2012 E.ON Sustainability Report: Condensed Version
At www.eon.com/sustainability we report in detail about our sustainability activities and achievements. This condensed version highlights a number of key issues along the E.ON value chain. Additional information is available in the complete online version, which you can access from this document by clicking on the terms highlighted by red arrows: [→ Online Version]
We’re committed to making energy cleaner and better. In Germany, in Europe, and everywhere we operate around the world. That’s why we’re voluntarily conducting a comprehensive asbestos-abatement program at our power stations in Russia. Even though asbestos isn’t banned in Russia. It’s also why we sent one of our best safety managers to Turkey to support our new joint-venture partner there. Our company—and indeed the entire energy sector—finds itself in an extremely challenging transformation process. The energy supply is becoming climate-friendlier, more renewable, and less centralized. In keeping with our “cleaner & better” strategy, we’re helping to shape these changes. In the interest of all of our stakeholders. Our strategy involves more than financial targets. It also involves specific and measurable sustainability targets.

Although our support dates back much further, we formally endorsed the ten principles of the United Nations Global Compact in 2005. Because we’re an energy company, climate protection is a particularly important issue for us. In Russia, for example, we’ve built state-of-the-art power plants. Their emissions are much lower than the average plant in Russia. As a result, we’re reducing the country’s carbon emissions by many million of tons.

To us, sustainability is about living up to our responsibilities to all our stakeholders: our employees, our customers, and the communities and regions where we operate. Each and every day. We’re able to do this because sustainability is integral to our corporate strategy and embedded in our operating business. That said, although we’ve established principles, we can’t claim to have found a panacea. That’s why we continually ask ourselves what we could do better and why we seek out opportunities to dialog with stakeholders. A good example of this is our membership in Bettercoal, an initiative we describe in detail in this report.

E.ON sets ambitious targets, including for sustainability. We try to achieve these targets as efficiently as possible and in a way that simultaneously enhances our performance. By means of binding companywide policies that set specific minimum standards, we embed sustainability ever deeper into all our businesses, organizational entities, and processes along the entire value chain.

Sustainability requires transparency. That’s why we provide you with objective, verifiable indicators of our accomplishments and also of the areas where we want to do better in the future. We’re proud of what we’ve achieved, including this report. I hope you find it as interesting as we do. Our company looks forward to benefiting from your comments, suggestions, and criticism.

Best wishes,

Johannes Teyssen
Highs and lows in 2012

We strive to report our environmental, social, and business performance openly and accurately. We highlight our strengths but also admit to our shortcomings, such as accidents and environmental incidents at our operations.

February

➕ *Actualidad Económica*, a Spanish business magazine, named E.ON España’s “Triple Energía” retail product one of Spain’s one hundred most innovative ideas and ranked it in the top five in the energy category.

[→ Customer Orientation]

March

➕ E.ON and THW forge a public-private partnership to work together in disaster relief.

[→ Community Involvement]

May

➕ E.ON declares its full compliance with the German Sustainability Code.

[→ German Sustainability Code]

June

➕ E.ON and other energy companies found Better-Coal, an initiative to promote sustainability along the coal supply chain. In 2012 BetterCoal conducts stakeholder dialogs in Colombia, South Africa, and Russia.

[→ Responsible Coal Procurement]

July

➖ Sadly, accidents at our facilities result in two fatalities. A total of six people died while working for us in 2012. On balance, however, total accident frequency and lost-time accident frequency declined for our own and contractor employees.

[→ Accident Reporting]

➕ E.ON receives a SAM Sustainability Award and is again included in the DJSI World Index.

➖ E.ON isn’t included in the Dow Jones Sustainability Index Europe. Our goal is to be included in 2013.

[→ Awards]

September

➖ A serious environmental incident in Spain regrettably results in a fatality. The incident is reported to E.ON headquarters within 24 hours in line with our reporting procedures.

[→ Environmental Incidents]

November

➕ London Array offshore wind farm begins producing electricity.

[→ Energy Mix and Decarbonization]

December

➕ “Leuchtpol,” our highly successful education program for children which received multiple awards from the German Council for Sustainable Development, concludes as planned.

[→ Community Involvement]
Making tomorrow’s energy cleaner and better

Our sustainability effort is guided by our corporate strategy, which we call "cleaner & better energy." We update our stakeholders regularly about our sustainability performance and progress toward our objectives. We strive to meet our stakeholders’ expectations and to do our part to help transform Germany and Europe’s energy systems. We don’t set uniform targets for our operations around the world. Instead, we work to achieve continual, meaningful improvements in the context of each individual market. Our products and services are cleaner if they improve environmental protection and efficiency. Our energy is better if we provide superior services and deploy superior technologies.

Key 2012 milestones
- We took a socially responsible approach to staff reductions by concluding a collective pay-scale agreement, a labor agreement, and a model redundancy plan for our operations in Germany
- Our key figure for workplace accidents declined from 3.9 to 2.9 for E.ON and contractor employees
- We reduced the specific costs of offshore wind power by 25 percent, onshore wind power by 50 percent, and photovoltaic power by 35 percent relative to 2011.

Investments
Our targeted investments help transform energy systems in our markets around the world. Part of this strategy involves speeding up our capital turnover, which will create additional value for E.ON while at the same time accelerating the transformation process.

