# E.ON 2012 Sustainability Report

May 2013



#### **Preliminary note**

Since 2008 E.ON SE's annual corporate sustainability (CS) reporting has mainly appeared online. You can access all contents on the top navigation level at www.eon.com under "Sustainability". The Sustainability Report published by E.ON SE in May 2013 is the Group's ninth successive report. It covers the period from January 1 to December 31, 2012, and is available in German and English. The copy deadline for established content relevant to the Report was March 31, 2013. The next Sustainability Report will be published in the second quarter of 2014. The chapters "Approach", "Reporting", "Environment", "Social" as well as "Governance and Integrity" form the core of our 2012 Sustainability Report. In addition to our extensive online reporting on the topic of sustainability at E.ON, we have summarized key areas of progress in a Summary Report which is available to download as a pdf file at www.eon.com. As in previous years, substantial parts of the 2012 Sustainability Report were audited by PricewaterhouseCoopers (PwC) using the ISAE 3000 criteria (International Standard on Assurance Engagements) of the International Federation of Accountants...

# Information folder

compiled from www.eon.com on 05/03/2013

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# Cleaner & better – Sustainability at E.ON

## Foreword to the CS Report by Dr. Johannes Teyssen, E.ON CEO

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 equally 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 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 criticisms.

http://www.eon.com/en/sustainability/reporting/commitment-to-sustainability.html



# Self-Commitment by the E.ON Group

In its 2006 Commitment, the E.ON AG Board affirmed the importance of our company's social responsibility:

We behave responsibly towards our colleagues, customers, suppliers, the environment, and the communities where we live and work. We seek to improve lives everywhere we operate, aiming for a healthy, safe and sustainable environment. We consider the needs of the present generation and also anticipate the needs of future generations. Corporate Responsibility (CR) is a fundamental part of the way we do business.

More specifically, at E.ON we:

- Are responsible for providing our markets with a secure, economic and climate-friendly supply of energy.
- Uphold the ten principles of the UN Global Compact on human rights, labor standards, environmental protection, and fighting corruption.
- Are committed to successful long-term development of the communities where we live and work.
- Report our achievements openly, reliably and self-critically. This includes
  making an appropriate and balanced presentation of our economic,
  environmental and social activities and achievements in line with the Global
  Reporting Initiative's current recommendations for sustainability reporting.
- Seek to engage in objective dialog about our activities and about the challenges our industry will face in the future.

Board of Management of E.ON AG, Düsseldorf, June 2006

http://www.eon.com/en/sustainability/reporting/commitment-to-sustainability/self-commitment-by-the-eon-group.html

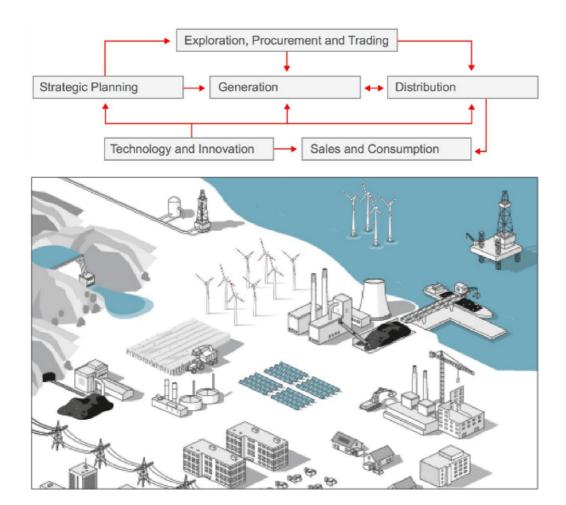
# **Identifying Risks, Seizing Opportunities**

The energy sector is facing fundamental changes – and energy utilities are facing huge challenges in Germany and Europe: Increased regulation, growing competition, and political intervention in the market to expand the use of renewables and for climate protection. However, these changes are also opening up new opportunities to develop markets and in doing so create value right along the chain.

Our business activities have both positive and negative impacts on people and the environment at a local and global level. In this regard, we are playing a key role in the long-term transformation of the energy sector as well as in the development of new technologies and business models. We intend to and will contribute towards solving problems arising from the global increase in the demand for energy and the associated challenges for energy supply.

