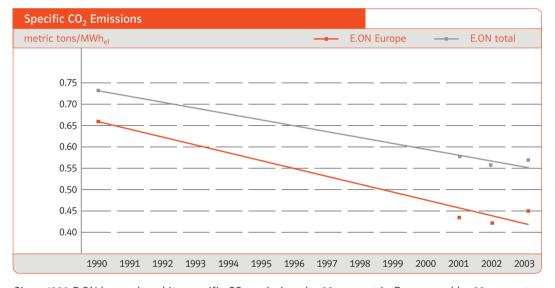
## Energy Efficiency Engagement



"We are especially proud of the fact that our power plants have consistently reduced their specific  $CO_2$  emissions since 1990."

Wulf H. Bernotat



Since 1990 E.ON has reduced its specific  ${\rm CO_2}$  emissions by 22 percent in Europe and by 32 percent overall (based on pro-forma aggregate reductions achieved by E.ON's current management companies).

# Energy Efficiency Engagement

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#### Dear Reader,

Corporate responsibility for our society and the environment has always been a core issue in the energy sector, as a modern and efficient supply of energy plays a vital role in the economic and technical progress of all countries. Indeed, economic growth, prosperity and employment around the world are inextricably related to the efficiency of energy supply. As a key player in this crucial sector, E.ON makes an important contribution to economic performance by striving to maximize efficiency in all aspects of our operations. Efficiency is the decisive driver of the sustainable development of an energy enterprise.

E.ON has almost completed its transformation into a clearly focused energy group. Now the entire Group can address a central issue, which was previously dealt with separately in the various business units: the design of a comprehensive strategy for E.ON's sustainable development. This is our objective. As a first step in this direction, this Report provides a snapshot of the status quo within our Group. We wish to document specifically where we stand now, while at the same time exploring future opportunities and directions. This Report is far more than just an elaboration of E.ON's environmental activities: it illustrates how we perceive and express our broader responsibility to society as a whole, based on the entirety of our actions as a business. This is the first step and more will follow.

When it comes to sustainable development, E.ON takes its stakeholders' demands seriously. It is our firm conviction that our actions are ultimately judged by the world that we create for future generations. Our dedication to sustainable development is also a reflection of European corporate culture, which continues to be an important part of our identity in an increasingly globalized world. We act as a "good corporate citizen" in the cities, regions and countries where we do business. Wherever we have operations, we work actively with stakeholders to foster economic development and structural progress. Of course, E.ON's subsidiaries all have their own national corporate cultures and values which shape the way they perceive and express their social responsibility. Our customers expect us to provide top-quality products and services at fair prices. Our shareholders provide us with capital and are entitled to expect a competitive yield in return. Our employees deserve exciting career opportunities and the best possible level of occupational health and safety, and should share in the company's success. E.ON is proud to look back on a long-standing tradition of close, trustworthy cooperation with our employees' representatives. It is impossible to live up to these various, wideranging responsibilities if focus is exclusively on short-term profit. Yet, it is also clear that profits are essential, for only companies which are successful over the long term can hope to meet and exceed demanding expectations. Consequently, success as a business is also an element of sustainability.

This Report demonstrates the progress we are making in integrating sustainable development by presenting real, down-to-earth examples: for instance, since 1990 we have cut  $\mathrm{CO}_2$  emissions per kilowatt-hour of generation in our European electricity business by 32 percent, and  $\mathrm{CO}_2$  emissions from our German power generation operations are substantially lower than the sector average. Thanks to our hydroelectric generation capacity, we are the largest private producer of electricity from renewable sources in all of Europe. We are hotly pursuing the development of new technologies, because our understanding of social responsibility goes far beyond mere environmental protection.

We also support public-interest bodies and foundations and promote culture and the arts in a myriad of ways. One of our particular interests is providing education and vocational training for young people. This year we are offering an additional 300 young people the opportunity to train and work, as a part of the vocational training program which Germany's federal government launched with the private sector. At about seven percent, our trainee-to-staff ratio is higher than the average in Germany.

This Report is for all of the employees in our Group, as well as for our customers, shareholders, authorities, multipliers, analysts and business partners: it is an invitation to enter into a dialogue with us. We hope that it will generate a broad range of suggestions and ideas and foster constructive criticism. In closing, we would like to express our deep gratitude to all of those whose ideas and actions, and whose knowledge and input, have contributed to this Report.

Sincerely

Wulf H. Bernotat Chairman and CEO

Manfred Krüper

Member of the Board of Management





## Taking Responsibility for Future Generations

Combining Three into One—the Principle of Sustainability

Energy Efficiency Engagement

#### Combining Three into One—the Principle of Sustainability

E.ON is committed to the principle of sustainability. For us, the principle of sustainability means a continuous, long-term effort to balance the ecological, economic and social behavior rightly expected of us by the economy and society as well as by our owners and employees.

Focusing too much on only one of these aspects, or making one of them the prime objective, would be short-sighted, would lead way to poor results and ultimately would endanger our ability to honor our commitment to the other aspects of our strategy for sustainability.

We believe that our business activities are sustainable, as long as we:

- provide electricity and natural gas with minimum use of resources and generation of emissions,
   in a manner reflecting competitive conditions and serving the interests of our shareholders
- market our products at competitive prices while ensuring security of supply
- offer our employees jobs that are attractive and safe

#### Energy

E.ON is clearly focused on energy—supplying electricity, gas and heat—as one of the world's largest private utilities. Accordingly, this Report is dedicated exclusively to our energy-related operations. We will not present a report of the services and management systems of our real estate subsidiary Viterra and our shareholding in the chemicals group Degussa, as well as other non-core businesses which we intend to dispose of in the medium term. Degussa regularly presents its important contributions to sustainable development in its Corporate Citizenship Report.

#### Efficiency

An energy policy fulfills the criteria of efficiency if it achieves the three objectives of ensuring security of supply, profitability and environmental protection in a balanced manner.

We adhere to this interpretation of the principle of sustainability both in our day-to-day business operations as well as in our long-term investment decisions. In this regard, our key objective is efficiency, as efficient energy supply structures are:

- economically sustainable, because they are competitive and secure
- · ecologically sustainable, because they optimize the use of resources and minimize emissions
- socially sustainable, because they promote and secure employment

In our view, the principle of sustainability is only achieved by energy supply structures which generate and provide products using modern technology in an economically viable manner based on a broad energy mix.

#### Engagement

We are aware of our responsibility:

- to our shareholders for managing our operations for long-term success and sustainable profits
- to the environment, as we strive to prevent our business activities from having any detrimental impact on the climate, air, soil or water
- to our employees, to whom we are committed to guaranteeing equal opportunities, advanced
  education and training, and secure jobs, while ensuring healthy working conditions and a suitable
  balance between work and family life
- to society, as we wish to promote social development and progress outside of the framework of our business activities

These responsibilities require us to be involved with all of these groups in order to make our contribution to sustainable development. In the forthcoming months we will establish competencies and unify the systems which are necessary throughout the Group. This will form a solid foundation for presenting comprehensive, transparent reports, and for formulating and achieving ambitious sustainability goals in our work.

We believe that it is perfectly natural to provide complete, factual information to the public, in order to establish a high level of transparency. This is why we are also active in the World Business Council for Sustainable Development (WBCSD) and the "econsense" Forum for Sustainable Development for German Business, the national partner of "CSR Europe."

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#### **OneE.ON: Guiding Principles**

Part of the process of integrating E.ON into a focused energy group was to define our shared values in our OneE.ON guiding principles. In doing so, our goal is to blend the various strengths of the individual companies with their specific individual corporate cultures and identities in our quest to build an even stronger unified set of E.ON principles. The linking elements are the common long-term business goals that we share (corporate vision), the broader business objectives (corporate mission) and the sets of values and behaviors that are necessary to implement our vision and mission.

In January 2005 E.ON's Board of Management approved the OneE.ON guiding principles, the result of the creativity, dedication and hard work of many E.ON employees. Together, our job is to make these guiding principles the driving force behind all of our everyday business activities.

One essential aspect of this is interacting responsibly with society and the environment, with our customers and shareholders, and with employees and business partners. We believe that a fruitful exchange of ideas and constructive dialogue must be maintained with all of these important stakeholders.

#### **Guiding Principles**

#### Our Vision

E.ON will be the world's leading power and gas company.

#### Our Mission

For this to happen, we must be valued by our customers for bringing competitive solutions, reliability, comfort and convenience to their lives and businesses. We win by being an integrated power and gas company, combining international strength with local focus and applying the best ideas from across our group and beyond. If we do this, we create superior value for our shareholders and excellent opportunities for our employees.

#### **Our Values**

To get where we intend to go, we recognize the importance of our employees, our communities and our environment and share these values:

- IntegrityWe do what we say.
- Openness
   We say what we think.
- Trust and Mutual Respect
   We treat others as we would like to be treated.
- Courage
   We do and say what we believe is right.
- Social Responsibility
   We act for the long-term interest of society.

#### **Our Behaviors**

Guided by our values, these key behaviors are essential to achieve our mission:

- Customer Orientation
- Drive for Excellent Performance
- Change Initiation
- Teamwork
- Leadership
- Diversity and Development

#### A Clear Focus on Energy—an Overview of E.ON

E.ON is the world's largest investor-owned power and gas utility with well over 40 million customers,¹ sales of more than €46 billion and about 70,000 employees, excluding our shareholding in Degussa. E.ON AG headquartered in Düsseldorf, Germany, functions as the Corporate Center for the E.ON Group. Over the last four years we have shaped our company through acquisitions and disposals and created an energy group with a focus on power and gas. Our market-oriented organizational structure has three tiers. The Corporate Center's main tasks are to chart E.ON's strategic course as an integrated energy company, to manage business issues that transcend individual markets, and to continually optimize our business portfolio. E.ON Energie, E.ON Ruhrgas, E.ON UK, E.ON Nordic, and LG&E Energy are tasked with managing their respective markets and regions in the five market units—Central Europe, Pan-European Gas, U.K., Nordic and U.S. Midwest—autonomously, leaving responsibility for day-to-day operations in the hands of their business units.



E.ON Corporate Center, Düsseldorf



In order to further enhance our competitive position in the European power and gas marketplace, we are planning major medium-term investments, with a view to strengthening and consolidating our operations. We primarily view Italy, Bulgaria, Romania and Russia as potential new markets. For 2005 to 2007, our plans call for total investments amounting to €18.7 billion, of which €12.6 is earmarked for property, plant and equipment. The main share is for maintaining and expanding our power and gas networks, and for implementing environmental compliance programs in our generation portfolio. More than 60 percent of our planned investments are targeted outside Germany.

For current data on E.ON's financial indicators, sales figures and other business data, please refer to our 2004 Annual Report and the interim reports which are available in the "Investors" section of our website at www.eon.com.

#### Creating Added Value—Our Corporate Strategy

When VEBA and VIAG merged to form E.ON in 2000, E.ON was a conglomerate with over 70 strategic fields of business in roughly 10 major companies, including VEBA Oel, the logistics group Stinnes, and the telecommunications enterprise VIAG Interkom. Only €13 billion of the €93 billion in sales was generated by the power and gas business and almost all of this was earned in Germany. Now our transformation into a focused power and gas company is almost complete: 90 percent of our capital is invested in the energy business, which generates over 90 percent of our earnings, roughly one-third of which is earned outside Germany. This radical restructuring of the Group will culminate in the planned disposal of the real estate company Viterra and the chemicals manufacturer Degussa.

#### Leadership

For E.ON, leadership means:

- to be ranked No. 1 in terms of the quality of our products, the efficiency of our business and the satisfaction of our customers
- setting the standards for the industry: We don't have to be active everywhere in the world to satisfy this demand, but where we do do business, we shall do our utmost to meet the highest
- initiating change: We wish to exploit our business opportunities and expand them wherever possible. We take a proactive approach to change, focusing on working to shape it, rather than merely reacting to it

Our goals are ambitious. We will be a company that generates sustainable profits and earns much more than its capital costs. Because in doing so, we create value:

- attractive returns for our shareholders
- interesting careers for our employees
- competitive prices, quality and security for our customers

Now that the transformation from a conglomerate into an international energy services provider has been completed and the phase of major acquisitions and disposals is finished, the main priorities are to steadily reinforce our leading position in the markets in which we do business, to streamline our corporate structures, and to further enhance the performance of our businesses. Our strategy is based on four key points:

- focus on power and gas
- integration of business operations
- promotion of growth in select core markets
- strengthening corporate identity, both internally and externally

Currently, the main focus is on strategic decision-making for the period following 2006: How will the marketplaces for power and gas look in the coming decade? Which factors will be decisive for success or failure? If the markets move, we must move faster.

#### Markets

We intend to exploit the opportunities presented by the increasing power-gas convergence in all of our markets. In our Western and Eastern European markets, the emphasis is on strategic development to reinforce our existing market positions and increase cross-border cooperation. Our Pan-European Gas business is ready for the challenges and opportunities created by further liberalization of the gas market outside Germany. Our operations in the U.K. are looking forward to the optimization of the generation portfolio as the main thrust of their strategic development, as this move has become important following the introduction of emissions trading and the politically-driven expansion of renewable energy sources. In Scandinavia, the focus is on integrating our Swedish energy company Graninge and restructuring management for the Nordic market as a whole. In the U.S. Midwest market unit, we will concentrate on further improving performance and optimizing our existing operations over the next five years.

The essence of "sustainable investment" as practiced by SAM is that companies which embrace social and environmental aspects as well as business goals in their strategies are better investments over the long term. This is because companies of this caliber reduce their risks, while at the same time opening up new opportunities for development. After all, the driving forces behind competitiveness are the challenges of the future. For example, for energy utilities this means that they not only have to make efficient use of renewable sources of energy, but that they also have to focus more and more on providing energy-related services and on ensuring security of supply amidst changing conditions, such as global warming and the availability of raw materials.

Urs Schön, Sustainability Analyst at SAM Research Inc. in Zurich



#### **Principles**

In a liberalized market, energy supply cannot be managed solely on the basis of profitability. As a leading energy supplier, E.ON is part of an intricate web of responsibilities at various levels. The societies in which we do business must be able to count on a secure, reliable supply of energy. At the same time, we must minimize the use of natural resources for energy generation as well as the impact our power production has on our climate. And we must remain competitive as a business, amidst global competition which is characterized by extremely diverse conditions for doing business in different locations.

For E.ON, this means that, in addition to economic performance, numerous non-economic parameters must be taken into consideration in the development of our enterprise, and that concrete goals must be defined for these parameters.

# Taking Responsibility for the Environment

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### The Best is the Enemy of the Good—Protecting the Climate and Conserving Resources

Reserves of fossil fuels are finite. Known reserves of oil, gas and coal can be extracted for some decades into the future, in a cost-efficient manner using current technologies, at current energy prices. In addition to this, there are further substantial energy resources available, but these resources (e.g. shale oil, tar sands and gas hydrates) cannot yet be recovered in an economically viable manner given the current level of energy prices.

The continuous reduction of fossil fuel reserves will force markets to adjust to rising energy prices, thus leading to higher energy efficiency. In this way, the economy will be able to respond to the financial ramifications of further extraction and the shrinking reserves of fossil fuels. Consequently, we believe that our obligation to future generations means that we must strive to meet our current fossil fuel needs as efficiently as possible.

#### **Global Warming**

Protecting the climate is now understood as an issue that affects all of us, and there are increasingly strong efforts at the international level to help mitigate climate change. The Montreal Declaration, the Climate Change Convention agreed in Rio de Janeiro and the Kyoto Protocol all reflect the necessity for the countries of the world to place greater emphasis on protecting the atmosphere and ensuring that future generations inherit a viable environment. The increasing level of greenhouse gases in the earth's atmosphere, which is presumed to have a detrimental impact on the climate in relation to the observed warming of the atmosphere, is the main focus of political efforts in this direction. Despite the fact that discussions continue in the scientific community, many countries have agreed on a strategy to reduce emissions of greenhouse gases as a means of mitigating climate change. We believe that we have an obligation to future generations to limit our emissions of greenhouse gases as much as possible.

The necessity of improving energy efficiency is also supported by new market-economy instruments being employed as a part of climate policy, which aim to give companies economic incentives to invest in protecting the climate and minimizing the use of resources, rather than forcing them to do so with an arsenal of politically mandated regulations.

One of these new instruments is emissions trading. The basic idea is that each country in the world will set its climate protection goals, taking into account the international competitiveness of its national economy, and will allow market mechanisms to be used to achieve these goals in practice. Originators with high avoidance costs enter the market as parties seeking emissions allowances, while parties with low avoidance costs will act as suppliers of such allowances. This allows for emissions of greenhouse gases to be reduced at the lowest economic cost.

The European Union (EU) launched a trading system for allowances for carbon dioxide ( $CO_2$ ) emissions on January 1, 2005. In its current form and method of implementation at the national level in the individual EU member states, this system will not be able to fully exploit all the economic advantages. Nevertheless, it is an important first step forward on the path to achieving legal environmental protection goals in Europe by means of market mechanisms.

The introduction of the new system will put the entire range of climate-related instruments developed over recent decades in European countries to the test, since the companies engaged in emissions trading must now decide on the most efficient methods of reducing CO<sub>2</sub> emissions based on economic considerations.