Key 2012 milestones
- We invested €1.8 billion in renewables in 2012, €0.7 billion more than in 2011
- Our sale of a 50-percent stake in three wind farms in the United States to PensionDanmark, a Danish pension fund, exemplifies the less-capital-more-value approach of our investment strategy
- We commissioned four technologically advanced combined-cycle gas turbines in Russia with a total capacity of 1.6 GW.
Europe
Our operations in Europe are still a mainstay of our business. One of our top priorities is building climate-friendly generation assets. This, along with the decommissioning of inefficient coal-fired assets, is part of our systematic effort to halve our European generation fleet’s carbon intensity by 2025 relative to a 1990 baseline.

Key 2012 milestones
• Our carbon intensity of 0.44 metric tons per MWh represented a slight increase from 2011 but was still 30 percent below our 1990 baseline. We remain on track to achieve our reduction target for 2025
• We created a new subsidiary called E.ON Connecting Energies, which will specialize in providing distributed-generation, energy-management, and energy-efficiency solutions
• In partnership with Telefunken we introduced a smart home solution called eHome.

Outside Europe
We invest selectively in fast-growing markets outside Europe. This creates new growth opportunities for our company and also promotes economic development and prosperity. By deploying assets that are cleaner and more efficient than the current standard, we also want to help these countries improve their climate performance.

Key 2012 milestones
• In April we signed an agreement with MPX to form a joint venture whose aim is to become Brazil’s largest privately owned energy company
• We acquired a 50-percent stake in EnerjiSA A.Ş. in Turkey by swapping stakes in a number of hydroelectric stations in southeast Germany with Austria’s Verbund AG
• We developed a project to market affordable distributed-generation units in rural areas.
Identifying risks, seizing opportunities

The energy industry is confronted with far-reaching changes. And energy utilities across Germany and Europe are confronted with considerable challenges: stricter regulation, keener competition, and more interventionist government policies aimed at promoting renewables and climate protection. But these changes and challenges are also creating opportunities to tap into new markets and add new value along the energy value chain.

Our business operations impact people and the environment in positive and negative ways both locally and globally. We play a key role in transforming energy systems and developing new technologies and business models. We’re committed to helping solve problems resulting from rising global energy demand and the strain this puts on the energy supply.

Challenges along the value chain
We operate at almost every stage of the power and gas value chain. We generate, trade, distribute, and market power; we produce, trade, store, distribute, and market gas. In addition, our procurement operations, joint ventures, and minority interests give us some ability to influence the way our suppliers and partners run their businesses. Different aspects of energy supply and different stages of the value chain present us with specific opportunities and risks. This report offers a condensed description of the key challenges facing us at the six main stages of our value chain; our 2012 Sustainability Report, which is available online, offers a more detailed presentation. We’ve discussed these challenges with experts from a variety of areas to help us better identify our stakeholders’ expectations of us and our operations.
New trends and dramatic changes in the energy industry make it necessary for us to continually adjust the strategic course we set in 2010. We’re addressing a number of significant challenges that include climate protection, the modernization of our generation fleet, and a lack of planning certainty due to government intervention in the marketplace. We’re also striving to seize new opportunities in fast-growing markets.

Meeting environmental standards outside Europe
We invest selectively in growth markets outside Europe. We work with local partners to deliver solutions that are cleaner and more efficient than the current standard in these markets, which enhances climate protection. This effort is supported by our consistent approach to environmental management.

Combining growth and climate protection outside Europe
Unlike Europe, many regions of the world need to add a lot of generating capacity. We’ve entered a number of these growth markets, where we’re building and operating conventional and renewables assets. Our commitment to environmental and climate protection doesn’t end at the EU’s borders. In 2012 we signed an agreement with MPX of Brazil to form a joint venture whose aim is to become that country’s largest privately owned energy company. We have a 50-percent stake in Enerjisa, a power company in Turkey. In Russia we’ve recently commissioned four technologically advanced combined-cycle gas turbines with a total capacity of 1.6 GW.

- Thanks to their outstanding efficiency, in 2012 our technologically advanced power plants in Russia emitted 7.8 million metric tons less CO₂ relative to the average carbon intensity of power generation in that country.

Environmental standards for investments and joint ventures
Each of our investments must meet business criteria as well as sustainability criteria. For example, we conducted environmental due diligence of our investments in our new growth markets such as Brazil and Turkey to assess the potential for contaminated sites and environmental damage. The standards we applied included those of the Hydropower Sustainability Assessment Protocol. We’re also conducting an asbestos-abatement program at our facilities in Russia and will assess asbestos exposure there using EU standards in 2013.

Reducing carbon intensity reduces risks
As an energy company we have a special responsibility to protect the earth’s climate. At the same time we believe that the energy system must be transformed as efficiently and cost-effectively as possible. Due to low carbon prices, however, the EU Emissions Trading Scheme isn’t providing incentives to invest in climate-friendly technology. In fact, the collapse of carbon prices is making it attractive to generate power from coal. Nevertheless, we stand by our goal of reducing our specific carbon emissions, which will enhance our climate performance and also reduce our costs and price risks. We monitor our climate performance, and compare it with that of our industry peers, by measuring the carbon intensity of our power generation, that is, the amount of CO₂ (in metric tons) we emit for every MWh of electricity we generate.

