triggering the impairment analysis and related write-down of goodwill described in more detail in Item 5. Operating and Financial Review and Prospects Results of Operations and Notes 4 and 12 to the Notes to Consolidated Financial Statements.

Seasonal variations in U.S. demand for electricity reflect the summer cooling period as the time of peak load requirements, with a lesser peak during the winter heating period, the latter primarily in regions which do not have extensive gas distribution networks. The peak period of retail gas demand is the winter heating period.

#### Utility Business

*LG&E*. LG&E is a regulated public utility that generates and distributes electricity to approximately 382,000 customers and supplies natural gas to approximately 310,000 customers in Louisville and adjacent areas of Kentucky. LG&E s service area covers approximately 700 square miles in 17 counties. LG&E s coal-fired electric generating plants, which are all equipped with systems to reduce sulphur dioxide ( **SO** emissions, produce nearly all (97 percent) of LG&E s electricity; the remainder is generated by combustion turbines (2 percent) and by a hydroelectric power plant (1 percent). Underground natural gas storage fields assist LG&E in providing economical and reliable gas service to customers. As of December 31, 2002, LG&E owned steam and combustion turbine generating facilities with an attributable capacity of 2,882 MW and a 48 MW hydroelectric facility on the Ohio River.

*KU*. KU is a regulated public utility engaged in producing, transmitting, distributing and selling electric energy. KU provides electric service to approximately 507,000 customers in 77 counties in central, south-eastern and western Kentucky and approximately 30,000 customers in five counties in south-western Virginia. In Virginia, KU operates under the name Old Dominion Power Company. KU also sells wholesale electric energy to 12 municipalities and fewer than 10 customers in Tennessee. KU s coal-fired electric generating plants produce most (97 percent) of KU s electricity; the remainder is generated by gas- and oil-fired combustion turbines and a hydroelectric facility. As of December 31, 2002, KU owned steam and combustion turbine generating facilities with an attributable capacity of 4,111 MW and a 24 MW hydroelectric facility.



### **Power Generation**

The following table sets forth details of LG&E s and KU s electric power generation facilities, including their total capacity, the stake held by LG&E Energy and the attributable capacity to LG&E Energy for each facility as of December 31, 2002, and their start-up dates.

## LG&E S AND KU S ELECTRIC POWER STATIONS

		LG&E Energy s Share			
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date	
Hard Coal					
Cane Run 4 (1)	155	100.0	155	1962	
Cane Run 5 (1)	168	100.0	168	1966	
Cane Run 6 (1)	240	100.0	240	1969	
E.W. Brown 1 (2)	104	100.0	104	1957	
E.W. Brown 2 (2)	168	100.0	168	1963	
E.W. Brown 3 (2)	429	100.0	429	1971	
Ghent 1 (2)	509	100.0	509	1974	
Ghent 2 (2)	494	100.0	494	1977	
Ghent 3 (2)	496	100.0	496	1981	
Ghent 4 (2)	467	100.0	467	1984	
Green River 1 (2)	22	100.0	22	1950	
Green River 2 (2)		100.0	22	1950	
Green River 3 (2)	68	100.0	68	1954	
Green River 4 (2)	100	100.0	100	1959	
Mill Creek 1 (1)	308	100.0	308	1972	
Mill Creek 2 (1)	306	100.0	306	1974	
Mill Creek 3 (1)	391	100.0	391	1978	
Mill Creek 4 (1)	480	100.0	480	1982	
Trimble County (1)	514	75.0	386	1990	
Tyrone 3 (2)	71	100.0	71	1953	
		10010	, <u>-</u>	1,00	
Total	5,512		5,384		
Natural Gas					
Cane Run 11 (1)	14	100.0	14	1968	
E.W. Brown 5 (3)	116	100.0	116	2001	
E.W. Brown 6 (3)	154	100.0	154	1999	
E.W. Brown 7 (3)	154	100.0	154	1999	
E.W. Brown 8 (2)	110	100.0	110	1995	
E.W. Brown 9 (2)	110	100.0	110	1994	
E.W. Brown 10 (2)	110	100.0	110	1995	
E.W. Brown 11 (2)	110	100.0	110	1996	
E.W. Brown IAC (3)	98	100.0	98	2000	
Haefling 1 (2)	12	100.0	12	1970	
Haefling 2 (2)	12	100.0	12	1970	
Haefling 3 (2)	12	100.0	12	1970	
Paddy s Run 11 (1)	12	100.0	12	1968	
Paddy s Run 12 (1)	23	100.0	23	1968	
Paddy s Run 13 (3)	158	100.0	158	2001	
Trimble County 5 (3)	155	100.0	155	2002	
Trimble County 6 (3)	155	100.0	155	2002	
Waterside 7 (1)	11	100.0	11	1964	