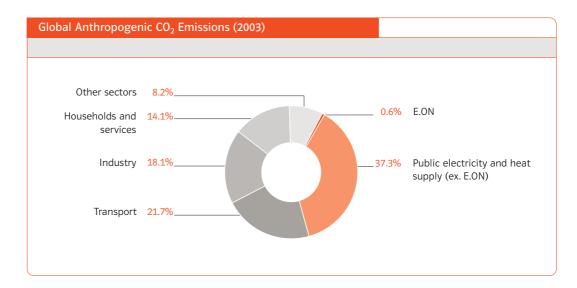
We at E.ON feel that, as a tool, emissions trading has great potential to result in a lasting improvement in efficiency, provided that this instrument's advantages are fully exploited in Europe (and preferably beyond), with due consideration to international competitiveness.

#### **Emissions of Greenhouse Gases**

According to the International Energy Agency (IEA), in 2003 approximately 25 billion metric tons of CO<sub>2</sub> were emitted around the world by power plants, industry, households and transportation. E.ON's global emissions account for roughly 0.6 percent of this total, or 138 million metric tons of CO2, primarily generated by the use of fossil fuels in our power stations. E.ON's share in global electricity production was 250 terawatt-hours (TWh) in 2003, equivalent to about 1.5 percent of the total global production of 16,663 TWh.

In addition to CO<sub>2</sub>, it is also important to take into account other pollutants such as sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and dust, which also have an impact on the local environment around our facilities.

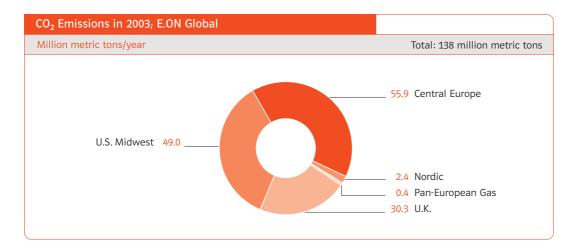
In order to be able to illustrate how E.ON's emissions of CO<sub>2</sub> have developed over time, we have aggregrated the data for the current companies in the E.ON Group for the respective periods when possible.



Protecting the environment and ensuring profitability are not mutually exclusive goals, as demonstrated repeatedly by E.ON's activities. Our experience indicates that currently, and for the foreseeable future, more progress can be achieved in mitigating climate change by making technological improvements at conventional power plants without changing the fuel mix than can be achieved by building wind farms. We are also making an important contribution to protecting the environment by increasing the use of natural gas, which is more environmentally friendly than heating oil.

#### Specific CO<sub>2</sub> Emissions

The Central Europe, U.K. and U.S. Midwest market units (MUs) accounted for most of E.ON's 138 million metric tons in aggregate  $CO_2$  emissions in 2003. The Nordic market unit only uses fossil fuels for about 5 percent of its electricity generation. Emissions by the Pan-European Gas Market unit are also very low:  $CO_2$  emissions from the transport of natural gas are essentially only generated by the operation of compressors which are used to maintain pipeline pressure to transport the gas. The data presented also include the  $CO_2$  equivalent of methane gas which escapes during maintenance work and accounts for just over one percent of the greenhouse gas emissions generated by the Pan-European Gas market unit.



Greenhouse gas emissions by E.ON's current companies have varied greatly in recent years. In part, this is due to measures to boost efficiency at power plants and to increase the use of renewable energy sources. But it is also a result of changes in the Group's structure resulting, e.g., from acquisitions, disposals and the closure or replacement of power plants. Consequently, specific  $CO_2$  emissions, which denote emissions per kilowatt-hour (kWh) of electricity produced, are more suitable for describing E.ON's progress in reducing greenhouse gas emissions than changes in the total amount of emissions. Since 1990 E.ON has succeeded in cutting specific  $CO_2$  emissions from its European operations by 32 percent, from 670 grams to 450 grams per kWh, and by approximately 23 percent for our entire range of operations.

E.ON UK recorded an especially sharp drop in both absolute and specific  $\mathrm{CO}_2$  emissions in the 1990s, as coal-fired power plants were replaced by modern gas-fired plants within the framework of a major program to optimize our power plant portfolio. During this period, the share of coal-based electricity generation in the U.K. dropped from nearly 100 percent to roughly 50 percent.

In Germany, E.ON Energie decommissioned its least efficient power plants from 2000 to 2002 and further reduced specific emissions from its generation portfolio by shifting electricity production to modern plants. Efficiency measures implemented at the generation facilities themselves were another factor contributing to the decline in specific emissions. On the other hand, increases in emissions occurred due to organic growth and acquisition-driven expansion. For example, in 2003 the coal-fired plants once owned by TXU Energy in the U.K. were added to E.ON's portfolio. Over the short and medium term, specific emissions primarily fluctuate due to natural changes in output from hydro and wind power, as such irregularities must be compensated by conventional power plants, which produce CO<sub>2</sub> emissions.

The differing levels of specific  $CO_2$  emissions at the various E.ON companies reflect the very diverse energy mix. Our Scandinavian operations, for example, produce 95 percent of their electricity from hydro and nuclear power, and thus have almost negligible CO<sub>2</sub> emissions. In contrast, in the USA our generation facilities are almost exclusively coal-fired, which is why specific emissions there amount to 1.1 metric tons of CO<sub>2</sub> per MWh of electricity production. In Germany, our specific emissions were roughly 0.38 metric tons per MWh in 2003, which is approximately 37 percent lower than the average for German power generators. Our nuclear generation capacity also helps keep our emissions low.

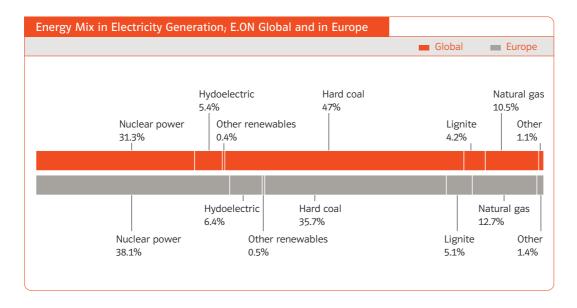
Specific CO <sub>2</sub> Emissions by E.ON Market Units				
Metric tons/MWh (electricity)	1990	2001	2002	2003
Central Europe	0.45	0.44	0.39	0.41
U.K.	0.94	0.63	0.67	0.72
Nordic	_	0.04	0.12	0.14
U.S. Midwest	1.09	1.13	1.11	1.11
E.ON Group	0.73	0.57	0.55	0.57

#### **Energy Mix**

The generation fleet in our various markets has grown and developed over the decades in line with overall conditions, technical opportunities and customer needs. In recent years, there has been an increasing focus on environmental protection and the mitigation of climate change, in addition to security of supply and cost-effectiveness. E.ON is proud to have a long-standing tradition of knowhow in energy technology. We use this expertise to optimize operations at all of our power plants, regardless of whether they use fossil fuels, nuclear fission or water. But our knowledge is also instrumental in implementing combined heat and power solutions for district heating networks, and distributed energy supply as well as using new technologies and approaches for generating energy from renewable sources. Additionally, we strive to help our customers use energy efficiently.

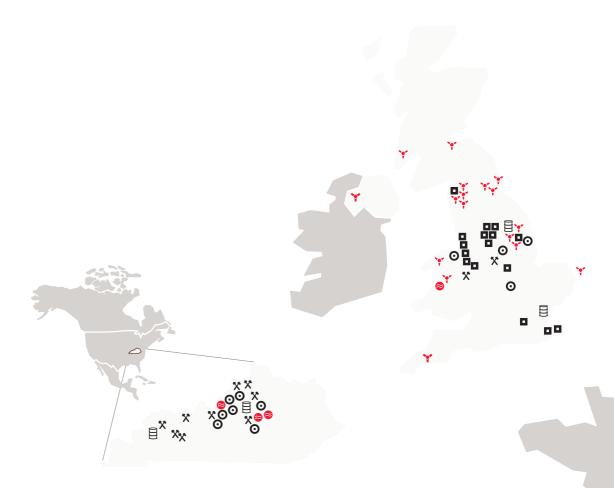
In total, E.ON operates more than 300 power stations, ranging from small hydroelectric plants with capacities of less than 1 MW in Sweden, large gas power plants in the U.K., to nuclear power stations generating up to 1,400 MW in Sweden and Germany, and coal-fired plants with capacities of 2,000 MW in Germany, the U.K. and the USA. At the global level, 37 percent of the electricity we generated in 2003 resulted in zero emissions of carbon dioxide, while in Europe 45 percent is generated without emissions. This is achieved mainly by the use of nuclear power, hydroelectric power and our increasing generation capacities based on other renewables.

Technological progress creates a constant stream of opportunities to enhance efficiency, and we continuously implement such advances during regular reviews of our European generation facilities.



#### **Power Plants of the E.ON Group**

E.ON Power Plants				
MW	Central Europe	E.ON U.K.	E.ON Nordic	U.S. Midwest
Hard coal	8,456	4,978	80	6,992
Lignite	1,313	-		-
Nuclear power	8,443	-	2,586	-
Gas	4,229	2,811	224	2,186
Oil	1,152	1,487	1,775	123
Combined heat and power	1,273	658	600	-
Hydro power <sup>1</sup>	3,138	50	3,125	72
Wind	107	119	50	-
Bio-energy		208	213	_





#### Making More from Less-Efficiency at Large Power Plants

#### Modernization of Conventional Power Plants

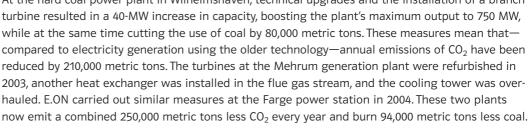
Essentially, the efficiency of power plants can be improved by modernizing turbines, increasing steam temperature, reducing losses from exhaust gases and reducing the amount of electricity needed to run the plant. Over the last ten years, E.ON has taken steps in all of its markets by improving the efficiency of heating plants, focusing on combined heat and power generation and tailoring the structure of the generation fleet, which have resulted in an annual reduction of roughly 10 million metric tons of CO<sub>2</sub>. This is equivalent to the savings that would be achieved by more than 4,000 large wind turbines with a total installed capacity of 9,300 MW, clearly underlining the significance of efficiency-enhancement measures in existing power plants, which are generally the most cost-effective solution for reducing greenhouse gas emissions.

Combined heat and power (CHP) generation is an economically viable option for increasing the efficiency of energy production using fossil fuels, if there is a need for heat or steam in the vicinity of the power plant. If this is the case (as it often is at industrial locations), CHP plants can achieve overall efficiencies of up to 90 percent. Besides providing an environmentally sound solution, they are also quite attractive from a business perspective as well. E.ON runs CHP facilities in the U.K., Sweden and Germany, which generated roughly 4,500 GWh of electricity in 2003. This resulted in savings of approximately 3 million metric tons of CO<sub>2</sub> emissions compared to separate generation of electricity and heat.

We have implemented measures to curtail emissions of greenhouse gases by modernizing our conventional generating facilities in Germany, the U.K., Sweden, Eastern Europe and the USA.

As part of our efforts to optimize our generation fleet in Germany, we have decommissioned 18 mostly smaller power plants since 2000. Production has been shifted to more efficient facilities, lowering CO<sub>2</sub> emissions by an annual 1.8 million metric tons.

At the hard coal power plant in Wilhelmshaven, technical upgrades and the installation of a branch turbine resulted in a 40-MW increase in capacity, boosting the plant's maximum output to 750 MW, while at the same time cutting the use of coal by 80,000 metric tons. These measures mean that compared to electricity generation using the older technology—annual emissions of CO<sub>2</sub> have been reduced by 210,000 metric tons. The turbines at the Mehrum generation plant were refurbished in 2003, another heat exchanger was installed in the flue gas stream, and the cooling tower was overhauled. E.ON carried out similar measures at the Farge power station in 2004. These two plants



In the second half of the 1990s, E.ON undertook a major restructuring of its power generation operations in the U.K., scaling back annual  $CO_2$  emissions by over 4 million metric tons. The program included the construction of four modern gas power stations, which boosted gas-fired electricity production capacity from 0 percent to its current level of 40 percent. In the USA two blocks at the Green River power plant, which were roughly 50 years old, were taken off line at the end of 2003, as their specific CO<sub>2</sub> emissions were 50 percent higher than the average of the other plants in our U.S. Midwest market unit.



Modernized coal-fired power plant in Wilhelmshaven



Gas-fired plant at Connah's Quay,

#### Power Generation Technology of the Future

Coal-fired power plants of the next and future generations will have to be even more economical with resources and more environmentally sound than today's facilities. Against this backdrop, E.ON plays an active part in research and development projects together with manufacturers and developers of the technologies that go into power generation. For example, we are interested in innovative large-scale technologies and in research projects on new high-temperature components and methods for the exact measurement of steam temperature. In 2003, the E.ON Group spent €69 million on research activities.

We need new technologies, processes and services to secure the future supply of energy with plants optimized to comply with energy policies and local requirements. But we must improve plant-specific efficiencies, develop  $\mathrm{CO}_2$  capture processes, and come up with effective technologies to make use of renewable sources of energy if we want to protect our climate as well. It is in this complex environment that component and systems manufacturers as well as service providers active in the electricity generation sector must operate alongside power utilities in their joint quest to achieve the best possible success by using all available primary energy sources, technologies and techniques.

Nicolas Vortmeyer, Chief Technology Officer, Siemens AG Power Generation



Together with other German energy suppliers and equipment manufacturers, E.ON is participating in the "Reference Power Plant NRW" project, with the aim of boosting the efficiency of a 600-MW hard coal power plant to 46 percent. Achieving this goal requires the use of specialized materials which are better able to withstand higher steam temperatures and pressures. The average efficiency of coal-fired plants in Germany is currently about 38 percent, meaning that a 17-percent reduction in use of resources and emissions per kilowatt-hour is possible.

In July of 2005 operations are scheduled to begin at a test facility for new high-performance materials at the E.ON generation plant in Scholven. In this project, E.ON is cooperating with other European utilities and firms specialized in plant construction within the framework of the European Emax research initiative. If the project proves successful, this would be a major step forward en route to developing a coal-fired power plant with a thermal efficiency of over 50 percent.

In the U.K., E.ON is actively involved in the U.K. government's "Cleaner Coal" R&D program and is performing studies on advanced power generation technologies such as combined cycle gas turbines (CCGT), integrated gasification combined cycle (IGCC) and electricity generation with super-critical steam parameters. In addition to this, E.ON UK is a partner in cooperative research projects within the framework of EU programs and is providing input on advanced combustion processes and high-performance materials through its engineering subsidiary E.ON UK Power Technology near Nottingham. In the USA, LG&E has joined forces with the Electric Power Research Institute on the development of new technologies and methods to achieve more efficient use of fossil fuels.

We also support research and development activities focused on pressurized pulverized coal combustion (PPCC) in a Community project sponsored by the German Federal Ministry of Economics and Labor. PPCC is a method of burning coal dust at high pressure and temperatures. Following the technically very complex cleaning of the flue gases, the gases are used to power a gas turbine for electricity production. In principle, the system functions like a coal-fired G&S plant. The efficiency of a power plant based on this design could be greater than 50 percent, meaning that roughly 20 percent less fuel would be needed compared to a plant using standard technology. The current project phase through 2005 includes a 1-MW test facility at a cost of roughly €5 million.



1-MW test facility in Dorsten



### Fresh Power from the North Modernization of the Farge Power Plant

To coal-fired Farge power plant is situated in the north of Bremen on the banks of the Weser river. E.ON has been generating power at this plant for Lower Saxony since 1969. In the middle of 2004 the plant was temporarily shut down to allow for the first major overhaul in six years. In the process, this conventional plant was upgraded to boost its gross capacity from 350 MW to more than 370 MW, while at the same time respecting the needs of our customers and the integrity of the environment.

Enhanced efficiency and capacity thanks to new turbine discs, a new condenser and its highly motivated staff

From mid-July to early October, E.ON employed Siemens Power Generation to carry out a full-scale overhaul of the plant. Both of the low-pressure turbines and the medium-pressure turbine were serviced and fitted with modern turbine discs and blades. With a diameter of just under 3.9 meters and a weight of 63 tons each, the turbine discs alone should result in an additional 14 MW in generation capacity. Other efficiency-boosting measures were carried out on the steam systems, including the replacement of the steam condenser, leading to yet another gain of 4 MW.













All in all, E.ON invested some €20 million to bring this ageing plant up to the state of the art. But this investment is good for the environment: according to expert estimates, depending on the level of capacity utilization, a conventional generation plant would have to burn an additional 40,000 tons of coal every year to achieve this much of an increase in capacity. And as a result of the upgrades, the plant's CO<sub>2</sub> emissions will actually fall by about 100,000 metric tons per year.

Thanks to the extraordinary dedication of the entire workforce, it was also possible to implement a number of innovative measures and streamline work processes, which has also helped boost the plant's net generation and reduce the amount of energy used to run the plant itself. This allows us to feed another 5 MW of additional electricity into the public power grid, without burning additional fuel or causing extra CO<sub>2</sub> emissions.

Increasing the capacity of the coal-fired Farge plant by a total of over 25 MW has made this facility the most efficient coal-fired plant in the E.ON Group, despite being one of the smaller ones, and—at the age of 35—one of our older plants.