Combining climate protection and affordability
The goal of our climate-protection strategy is to reduce our carbon intensity—that is, the amount of CO₂ we emit per kWh of electricity—in a way that makes business sense. We intend to halve, by 2025, our European generation fleet’s carbon intensity relative to a 1990 baseline. To get there, we’re investing to expand our renewables capacity and enhance the efficiency of our existing power stations.
Our carbon intensity rose from 0.43 metric tons of CO₂ per MWh in 2011 to 0.46 metric tons in 2012, primarily because of the increased use of coal-fired power stations. Nevertheless, we’re confident that we can achieve our reduction target by expanding our renewables capacity and improving our conventional generation fleet.

- **Target:** By 2025 we intend to halve our European generation fleet’s carbon intensity to 0.32 metric tons of CO₂ per MWh from a 1990 baseline.
- **Status at year-end 2012:** Our carbon intensity of 0.44 metric tons per MWh in 2012 was 30 percent below the 1990 baseline.

### 2012–2015 Work Program

Continually enhancing the efficiency of renewables

We intend renewables to account for more than 20 percent of our owned generation by 2020. In 2012 they accounted for 12.1 percent, and our Renewables segment delivered fully 13 percent of our consolidated earnings. We specialize in developing renewables projects efficiently, which has made us a world leader in asset availability and cost reduction. We’re continually increasing our investments in renewables. In 2012 these investments rose by 61 percent to €1.8 billion. At year-end 2012 our renewables capacity (including large-scale hydro) totaled more than 10.3 GW, 0.62 GW more than at year-end 2011. Our renewables output rose from 29.6 TWh in 2011 to 31.8 TWh in 2012.

- **Target:** We want to involve our stakeholders more closely in our business processes and do significantly more to factor their concerns into our strategy design process.
- **Status at year-end 2012:** We conducted a multi-stakeholder dialog at a power station in central Germany and about 40 events nationwide as part of a program we call E.ON in Dialog. We intend to expand our use of such forums.

### Making renewables more economical

By 2015 we intend to reduce specific costs by 25 percent for onshore wind, 40 percent for offshore wind, and 35 percent for photovoltaic.

### In 2012 we established

a central approvals platform for the construction and operation of our facilities. This new, integrated approach will enable us to communicate consistently with external stakeholders.

### Involving stakeholders early

To operate our facilities and our business we need the support of local communities. That’s why stakeholder management is one of our core management processes. Our Stakeholder Management Policy establishes a consistent framework for our actions in this area. One way we involve stakeholders is by holding public forums in the communities where we operate. In 2012, for example, we conducted a multi-stakeholder dialog at a power station in central Germany and about 40 events nationwide as part of a program we call E.ON in Dialog. We intend to expand our use of such forums.

Our efforts are guided by the AA1000 Stakeholder Engagement Standard developed by AccountAbility.
The transformation of the energy system is presenting new challenges and new opportunities. But it won’t succeed without innovative technologies and solutions. That’s why we work hard to recognize emerging technologies early and draw on them to design energy solutions that are both sustainable and commercially viable.

Spending more on research and development (R&D)
We enhance our ability to succeed in growth businesses such as renewables and distributed generation by investing in R&D and demonstration projects and by funding university research. Our R&D budget is aligned with our company’s strategic focus areas so that we can address a variety of technology issues as well as the challenges of our rapidly changing industry.

Despite a difficult business environment, in 2011 we increased our R&D expenditures for the first time since 2008. This upward trend continued in 2012: we invested €144 million in R&D, 34 percent more than in 2011.

- We spent €37 million more on R&D in 2012 than in 2011.

Transforming trends into business models
We currently have 14 E.ON Innovation Centers (EICs), which are embedded in our existing business units. Their activities are guided by the Technology and Innovation (T&I) division at Group Management. Their mission is to integrate cutting-edge technologies from around the world into our value-creation processes.

In early 2011 we created a new role at T&I to support our strategy of investing in new, innovative companies and small-scale projects: technology scouts. Their responsibilities also include safeguarding E.ON’s intellectual property and serving as our interface with research institutes.

- A new EIC called Smart Energy Systems was created in 2012. Its mission is to help shape the smart, decentralized energy world and find ways to use the wealth of energy data.

100 percent renewable is doable
A zero-carbon power supply is technically feasible. But it will take a lot of time and money. We’re helping to make it a reality by developing innovative technology that will significantly reduce the specific costs of wind and solar power and by developing storage solutions that will help balance out the intermittent output of wind, solar, and hydro facilities.

Making wind and solar power more competitive
The purpose of our renewables R&D is to optimize our existing assets and to realize the untapped potential of new technologies. We’ve set ambitious targets for reducing the costs of wind and solar power per MWh of output. We aim to reduce the specific costs of offshore wind by 40 percent. That’s why we’re developing predictive diagnostic software that will enable us to conduct preventive maintenance and a new hydraulic gangway for safely transferring personnel to and
from offshore wind turbines. Going forward we intend to continue to focus our renewables R&D on wind and photovoltaic power.

[Technology Development: Renewables]

• We invested €15 million in renewables R&D in 2012, which represented 10 percent of our total R&D budget and an increase of €2 million from 2011.