		LG	&E Energy s Share	
Power Plants	Total Capacity Net MW	%	Attributable Capacity MW	Start-up Date
Natural Gas (continued)				
Waterside 8 (1)	11	100.0	11	1964
Zorn 1 (1)	14	100.0	14	1969
Total	1,551		1,551	
Oil				
Tyrone Unit 1 (2)	27	100.0	27	1947
Tyrone Unit 2 (2)	31	100.0	31	1948
Total	58		58	
Hydroelectric				
Dix Dam (2)	24	100.0	24	1925
Ohio Falls (1)	48	100.0	48	1928
Total	72		72	
I C&F Energy Regulatory Utility Rusiness Total	7 103		7.065	
EGGE Energy Regulatory Ounty Dusiness rotal	1,195		7,005	

(1) Power stations owned by LG&E.

(2) Power stations owned by KU.

(3) Power stations jointly owned by LG&E and KU.For details about WKE s power plants, see Non-Utility Businesses WKE.

*Fuel.* Coal-fired generating units provided approximately 97 percent of LG&E s and 97 percent of KU s net kWh generation for 2002. The remainder of 2002 net generation was made up of hydroelectric plants and of natural gas and oil fuelled combustion turbine peaking units. LG&E Energy has no nuclear generating units and coal will be the predominant fuel used by LG&E Energy s subsidiaries for the foreseeable future. LG&E and KU have entered into coal supply agreements with various suppliers for coal deliveries for 2004 and beyond and normally augment their coal supply agreements with spot market purchases. The companies have coal inventory policies, which they believe provide adequate protection under most contingencies. Reliability of coal deliveries can be affected from time to time by a number of factors, including fluctuations in demand, coal mine labor issues and other supplier or transporter operating or contractual difficulties.

Each of LG&E and KU expect to continue purchasing much of their coal, which has varying sulphur content ranges, from western Kentucky and southwest Indiana, with additional LG&E purchases from West Virginia and KU purchases from eastern Kentucky, Wyoming and Pennsylvania. In general, the delivered cost of coal, particularly for spot purchases where long-term contracts are not in place, has been rising since late 2000.

LG&E purchases natural gas supplies from multiple sources under contracts for varying periods of time, and transportation services are purchased from Texas Gas Transmission Corporation and Tennessee Gas Pipeline Company. LG&E also has a portfolio of supply arrangements with various suppliers in order to meet its firm sales obligations. These gas supply arrangements include pricing provisions that are market-responsive. LG&E believes these firm supplies, in tandem with pipeline transportation services, provide the reliability and flexibility

necessary to serve LG&E s gas customers. LG&E operates five underground gas storage fields with a current working gas capacity of 15.1 billion cubic feet. Gas is purchased and injected into storage during the summer season and is then withdrawn to supplement pipeline supplies to meet the gas-system load requirements during the winter heating season.

LG&E and KU have limited exposure to market price volatility in prices of coal and natural gas, as long as cost pass-through mechanisms, including the fuel adjustment clause and gas supply clause, exist for retail

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customers. For a more detailed explanation of these mechanisms, see Regulatory Environmen

Regulatory Environment U.S. Business.

Asset-Based Energy Marketing. LG&E and KU seek to optimize the value of their generating assets by selling excess energy to wholesale customers. This asset-based energy marketing activity accounted for 1.3 TWh of sales during the period from July 1, 2002 through December 31, 2002.