#### CO<sub>2</sub> Reduction

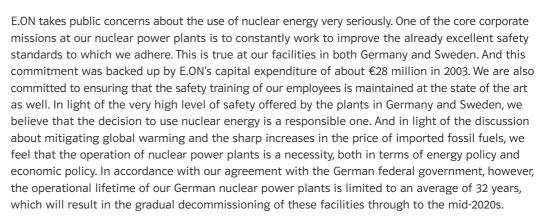
An interesting research project has also been started with nearby Bremen International University. Professor Laurenz Thomsen, head of the geosciences institute, is planning on studying the possibility of breaking down CO<sub>2</sub> using a photochemical process. This method of breaking down CO<sub>2</sub> with a special type of algae under UV light has already been tested in the laboratory. If it proves possible to transpose the use of this laboratory procedure to actual flue gas from a coal-fired power plant, there may be an interesting long-term option of using this as a cost-effective method of curtailing CO<sub>2</sub> emissions.

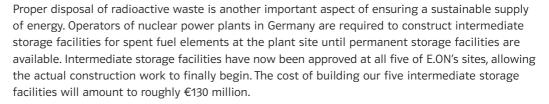
This is also currently being tested in the Farge power plant.



#### **Nuclear Power**

Nuclear power accounts for a considerable share of the E.ON Group's electricity production in Germany and Sweden, and we place a great deal of emphasis on continuously improving the efficiency and availability of our nuclear plants. This is reflected by the fact that E.ON nuclear power stations regularly take top honors amongst their international peers when it comes to generating electricity. The Isar 2 plant, for example, was No. 1 in the world again in 2003 for the fifth time in electricity generation, with an output of 12.3 TWh, about the amount of electricity produced by 10,000 wind turbines in Germany in 2003. In total, E.ON generated approximately 86 TWh in its nuclear facilities in 2003. If the same amount of energy had been produced using a mix of hard coal, lignite and natural gas power plants, our CO<sub>2</sub> emissions would have been nearly 70 million metric tons higher, equivalent to almost 10 percent of total German emissions.





The state is responsible for providing permanent storage facilities. A storage site for low and mediumlevel nuclear waste has been opened in Sweden and a location for high-level nuclear waste is to be specified in 2007. In Germany, the discussion currently centers on the question of whether a single permanent storage site for all radioactive waste would be sufficient. E.ON favors the construction of separate final storage facilities for low-level and high-level nuclear waste. Segregation of nuclear waste materials into two permanent storage sites is the practice followed in all other countries which utilize nuclear energy and was laid down in the convention on the use of nuclear energy. Furthermore, it is the most expedient solution when taking all technical and economic aspects into consideration, given the different requirements for handling these types of nuclear waste.





Isar 2 has been the nuclear power plant with the highest output for many years now

#### Natural Gas—the "Alternative" Fossil Fuel

Over recent decades, the steady increase in the use of natural gas has led to a significant improvement in air quality. In contrast to other solid or liquid fossil fuels, burning natural gas releases far less pollutants and greenhouse gases. This in turn makes it possible to ensure cleaner air, helping to protect the atmosphere at a reasonable cost.

Natural gas not only serves to reduce  $CO_2$  emissions as a fuel in heat generation—it is also being tested in new, innovative fields which we are actively exploring with partners and equipment manufacturers. For example, natural gas is used as the base material for fuel cells which operate on hydrogen. The gas distribution system may also function as a bridge to developing a hydrogen-based energy supply, as the existing infrastructure can also be used for hydrogen. Moreover, natural gas is increasingly being used as a low-emissions fuel for automobiles.

In Germany, the use of gas for heating by households and small consumers has resulted in a total annual reduction of approximately 35 million metric tons of  $CO_2$  emissions since 1990. E.ON Ruhrgas played a key role in advancing this development.



Modern gas heating

#### Transportation of Natural Gas from Russia

Gas is transported in pressurized pipelines which require compressor stations at intervals of 100–150 kilometers to maintain pressure in the pipelines. Generally, gas turbines are used for this task, but their operation results in  $\rm CO_2$  emissions. It is, however, possible to significantly lower these emissions by optimizing the flow of gas and closely coordinating the operation of the individual compressor units.

#### Joint Implementation

Joint implementation is an instrument created within the framework of the Kyoto Protocol, which allows for reductions in  ${\rm CO_2}$  emissions in other countries to be applied to the achievement of national reduction targets. We believe that the Russian gas pipeline network offers promising possibilities in this regard, which are being studied in a joint project being carried out by the Russian gas producer OAO Gazprom and E.ON. This initiative was recognized as a pilot project for joint implementation by the world climate secretariat of the United Nations—at the request of the Federal Ministry for the Environment, Nature Conservation and Reactor Safety and the state-run Russian climate research institute Roshydromet—and was presented at the world climate conference in Kyoto in December 1997. Accordingly, E.ON and Gazprom are the first German and Russian gas companies undertaking a joint implementation project to help reduce emissions of greenhouse gases.

With the aid of an optimization program for the pipeline network of one of Gazprom's subsidiaries, which has a total length of 7,500 km, it is possible to reduce the energy used by the compressors by approximately 1.5 TWh per year. This results in an annual reduction of 447,000 metric tons of  $CO_2$  emissions. If the program is applied to large parts of Gazprom's gas transportation network, the reduction in  $CO_2$  emissions may be as much as 4.5 million metric tons a year. Plans also call for extending the scope of the project to include the gas transportation network in Ukraine.



Gas transportation in Russia

#### Methane Leaks

Together with the Wuppertal Institute for Climate, Energy and the Environment and the Max Planck Institute of Chemistry in Mainz, Gazprom and E.ON Ruhrgas performed measurements at five compressor stations and along more than 4,000 km of pipeline in 2003. The resulting data was then analyzed by both of these independent institutes. The initial results confirmed E.ON's own measurements that methane leaks amount to about 1 percent. If this figure is then extrapolated to E.ON's total gas sales, the result is an annual 50,000 metric tons of methane, equivalent to 1.1 million metric tons of CO<sub>2</sub>, which is directly emitted by our operations. This is considerably less than assumed in older studies carried out by third parties.

Dr. Kirill A. Stepanov General Director of the Vernadsky Institute in Moscow



Natural gas plays an important role in the modernization of the energy infrastructure of the European Economic Area. Joint implementation projects can make an enormous difference when it comes to introducing environmentally sound technologies using fossil fuels such as natural gas. In this respect, the projects carried out by E.ON Ruhrgas in Russia stand out as excellent examples for financing solutions and know-how transfer in the field of energy efficiency. These projects reduce emissions of greenhouse gases and help to lower the impact of industrial activities on the environment.



Natural gas-powered vehicle

#### **Natural Gas Vehicles**

Natural gas vehicles (NGVs) produce far less pollutants than their diesel- or gasoline-powered counterparts, which is why they are exempt from paying mineral oil taxes in Germany. Nevertheless, widespread use of NGVs faces the hurdle of a limited filling station network as there are only 540 such stations. With the slogan "Natural Gas on the Move," the gas business is working in cooperation with the leading oil companies and municipal partners to ensure a full-coverage network of 1,000 stations selling natural gas throughout Germany by 2007. E.ON Ruhrgas was one of the co-founders of "Natural Gas on the Move." The number of registered NGVs in Germany increased in 2004 to roughly 28,500 vehicles. These NGVs emit roughly 14,000 metric tons less of CO<sub>2</sub> every year than conventional automobiles.

In the southwestern part of Sweden E.ON Nordic successfully lobbied for the use of natural gas as a fuel for buses and other vehicles. Now, all of the buses in the cities of Malmö and Lund run on natural gas, instead of diesel. This has contributed greatly to improving air quality in these cities.

#### Combined Heat and Power Generation for Customers

In addition to operating several conventional combined heat and power (CHP) plants for industrial customers, hospitals and administrative buildings, E.ON is also involved in researching new technologies for this specific field. We are participating in pilot projects and field testing of fuel cells of all types for household energy supply (1–5 kW) and for commercial and industrial applications (current test units are typically rated at 250 kW). We are looking at several different types of micro power plants to determine their suitability for use in distributed energy supply and have also pushed forward development of the so-called steam cell through our venture capital investment in Engineon. E.ON is working together with leading developers and manufacturers in all main fields, primarily in Germany and the U.K., at a total cost of roughly €3 million per year.

Compared to a conventional household energy supply system using a furnace and electricity from the power grid, these technologies can achieve a reduction of up to 25 percent in  $CO_2$  emissions. This is why we are committed to testing their practicality.

#### **Fuel Cells**

Together with partners in Germany and the Netherlands, E.ON is currently engaged in the practical testing of fuel cells to supply energy to households in order to determine their suitability for every-day use as well as their operational characteristics. This involves a network of fuel cells (Virtual Power Plant) consisting of 31 PEM units (Proton Exchange Membrane fuel cells) with an electrical capacity of 4.6 kW, all of which are in operation. Another project is investigating the possibility of using fuel cells in various supply structures and mapping out the market's needs. Up to 50 fuel cells of various types and from different manufacturers are expected to participate in this field test. Within this framework, seven SOFC (Solid Oxide Fuel Cell) units, each with a capacity of one kilowatt, are in operation so far. The "Fuel Cell Initiative" launched and coordinated by E.ON Ruhrgas focuses on uniting energy suppliers and equipment manufacturers, as well as the German Energy Agency (Dena). This pools the abilities and know-how of the individual partners in pursuing the common goal of making gas-powered fuel cells technically and economically viable for meeting household energy needs. The main areas of E.ON Ruhrgas' activities in this Initiative are gas processing and marketing.

E.ON is also involved in several fuel cell projects for industrial applications. For example, these include the installation of a SOFC plant in Hanover with a capacity of 125 kW. By the end of 2005, E.ON Energie will have invested some €900,000 in this four-year project. Promising results have also been achieved in the use of MCFC (Molten Carbonate Fuel Cell) technology, which is being tested in the Central Clinic in Bad Berka. This program involves the construction of a central energy unit for electricity, heating, ventilation and air-conditioning, which meets the needs of modern facility management. One interesting aspect of the project is the optimized use of exhaust air from the fuel cell for energy, as this exhaust can be used for cooling or heating as needed.



4.6 kW PEM fuel cell by Vaillant



Bad Berka, illustration of the combined power-heating-cooling unit



"Whisper Tech" micro CHP unit

#### Other Micro CHP Plants

Along with fuel cells, E.ON is also testing other innovative CHP systems with capacities from 1 to  $75 \text{ kW}_{el}$  for simultaneously generating power and heat for single and multiple family homes and small commercial operations. These technologies include the Stirling motor, micro gas turbines and the steam cell. In cooperation with New Zealand-based Whisper Tech, E.ON UK has engineered Stirling technology ("WhisperGen") to make it marketable. The first 50 field units were tested for over three years in homes before the first mass-produced units were sold in 2004.

E.ON UK will be replacing traditional heating furnaces in homes over the next five years with 80,000 of these Stirling CHP units to produce both electricity and warm water. Any extra electricity that is produced can be fed back into the mains network. The units, which resemble a dishwashing machine, can help cut CO<sub>2</sub> emissions by up to 20 percent per family. By 2020, at least 30 percent of all households in the U.K. should be equipped with this new technology.

David Moriarty, Managing Director, Whisper Tech UK



Micro combined heat and power is an efficient and environmentally friendly technology which is set to revolutionize the way electricity is produced, delivered and sold to the home. It will give the user cheaper and more reliable access to electricity and also offers the opportunity of more efficient use of fuel resources and produces major reductions in carbon emissions. It will provide utilities with a tool to differentiate themselves from their competitors and to develop new business models and propositions to sell what is currently a non-descript product. Progressive utilities will welcome and support its introduction. Rather than seeing it as a threat to their existing business they will see it as an opportunity to better serve their customers and fulfil their social and environmental obligations.

#### **Exploring New Paths—Renewable Energy Sources**

At present, E.ON generates about 9.5 percent of its electricity using renewable sources of energy. Plans call for expanding the use of renewables in all of the regions in which we do business, although this depends on the future operational and commercial frameworks. The United Kingdom, for example, intends to cut its  $\rm CO_2$  emissions by approximately 60 percent by 2050, compared to a baseline of 2002. This will involve an increasing emphasis on generating electricity at large offshore installations (wind, wave and tidal power), and regional and local generation using biomass, natural gas and solar power as well as measures to increase efficiency, primarily in buildings. To achieve this goal, the U.K. government requires that utilities supply a certain share of their electricity from renewable sources of energy. These quotas establish market-driven incentives. In reflection of this, our activities in the U.K. are already strongly oriented to these objectives. For example, the share of renewable energy in E.ON's electricity production in the U.K. in 2003 was 3.6 percent, which was significantly higher than the national average of 2.7 percent. This was in part achieved by concluding long-term delivery agreements.

#### Hydroelectric Power

E.ON is Europe's largest private operator of hydroelectric power plants, with an installed capacity of roughly 4,000 MW in Germany and Sweden. Even in years with little precipitation such as 2003, we reduce  $CO_2$  emissions by some 17.5 million metric tons compared with generation based on the mix of existing facilities with average emissions of 0.78 kg of  $CO_2$  per kWh. In Germany alone, we operate 122 hydropower plants and 7 pumped storage hydropower plants with a total installed capacity of 2,700 MW, producing between 8 and 10 billion kWh of electricity every year. This is equivalent to the annual consumption of about 3 million households.

Hydroelectric Power Generation (proprietary and managed plants)					
	Number of plants <sup>1</sup>	Capacity (end of 2003) in MW	Production (2003) in TWh	Reduction in CO <sub>2</sub> emissions in million metric tons/	
Central Europe	122	1,511	7.79	6.08	
U.K.	1	57	0.07	0.05	
Nordic	150	3,300	14.32	11.17	
U.S. Midwest	14	72	0.25	0.20	
E.ON Group	287	4,940	22.43	17.5	
<sup>1</sup> Excluding pumped storage hydropower plants.					



Onshore wind farm, Germany

#### Wind Power

At the end of 2004 Germany had an installed wind power generation capacity of 16,600 MW, representing more than one-third of total global capacity. Almost one-half of the power generated by wind farms is fed into E.ON's transmission network. One of the major disadvantages of wind power is its limited availability and predictability. This means that it is always necessary to have reserve capacity available, and that more and more balancing power has to be available to instantly smooth out any fluctuations caused by changes in wind speed. Moreover, reserve power plants must also be ready for operation to ensure that customers are supplied with electricity on windless days. Our experience in working with wind power in recent years has shown that due to the limited availability, more than 90 percent of installed wind power capacity must be held in reserve at conventional power plants. Accordingly, there are significant limits to the possibility to use wind power facilities as a replacement for traditional power plants, although they can help save fuel. In Germany, E.ON's investment activity in onshore wind parks has been relatively subdued due to the unfavorable prevailing wind conditions. Offshore wind power, however, appears to represent a better option due to better capacity utilization and more accurate forecasting. Consequently, such offshore wind farms are more suited for integration into our generation portfolio. In order to promote construction of these politically-motivated wind power facilities in Germany, their operation is subsidized by the German Renewable Energy Act. In 2004 alone, without taking into account the expenses for network development, balancing power and reserve capacity, the additional costs for electricity customers amounted to €2.3 billion.

Wind Farms in Operation (onshore and offshore, by market unit)					
	Number of wind farms	Capacity (end of 2003) in MW	Annual production in GWh	Reduction in CO <sub>2</sub> emissions in million metric tons/	
Central Europe	14	140	215	0.17	
U.K.	161	119	267	0.21	
Nordic	21	49	41	0.03	
E.ON total	32	308	523	0.41	
<sup>1</sup> One of which is offshore.					

In the U.K., the use of renewables is compensated commensurate to its share in total electricity production. This means that the market and competition determine the value of the wind power that is generated. Thus, in contrast to a system based on purchase prices set by the state (as in Germany), the return is not predetermined for a plant's entire operational lifetime. Nevertheless, due to better wind conditions, the construction of onshore and offshore wind farms in the U.K. is still commercially interesting under this framework.

E.ON's use of wind power currently cuts CO<sub>2</sub> emissions by approximately 500,000 metric tons per year. Numerous new wind farms are in the planning or approval stage. When these are completed, carbon dioxide emissions will be reduced by another 3 million metric tons.

The £75million Scroby Sands wind farm off the coast of Great Yarmouth has been one of the biggest developments in the area since I became the local Member of Parliament. Its 30 turbines will generate 60 MW of electricity—enough to power 41,000 homes, or the entire of Great Yarmouth. I was pleased that Powergen (now E.ON UK) were active in involving my local constituents in the project. Following a major public meeting and scientific tests, the project was developed to take account of local seal breeding sites. One of the offshoots from the wind farm is that it has become a welcome attraction to tourists. This has been proven by the renovation of an old seafront building into the new Powergen Scroby Sands Information Centre, which was visited by 30,000 people over the summer.

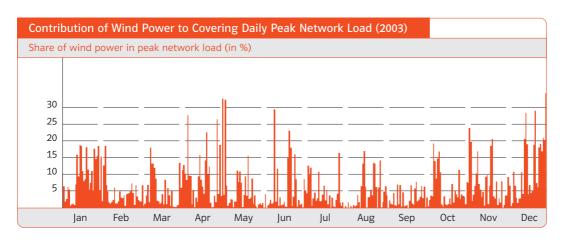
Anthony D. Wright MP, Labour-Member of the U.K. Parliament



#### Generation Management for Wind Farms

In order to be able to use and expand wind power capacity, efforts must be made immediately to adapt and adjust the power transmission networks. E.ON has already made investments totaling some €200 million and further investment will be necessary. Permits for the additional necessary changes to the network have been applied for, but the process is time-consuming. Thus, these projects will not be realized for several years. As a transitional solution E.ON has introduced "Generation management for wind farms."