Integrating renewables

The output of wind and solar farms fluctuates, at times dramatically. Currently these fluctuations are balanced out by certain types of conventional power plants that can come online and offline on short notice and by energy storage devices such as large-scale pumped-storage hydroelectric stations. New storage solutions are on the way. They include power-to-gas (P2G) technology (which uses surplus renewable energy to produce hydrogen which can be safely injected into the gas pipeline system) and the batteries of electric vehicles (which one day could comprise a large distributed storage device). The transformation of the energy landscape will also require smart grids and innovative IT solutions. Our transmission networks already incorporate smart-grid technologies; the next step is to deploy them in our distribution networks.

[Technology Development: Infrastructure]

• A P2G pilot unit will enter service in eastern Germany in the third quarter of 2013. It will use surplus wind power to produce hydrogen which can be safely injected into the gas pipeline system.

Solutions that add value for our customers

Business and residential customers want solutions that provide them with a reliable supply of energy and at the same time enable them to save money and help protect the earth’s climate. That’s why we’re developing products and services that enhance our customers’ comfort, supply reliability, and energy efficiency.

Improved products and services

The aim of our sales and end-use R&D is to develop technologies that add value for residential and business customers in areas such as energy efficiency, energy management, and distributed generation. We design smart-home solutions that enable residents to monitor and control their home’s electrical devices and heating and cooling system from their computer or smartphone. We’re also developing and testing a variety of e-mobility technologies. In the years ahead we plan to conduct demonstration projects that highlight the customer benefits of integrated applications that combine solar panels and battery storage.

[Technology Development: Sales and End-Use]

• Our R&D for sales and end-use totaled €31 million in 2012. That’s more than one fifth of our R&D budget and an increase of €5 million from 2011.

Using conventional power plants intelligently

As renewables output increases, the use of conventional power plants becomes more sporadic. We’re working to enhance the operational flexibility of our conventional plants so that they can respond when needed. Greater flexibility, along with active demand management and the integration of distributed generating units, will help ensure that the power system remains stable and reliable.

Making our power plants more flexible

The aim of our R&D in conventional generation is to increase fuel efficiency and operational flexibility and reduce emissions. R&D in 2011 focused primarily on increasing the fuel efficiency of new power plants, whereas in 2012 it focused on optimizing our existing plants. For example, we’re working to improve monitoring technology, which will enable us to increase asset flexibility and reduce operating costs. As installed renewables capacity increases, conventional power stations will need to operate more flexibly. This trend will continue in the years ahead.

[Technology Development: Conventional Generation]

• R&D expenditures for conventional generation declined to 29 percent of our R&D budget in 2012, down from 37 percent in 2011.
Our ability to procure fuel and other materials securely and price-effectively is a key success factor in our business. We’re also aware of our social responsibility, which includes doing our part to ensure that our entire supply chain meets acceptable standards for environmental, social, and governance performance.

Promoting international standards and preventing corruption in our supply chain
Due to the absence of consistent global standards, we require our suppliers to comply with our standards for sustainable procurement and to meet appropriate standards for working conditions and environmental protection. We’re aware that our supply chain includes countries where the risk of corruption is higher. To mitigate these risks we conduct risk assessments.

Committing our suppliers to sustainability
Our Responsible Procurement Policy, which is binding for our entire company, is based on the principles of the United Nations Global Compact and is part of our standard terms and conditions of purchase. It requires our suppliers to fulfill sustainability criteria such as ensuring appropriate working conditions, conforming with ethical business practices, protecting the environment, and respecting human rights. For most of what we procure, we use audits and other processes to ensure that our suppliers meet these criteria. We conduct risk assessments prior to our procurement activities. Where necessary, we also support our suppliers in their efforts to improve and develop their processes.

Preventing corruption
Avoiding conflicts of interest is a top priority at our company. We conducted compliance risk assessments at three of our regional units in 2012. We’re conducting similar assessments, which are tailored to the specific circumstances of each country, across our entire organization in 2013. We have in place a Code of Conduct that requires our employees to conform with guiding principles and rules for legal and responsible behavior. We monitor compliance with the code across our company and investigate potential violations. Ninety-six alleged compliance violations were reported and thoroughly investigated in the E.ON Group in 2012. In some countries where we operate, the risk of corruption is higher.

- We have operations in 13 countries and major suppliers in six others that score below the 60-point threshold on Transparency International’s Corruption Perception Index.

Human rights and environmental protection in mining
If proper precautions aren’t taken, the extraction of resources such as coal and uranium can pollute the air, contaminate groundwater, and harm the environment in other ways. In some countries it may also involve abuses of human and workers’ rights.

E.ON’s coal suppliers
Russia and Colombia provide more than 50 percent of our hard coal, making them by far our largest suppliers. Russia was for many years our main supplier. In recent years, however, that role has been taken over by Colombia, which in 2012 supplied 30 percent of our hard coal. In 2012 we procured a total of 24,900 kilotons of hard coal for power generation, an increase of 23,800 kilotons from 2011.