#### Transmission

LG&E Energy s utility subsidiaries LG&E and KU operate 5,116 miles of transmission line. They participate as transmission owning members of the Midwest Independent System Operator (MISO), which commenced commercial operations in February 2002. In 2002, the Federal Energy Regulatory Commission affirmed the MISO s imposition of certain of its administrative costs on all users of the system, including native load customers. This has resulted in increased costs for LG&E and KU. LG&E and KU are aggressively participating in ongoing proceedings before both the Federal Energy Regulatory Commission and the United States Court of Appeals, challenging the imposition of these costs on native load customers.

#### Distribution/Retail

The electric retail activities of LG&E and KU are limited to their respective service territories in Kentucky, with a small KU service region in Virginia and service to less than 10 customers in Tennessee. For the six months following its acquisition on July 1, 2002, LG&E s total electric retail sales (to residential, commercial and industrial customers) were 6.3 billion kWh and total aggregate electric sales (including wholesale sales) were 7.3 billion kWh. For the six months beginning July 1, 2002, KU s total electric retail sales (to residential, commercial and industrial customers) were 10.2 billion kWh and its total aggregate electric sales were 10.5 billion kWh.

The following table sets forth LG&E s and KU s sale of electric power for the periods presented:

Sales of electric power to	Total 2002 million kWh	July-December 2002 million kWh
Residential	10,233	5,513
Commercial and industrial customers	15,657	8,145
Municipals	1,926	1,027
Other retail	3,553	1,848
Asset-based energy marketing	3,805	1,317
Total	35,174	17,850

The gas retail activities of LG&E are limited to its service territory in Kentucky. For the six months beginning July 1, 2002, LG&E s total retail gas sales were 6.5 billion kWh and total aggregate gas sales (including wholesale sales) were 6.7 billion kWh.

#### Non-Utility Businesses

*LCC.* LCC is the primary holding company for LG&E Energy s non-utility businesses discussed below. Its businesses include domestic power generation and wholesale sales, international operations, and pipeline services.

*WKE*. Through WKE, LCC has a 25 year lease of and operates the generating facilities of Big Rivers Electric Corporation (BREC), a power generation cooperative in western Kentucky, and a coal-fired facility owned by the city of Henderson, Kentucky aggregating a total generating capacity of 1,771 MW. Nine coal-fired units are under lease, including Coleman unit 1 and unit 2 (150 MW each), Coleman unit 3 (155 MW), Green unit 1 (231 MW) and unit 2 (223 MW), Henderson unit 1 (153 MW) and unit 2 (159 MW), Reid 1 (65 MW), and Wilson (420 MW), as well as one oil-fired unit, Reid Combustion Turbine (65 MW). For the six months period from July 1, 2002 through December 31, 2002, WKE generated approximately 5.3 TWh of electricity. Approximately 89 percent of WKE s net generation is used to serve BREC s three member cooperatives and two regional aluminum smelters. Remaining power is sold into the wholesale electric market. As a non-utility entity,

WKE is exposed to changes in fuel prices. To mitigate this exposure, WKE has entered into various interim-term fuel supply contracts and is pursuing the use of alternative fuels.

*Argentine Gas Distribution Operations.* LCC owns interests in Argentine gas distribution operations which provide natural gas to approximately two million customers in Argentina through three distributors (Gas Natural BAN S.A. (Ban), Distribuidora de Gas Del Centro S.A. (Centro) and Distribuidora de Gas Cuyana S.A. (Cuyana)). LCC owns 19.6 percent of Ban, 45.9 percent of Centro, and 14.4 percent of Cuyana. LG&E Energy s operations in Argentina have been affected by the recent economic and political developments in Argentina. For more information, see Item 3. Key Information Risk Factors.

*LPI*. LG&E Power Inc. (LPI), a wholly owned subsidiary of LCC, and its affiliates own, operate and maintain interests in six U.S. independent power generation facilities. LCC also owns an interest in a wind power generation facility in Tarifa, Spain and a minority interest in two U.S. combined cycle gas generation facilities. LG&E Power Services LLC, an affiliate of LPI, also operates two 63 MW coal-fired facilities in the U.S. under a medium-term operating contract with an independent third party utility.