This means that when the wind is blowing strongly, the farm's feed into the network is temporarily restricted to avoid overloading the network. Generation management has been in operation in E.ON network in Schleswig-Holstein since mid-2003. Over 150 wind farm operators are cooperating with E.ON in this project. The generation management program currently costs E.ON roughly €560,000 per year, and plans calls for expanding its scope to Lower Saxony as well.





# Where the Wind Reigns Supreme The Scroby Sands Project

The coast of the British Isles is home to very special winds. Indeed, the United Kingdom is one of the best places in the world when it comes to wind. Despite this, however, the country lags far behind in terms of wind power generation. But now, this is all set to change: The British government has set ambitious goals in the so-called "Renewable Obligation," with the aim of raising the share of renewable energy sources in U.K. electricity production to 10 percent by 2010. Modern wind turbines located at sea will be the main driving force for achieving this goal. The Blyth offshore wind farm with an installed capacity of 4 MW is already up and running. E.ON UK Renewables was able to gain a great deal of experience in the Blyth project, laying the foundation for even larger endeavors such as Scroby Sands. Clearly, the number of offshore projects in the U.K. is poised to rise sharply: While there was an installed capacity of roughly 650 MW in the U.K. at the end of 2003 (mostly onshore), wind power generation is expected to rise to between 4,000 and 6,000 MW by 2010.

#### Clean Power for 41,000 Households

E.ON UK's offshore project at Scroby Sands began on April 17, 2002. Located some 2.5 km off the east coast of Norfolk (Great Yarmouth), the Scroby Sands wind farm has 30 turbines harnessing the wind's power at a height of 68 meters. These Vestas V80 turbines produce up to 60 MW, and by the end of 2004 they were generating enough "green" electricity to supply up to 41,000 households, while at the same time reducing CO<sub>2</sub> emissions by 75,000 metric tons annually.





# An Artificial Reef with Signal Qualities

In contrast to their "colleagues" on shore, who lead a relatively tranquil life, offshore windmills must withstand the raw, unpredictable force of the sea. The slender masts that hold the turbines aloft at Scroby Sands are firmly anchored in water up to 12 meters deep so that they can survive the battering waves of the high seas. And deep below the water's surface, the foundations of the masts are alive with a colorful variety of marine life. Functioning like an artificial reef, the masts provide a home to muscles, oysters and barnacles, and habitats for a myriad of other crustaceans and fish.

# Sustainable Approaches to a Greener Future

The real "beneficiaries" of the Scroby Sands Offshore Wind Park also have the opportunity to learn more about the project and its advantages. E.ON UK Renewables has set up a visitor center at Great Yarmouth to provide the U.K. public and tourists with in-depth information about the facilities. Up to now, the center has had about 30,000 visitors. Visitors can also learn about all of the other types of renewable energy sources, ranging from wind power to hydro and biomass, as well as their uses and benefits for us and for our environment.





Zolling



Co-firing in the U.K.

#### **Biomass**

Biomass can be used in pure biomass power plants such as those promoted by Germany's Renewable Energy Act, or can be "co-fired" in power plants which burn coal. E.ON uses biomass at 16 of its power plants, generating 1,400 GWh in 2003. Above and beyond this, we are also involved as a minority shareholder in a number of smaller biomass-fired units, often used for municipal power supplies.

By the end of 2004, E.ON had commissioned four pure biomass power plants in Germany, each with an installed capacity of 20 MW of electrical power. Our plants in Zolling, Landsbergen, Delitzsch and Emden consume some 120,000 to 130,000 metric tons of wood annually and generate 130 to 150 GWh of electricity. The plants in Delitzsch and Emden were finished in 2004 and are thus not included in the following summary for 2003. The other two plants went online at the end of 2003. In Sweden, 2 TWh of the total of 4.6 TWh for district heating is produced using biomass, some of which is generated in CHP plants.

There are 10 coal-fired power plants in the U.K., the Netherlands and Germany which have permits for co-firing operations, which for example involve using biomass as an additional fuel source in the plant. The advantage of this approach is that the electrical generation efficiency of larger power plants is higher and the retrofitting costs for using biomass are lower than the expenses involved in constructing separate biomass generation facilities. As this method of using biomass is not subsidized in Germany, E.ON is focusing on biogenic fuels which help dispose of municipal and industrial waste and allow for CO<sub>2</sub>-neutral production of energy. In the U.K., on the other hand, the use of biomass is included in the renewables ratio (albeit with a declining share) and there are incentives in the form of renewable obligation certificates (ROCs) for electricity which is produced using renewable sources. In reflection of this, E.ON UK is interested in the use of biomass fuels such as reclaimed wood and is also testing the suitability of other energy crops which can be grown in the immediate vicinity of the power plants. E.ON is also researching the possibility of supplying households and vehicles with biogas in the future.

While larger plants that co-fire biomass can achieve efficiencies of 36-40 percent, smaller, distributed units can only attain an efficiency of 25 percent at best, which is why we are looking into new technical solutions for distributed energy supply from biomass. Various projects have been carried out, for example, running fuel cells and micro gas turbines with biogas or using solid biomass with Stirling motors.

Reduction in acity Production $\mathrm{CO_2}$ emissions in actric) (electricity) million metric in GWh tons/year
40 10 > 0.1
neas. 508 0.4
neas. approx. 500 0.4
452
153 387 >1.8 <sup>1</sup>

#### Solar Power

Every minute the sun radiates as much energy to the Earth as we use in a day around the entire world. Despite this, the costs of solar power are still 20 to 30 times higher than for conventional methods of generation. Commercial utilization of solar power in Germany is also faced with relatively weak sunlight conditions and fluctuations in the number of sunlight hours. Germany's federal government has been strongly subsidizing the construction of photovoltaic (PV) systems since 2000, offering a feed-in tariff of up to €0.62 per kWh. Investments in PV facilities are only profitable because of this.

E.ON has opted to develop its own know-how in the field of solar power, so that we will be able to better gauge the long-term opportunities and commercial potential of this technology. In addition to a few pilot projects, E.ON has also supported the construction of 1,500 smaller facilities with a total capacity of 3,500 kW.

In 1997 a photovoltaic roof system, which was the largest in the world at the time, was installed on the roof of the Munich Trade Fair Center. E.ON financed one-half of this €7 million solar system which has a peak capacity of 1 MW and feeds up to 1 million kWh into the network every year. Revenues from the electricity produced by the system, the capacity of which was doubled to 2 MW in November 2002, go to the Association for the Promotion of Solar Energy in Bavaria (SeV), which owns an 85 percent share in the roof system. This allows the SeV, to which E.ON transferred its ownership stake in the system, to make an ongoing contribution to the further development and market launch of renewable energies.

In Sweden, E.ON Nordic is working together with other companies to promote research at the University of Uppsala (at the Ångström laboratory) on the subject of solar energy. Studies there have focused on the development of new technologies for solar cells and promising progress has been made in the field of manufacturing processes. The Uppsala task force has also set a world record in electrical efficiency, at 16.3 percent.

Another interesting option for the future use of solar energy is the idea of solar-thermal power plants. These facilities generate steam using solar energy, which is then used in conventional power stations to generate electricity, thereby helping to cut fuel consumption. E.ON is also exploring the possibility of utilizing solar-thermal systems, in cooperation with the Fraunhofer Institute for Solar Energy Systems and the German Aerospace Center.

#### **Geothermal Power**

Energy in the form of heat stored beneath the surface of the earth mainly originates from the heat emitted by the earth's core. With the technologies available today it is possible to tap into this environmentally sound, low emission source of energy practically anywhere in the world. E.ON supports and promotes numerous projects in this sector, including the geothermal system in Braunau-Simbach, which uses geothermal heat for district heating. This system taps the energy some 2,000 meters below the surface to provide the cities of Simbach in Bavaria and Braunau in Austria with 7.1 MW of thermal energy, which covers roughly 20 percent of these cities' heating needs. Another geothermal heating project is currently underway in Malmö, Sweden, which will also be used to supply the district heating system.





Solar roof, Munich Trade Fair Center

# **Energy Conservation—the Efficient Way to Save Energy**

Power utilities in Germany joined forces to support the energy conservation awareness campaign carried out by the German Energy Agency. This campaign focused on providing electricity users with information on how to conserve energy at home, in order to help Germany reduce its CO<sub>2</sub> emissions by 2 million metric tons per year. In addition to these sector-wide activities in Germany, E.ON provides direct advice to its customers in its markets and wholeheartedly supports the spreading of efficient technologies into the market through a variety of development and cooperation projects.

## **Energy Conservation Advice**

We consider providing customers with advice on how to use energy efficiently to be an integral part of our customer service. For example, if desired, E.ON works closely with its industrial customers to optimize their energy portfolio.



Demand-Side Management, USA

In the U.K., households served by E.ON UK saved a total of 670 GWh of electricity between 2000 and 2002 with the help of the advice we provided, thereby lowering CO<sub>2</sub> emissions by about 250,000 metric tons.

In the U.S. state of Kentucky, LG&E Energy has been running its "Demand-Side Management" programs for ten years now. For the time being, there are four such programs underway, including consumption consulting for households and commercial customers, the "WeCare" program for low-income customers and the "Demand Conservation" program designed to smooth out peak loads on the network via remote control of AC units and water heaters.

E.ON Nordic is also working hand in hand with other utilities (via the association of utilities known as "Elkforsk") to enhance the efficiency of industrial processes.

#### **Construction Measures**

Space heating is one aspect of energy consumption where it is now possible to make major progress in improving efficiency. First and foremost, this involves making sure that residential structures are properly insulated. This goal, however, must be integrated into an innovative, holistic approach to building engineering, embracing ideas and strategies such as exploiting ambient solar energy in the architectural design, ventilation and heat recovery, solar and ground collectors and alternative systems for generating just electricity, or both heat and electricity. E.ON is proud to be taking an active part in many strategic studies and playing a role in operating demo buildings and communities, one of which is illustrated in more detail in the following.

In the summer of 2001 we launched the energy system for the "City of Tomorrow" and have since been able to amass a vast amount of experience. The solar collectors and the seasonal storage of heat and cold in large underground water reservoirs worked perfectly right from the start. Initially we had some problems with the heat pumps because they failed to produce as much energy as expected. And the energy consumption of the individual houses was higher than we had originally anticipated. Nevertheless, despite some minor bumps at the beginning, the residents are now very happy with their new energy system. Now that power supplies are functioning smoothly, they've nearly forgotten that they're actually part of an extraordinary project. They're only reminded of this from time to time by the keen public interest.

Lennart Fredenberg, Senior Vice President, Sydkraft Gas AB, Malmö



#### Solarcity Kronsberg, Hanover

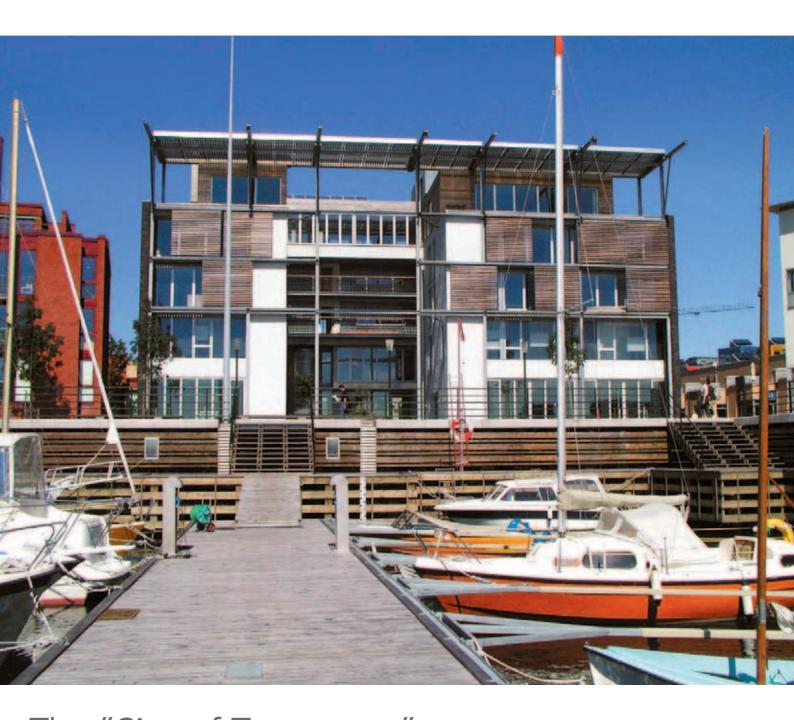
This housing project with local distributed solar energy was the first of its kind in Lower Saxony, and features 106 apartments, with an energy supply system developed and installed by our regional utility Avacon. The roofs of the six buildings house solar collectors with a total area of 1,350 m². The warm water produced by these solar collectors feeds a 2,730 m³ long-term heat reservoir for heating and hot water in the apartments. On an annual basis, the solar power covers about 40 percent of the total need for heating and hot water. The additional energy needed in the winter and in spring is provided by a nearby, environmentally friendly block-type combined heat and power plant.

# **Passive Houses**

E.ON is supporting a project in Germany to spread the idea and implementation of passive houses, i.e. buildings that do not require outside energy for much of the year due to their excellent insulation and the use of ventilation and heat recovery systems. The objective of the project is to provide education and background on this subject to architects and builders. Due to the extremely low heating requirements, it does not make sense to spend the considerable sums needed to install infrastructure for natural gas or district heating and the related heating equipment. Usually, the heating in "passive" buildings is provided via an electric heat pump.



Kronsberg, Hanover



The "City of Tomorrow" Zero-Energy Neighborhood in the Swedish City of Malmö

It sounds a little bit like an environmental protection utopia: an entire city district, built from the ground up on the premise of sustainability. A place where people take recycling for granted. Where the buildings are mainly built of recyclable materials. And where 100 percent of the energy comes from renewable sources. But it is not just a dream. This "City of Tomorrow" is reality, despite its rather dry bureaucratic name: "Bo01." The project was realized by the E.ON subsidiary Sydkraft in the Swedish city of Malmö, together with a few other partners. Covering an area of 25 hectares about the size of 25 football fields, this unique project was carried out at a former wharf in the harbor area. Now it features a combination of comfortable residential areas, with parks and biotopes, and energy entirely produced from renewables.

#### Mother Nature's Solutions

The basic ideas are all around us and form the essence of nature itself. E.ON Nordic simply put them to work. Sunshine, wind, water and earth: these are the elements that provide energy for the 1,000 households here. Heat is pumped out of an underground water system in the rocky ground. This water system also functions as a water reservoir, storing cold water for the summer and warm water for the winter. This source of underground energy is supplemented by the power of the sun, harnessed with solar collectors. Located on 10 buildings, a total area of over 1,400 m<sup>2</sup> is covered with these thermal solar panels, which use the sun for making hot water and to back up the heating system. In total, roughly 85 percent of the heat is extracted from geothermal sources, with the solar collectors providing the other 15 percent. Electricity is generated using wind and solar power. One of Sweden's largest wind power generators and 120 m<sup>2</sup> of photovoltaic solar cells provide the electricity for the apartments and the heat pumps. In order to bridge the gap between the time when energy is generated and when it is consumed, these sources of renewable energy are linked to the existing district heating system and power grid in the city of Malmö. Hence, these systems serve as storage and also provide any necessary reserve energy.





# Maximizing Energy Conservation

One key aspect of this whole idea is energy conservation in the buildings themselves. Power consumption for space heating, hot water and electricity should be less than 105 kWh per square meter of living space per year. In some of the buildings, the inhabitants can monitor their energy use with specially designed computers. By way of comparison: in Germany, even new buildings consume roughly 100 kWh per square meter just for space heating alone, not to mention the energy used for electricity and hot water. Indeed, compared to other households in Malmö, the residents of Bo01 use about one-half as much energy.

# Lauded by the EU

From Day 1 on, when the project was launched on the occasion of the European Housing Expo in 2001, it has attracted international attention. Even before getting underway, the project received the "Campaign for Take-Off Award" from the European Commission in 2000. The EU Commission also provided funding of €1.8 million for the district's energy supply system.

# Expansion in the Future

Even though they already have Bo01 as an exemplary reference project, Sydkraft and the city of Malmö are not planning on sitting back and resting on their laurels. There are already some 6,000 people working in the harbor and roughly 80 companies have been established, as well as a private school in 2002. Restaurants, cafés and supermarkets have also opened up. But plans call for renovating and revitalizing the remaining areas of the harbor (amounting to roughly 160 hectares), again in line with the basic premise of minimizing the impact on the environment. In 2005, a university is scheduled to open at the site. And in 2005 another park will be completed, as well as a public school in 2006. Once the entire project is finished, approximately 10,000 people will live in the "City of Tomorrow," with another 20,000 working or studying there.



#### **Building Services**

In addition to focusing on construction measures, there is an enormous potential for conserving energy by installing modern building services. For example, these include the use of state-of-the-art natural gas heating units using gas-condensing technology, thermal solar systems for hot water, heat pumps and, looking to the future, micro CHP units, such as fuel cells or Stirling motors (see pp. 31-32).