Protecting human rights
Our commitment to respecting human rights is codified in our Responsible Procurement Policy. However, we can’t be entirely certain that the mines from which we source coal respect human and workers’ rights. We’re aware of these risks. That’s why we joined seven other leading European energy utilities to launch
BetterCoal, whose aim is to promote the continuous improvement of sustainability in the international coal supply chain. In consultation with various stakeholders and with mine operators in South Africa, Russia, Columbia, and Indonesia, BetterCoal drafted codes for globally recognized social, environmental, and ethical principles and practices that are relevant to coal mining. The codes are expected to be approved in 2013. A shared online database for the results of mine assessment is scheduled to be in place this year as well.

[→ Protection of Human Rights]

• **Target:** Conduct more on-site mine assessments (at least four by 2015).
• **Status at year-end 2012:** A number of pilot assessments were conducted and draft assessment guidelines developed.

[→ 2012–2015 Work Program]

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### 2012–2015 Work Program

#### Combined TRIF

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1Total recordable injury frequency (TRIF) is equal to the number of fatalities, lost-time injuries, restricted-work injuries, and medical treatment injuries per million hours of work.

2Unlike the rest of our sustainability reporting, our safety indicators include companies that are not fully consolidated but over which E.ON has operational control.

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### Safety for E.ON and contractor employees

To help us reduce the risk of future accidents we compile data from around our company on accidents and their causes. We began rolling out Prevent!, our Group-wide incident management system, in early 2012. We use it to record and analyze information about risk-related incidents affecting E.ON employees and those of our contractors. The key indicator for our safety performance is total recordable injury frequency (TRIF), which measures the number of fatalities, lost-time injuries, restricted-work injuries, and medical treatment injuries per million hours of work. We’ve calculated TRIF for our contractor employees since 2011.

[→ Accident Reporting]

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**Occupational safety and environmental protection in upstream gas**

We help ensure that Europe has a secure supply of natural gas by maintaining a diversified portfolio of suppliers and procurement pathways. As we expand our own production operations, occupational safety and environmental protection take on greater importance, both at our own facilities and those of our partners.

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**Producing and procuring gas safely and securely**

We procure most of our natural gas from Russia, Norway, the Netherlands, and Germany. In 2012 we procured and traded 1,309.8 billion kWh of natural gas. Our long-term objective is to source up to 20 percent of our gas from our own production assets. Our Exploration & Production global unit focuses on E&P in the North Sea, North Africa, and Russia. Partner companies serve as the operator on most of our E&P projects. The operation of production facilities and gas pipeline systems presents special challenges. For example, maintenance operations on gas pipelines can result in the release of methane, a particularly harmful greenhouse gas. The operation of offshore drilling platforms and subsea pipelines can pose a threat to marine biodiversity, which is why comprehensive environmental impact studies are conducted for major projects such as the Nord Stream pipeline.

[→ Natural Gas Procurement]

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In 2012 our combined TRIF was 2.9, significantly below the 2011 figure of 3.9. TRIF for contractor employees declined from 3.1 to 1.9. Nevertheless, five contractor employees and one E.ON employee had fatal accidents while working for us in 2012. Going forward we intend to enhance safety training for contractor employees.

- **Targets:** Reduce our combined TRIF and LTIF for contractor employees to 3 by 2014.
- **Status at year-end 2012:** Our combined TRIF was 2.9 and our LTIF for contractor employees was 1.9 in 2012, meaning that we have already achieved these targets.

[→ 2012–2015 Work Program]
The growth of distributed energy and the integration of renewables are creating new business opportunities for our generation business. Renewables are becoming an increasingly important part of our portfolio. At the same time, large-scale fossil-fueled power stations face an altered business environment that’s reducing capacity utilization and profitability. We intend to withdraw 30 generating units in Europe by 2015.

### Adjusting our generation fleet

Although renewables are one of our company’s growth businesses, our generation portfolio still contains fossil-fueled assets. Only profitable power plants are sustainable. That’s why we’re making changes—efficiency improvements, closures, and conversions—that will improve our generation fleet’s competitiveness. For example, we’re converting coal-fired generating units in France, Belgium, and the United Kingdom to burn wood pellets. We also plan to decommission or mothball roughly 30 generating units—an aggregate 11 GW of capacity—in Europe by 2015. In 2012 alone these units emitted about 17 million metric tons of CO₂. At the same time we’re investing in renewables: we invested €1.8 billion in this area in 2012.

### Withdrawing conventional capacity

Whether to close a power plant is a question of profitability. We intend to mothball or decommission older fossil-fueled generating units and nuclear power stations with an aggregate capacity of 11 GW by 2015. On balance, these closures will promote climate protection. We’re conducting talks with employee representatives and regulatory agencies to find solutions that are socially responsible and keep the local energy system stable.

### Managing the energy transformation’s impact on communities

The transformation of Europe’s energy system can impact communities in a variety of ways. Plant closures can result in the loss of jobs and tax revenues. Other issues include rising energy costs and the designation of preferential wind-power zones. E.ON can help address these issues by, for example, helping to design regional energy strategies.

### Implementing change responsibly

Stakeholder dialog is part of our day-to-day business. One of our challenges is to balance the sometimes conflicting expectations of our stakeholders regarding issues like climate protection, environmental protection, supply security, job security, and return on investment. Our regional units are very familiar with local issues and circumstances and are therefore the ideal point of contact for local stakeholders. Social responsibility toward our employees is a high priority at E.ON. Representation on supervisory boards and participation in works councils give our employees the opportunity to influence our company’s development. Open and timely communications with employees are particularly important when staff reductions must be made.