*CRC-Evans.* CRC-Evans is a provider of specialised equipment and services used in the construction and rehabilitation of gas and oil transmission pipelines. By SEC order, LG&E Energy is required to ultimately dispose of CRC-Evans to meet the requirements of PUHCA. For more information on PUHCA, see History and Development of the Company Powergen Acquisition.

LEM. LEM engages in asset-based energy marketing, which primarily involves the marketing of power generated by non-utility physical assets owned or controlled by LG&E Energy and its affiliates.

Effective June 30, 1998, LEM discontinued its merchant energy trading and sales business. This business consisted primarily of a portfolio of energy marketing contracts entered into in 1996 and early 1997, including a long-term contract with Oglethorpe Power Corporation, nationwide deal origination and some level of proprietary trading activities, which were not directly supported by LG&E Energy s physical assets. LG&E Energy s decision to discontinue these operations was primarily based on the impact that volatility and rising prices in the power market had on its portfolio of energy marketing contracts. LG&E Energy continues to settle commitments entered into during this period that obligate it to buy and sell natural gas and electric power through 2008 and has established a reserve to cover expected future costs.

#### **Regulatory Environment**

#### U.K. Business

The electricity industry in Great Britain is subject to regulation under the Electricity Act 1989 (as amended) and the Utilities Act 2000. Powergen s gas business is subject to regulation under the Gas Act 1986 (as amended), the Utilities Act 2000 and the Pipelines Act 1962. Liberalization of the electricity and gas industries in the U.K. largely pre-dated the adoption by the EU of the Electricity Directive and the Gas Directive described under E.ON Energie Regulatory Environment above, but the U.K. regulatory regime is basically consistent with the terms of such directives. For information about environmental-related legislation and regulations, see Environmental Matters U.K. Business. Powergen is also subject to existing U.K. and EU legislation on competition.

The gas and electricity markets in England, Wales and Scotland are regulated by a single energy regulator, the Gas and Electricity Markets Authority (the Authority ), established in November 2000. The Authority is assisted by Ofgem, which is governed by the Authority. The principal objective of the Authority is to protect the interests of consumers of gas and electricity, wherever appropriate, by the promotion of effective competition in the electricity and gas industries. The Authority may grant licenses authorising the generation, transmission, distribution or supply of electricity and the transportation, shipping or supply of gas. Any such license will incorporate by reference the standard conditions determined for that type of license, which may be modified by the Authority. The license may also include other conditions that the Authority considers appropriate. License conditions may be modified in accordance with their terms or under the provisions of the Electricity Act 1989 (as amended) or Gas Act 1986 (as amended), as appropriate. The Authority has power to impose financial penalties on licensees or make enforcement orders for breach of license conditions and other relevant requirements.

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The Authority also has within its designated areas of responsibility many of the powers of the Director General of Fair Trading to apply and enforce the prohibitions in the Competition Act 1998 in relation to anti-competitive agreements or abuse of market dominance, including imposing financial penalties for breach. Within its designated areas, the Authority also exercises concurrently with the Director General of Fair Trading certain functions under the Fair Trading Act 1973 relating to monopoly situations. The Enterprise Act 2002, which received royal assent in November 2002 and is expected to come into force in spring/summer 2003, repeals the provisions of the Fair Trading Act relating to monopoly situations but introduces certain other powers, e.g. in relation to investigation of markets.

*The Electricity Act.* Unless covered by a license exemption, all electricity generators operating a power station in England, Wales or Scotland are required to have a generation license. The principal generation license within the Powergen group is held by Powergen U.K. Although generation licenses do not contain direct price controls, they contain conditions which regulate various aspects of generators economic behaviour.

Following the entry into force of the relevant provisions of the Utilities Act 2000, the Electricity Act 1989 was amended to end the granting of public electricity supply licenses which previously regulated supply and distribution in the authorized area of a Regional Electricity Company. Instead, the Authority may now grant separate licenses for supply and distribution, and the grant of a supply license and a distribution license to the same entity is prohibited (though licenses may be granted to members of the same corporate group). The public electricity supply license previously held by Powergen Energy plc now has effect as an electricity distribution license held by EME (formerly Powergen Energy plc) and an electricity supply license held by Powergen Retail Limited (formerly known as Powergen Retail Gas Limited). In addition, the second-tier electricity supply licenses pr