#### Condensing Boiler Technology

To a great degree, the significance of natural gas on Germany's heating market today can be ascribed to the establishment of "condensing" boiler technology, which allows for the use of natural gas to produce heat in a clean and extremely efficient manner. This technology was developed to a large extent using the vast technical experience of E.ON Ruhrgas AG, which helped gas-condensing boilers achieve a breakthrough on the market. For example, a considerable amount of development work had to be carried out on the pre-mix combustor, exhaust venting and drainage of condensation water into the sewer system.

#### **Heat Pumps**

There are various types of heat pumps, the use of which we actively support on the market and which we are supporting through research and market launch projects. In simplified terms, a heat pump functions on the same basic principle as a refrigerator, only in reverse. For instance, it draws heat out of the ground which can then be released through a heating system. Currently, on the market one finds electrically driven heat pumps which use underground pipes which absorb the heat either relatively close to the surface or heat which lies deeper below the surface. Together with several equipment manufacturers, an effort was made to reduce the cost of these heat pump installations. Systems modified in this way were installed and monitored in 24 households in the service areas of Avacon, E.ON Westfalen-Weser and Celle Municipal Services. The results from these field tests were outstanding: in relation to primary energy consumption at the power plant, electric heat pumps can achieve an efficiency of 130 to 170 percent.

Within the framework of an EU-funded project, work is underway on the construction and operation of a CO<sub>2</sub> heat pump, which can draw the necessary heat from the ambient air and use CO<sub>2</sub> as a refrigerant. Such a unit is currently undergoing field trials. Another new type of gas heat pump functioning on the same principle can achieve efficiencies of up to 135 percent and over 120 percent compared with primary energy consumption. The viability of this system is also being investigated both in laboratory and field tests. CO<sub>2</sub> emissions from such a unit are 30-40 percent lower than those from a new conventional oil or gas heating system.

# Less is Better—Operational Environmental Protection

In addition to full compliance with all statutory regulations, E.ON's objective is to further reduce emissions of pollutants and the production of waste and wastewater. Moreover, we expect our business partners to do the same. Within the E.ON Group, our environmental protection officers are responsible for monitoring internal issues affecting the environment. In accordance with E.ON's HSE Management System (Health, Safety and Environment), all E.ON employees are required to strictly comply with and implement our environmental protection regulations.

At E.ON, environmental protection is an integral part of all processes, starting with the planning of facilities through to the production, transportation and final distribution of our products to our customers. At every step of the value-added chain, all E.ON companies adhere to all of relevant environmental regulations, e.g. for emissions, water and radiation protection, waste treatment and transport of hazardous materials. Protecting the environment and improving our earnings are closely related goals. Increasing the efficiency of our power plants not only leads to a reduction in our consumption of raw materials and emissions, it also makes an important contribution to improving our financial performance over the medium and long term.

Environmental Protec	tion Management Systems		
Market unit	Environmental protection	Coverage	
Central Europe	EMAS <sup>1</sup> /ISO 14001 <sup>2</sup>	Internal systems; certified systems at E.ON Benelux, E.ON Czech Republic, E.ON Hanse, E.ON Kernkraft	
Pan-European Gas	ISO 14001	Group certificate	
U.K.	ISO 14001	Group certificate	
Nordic	ISO 14001	Group certificate	

<sup>1</sup>EMAS: Regulation (EC) No. 761/2001 of the European Parliament and of the Council of March 19, 2001 allowing voluntary participation by organizations in a Community eco-management and audit scheme (EMAS), outcome-oriented environmental protection management. <sup>2</sup>ISO: International Standardization Organization, ISO 14001 process-oriented environmental protection management system.

# **Environmental Management**

Our company employs a number of exemplary solutions in our efforts to protect the environment during our day-to-day operations. The E.ON Corporate Center is tasked with the responsibility of making these best practice procedures useful for the entire E.ON Group.

Operational management of environmental issues is carried out in the individual market units according to clear guidelines and in compliance with certified systems, primarily the process-oriented environmental protection system ISO 14001 developed by the International Standardization Organization (ISO). In Group companies which do not have a management system in place, we are in the process of introducing one.

Our Group-wide management system—which is currently being developed—will be based on efficient, harmonized reporting, despite all of the differences between our market units. Harmonization of our data capture and processing systems has commenced, allowing all of the data related to our Group's environmental impact to be documented in a transparent manner for 2005. At that time, we will also be able to present a complete input-output balance sheet for all of our production and transport activities.

Coordinated by the Corporate Center, our experts in the individual market units will formulate internal and external benchmarks and define goals for certain key parameters.

Mike Kirkland, General Manager, LG&E Energy's Mill Creek power station



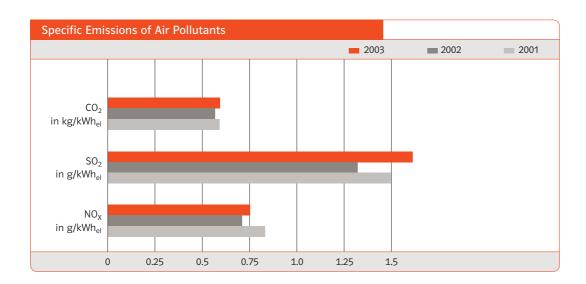
Since the 1920s, when we developed one of the first devices for removing coal ash from power plant emissions, we have been committed to protecting and improving our environment. Throughout Mill Creek Station's history, employees have met and exceeded environmental standards. Over the years, our company has built an environmental excellence legacy, founded on safety, that includes achievements and national and international awards. We've invested hundreds of millions of dollars in pollution-control equipment and efficiency improvements to reduce SO<sub>2</sub> and NO<sub>X</sub> emissions. Environmental excellence is ingrained in our day-to-day operations at Mill Creek and is the foundation of our company culture.

Since May 2003 E.ON Ruhrgas has taken a pioneering role in the energy sector by implementing an integrated quality, occupational safety and environmental protection management program. Previously, these three management systems operated in parallel and were each audited separately. Their combination allows us to exploit synergies, as many elements are practically identical, particularly in terms of system management. All three of the management systems are documented in a manual, which is available to all of our employees via our intranet, along with the work regulations and procedural orders. As part of the latest re-certification process, the technical safety management system was also reviewed, and the certificate was approved for another three years.

E.ON UK's first report on environmental protection discussed the company's activities, performance and data for 1992. Following this, an Environmental Report was published every year through to 2000. In 2001 the company issued its first Corporate Responsibility Report providing in-depth information on both environmental protection measures and the company's business and social involvement. CR Reports were also prepared for 2002 and 2003.

#### **Reducing Air Pollution**

In our Central Europe market unit a great deal of the sulfur dioxide emissions from coal-fired power plants is bonded into gypsum using limestone in the process of flue gas cleaning. In the USA, SO<sub>2</sub> emissions are continually being reduced with the Acid Deposition Control Program. In our U.S. Midwest market unit, which generates almost all of its electricity using coal, flue gas desulfurization is increasingly being used to cut emissions. In light of the emissions trading system for SO<sub>2</sub>, it is not necessary to retrofit all of the power plants at the same time, as reductions in emissions resulting from the installation of a desulfurization system can be applied to other power plants, making it possible to meet the emissions limit for E.ON's generation fleet.



In the following table, the increase for the U.K. market unit and the E.ON Group in 2003 can be traced back to the acquisition of three coal-fired plants without flue gas cleaning systems in the U.K.

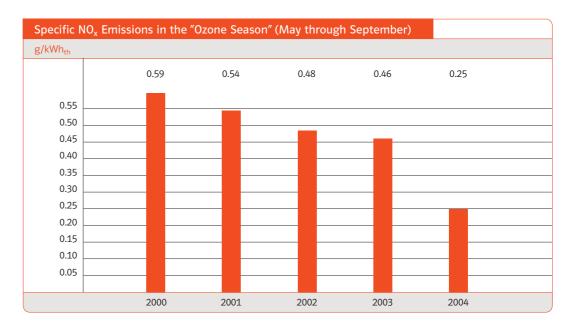
Specific SO <sub>2</sub> Emissions by E.ON Market Units			
g/kWh <sub>el</sub>	2001	2002	2003
Central Europe	0.28	0.22	0.25
U.K.	1.34	1.34	2.71
Nordic	0.03	0.06	0.06
U.SMidwest	5.43	5.21	5.59
E.ON Group	1.49	1.31	1.61

Nitrogen oxides are created at the high temperatures typically found in furnaces at conventional power plants from the nitrogen and oxygen in the air and fuel. Using catalytic converters, it is possible to neutralize these nitrogen oxides in a denitrification system, a process which has been used in Germany and Sweden for many years. Nevertheless, a small amount of nitrogen oxide is emitted. These emissions contribute to the formation of ozone, which is phytotoxic and can cause respiratory problems at ground level.

Specific NO <sub>x</sub> Emissions by E.ON Market Units			
g/kWh <sub>el</sub>	2001	2002	2003
Central Europe	0.37	0.27	0.29
U.K.	1.19	1.23	1.50
Nordic	0.06	0.09	0.11
U.SMidwest	2.12	1.93	1.81
E.ON Group	0.83	0.71	0.75

The development of NO<sub>x</sub> emissions exhibits the same characteristics as the data for SO<sub>2</sub>. The increase in emissions for E.ON as a whole resulted from the acquisition of the U.K. power plants mentioned above. In the U.S. Midwest, on the other hand, there has been a downward trend in emissions, which is expected to continue in the coming years, as we have undertaken major investments in environmental protection measures.

During a period in 2004 when ozone levels were elevated (May through September), six units for Selective Catalytic Reduction (SCR) were in use in LG&E Energy's generation fleet, which were commissioned in 2002-2004, at a cost of roughly \$320 million. These catalytic reduction systems use ammonia and a catalyst to break down nitrogen oxides into water and nitrogen. SCR systems reduce emissions of  $NO_x$  from flue gas by up to 90 percent.



# Water and Waste

Regardless of the different definitions of the term "waste" in the various countries in which we operate, E.ON's goal is to keep waste levels as low as possible and recycle whenever possible. Recycling of waste materials from coal combustion and flue gas scrubbing, in particular ash and gypsum, is being promoted vigorously in all of our power plants in the U.S. Midwest, the U.K. and Central Europe. Gypsum and ash—both by-products of power plant operations—are utilized by the construction industry. Reuse of these waste materials not only helps to reduce costs, but also contributes to preventing the environmental impact that would be caused if these raw materials had to be produced by third parties.

In early 2003 E.ON Energie AG launched "GISY-Web," an intranet-based occupational and environmental protection information system. This database functions like a "pencil for the environmental protection officers," supporting administrative processes related to environmental protection, such as the quality control documentation system for waste materials, the issuance of operational regulations pursuant to water protection regulations and for hazardous materials or risk assessments. The further development of the system, which is currently underway, is designed to encompass some of the regulations contained in Germany's Ordinance on Industrial Safety and Health (explosion protection documentation and special pressurized equipment). At the time being, the option of using this software, which is based on German legal regulations, in other companies in the Group is also being studied.

The GISY-Web system will then make it possible to determine the total quantities of waste and waste requiring special monitoring. In total, more than 3 million metric tons of waste was produced in the E.ON Group's energy business in 2003, of which 0.143 million tons required "special monitoring," i.e. was a threat to the environmental or human health pursuant to national legislation.

In order to tackle the problems stemming from the different definitions of what "waste" actually is, E.ON is currently formulating an internal standard to make future reporting on waste production reliable throughout the entire Group.

#### Water Conservation

E.ON operates all of its facilities in compliance with stringent safety standards. This also holds true when it comes to using water. Most of the water we use is for cooling our power plants. In this case, water which is not used in a closed circuit cooling process is removed from the main outfall, filtered, and then discharged at a temperature a couple of degrees centigrade warmer. A considerably smaller portion of the water is needed as so-called process water, which is used, e.g. in desulfurization systems and discharged after having been treated in accordance with the statutory requirements.

The procedures and operational parameters applicable for using water depend quite heavily on the location of the facilities, i.e. whether the plant is situated on the coast, on a river or at a site without any nearby bodies of water. Accordingly, at present, it is not possible to compare the relevant values for cooling and process water between our various market units or with our competitors in a sensible and transparent manner. We are currently in the process of specifying a set of comparable parameters.

# Taking Responsibility for Our Employees

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# A Unified Approach—Human Resources Policy and Corporate Culture

Including Viterra and our stake in Degussa, we have a total of about 115,000 employees. They are our enterprise's most valuable asset. In our core business of energy, our 70,000 employees ensure a secure, reliable supply of electricity and gas for millions and millions of people.

We stand by our employees and invest in our common future by offering them continuous advanced training and personal development programs to help them reach their full potential. We also understand that our employees are entitled to profit appropriately from the success of our company. This is reflected in our system of remuneration, which increasingly links individual compensation to personal performance and corporate success. This approach both reinforces our employees' sense of responsibility and at the same time rewards them for their personal efforts. Above and beyond this, we encourage our staff to actively voice their suggestions as to how we can work together even more effectively.

In the coming year, the main focus of our human resources work will be on progressing integration in the E.ON Group. This is not about simply linking up several different companies in a corporate group: integration goes far beyond that, as it involves bringing together a large number of people who are unified by a common understanding of E.ON, as expressed by the principles in OneE.ON. There are many ways of facilitating this process.

As a Group Works Council we have made a great deal of progress for our fellow employees in Germany, for example, in terms of employee participation in the company's business success and in the field of retirement plans. Our goal is to continue to actively shape the company and to help guide E.ON's strategic decisions with due respect to the interests of its employees. As for our activities abroad, however, we have just started. There are numerous issues, which have long been taken for granted by employees in Germany, but have not yet been incorporated into the standards in our subsidiaries abroad. Much work remains to be done in this respect. And in our efforts, we always try to find long-term solutions that are sustainable. For instance, when we lobby strongly for broad-based, high-quality vocational training of trainees, this reflects our conviction that our company cannot continue to succeed in the future without a steady flow of highly-skilled new staff.

Ralf Blauth, Chairman of the Group Works Council of E.ON AG, Düsseldorf



#### Dialogue

Over the long term, success is only possible if all of E.ON's managers and employees are working towards the same common goal. This was the main reason that we launched the OneE.ON project in the autumn of 2003. The objective of this project is to develop a common corporate culture and enhance the competitiveness and performance of the E.ON Group by establishing a Group-wide understanding of our basic values and behaviors. All of our managers and employees have been included in this integration project in many events as well as through internal and external communication measures.

One key instrument of dialogue between staff and management, and thus an integral part of OneE.ON, is the enterprise-wide employee opinion survey, which was carried out for the first time in 2004. Each employee was able to anonymously answer approximately 60 questions in a questionnaire, and more than 74 percent of the employees opted to take advantage of this opportunity.

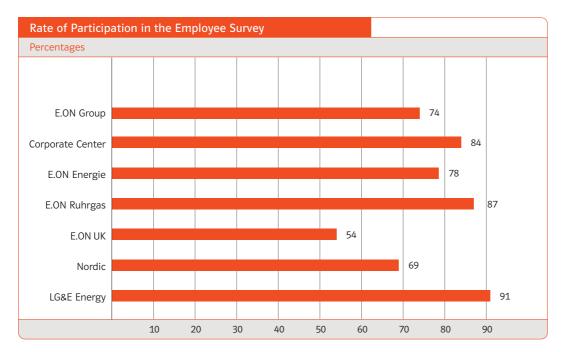
On the whole, our employees are generally satisfied with almost all aspects of their working conditions. Quite positive results were found in the strong identification of the employees with their respective Group companies, as well as with the Group as a whole: considering the fact that many of the companies have been members of the E.ON Group for less than two years, this represents a good basis for further integration measures.

Room for improvement was noted by the employees in the field of internal communications: While the employees identify strongly with the Group, many of them felt that they were not sufficiently informed about E.ON's main objectives and strategic direction. In some cases, employees felt a lack of orientation at the individual level as well: According to the survey, there was a desire to see managers give more frequent and specific feedback about how they assess the performance of their colleagues and for them to more clearly sketch out the various development opportunities.

Prof. Dr. Ingwer Borg, Partner, HRC Human Resources Consulting, Munich



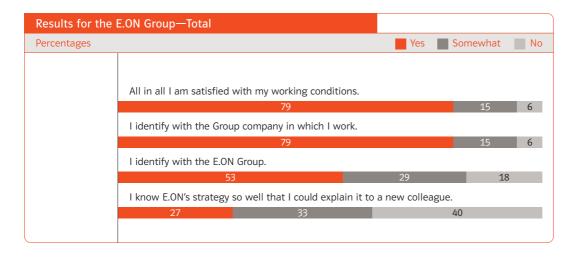
In my opinion, E.ON picked the perfect moment to carry out an employee opinion survey amongst its almost 70,000 staff members. A project of this kind is not an easy job. But if a company really wants to be responsible and to lead successfully, it must first and foremost listen to its employees, and not just rely on advice from analysts and feedback from customers. What motivates the staff? What do they perceive as the strengths of the company? What do they think could be done better? This is particularly important for E.ON as it is facing the current challenge of bringing its employees in its various market units together to form a cohesive whole in E.ON. Clearly, the results of the first Group-wide E.ON employee opinion survey were promising in this regard. Individual employees already identify quite strongly with the Group and are generally satisfied with most aspects of their working conditions. But, as could be expected, the survey also revealed shortcomings. The key issue now is: How openly will the results of the survey be discussed and what actions will be taken as a consequence? The areas where employees felt there was room for improvement must be taken seriously and the relevant issues must be addressed. Only if this happens will the survey really fulfill its objective as an instrument and support E.ON's efforts to grow together as a corporate group and improve its performance. The Board of Management is committed to this goal, and the next employee opinion survey will show how well it has succeeded in achieving it.