### Preventing environmental impact from power plants

Power plants can harm people and the environment. To prevent this, we deploy the best available technology and meet stringent environmental and safety standards. For us, environmental and climate protection go hand in hand. Our comprehensive plant and process safety procedures and environmental management systems enable us to prevent uncontrolled events at our facilities.

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1. Adjusted for discontinued operations.
Preventing environmental damage
The E.ON Global Climate Change and Environment Policy ensures that we conduct environmental management in accordance with uniform minimum standards across our company. Thanks to our systematic environmental and safety management, environment-related incidents in the “serious” category are very rare in the E.ON Group. Regrettably, however, a serious incident took place in Spain in 2012.

[→ Environmental Protection]

- All of our facilities that could have a substantial environmental impact have had an environmental management system in place since 2010. These systems conform with EN ISO 14001 or EMAS II and, in most cases, have been certified by independent organizations.

Air pollution from power generation
Power generation is responsible for most of our emissions. For us, environmental and climate protection go hand in hand, since neglecting climate protection in power generation would have additional adverse effects on the environment. Sulfur dioxide (SO₂) and nitrogen oxide (NOₓ) are two of the main air pollutants. We want to significantly reduce our emissions of these gases by expanding our renewables capacity and by making our power plants more efficient. However, carbon prices under the EU Emissions Trading Scheme (ETS) are currently very low with the result that more power is being generated from coal. Unless the ETS is reformed, emissions of CO₂ and air pollutants in Europe will increase.

[→ Air Emissions]

Our NOₓ emissions rose from 125 kilotons in 2011 to just under 132 kilotons in 2012. Due to increased use of coal-fired resources, our specific NOₓ emissions rose from 0.46 to 0.5 kg per MWh.

Our SO₂ emissions rose from 0.32 to 0.42 kg per MWh and, in absolute terms, from 86 to 112 kilotons. In a number of European countries—particularly Spain, the United Kingdom, and France—coal-fired assets tended to crowd out gas- and oil-fired assets.

Using water resources efficiently
Water is an important resource for our operations, primarily as a cooling agent and for steam production in our power plants. Despite our conservation efforts, in 2012 our consumption of fresh water increased by 348.5 million cubic meters (mcm) to 1,355.3 mcm. Higher consumption at our nuclear power stations in Germany was one of the main factors. Our total water withdrawal fell by 516.1 mcm year on year to 14,277.2 mcm.

[→ Water Management]

- A study of water availability at 181 of our facilities showed that scarcity can’t be ruled out at 23 of them.

We anticipate that climate change will affect water availability worldwide. Responsible water management is therefore a strategic issue for our company. We’re committed to fulfilling all of the standards of the UN CEO Water Mandate by 2015. In 2012 we began a systematic process of identifying regions where water availability could be at risk.

• Target: Conduct comprehensive water management in accordance with the standards of the UN CEO Water Mandate.

• Progress in 2012: We put together an E.ON Water Management Site Decision Matrix to enable us to systematically identify water risks.

[→ 2012-2015 Work Program]
Distribution

The transformation of the energy landscape will require the optimal use of power grids. Capacity will need to be expanded and grids made smarter to ensure reliability and to integrate renewables. E.ON has started using innovative technologies like smart meters and energy storage devices.

**Ensuring an uninterrupted power supply**
Continual fluctuations in the output of wind and solar farms make network management even more challenging. Ensuring a reliable, uninterrupted power supply requires energy storage devices, flexible generation resources, and, increasingly, innovative grid technology. E.ON is developing and testing promising solutions.

**Smart grids**
The amount of intermittent wind and solar power is increasing, and smaller-scale, distributed generating units are becoming more prevalent. As these trends continue, new technology will be required to ensure that customers receive a reliable supply of the power they need. Developing this technology will take a lot of research and testing. That’s why we’ve tripled our expenditures on infrastructure R&D since 2010. Our aim is to develop a range of smart-grid and energy-storage technologies. The latter include advanced batteries, power to gas, compressed air, and thermal storage. [→ Technology Development: Infrastructure]

- We spent €24 million on infrastructure R&D in 2012, which was 17 percent of our total R&D budget.

**Dealing constructively with opposition to network expansion**
There’s increasing opposition to network expansion. People are concerned that new power lines nearby will reduce the value of their homes and contribute to electric smog which may be harmful to their health. We take these concerns seriously and address them constructively. We involve local residents early in the planning stages of new network projects and erect power lines as far away from residential areas as possible.

**Engaging people in dialog helps us manage risks**
People are increasingly skeptical of big infrastructure projects planned for their communities or the surrounding area. We’re addressing this trend constructively. E.ON Netz, which operates our transmission system in Germany, holds forums at which people can voice their concerns. These forums are in addition to the public hearings that are part of the official approval process. We also create opportunities for residents to talk to us one on one. We know that to operate our business we need more than official approval. We need the support of our neighbors. That’s why we view stakeholder relations as an aspect of risk management. Engaging people in dialog helps us identify potential areas of conflict as well as new business opportunities. [→ Risk Management]

- We plan to have a Group-wide Environmental, Social, and Governance Risk Policy in place by the end of 2013.
Sales and consumption

Many customers choose their energy supplier solely on price. But more and more customers are interested in other aspects, including sustainability. They want more information about, and more control over, their energy use. At E.ON, we’re also interested in environmentally and climate-friendly products, which help shrink our own carbon footprint.