Employee survey

The results of the employee opinion survey are being discussed openly and frankly between the employees and management, and proposals for improvement are being planned as a joint effort. In order to monitor the success of these efforts, the employee opinion survey will be carried out at regular intervals in the future.



#### Motivation

One excellent opportunity to help employees identify more strongly with E.ON is to have them take part in E.ON's business success, in addition to offering them competitive, performance-based remuneration. To this end, the E.ON InvestmentPlan offers our employees in Germany a flexible instrument to develop their personal assets, linked with an employee stock ownership program. As shareholders, employees profit directly from the growth in E.ON's value, which is in part the result of their work.

Our idea management also offers mutual benefits. Projects such as idEE.ON—an initiative launched by E.ON Energie—give our employees the chance to present ideas and suggestions which may be beneficial for the Group. Every year more than 1,500 ideas are submitted within the framework of this initiative alone. One incentive to participate in the program is the fact that premiums and attractive prizes are awarded for many of the ideas which are submitted. Over the last four years, the E.ON Group has saved more than €12 million by putting these good ideas into practice.

#### **Employee and Executive Development**

Life-long learning is more than just a slogan at E.ON—it is a necessity. Competitive conditions in the energy sector are changing faster and faster and our employees are constantly faced with new responsibilities and new challenges. They must be able to work in an interdisciplinary manner, share their own knowledge and expertise with others and always be capable of learning. In reflection of this, our advanced training programs are directed at all employees, because we do not believe that broadening personal skills and enhancing professional qualifications should be a privilege reserved for managers alone. All of E.ON's employees have access to a wide range of seminars, training sessions and e-learning tools as well as other opportunities such as job rotation and foreign assignments.

To prepare employees for structural changes in the company, at E.ON, Human Resources works hand in hand with the other departments. E.ON Ruhrgas has internal coaches provide assistance with jobrelated changes. This involves interviewing the employee affected and making use of the results in follow-up workshops and group discussions with all of the parties involved. Not only does this help us to more quickly and smoothly effect changes to the benefit of the company, it also helps the employees better adjust to the new situation.

#### Vocational Training in Germany

A steady flow of well-trained employees is a crucial prerequisite for sustaining E.ON's success over the long term. But above and beyond this aspect, we also feel that we have an obligation to society to help young people obtain solid professional qualifications. Accordingly, every year more than 1,300 secondary school graduates begin vocational training in a range of over 50 different professions within the E.ON Group. At roughly seven percent of our workforce, the share of trainees at E.ON is higher than the average in Germany. In addition to dual-track vocational training, which combines studies at a vocational school with hands-on experience on the job, we also make it possible to conduct university-level studies in parallel with vocational training, or on completion of vocational training.

E.ON is a voluntary sponsor of the "vocational training pact" between the federal government and Germany's industry. In 2004, as a part of this pact, we gave an additional 300 young people the opportunity to obtain professional qualifications. Roughly one-fifth of these trainee positions were at Degussa. Sixty additional positions for vocational trainees were created in Germany, while another 240 young people were offered the chance to enter the job market through a professional internship.

#### **Vocational Training Outside Germany**

Good vocational training degrees, which are also recognized by the state, are becoming increasingly important in the United States as well. Thanks to its exacting standards, in 2004 the apprenticeship and training program for line service technicians offered jointly by LG&E Energy and Kentucky Utilities (KU) received official certification from the Kentucky Department of Labor. The minimum requirement for recognition by the state of Kentucky is 6,000 hours of theoretical and practical training in standards and methods of electricity distribution. With a total of around 7,000 hours of hands-on training and theoretical background, the program offered by LG&E Energy and KU significantly exceeds this requirement.



# A Safe Bet The AFZ Training Center in Gelsenkirchen

Located in North Rhine-Westphalia, the AFZ Training Center for E.ON Kraftwerke is the largest E.ON training center in Germany. Roughly 200 young people are training in occupations such as industrial technician, facility technician, electronics technician for industrial systems, industrial manager and chemical lab technician.

Trainees who have the opportunity to do their apprenticeship at the AFZ have every reason to be happy: The scores of students finishing their training at the AFZ are far better than the general average. Indeed, many of the trainees at this facility are now among the best in North Rhine-Westphalia. E.ON is not alone in understanding the value of the AFZ, as many other companies also send their trainees to Gelsenkirchen. Currently, the Center is training 190 young people, 45 of whom are from partner companies.

Johannes Dresenkamp, director of the AFZ since 1995, knows why his trainees perform so well: "Our Center has training facilities with excellent equipment and we have highly motivated trainers with outstanding qualifications. Twenty-four full-time trainers are responsible for the entire range of training programs we offer." Mr. Dresenkamp also noted that the balanced age structure of the trainers was an advantage, as the youngest are in their mid-20s and the oldest are about 50 years old. "Our younger colleagues are really atune to the needs of young people, and our older colleagues have a wealth of experience that they enjoy sharing with the trainees. This combination has proven extremely effective." Trainees agree: "The communication between the students and the teachers is really great," explained Jan Reimann (20), who is in his second year of training as an industrial technician. "And on top of that, the trainers have an amazing amount of knowledge and experience.'





Wolfgang Clement, Federal Minister for Economics and Labor, visiting the AFZ Center in Gelsenkirchen



Why did he and his friends choose to do their vocation training at E.ON Kraftwerke? The answer is quick and easy: "E.ON has a great reputation. And some of my friends who did their training here got a job immediately," according to Reimann's fellow trainee, Florian Bazant. Sebastian Jokiel (26), who is training to be an energy electronics engineer, pointed out the benefits of combining school and work, "It's all very synchronized here, because the trainers at the plant and here at the AFZ coordinate their activities." Zohir Feddahi (20), who is currently finishing his final year of training as an energy electronics engineer, thinks it is great that he can start working at a power plant very early in his training program, and that E.ON can offer him a three-year advanced training course after he finishes his vocational training, allowing him to become a certified power plant technician.

# Keeping a Keen Eye on Safety

All of the employees at E.ON Kraftwerke bear a great deal of responsibility. This is why strong efforts are made to avoid mistakes and prevent accidents from happening during vocational training. "All of our employees must see safety as a fundamental aspect of their work," according to Mr. Dresenkamp. "That is why we pay close attention to making sure our students go through an intensive, high-quality training program." Currently, a pilot project is underway to introduce occupational safety management at E.ON Kraftwerke with the goal of strengthening the basis for on-the-job safety. This project is being scientifically monitored by the Federal Institute for Occupational Safety and Health. The project aims to organize operations in such a manner that employees' health, and in particular the health of trainees, is systematically protected. "This is important, because trainees suffer more accidents than average, as they lack the necessary experience," explained Mr. Dresenkamp.



# Career Entry via Internship

Through the "trainee program initiative", E.ON supports young people who have a particularly difficult time finding a vocational training program because they did not graduate from secondary school. Together with the Federal Labor Office and the training organization GABS (Society for Labor Promotion, Occupational Training and Socio-Culture), we offer these young people pre-training internships. The interns start by attending a 3-month "TIP Course" (Test, Inform, Practice) with class-like sessions, where they can find out which particular career path suits them best. In both of the last two years, this program helped 240 young people throughout Germany find internships that fit their interests. E.ON pays each of the interns a scholarship, regardless of where they actually do their internship. Generally, the internships last 15 months.

This kind of internship has proven to be a valuable tool for preparing young people to enter the job market: approximately 70 percent of the participants found a vocational training program or employment after completion. In total, E.ON spends more than €6 million annually on this trainee program initiative. It makes perfect sense to Mr. Dresenkamp that E.ON expresses its social responsibility by helping to fight unemployment among young people. His position is clear: "Every euro that we invest in training young people pays off in the end."





E.ON Academy in Düsseldorf



European School of Management and Technology (esmt), Berlin

#### Leadership Abilities

E.ON's managers are not only responsible for guiding the company, they also have a crucial impact on E.ON's corporate culture through the way they lead. Our goal is to reward sound leadership and build and develop our managers' leadership and management skills. The E.ON Academy is one of our main tools for achieving this goal. Working closely with internationally renowned universities, the Academy offers our top executive staff, our 1,300 senior managers and our next-generation executives a range of interdisciplinary programs for expanding their skills. In founding the E.ON Academy and co-founding the European School of Management and Technology (esmt) in Berlin and Munich, E.ON has made a clear statement in support of a management approach that is expressly committed to social responsibility and environmental sustainability.

As our managers are generally active in international markets, they must have the necessary business know-how as well as an understanding of the culture and lifestyle of the countries involved. In this light, E.ON has stepped up its cross-border exchange of professional and management personnel between the companies in our Group since 2003. These efforts, however, also go beyond the limits of the E.ON Group itself.

For example, E.ON Ruhrgas and its Russian business partner Gazprom have been cooperating in an advanced training program for the last 13 years now. Up to 2003, some 1,000 participants profited from this program, which focuses primarily on the exchange of know-how and experience and advanced qualifications for executives from both companies. In addition to commercial, technical and HR issues, close attention is also paid to management and organizational aspects.

#### Diversity

Diversity plays a central role at E.ON, because we are, after all, an enterprise with a broad international scope. This, of course, means that our customers are as varied as our employees themselves. Which is why one of our stated goals is to recognize and make use of diversity.

At E.ON Nordic, diversity plays a key role. For the last eight years, the company has had a committee in which management and employee representatives develop plans for measures to combat discrimination and discuss the results based on annual surveys. For instance, together with other companies E.ON Nordic supports a summer internship program especially for pupils from immigrant families to help these young people better integrate into the professional world.

At E.ON UK, integration is completely natural. For example, this is reflected by the fact that the company has a higher female employee quota than the sector average. Women accounted for 37 percent of the total workforce at E.ON UK in 2003, with 18 percent of management positions held by women. In part, this positive situation has been brought about by various measures to ensure a great deal of flexibility in work scheduling. Because in the end, both E.ON and E.ON's employees benefit from a working environment which not only affords people individual freedom, but expressly promotes it.

#### Career and Family

In order to maintain a high level of performance over the long term, people must strive for a healthy balance between career, family and leisure time. Our family-oriented personnel policy serves to improve our employees' sense of motivation and satisfaction, and thus also helps to lower the rate of workforce fluctuation and sick leave. At E.ON UK, flexible work scheduling is an important element of this policy. It allows our U.K. employees to consider various work scheduling models and select the one best suited to their personal work/life situation. Part-time work, job sharing, distance work and telecommuting, compressed working times and work schedules tailored to the school year all represent individualized solutions which can meet the needs of all parties involved.

E.ON Nordic also helps employees find the right balance between work and private life by carrying out a wide variety of intramural activities and promoting non-company institutions such as a health center and many sports facilities.

In Germany, E.ON Ruhrgas was commended as one of the best employers in Europe, and—along with E.ON Energie—was awarded the basic certificate in the "Career & Family" audit of the Hertie Public Interest Foundation. This audit is a tool for promoting personnel policies which take into account family needs, and covers more than just measures that have already been implemented: Audit results are used to develop new, company-specific and needs-oriented initiatives with a view to achieving an even better balance between the needs of the employees and the interests of the company.



Employer prize for E.ON Ruhrgas



# It's in the Mix LG&E Energy Relies on the Diversity of Its Staff



E.ON's subsidiary in the United States, LG&E Energy, was recognized with an EVE Award (Exemplary Voluntary Efforts) for its outstanding personnel policy. This prestigious award from the U.S. Department of Labor honors companies which consciously focus on workforce diversity in their recruiting and personal/professional development programs and also expressly consider disadvantaged groups in these respects.

This form of personnel management is known as "diversity," and aims to foster and support the diversity of all employees. While this issue is quite new in Germany, diversity has been practiced in the USA since the mid-1980s, in part as a result of anti-discrimination legislation. LG&E Energy, on the other hand, views its diversity as one of its key business strengths. Because cooperation amongst a wide variety of diverse people not only boosts motivation and job satisfaction, it also results in greater flexibility, creativity and innovative drive.



#### Improved Awareness of Customer Wishes

LG&E Energy is committed to providing equal opportunity to all and to supporting all of its employees, regardless of their gender, age, nationality, religious belief, culture, ethnic origin or sexual orientation. The management has long recognized that each and every person can make a special contribution to the company's success by sharing their personal perspectives, values and vision as well as their professional and life experience. This is summed up succinctly in LG&E Energy's mission statement: "Talented and creative employees are our most critical resource and the foundation for our future."

LG&E Energy is the leader in power generation and distribution in the state of Kentucky. Providing some of the lowest-cost energy in the USA, LG&E Energy serves over one million customers. Chairman and CEO Vic Staffieri ascribes a great deal of the company's success to the diversity program, "The diversity of our employees reflects all the different people whom we provide with electricity." The result: LG&E Energy is better able to understand customers' concerns and respond to their various needs.

## Mutual Acceptance

Companies wishing to pursue diversity as successfully as LG&E Energy must create a corporate culture founded on mutual acceptance. This is an ambitious goal, because communication between people from different cultural backgrounds often leads to conflicts stemming from misunderstandings. That is why it is crucial that each and every person is truly accepted without reservations, because this is what establishes the fundamental basis for a productive relationship.

Naturally, one cannot expect all of a company's employees to adopt this attitude from one day to the next. Indeed, it is up to each and every one of us as individuals to cast off our prejudices and learn to embrace the principle and practice of diversity. The employees of LG&E Energy regularly take part in educational programs dealing with this subject, because in the end diversity helps us keep up our excellent performance and reproduce outstanding results.





# Better Safe than Sorry—Occupational Health and Safety

Under the guidance of the Corporate Center, experts from our market units have formulated behavior guidelines for the fields of health, safety and the environment (HSE) and set minimum standards which are binding throughout our organization.

According to the principles, "One primary goal is to create working conditions which ensure the protection of the health and safety of the employees. We are convinced that mental and physical health can be maintained and that injuries can be prevented. In this respect, our health, safety and environmental protection management systems play an important role and are constantly being improved and upgraded. Our goal is to establish a positive attitude and culture of occupational health, safety and environmental protection, in compliance with all relevant legal regulations and—to the extent possible—the highest applicable standards. Creating a culture of this kind means that all of us—employees, executives and board members—are committed to ensuring the health and safety of our employees, business partners and customers, as well as to protecting the environment."

Despite the different approaches at the national level, which are based on the different legal regulations and conditions for each country, our employees around the world are dedicated to one common principle:

"All business decisions must take into account the requirements of health, safety and environmental protection."

# Health, Safety and Environment Management cycle of regulations (analogous to ISO 14001 and 18001)

· Companies required to continuously • Establishing a written HSE policy and objectives in all companies, improve processes in accordance with the HSE policy which comply with the requirements of the philosophy Management HSE performance at the companies reviewed by CC Review Guidelines & Planning Install a system for measur-Clearly defined HSE compe-Evaluation ing HSE performance in all tencies and responsibilities Continuous companies in all companies improvement Organization Internal and external Management member benchmarking responsible (for results) Reporting Prompt transfer of information to the E.ON Board of Management Introduction in the event of fatal accidents or serious environmental violations Company responsible for imple-· Annual HSE report to E.ON's Board of menting its HSE policy Management All employees must know their

responsibilities

Annual internal report for feedback

# Management Systems

The HSE cycle of regulations forms the basis for all of the management systems at E.ON subsidiaries. It regulates key objectives, implementation in the company's procedures, reporting and monitoring, as well as management reviews to ensure that the HSE system is continually improved. Independently of this enterprise-wide coordination of HSE management, many of the market units have also had management systems in place for years now, some of which are certified.

Market unit	Certified management systems <sup>1</sup>	Notes
Central Europe	SCC, OHRIS, GQB (occupational health), ILO, OHSAS 18001	Due to the decentralized responsibility in the business units, there is no uniform Group-wide HSE management system
Pan-European Gas	OHSAS 18001	Integrated with ISO 9001 (quality) and ISO 14001 (environmental protection)
U.K.	ISO 18001	In certain business units
Nordic	ISO 18001	
U.S. Midwest	OSHA	

# **Best Practice**

In order to ensure that E.ON's safety standards are always improved upon, we pursue the so-called "best practice" approach. This involves transferring the best procedures and institutions that have proven their value at one E.ON subsidiary to the other members of the Group. The Group's Corporate Center in Düsseldorf is responsible for coordinating the HSE activities at the global level. The Corporate Center works together closely with HSE experts in the individual market units to further develop E.ON's HSE culture.

The Central Europe market unit has a total of 18 business units and consists of several independent subsidiaries. The companies are responsible for implementing strategies such as HSE and supporting them with specific measures. For example, one project involves selecting firms that provide services to E.ON Energie companies based on how much responsibility the service providers take for their employees within the field of HSE. This makes it possible to ensure that employees of external companies enjoy the same safety standards as our own workforce.

In the Pan-European Gas market unit, E.ON Ruhrgas has had certified management systems for quality, environmental protection, occupational safety and technical safety in place since May 2003. This also applies to the entire enterprise (OHSAS 18001), the technical offices and central services (TSM and ISO 14001) as well as for certain other organizational units (ISO 9001).

As part of its occupational safety activities, E.ON UK has installed an online system for recording all accidents and near-misses. The responsible managers are required to review all of the incidents, regardless of the type or seriousness of any injuries.

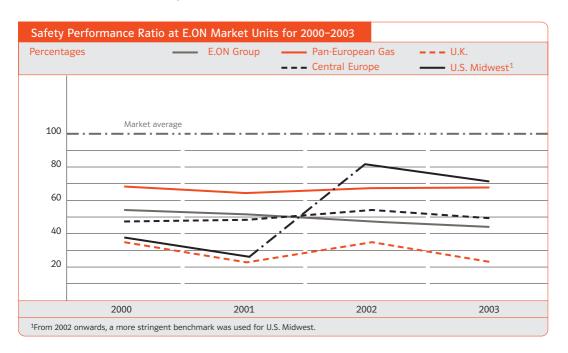
E.ON UK and LG&E Energy have both introduced strategies to promote employee health by making it possible for all employees to have medical examinations done to check for any signs of long-term illnesses. Employees receive an examination report and individual counseling on how to reduce health risks. Sports and fitness programs are available to our employees in all of the market units, with the goal of ensuring that our employees continue their excellent performance over the long run.

# **Our Safety Performance**

Despite the varying national definitions and standards, since 2004 we have been recording the frequency of accidents in all of our market units based on a common standard.

	LTIF <sup>1</sup>	Fatal accidents	Safety performance ratio 2003
Corporate Center	1.3	0	-
E.ON Energie	6.2	4	0.44
E.ON Ruhrgas	8.1	0	0.35
E.ON UK	6.2	2	0.31
E.ON Nordic		3	-
LG&E Energy	1.2	0	0.67
E.ON Group	6.0	9	0.47

In order to make it possible to compare the performance of our market units with the respective national systems, we have placed the accident statistics of our companies in relation to the average of the competition in the market in question. This "safety performance ratio" is 47 percent for the E.ON Group as a whole, meaning that the rate of accidents at E.ON is less than half of the average for the markets in which we operate.



# Taking Responsibility for Society

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# Working Together—Good Corporate Citizenship in Action

E.ON's sense of responsibility extends beyond the scope of our own operations and employees, as we also have a broader obligation to society in general. For the Corporate Center and all of our subsidiaries, this responsibility to society is a fundamental part of our activities, as is illustrated in this Chapter using specific examples from throughout the E.ON Group.

At the local level, we act as partners for the regions where we do business, and work hard to enhance their attractiveness. Helping young people and supporting training programs is another important aspect of our responsibility to society, along with promoting charitable associations, foundations, cultural activities and the arts. In reflection of our commitment to sustainability, our goal as an enterprise is to make a positive contribution to society, which goes beyond our business interests. Because as a corporation, we believe that we must take "personal" responsibility for the society in which we live. This is what we mean when we talk about "good corporate citizenship," which inspires us to act in the best interests of future generations as well.

## The Local Connection

Wherever we have operations, we strive to work together with regional administrations as partners. For example, E.ON traditionally has strong ties with Germany's Ruhr region and the people who live there, which is why we are happy to participate in "Initiativkreis Ruhrgebiet" together with 54 other major enterprises. Since 1989 the Initiativkreis has implemented various projects with the goal of providing new impetus for structural transformation in the region and improving the image of the Ruhr region as a whole. E.ON Ruhrgas is also actively involved in the "Essener Konsens" initiative launched by the Federal Labor Office of the city of Essen, schools in the city, the Essen Chamber of Industry and Commerce, and several other private enterprises, which aims to improve the city's quality of life and attractiveness as a business location through specific measures to promote employment and professional qualifications. In 2003 E.ON offered additional vocational training positions as a part of the "Essener Konsens" initiative, to help combat the high level of youth unemployment.

E.ON Hanse organized the "Regional Forum on Energy" for the 11 districts in Schleswig-Holstein, a program running from April to June of 2004, under the motto "Shaping the future, aware of the past." More than 1,000 decision-makers from the political arena and the private sector participated in this series of events, taking the opportunity to find out more about E.ON Hanse's activities.

Our close relationship with communities in Bavaria is reflected in the annual "E.ON Bayern Environmental Award." This prize is awarded to local governments, municipal institutions, churches and associations and with an endowment of €250,000 is the largest environmental prize in Germany awarded by a private company. It aims to promote efforts to protect our environment and facilitates the initiation and implementation of innovative energy and environmental protection projects. The prize will be awarded in July 2005 for the first time.

In the U.K., E.ON UK supports the "GreenPlan Funds" to help communities expand their use of renewable sources of energy. For example, the GreenPlan Funds assisted the University of Nottingham by installing a modern solar power system and adding a floor to its International Center for Corporate Social Responsibility. E.ON UK also calls upon its employees to take part in the annual selection of the "Charity of the Year." In 2003 the organization selected was the National Society for the Prevention of Cruelty to Children, which received a financial donation of £15,000 from E.ON UK.





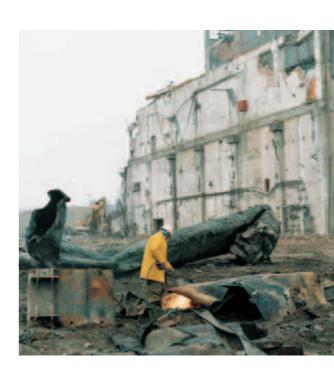
# Decommissioning: A New Beginning What E.ON Does with Decommissioned Power Plants

In the autumn of 2000, E.ON Energie decided to decommission one-sixth of its generation fleet which was no longer competitive on the liberalized market. Power plants and facilities were shut down at five locations in Bavaria, affecting more than 700 employees. But as they say, "When one door closes, another opens." And so we'd like to show what happened with the employees and the site itself after the plants were decommissioned, based on the example of the Schwandorf power plant in the Upper Palatinate. E.ON has helped create an industrial zone at that location which already provides more jobs than the power plant did previously.

Autumn 2002 saw the furnaces finally turned off for good at the Schwandorf power station, two years after E.ON announced its decision. Nevertheless, all of the employees were perfectly aware that there would be no dismissals for operational reasons. E.ON Energie promised them that they would find suitable alternatives, either in new positions in E.ON or at other companies nearby when possible, or through programs for new qualifications or early retirement with financial compensation. Moreover, E.ON Energie also guaranteed its 47 vocational trainees that they would be able to continue and complete their training at the site.

# Giving the Site a New Role

E.ON takes its responsibility to society seriously, not only to its employees, but also to the structural and regional policy needs of the city of Schwandorf. In an agreement with the city, E.ON Energie declared that it was prepared to relinquish and rehabilitate the plant site, creating an attractive industrial area available for new uses. Herbert Geissler, general manager of E.ON Energie's real estate operations, explained the essence of the agreement: "We had the job of changing the functional purpose of the site and acquiring new companies which would be interested in hiring E.ON employees when possible. Furthermore, we also agreed to provide the land, buildings, machinery and equipment, as well as further real estate for expansion, at exceptionally good conditions, so that we could make it easier for interested companies to move to the Schwandorf site"



# New Companies Already Setting up Shop

One of Germany's leading producers of biogas was the first to sign a contract for opening a plant at the site. Schmack Biogas also committed itself to employing roughly 100 workers in Schwandorf over the next 10 years. Up to now, 67 of workers have found a job with Schmack. The Lehmer Group, an international steel and machine engineering firm, which also builds base station antennas for wireless networks, acquired the central workshop and the main warehouse along with the outdoor storage facilities. Lehmer now employs a workforce of 200 to run its operations in Schwandorf. This steel producer also took over responsibility for the vocational training shop at the former E.ON power plant, together with the remaining 34 apprentices and three trainers. "E.ON made the company a very good offer in this respect, and the apprentices are very happy with their training," noted Mr. Geissler.

The common goal of E.ON Energie and the city of Schwandorf to create an industrial area which would offer more jobs than the power station was thus achieved, despite all of the initial difficulties. As Herbert Geissler explained, "With the subdued economic activity in Germany, it certainly wasn't an easy task to find companies that were willing to move forward and create new jobs." Fortunately, we were able to achieve this in Schwandorf.







## Structural Transformation

Many regions in Germany are undergoing a long, difficult period of structural transformation. Even though such transformation is necessary and sensible from an economic perspective, it also generally results in unemployment with all of the ensuing negative consequences for society. E.ON is developing new employment strategies in many regions experiencing structural transformation to help alleviate the negative impact of unemployment.

For example, E.ON Energie transferred ownership of more than 10 million square meters of land and lakes to the communities of Neunburg vorm Wald, Schwandorf, Steinberg and Wackersdorf in the Upper Palatinate. This completed the "Land of Lakes in the Upper Palatinate" project transforming what was once a landscape dominated by lignite mines into an attractive tourist destination. This is also where the Schwandorf lignite-fired power plant used to be located, which is now home to companies employing over 300 workers-more than when the plant was actually operating. Our efforts to settle new companies at the other decommissioned sites in Aschaffenburg, Pleinting, Arzberg and Erlangen were equally successful. Following closure of the plants in conjunction with the Bavarian Ministry of Economics, Infrastructure, Transport and Technology, E.ON Energie founded a working group with the objective of creating competitive new cutting-edge jobs at the sites.

In Germany, successful development is fostered by close cooperation between private enterprise, local state governments and scientific institutions. Our close interaction with the state of Schleswig-Holstein, for example, led E.ON Hanse to found the Schleswig-Holstein Innovation Foundation together with the local state government on July 1, 2004. This public-private partnership also functions as a central meeting point for the technological interests of private enterprise, the sustainability goals set by Schleswig-Holstein's government, and the scientific institutions of the region. The return on the foundation's endowment capital of roughly €80 million, of which E.ON Hanse contributed approximately €22 million, will mainly be used on measures to improve energy efficiency, to expand the use of renewable energy sources, and to mitigate global warming.



Nick Horler, Managing Director, Retail E.ON UK, at the rollout of HeatStreets

# An Energy-Efficient Society

In addition to environmental protection, citizens also directly benefit from efforts to enhance energy efficiency. That is why we are working hard to demonstrate different ways of efficiently using energy and promoting specific measures to reduce energy consumption, especially in the household sector, both in Germany and abroad. In the United Kingdom, for example, E.ON UK has invested some €4.3 million in "HeatStreets." This program highlights measures such as installing insulation and protective covers for water heaters and using energy-saving lamps. Since 2002 roughly 20,000 houses and apartments have benefited from HeatStreets. By 2010, E.ON UK will have invested about €150 million to support British families in cutting their energy costs.

In England, E.ON UK has been working with the British government on the "Warm Front" project since 2000. This initiative is primarily directed at households with children, senior citizens and the disabled, and people suffering from chronic illnesses, who spend more than 10 percent of their income on heating their homes. "Warm Front" assists these citizens in improving the level of structural insulation and boosting heating efficiency. If the residents are 60 or older, they are also eligible to receive new gas or electric heating systems.

In the USA, LG&E Energy offers several programs for enhancing energy efficiency. These efforts aim to explain to customers the advantages of efficient heat insulation for the home, and the broader benefits of energy conservation. In 2003, a successful inspection program by the company helped 1,912 private customers and 704 business customers throughout the state. These energy conservation inspections consist of an on-site meeting, to help customers identify measures that they can take to save energy at home or at work.

In Germany, the German Energy Agency's "Energy Efficiency" initiative, which is also supported by E.ON, provides advice to households on how to use electricity efficiently. Tips and helpful information on saving energy at home, for example by efficient lighting or purchasing low-consumption appliances, can be found on the Internet or by calling the hotline.

Numerous small towns in the Russian Federation, however, face energy problems of a completely different magnitude, as they still do not have access to the national gas pipeline network. This results in very high heating costs for the public, competitive disadvantages for local businesses and, last but not least, additional pollution from ageing power plants. In order to achieve the long-term goal of connecting all of Russia's cities to the gas network, a group of experts from E.ON Ruhrgas and Gazprom in the city of Kaljasin are working on a pilot solution for the optimal development of local energy and heat supply. Special attention is being paid to the existing heating network and central heating plants, which will also produce electricity in the future using a modern "block-type" heating and power station. In addition, plans call for the creation of energy consulting offices to raise public awareness for energy conservation and urge Russia's citizens to use gas and other energy sources more sparingly.

As an analyst at oekom research, I expect E.ON to generate energy more efficiently and with less environmental impact in the coming years, as well as to cut its emissions of greenhouse gases. Accordingly, it is important to push the utilization of renewables and to increase the use of G&S turbines and CHP systems as a part of modernizing their generation portfolio. Moreover, it would be desirable to create effective incentives for final customers to use energy more efficiently and conserve it when possible.

Fundamentally speaking, we would appreciate E.ON transparently disclosing and documenting its activities in the field of sustainability in a comprehensive manner, and communicating with its stakeholders within and outside the company about its action in this area.

Evelyn Bohle, Senior Analyst at oekom research AG, Munich





# A Helping Home E.ON Employee Founds an Association for Street Children

Several hundred thousand children live on the streets in Russia, some 40,000 in St. Petersburg alone. In order to give some of these children the chance of a better life, Irene Commessmann, a Russian interpreter at E.ON Ruhrgas in Essen, founded the "Association for the Support of Needy Children in St. Petersburg." Thanks to her initiative, a foster home was opened in 2002, providing temporary shelter and care for 14 children.

# Victims of Change

"Many of the street kids are simply sold, kidnapped or forced to beg," according to Ms. Commessmann. As an interpreter and trained psychologist, she has been traveling to Russia on business for years. During her visits to St. Petersburg, she was repeatedly confronted by the social consequences of the radical changes occurring in Russia. The transformation to a market economy has had a very serious impact on Russian society, particularly in the larger cities: mass unemployment and social problems have caused innumerable families to break up. Parents are often unable to cope and can neither feed their children nor provide them with a loving home.

Dr. Vasily Sereda has long been involved in working with these children in Russia. A pediatrician, Dr. Sereda has been tirelessly working with homeless children in St. Petersburg since 1990, bringing them food and drink, providing medical care and simply listening to their problems. But he was unable to finance his effort to help these children all by himself. In desperation, he turned to the public for support to find donors and funding. A report on the street children in St. Petersburg and Dr. Sereda's aid effort was broadcasted on German television.









"A family saw this report and wanted to help. They were looking for someone who could contact Dr. Sereda. One of my friends asked me if I could do that for them," explained Ms. Commessmann, who immediately offered to contact Dr. Sereda.

# Finding Comfort and Care for the First Time

On one of her trips, Ms. Commessmann finally met Dr. Sereda in person. A relationship of mutual trust and respect quickly developed. Then, in 1997, Ms. Commessmann founded the "Association for the Support of Needy Children in St. Petersburg." Others joined the cause, which has since collected some €200,000. "My colleagues at E.ON Ruhrgas are quite active as well. For example, they help out at social events or with regular donations, right on up to the top management," noted Ms. Commessmann in praise of her fellow workers and management.

The donations allowed Dr. Sereda to finally open a home for street children in August 2002. Now, the children will have the opportunity to experience what it is like to live in a caring environment. For many, it is something they have never had before. The children receive medical treatment and psychological counseling, can attend school regularly and have space to play and study. "Dr. Sereda has an incredible talent for working with children," said Ms. Commessmann describing the doctor. "He is very compassionate and recognizes their efforts and achievements. Because, after all, it is really quite an achievement to survive as a child on the streets."

The home does not, however, provide the children with a permanent place to live. It seeks to prepare them for life in a different home or at an SOS Children's Village. "We would love to provide space for more kids, but the prevailing regulations forbid it," explained Ms. Commessmann.

In the meantime, the Association has joined forces with the association "Deutsche Lebensbrücke e.V.," a charity organization based in Munich, which had previously supported Dr. Sereda and will continue raising funds for the project. "Due to its size, Deutsche Lebensbrücke simply has more capacity to set things in motion," said Ms. Commessmann, who continues to play an active role in "her" project.









Employee Volunteering, E.ON UK

# **Employee Initiatives**

E.ON is not only involved in society as a company though. Another key aspect of our social responsibility is the involvement of our employees. Time and again, our employees launch initiatives and make important contributions to the benefit of society in general, and we are happy to support them in their efforts. These efforts also often involve the idea of cross-border cooperation, as illustrated in the example of the "Association for the Support of Needy Children in St. Petersburg" initiated by Irene Commessmann at E.ON Ruhrgas.

There are two other initiatives supported to a great degree by E.ON employees which aim to help children in crisis areas. One of these is "Kosovo Direct Help," which supports children in the former Yugoslavia with relief supplies. Sali Tessari, a driver at E.ON Energie, has already taken part in eight missions to deliver supplies to Kosovo. Mr. Tessari, originally a Kosovo Albanian, has brought a total of 350 tons of supplies, mainly gathered from donations, to his old homeland. Along with food, clothes and blankets, one recent delivery included 4,000 school workbooks to help the children in this war-scarred region. Since 2000, Andreas Englert from E.ON Bayern has been involved in the "Light on the Horizon," a program to assist needy children in Eastern Europe. He and other volunteers regularly bring money, clothes, construction materials and—in particular—medicine, wheelchairs and toys by truck to areas in need.

In Germany as well, it is primarily needy children who are helped by the programs carried out by E.ON employees. For example, Werner Korb from E.ON Ruhrgas donated all of the proceeds from his debut CD "High-Contrast Images" to the "Essen Parents' Initiative to Support Children with Cancer." And most of the employees represented by the Central Works Council of E.ON Energie have opted to donate the so-called "decimal amounts" of their monthly paychecks. This "Leftover Cents aid fund" was used by the employees in August 2004 to provide €20,000 for the "Tour of Hope," in which each participant cycles through two German states each year to collect donations for children suffering from leukemia or cancer. This donation was also matched by E.ON Energie, making for a total sum of €40,000.