Affordable energy for our customers
The affordability of power and heat has become a topic of heated public debate. We work hard to enhance the efficiency and reduce the cost of conventional and renewable-source energy. That said, our ability to influence end-customer prices is limited. To a significant degree, these prices reflect regulatory policies, taxes, levies, and fluctuations in commodity prices.

Transparency, fairness
To promote price transparency, we disclose the availability of our power plants in Europe. A significant portion of residential power prices, however, reflects taxes, levies, and subsidy payments (for renewables, for example). On average, these account for 29 percent of residential power prices in Europe. This percentage varies considerably by country, depending on its particular tax and subsidy policies. We offer our customers price-cap and fixed-rate products that shield them from price increases and seasonally high bills, particularly in the winter. We’re also committed to working with our vulnerable customers (older people, people who are physically or mentally challenged, and people on low incomes) to ensure that they receive the power and heat they need.

Helping customers protect the climate
Nearly all customers want their energy to be affordable; many also want it to be as climate-friendly as possible. The data we gather to calculate our carbon footprint show that the emissions that result from our end-customers’ power and gas use actually exceed our own emissions.

Promoting climate protection through innovative products and services
The emissions that result from our end-customers’ power and gas use actually exceed our own emissions. We offer our customers products—such as certified green power and energy-saving tariffs—that help them to do their part to conserve energy and protect the earth’s climate. By providing them with smart meters, we help make their energy use more visible.

We develop and market new products and services that help our customers use energy more efficiently and protect the climate while at the same time enabling us to establish new business lines. We offer customers advice and help them reduce their consumption through high-efficiency heating units and micro cogeneration units. In several countries we offer special tariffs and reward programs that give customers a monetary incentive to conserve energy.

• "Triple Energía", an E.ON España retail product that rewards customers for saving energy, was named one of Spain’s five most innovative energy ideas.

Retail product “Triple Energía” receives award

[→ Customer Orientation]
[→ Prices and Security of Supply]
[→ Carbon Reporting]
[→ Climate-Friendly Products and Services]
Focus on capital markets

Social and ecological changes are increasingly shaping the business environment, creating opportunities as well as risks. How companies respond to global and local challenges—resource scarcity, climate change, the need to establish humane working conditions in their supply chain—can give them opportunities to differentiate themselves from their competitors. This development is reflected in the fact that standardized indicators for environmental, social, and governance (ESG) performance are gaining in importance among institutional investors and equity analysts.

Governance and integrity
The current market situation and the far-reaching changes in Europe’s energy industry are presenting us with considerable challenges. Good corporate governance is the foundation of efficient operations, effective risk management, and our responsible, value-oriented management approach. 
[→ Customer Orientation]
[→ Good Governance]
[→ Sustainable Procurement]

2012 ESG performance
For several years we’ve organized the reporting of our sustainability performance along key ESG issues. As part of our periodic materiality analyses, we evaluate these issues from an external point of view as well. We use key performance indicators (KPIs) that are significant for the capital market, such as the third generation of ESG KPIs from the European Federation of Financial Analysts Societies (EFFAS) and the German Association for Financial Analysis and Asset Management (DVFA). Below is condensed overview of these KPIs. Our online report offers more detailed information. Selected KPIs are part of our 2012 sustainability reporting that was independently audited. 
[→ Facts and Figures]

- **Measurable and meaningful indicators** are essential for us to evaluate our performance and assess our progress, for example toward the targets we set in our 2012–2015 Work Program. 
[→ 2012-2015 Work Program]
### Facts and Figures