In England, E.ON UK has combined the aid campaigns initiated by its employees with team-building measures, as part of the "Employee Volunteering" program. For instance, in 2004 E.ON UK employees did volunteer work for a charity association for children, supported mentoring programs for young people, organized bicycle tours for charitable causes and renovated a youth recreation center. Pupils from elementary schools can contact E.ON UK employees by e-mail and get help with their homework and other problems. Above and beyond this, E.ON UK also has a "Matched Funding Scheme" which supports employees in their fund-raising activities. Within the scope of this program, employees are encouraged to donate money to charitable causes. E.ON UK doubles this donation with "Matched Funding" of up to £500 per employee per year. In total, some 800 E.ON UK employees have participated in this program over the years.

In the USA, LG&E Energy's employees support artistic and cultural activities in the region through the "Fund for the Arts." Similar to the scheme in England, employee donations are again matched by the company. In 2003 alone, some \$110,000 in donations were collected by employees and retirees. In addition to this, LG&E Energy also promotes educational programs through matched funding. Donations from employees to universities are matched by the company, with LG&E Energy contributing some \$60,000 annually through this channel.

# Youth Programs and Training

In order to expand the opportunities for young people to successfully enter the job market, it is necessary to support children and young people and invest in their future by helping them obtain suitable professional qualifications. With this in mind, E.ON is committed to promoting the education of children from a very early age: in the U.K., for example, E.ON UK began a program in 1997 which introduces children to the subject of weather when they are still in primary school. In the three years thereafter, more than 900 schools and 27,000 pupils had the chance to learn more about this subject, and were provided with comprehensive educational materials and workbooks by E.ON UK, free of charge. This project was such a success that in 2001 the decision was made to restructure the program, shifting the focus to global warming, as a course in the regular school curriculum and a special advanced education course for teachers. Up to now, more than 52,000 pupils from more than 1,700 primary schools have taken part in this program, many of which are in "Education Action Zones" striving to improve their educational standards with the assistance of private sector enterprises.

Young people are the central focus of the LG&E Energy Foundation as well. Every year 15 children of the company's employees are awarded scholarships of \$1,200. The Foundation also supports the "Newspapers in Education" program which provides some 50,000 students in half of the schools in Kentucky with free newspapers.

The "Youth Research" and "Pupils Experiment" projects also focus on sparking young peoples' interest in science and technology. Pupils from various age groups participate in this competition, submitting their projects in the fields of biology, chemistry, mathematics and computer science, physics and technology, and working life. The best projects are chosen and honored with prizes. E.ON Power Generation, Avacon, E.DIS and E.ON Bayern are the main sponsors of various regional competitions, helping to promote the development of talented young people for the future.

Some 20 years ago, E.ON Ruhrgas, the largest single purchaser of natural gas from Norway, established the German-Norwegian Scholarship Program, together with the Donors' Association for German Science and the Research Council of Norway. This cooperative project helps Norwegian students and post-graduates attend university-level programs in Germany. Since the project was launched, more than 1,200 scholarships have been awarded and more than 30 conferences and seminars organized. In total, E.ON Ruhrgas has provided some €8.6 million for the program.







Children's educational program, E.ON UK

My year in Germany on the E.ON Ruhrgas scholarship really enriched my educational experience. I was able to develop my language skills and got to know German culture and life, up close and personal. I was attending the Halle-Wittenberg University, and the contact with the professors there was excellent as well as the intensive study program in international law. My LL.M thesis also served as the basis for my first publication. When private enterprises get involved in supporting this kind scholarship program, one of the great advantages is that it helps to strengthen and improve interaction and cooperation between different countries. Germany is one of Norway's most important trading partners, and our country needs more dynamic young people with broad-based backgrounds, in terms of both professional training and cultural understanding.

Ingeborg Fogt Bergby, Scholarship winner, Oslo





German-Norwegian Scholarship Program, E.ON Ruhrgas

Together with other leading private sector enterprises, E.ON also supports the Bavarian Elite Academy, which is dedicated to training the next generation of highly skilled management professionals in Germany. In addition to a sharp focus on professional training, one of the Academy's main objectives is to help students develop personal and leadership skills. Of course, Germany's promising young people also include creative young journalists. Since 1996, "kontext—Association for the Promotion of Young Journalists" has been supporting upcoming young journalists who present new insights and perspectives on original topics. Launched in 1995, this E.ON Ruhrgas initiative awards grants to journalists under the age of 35 every year.

E.ON donated €600,000 to the Donors' Association of German Science in 2004. This Association sponsors a wide range of scholarship and grant programs in science and education in Germany. Moreover, it functions as an umbrella organization for over 350 foundations, and in this role it concentrates on promoting the increasingly important role played by foundations in their efforts to advance and foster civil society.

In 2003 E.ON AG and E.ON Ruhrgas established the European School of Management and Technology (esmt) in Berlin and Munich, a joint initiative of German industry to support practical, hands-on training in higher education. This Business School focuses on training highly qualified young executive personnel in Germany. Within this framework, esmt also cooperates closely with the E.ON Academy, also known as the Corporate University. E.ON Energie is also deeply involved in a project with the International University Bremen (IUB) to promote interdisciplinary studies. Thanks to this involvement, numerous projects have been carried out, with the primary goal of fostering more interdisciplinary cooperation between the various fields of natural and technical sciences and humanities and social sciences. With the annual award of the E.ON Energy and Science Prize of €30,000 at the Technical University of Munich, we also make a contribution to supporting young scientists involved in business and energy sector management in their research and development of new ideas in fields related to our core business. In Sweden, Sydkraft maintains close connections with the country's universities and other educational institutions. Every year, the Sydkraft Research Foundation supports research projects in technical fields, and ecology, economics and socio-economics, with total funding of roughly €500,000.

Reinforcing long-standing partnerships and promoting mutual understanding is also the central focus of our cooperation with various educational institutions in Hungary. In Budapest, E.ON Hungária participated in the foundation of the German-language "Andrássy Gyula University," for example by financing the basic necessities for the library with a donation of about €120,000. In addition to this project, E.ON Hungária provides support for students at the Franz Liszt Music Academy in Budapest, by helping young musicians perform both in Hungary and abroad.

## Social Involvement

Unfortunately, 2004 ended on a tragic note with the devastating tsunami in South-East Asia. E.ON was profoundly shaken by this catastrophe, as were people around the world. We were among the first companies in Germany to cooperate with the charitable alliance called "Germany Helps" by making an immediate donation of €1 million. In addition to this, employees donated as a part of a matched funding scheme. The E.ON Group pledged a total of €4.1 million in support of the aid work in southeast Asia.

In the USA, the LG&E Energy Foundation has been committed to social responsibility in the communities where it operates since 1994. For example, this includes supporting the "United Way of America" in the state of Kentucky. Assistance is also provided to other charitable organizations which are carrying out social projects in the fields of education, environmental awareness, the arts and community counseling. The list of organizations we support in this manner includes youth groups and foundations for culture and the arts, as well as research institutes and universities. In 2003, the LG&E Energy Foundation contributed a total of roughly \$1.2 million to charitable causes.

Social involvement in the U.K. includes "Age Concern," a project which offers special rates and customer service to people over the age of 60. As part of "Age Concern," the "We Test, You Rest" program is an effort by E.ON UK to help prevent elderly people from using obsolete and often dangerous, electric blankets. This program offers free testing of electric blankets and free replacement, if necessary. The project found that approximately 70 percent of the blankets tested were not safe, thereby probably helping to prevent many serious accidents.

In Germany, E.ON is strongly involved in supporting selected organizations which help people in need, as well as sick and disadvantaged children and adults. These groups include the German Child Protection Agency, the German Heart Foundation, the Lupus Erythematodes Foundation and the Foundation for the Children of Chernobyl.

In 2004 E.ON was proud to be the main sponsor of the two-week vacation "Out and About for Free" program for children in Munich who stay home for the summer holidays. The main focus in this program is the children's "Lilalu" circus where the kids are "trained" as circus performers and can present their skills at the closing festivities. This allows the children to interact with each other in a playful environment, fostering understanding and communication between German and foreign children, while also integrating so-called "problem children" into the activities.

Over the past 6 years, the Age Concern partnership with E.ON UK has delivered a high level of mutual benefit to both organizations. Through the testing of electric blankets, together we have prevented over 21,000 older people suffering potential life-threatening accidents and have raised awareness across the country of the dangers of unserviced blankets. We are now working together to expand our work with vulnerable older people to include safety and energy efficiency advice, building further on the strengths of our relationship. In addition, thousands of older people have benefited from the cost-effective dual fuel deal, which means those people over the age of 60 on the gas tariff would have received by credit a total of £760,000.

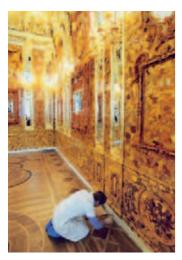
Brian Kilkelly, Head of Corporate Partnerships, Age Concern, England







Public-private partnership museum kunst palast, Düsseldorf



Amber Room, St. Petersburg

# Sponsoring Culture and the Arts

Our sponsorship activities in culture and the arts serve to strengthen the link between our corporate goals and our involvement in society. By sponsoring cultural events and the arts, we help increase the attractiveness of the locations where we do business—yet another part of our contribution to society as a "good corporate citizen." For example, E.ON and the city of Düsseldorf joined forces in 1998 to create the foundation "museum kunst palast," as a public-private partnership. Our financial commitment to this project amounts to approximately €25 million, including shouldering some of the expenses for renovating the exhibition building, an annual donation of €1 million through 2009 and a sponsorship donation of €1.5 million through 2006, to help ensure the long-term operational viability of the museum. We take our role as a partner very seriously and also support the museum by providing other forms of non-financial assistance, such as advertising and handling the museum's mail.

E.ON Ruhrgas has a long-standing partnership with the Folkwang Museum in Essen. The fruits of this cooperation are reflected in projects such as the exhibition "Cézanne-the Dawn of Modern Art" from mid-September 2004 to January 2005. The German Section of the International Association of Art Critics selected this project as the "Exhibition of the Year" in 2004. E.ON also promotes classical music as well. Programs in this realm included our involvement in the International Bach Academy in Stuttgart and the Robert Schumann College in Düsseldorf, support for the Robert Schumann Festival in the summer of 2004 and our annual sponsorship of the Ruhr Piano Festival, as a member of the Initiativkreis Ruhrgebiet. In Sweden, Sydkraft sponsors cultural events for children and young people, within the framework of a three-year partnership with the Malmö Symphony Orchestra.

Under the patronage of the German Federal Chamber of Architects, every other year E.ON Ruhrgas is proud to award the German Prize for Architecture for outstanding architectural accomplishments. In 2004 E.ON Energie sponsored the series of events entitled "Architecture week A2" held in all of the major cities throughout Bavaria which highlighted innovative architecture for the broader public, and also participated in the event with an art exhibition at the headquarters of E.ON Energie. In the future, E.ON Bayern will continue to work closely with the Bayarian Ministry for Science, Research and the Arts in presenting the Bavarian Culture Prize, which aims to promote culture and the arts in the region. This prize of €150,000 is the largest in all of Germany and serves to honor distinguished achievements in arts and science.

The long-standing partnership that E.ON Ruhrgas has with Russia stemming from more than 30 years of cooperation in the gas business was one factor that prompted us to undertake a major project which has since come to virtually symbolize the friendly relations between Germany and Russia. In 1999, E.ON Ruhrgas decided to exclusively sponsor the authentic reconstruction of the legendary Amber Room with a total donation of \$3.5 million. This replica of the masterpiece which was lost at the end of World War II was opened at an official ceremony in May 2003. As a part of the celebration of St. Petersburg's 300th anniversary, German Federal Chancellor Gerhard Schröder and Russian President Vladimir Putin opened the Amber Room in the Yekatrinsky Palace in Tsarskoe Selo to the public.

# **Promoting Sports**

We view the long-term, systematic sponsorship of young athletes as an important foundation for the future of competitive sports. In reflection of this, various subsidiaries of E.ON Energie support recreational sports activities in the regions where they do business. Within the framework of the jersey sponsorship program launched by E.ON Kraftwerke and E.ON Bayern, over the next three to five years some 1,000 youth soccer teams will receive new uniforms in Bavaria. Avacon is running a program called "Fit for Kids" which aims to support the next generation of young soccer and handball players, for example by providing additional training to certified coaches. Every year, for example, this means that roughly 1,000 children's and youth soccer coaches can be trained throughout Lower Saxony.

E.ON Bayern also sponsors sports activities which help improve the quality of life for disabled people of all age groups. For instance, in 2003 instead of Christmas presents a total of €100,000 was collected for social and charitable projects in Bavaria. One of the groups that profited from this campaign was the RSV sports club in Bayreuth which received funding for its wheelchair basketball activities. Another club that received support was the winter sports club DJK Rastbüchl, which has demonstrated what kind of excellent performance is possible when recreational athletes are properly trained, sponsored and supported: the 2000/2001 World champion and 2001/2002 Olympic champion skijumping team trains at DJK.

All the way back in 1986 E.ON Ruhrgas began awarding the "Sponsorship Prize for German Youth Sports." In the U.K., E.ON UK assists upcoming players through the Powergen Rugby Sponsoring programs. The Powergen National Community Programme consists of the Powergen Schools Tag Rugby Scheme and the Powergen Rugby Club Skills Roadshow. With some 35,000 participants annually, this is the largest rugby sponsorship program of its kind in the world. The Rugby Scheme makes it possible for pupils between the ages of 9 to 11 at 288 schools to train with professional rugby players on one occasion. Moreover, young players in local rugby clubs also receive top-notch training assistance from players and coaches from professional teams in the area, and all of the teams that participate in the program also receive an equipment package.





Jersey sponsoring

# Looking Forward

This Report documents our wide range of global activities which reflect our commitment to ecological, economic and social responsibility. At this juncture, some four years after E.ON was founded and now that the transformation of the E.ON Group into an enterprise with a clear focus on energy as its core business is almost complete, this Report is intended to give a broad overview of the current state of affairs of these "non-financials," as information for ourselves and for our stakeholders. We need to know exactly where we stand, in order to be able to formulate priorities and reach a consensus on our future path, guided by the principles of sustainable development.

As the world's largest private energy company, E.ON is committed to the principles of sustainable development. We will do our utmost to achieve the goals we set for ourselves of ensuring economic growth, while guaranteeing high standards of environmental protection and playing an active role for the benefit of society. Naturally, this means that we must harness the advantages of modern technology and strive for a balanced energy mix so that we can protect our environment and minimize our use of resources. And, of course, we will continue to hold ourselves to the high standards of being a "good corporate citizen" in the future.

An enterprise whose investment cycles run over periods of 20 years must always act with an eye to the future and work hard to maintain and strengthen its competitive performance. In reflection of this, E.ON is active in many fields. Supplying energy in the most efficient manner possible is central to our business. In addition to continuing the development of existing and currently emerging production processes, this means that we must explore and exploit promising new technologies as well. As a long-term investor, we must weigh the advantages and disadvantages of each individual technology, objectively and without prejudice. We must examine whether, in terms of sustainability, the technology in question is cost-efficient, uses less resources and results in lower emissions, and also contributes to ensuring long-term security of supply.

Our shareholders and employees recognized early on that E.ON is a strong dynamic group of companies. But our strength and future is not limited solely to our ability to earn profits and grow. We must go beyond this, and be able to recognize and grasp the factors that will underpin our existence and success over the long run. In reviewing our activities from the perspective of sustainability, we have found that the actions and orientation of the companies in the Group make it clear that the members of the E.ON Group are conscious of their responsibility. The differences between the companies in terms of their history, fields of business and the challenges they face is reflected in their different approaches to putting sustainable development into action. Nevertheless, their common future in the E.ON Group will allow them to learn and benefit from each other, and to focus their strengths on achieving common goals.

Integrating sustainability goals into corporate strategy is a complex task. Speaking about these "soft" issues at a management seminar, Chairman and CEO Wulf Bernotat commented, "If you can't measure it, you can't manage it." Indeed, we still lack good definitions and standards to guide the way when it comes to pursuing our sustainability strategy. Ground-breaking work at several levels is still required to draw up a "roadmap" for a comprehensive sustainability process, together with the related management systems. This is particularly true, given the fact that E.ON is a global enterprise. There are, however, simply no alternatives to upholding social standards, respecting human rights and protecting our environment. Accordingly, our work today and in the coming years will focus on formulating and defining guidelines, agreeing on common goals and implementing the necessary procedures.

Clearly, this Report on E.ON's corporate responsibility is but a first step, illustrating our current activities but also allowing glimpses of where we are heading and what still needs to be done on our path to achieving sustainable development. Sustainability cannot be achieved without communication, within our organizations, with our stakeholders and with the broader public. The complex relationships and mutual dependencies of the businesses that we are involved in require us to coordinate our actions and to reach a new consensus with all our companies, because the goals and measures of sustainable development are not immutable. They are constantly changing, as society debates, discusses and decides the future that we all wish to live in. Please accept our invitation, and send us your questions and ideas. Feel free to discuss your expectations and concerns with E.ON.

# Contact:

E.ON AG Sustainable Development E.ON-Platz 1 40479 Düsseldorf Germany

E-mail: SD-Info@eon.com

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