<table>
<thead>
<tr>
<th>Environment</th>
<th>Reviewed</th>
<th>2012</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Emissions from Power and Heat Generation (metric tons in millions)</td>
<td>yes</td>
<td>125.8</td>
<td>124.6</td>
<td></td>
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<tr>
<td>EU Carbon Allowances Received (in millions)</td>
<td>yes</td>
<td>83.5</td>
<td>80.7</td>
<td></td>
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<tr>
<td>E.ON Group Carbon Intensity (metric tons of CO₂ per MWh)</td>
<td>yes</td>
<td>0.46</td>
<td>0.43</td>
<td></td>
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<tr>
<td>E.ON Group Carbon Footprint (metric tons in millions)</td>
<td>partly¹</td>
<td>129.9</td>
<td>129.3</td>
<td></td>
</tr>
<tr>
<td>Scope 1 emissions</td>
<td>yes</td>
<td>4.4</td>
<td>5.3</td>
<td></td>
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<tr>
<td>Scope 2 emissions</td>
<td>yes</td>
<td>149.6</td>
<td>154.7</td>
<td></td>
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<tr>
<td>Owned Generation Renewables (in TWh)</td>
<td>yes</td>
<td>31.8</td>
<td>29.6</td>
<td></td>
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<tr>
<td>Capacity by Renewables incl. Large-Scale Hydro (in GW)</td>
<td>yes</td>
<td>10.3</td>
<td>9.7</td>
<td></td>
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<tr>
<td>Number of environment-related incidents</td>
<td>severe (according to mandatory reporting within 24 hours)</td>
<td>yes</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>medium (no mandatory reporting)</td>
<td>yes</td>
<td>15</td>
<td>3</td>
<td></td>
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<tr>
<td>Incidents as measured on the seven-step International Nuclear Event Scale INES</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>SO₂ Emissions (kilotons)</td>
<td>yes</td>
<td>111.6</td>
<td>85.4</td>
<td></td>
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<td>SO₂ Intensity (kilograms per MWh)</td>
<td>0.42</td>
<td>0.32</td>
<td></td>
<td></td>
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<tr>
<td>NOₓ Emissions (kilotons)</td>
<td>yes</td>
<td>131.9</td>
<td>124.5</td>
<td></td>
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<tr>
<td>NOₓ Intensity (kilograms per MWh)</td>
<td>0.5</td>
<td>0.46</td>
<td></td>
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<tr>
<td>Particulate Emissions (kilotons)</td>
<td>yes</td>
<td>6.2</td>
<td>6.2</td>
<td></td>
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<tr>
<td>Non-hazardous Waste (kilotons)</td>
<td>recovered</td>
<td>318</td>
<td>687</td>
<td></td>
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<tr>
<td>disposed</td>
<td>178</td>
<td>378</td>
<td></td>
<td></td>
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<tr>
<td>Hazardous Waste (kilotons)</td>
<td>recovered</td>
<td>30</td>
<td>35</td>
<td></td>
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<tr>
<td>disposed</td>
<td>74</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear Waste (tons)</td>
<td>low and intermediate-level waste</td>
<td>yes</td>
<td>3,407</td>
<td>3,576.5</td>
</tr>
<tr>
<td>high-level waste</td>
<td>yes</td>
<td>245.9</td>
<td>239.2</td>
<td></td>
</tr>
<tr>
<td>Total Water Withdrawal (m³ in millions)</td>
<td>yes</td>
<td>14,277.2</td>
<td>14,793.4</td>
<td></td>
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<tr>
<td>Fresh Water Consumption (m³ in millions)</td>
<td>1,355.3</td>
<td>1,006.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Social

| Group Employees (31.12.) | yes | 72,083 | 78,889 |  |
| Average Length of Service (years) | yes | 13.9 | 14.2 |  |
| Turnover Rate (percentage) | yes | 3.6 | 3.6 |  |
| Average Employee Age (years) | yes | 42 | 42 |  |
| Apprentices in Germany (number) | yes | 2,252 | 2,466 |  |
| Spending on Trainings per Employee (€)² | 1,047 | 894 |  |
| Proportion of Women among Total Workforce (percentage) | yes | 28.4 | 28.3 |  |
| Proportion of Women among Management (percentage) | yes | 12.9 | 12.5 |  |
| Number of Employees with a Severe Disability in Germany (percentage) | yes | 5.8 | 6.3 |  |
| TRIF of E.ON and Contractor Employees (injuries per million hours of work) | 2.9 | 3.9 |  |
| E.ON Employees’ LTIF (injuries per million hours of work) | yes | 1.9 | 2.1 |  |
| Contractor Employees’ LTIF (injuries per million hours of work) | 1.9 | 3.1 |  |
| Number of Fatal Accidents Involving E.ON and Contractor Employees | 6 | 5 |  |
| Total Community Involvement Investments (€ in millions) | yes | 36.4 | 41.9 |  |
| Involvement of E.ON Employees (number of volunteer hours) | 14,300 | 29,000 |  |

### Governance and Integrity

| Customer Satisfaction Survey through the Net Promoter Score (number of countries) | 7 | 7 |  |
| Research and Development Expenditures (€ in millions) | yes | 144 | 107 |  |
| Gas Supply (billion kWh) | yes | 679.4 | 660.5 |  |
| Hard Coal Procured for E.ON Power Stations (kilotons) | yes | 24,900 | 23,800 |  |
| Average Annual Need of Natural Uranium for E.ON Power Plants (tons) | 1,450 | 1,300 |  |
| Sales in Countries with Corruption Risks (percentage)³ | 7.5 | n/a |  |
| Number of Compliance Violations Reported | 96 | n/a |  |
| E.ON Code of Conduct Training for Employees with Access to the Intranet (percentage) | 83 | n/a |  |
| Contributions to Political Parties or Affiliated Organizations (€) | 0 | n/a |  |

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¹Emissions from electricity and heat generation were verified externally. ²Gas sales to end users and emissions from end use of purchased electricity were verified externally. ³Since 2012 we use a broader definition of trainings and seminars due to reorganization processes. ⁴According to Transparency International’s Corruption Perception Index (CPI).
Contact

The contact people for sustainability issues at E.ON SE will be happy to answer any other questions you may have.

[→ Contact]

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Imprint

Content
E.ON SE, Düsseldorf

Concept, copywriting
Stakeholder Reporting, Hamburg

English copywriting
seanward.com, Savannah, USA

Typesetting, lithography
Jung Produktion, Düsseldorf

Photography
E.ON SE, Düsseldorf

Graphics
Lesmo, Düsseldorf

Düsseldorf, May 2013