#### **Challenges along the Value Chain**

Our business activities cover almost every stage of the value-creating process in supplying electricity and gas. In electricity we are active in the areas of generation, trading, distribution and sales. In gas we are involved in the areas of production, trading, storage, distribution and sales to end-consumers. Through our procurement activities, joint ventures and minority holdings, our sphere of influence extends beyond the boundaries of our own Group and includes suppliers and business partners. We are presented with various opportunities and risks arising from the different forms of energy supply and the value-creation level. In this report, we present the key challenges facing us along our value chain's six main elements. We have discussed the challenges described with representatives from a variety of specialist areas to identify stakeholders' expectations of us and our activities even better.



# **Strategic Planning**

Incorporation of Environmental Standards Beyond Europe
E.ON is making targeted investments in growth markets beyond Europe. As part of
this, together with local partners we intend to contribute towards protecting the
environment by rolling out cleaner, more efficient solutions than the ones that are
currently standard in these markets. Standardized environmental management
systems are helping us achieve this.

 At E.ON, the same minimum health, occupational health and safety, and environmental standards apply to all business processes and areas of the Group. Uniform policies and a special management system help us achieve this.

#### ► Strategy & Guidelines

 Asbestos is a delicate subject all over the world. In 2012 we audited asbestos levels in Russia according to European standards, and conducted our first environmental due diligence audit in Turkey and Russia. Find out more about our environmental management decisions.

#### ► Integrated Environmental Management

 Climate protection does not stop at the EU's borders. E.ON has commissioned four ultra-modern CCGT combined-cycle gas turbines in Russia. Compared to the existing generation fleet, they are saving millions of tonnes of carbon emissions.

#### ► Climate Protection

#### **Balancing Climate Protection and Economic Activities**

Our climate protection strategy is based on the aim of reducing carbon emissions per kWh in an economically justifiable way. In Europe, we intend to halve the carbon intensity of our electricity generation by 2025 against our 1990 baseline. To achieve this, we are investing progressively in modifying our generation fleet. We are expanding our capacity in terms of renewables, and decommissioning less efficient power plants.

 E.ON has started its race to catch up in terms of wind parks and solar power plants. By 2020, we intend to increase the share of renewables in our energy mix to 20 percent – but we still have quite a way to go.

#### ► Energy Mix & Carbon Reduction

- Renewables are already making a big contribution to our Group earnings, accounting for 13 percent last year. The sale of shares in three wind parks in the USA shows how we are creating value with our know-how without committing large sums of capital.
  - ► Strategic Overview

#### **Social Acceptance of Energy Sector Projects**

The growing share of renewables is demanding expansion and modification of our energy supply network. As both the approval processes and our stakeholders' expectations are becoming more complex, this can result in delays or additional costs. As such, engaging in dialog at an early stage with stakeholders is very important to us.

Open and consistent dialog with stakeholders helps everyone – not least us.
 This is why we have launched multi-stakeholder dialogs. Learn more about where, when and why.

#### ► Stakeholder Management

 Environmental, social and governance risks are often difficult to spot. This is why we are establishing a systematic Environment, Social and Governance (ESG) risk management system. Underpinning this is a new policy.

#### ► Risik Management

- What is the environmental impact of a new power plant and how will society respond? A new central approval platform for building and operating plants is looking into such questions
  - ► Integrated Environmental Management

# **Technology and Innovation**

#### 100 Percent Renewable

While generating electricity without emitting any carbon is technically possible, it requires a lot of time and money to implement. This is where our technology development comes in: We intend to reduce the specific costs for onshore wind power by 25 percent, for offshore wind power by 40 percent and for photovoltaic power by 35 percent. In addition, we are working on intelligently linking fluctuating electricity generation from solar, wind and hydropower with controllable consumption and energy storage in the form of electricity, heat or gas. Only this way will 100 Percent Renewable become a reality.

- E.ON has had large hydropower plants in its portfolio for over 100 years, with an ever increasing number of wind and solar power plants being added. Last year, renewables accounted for 14.7 percent of our generating capacity. To expand their utilization, we are focusing on efficient technologies and new energy reservoirs.
  - ► Energy Mix & Carbon Reduction
- Renewables in the area of gas are often overlooked. E.ON is researching innovative solutions to feed biogas and hydrogen into the distribution network.
   We are also making gas out of excess wind power.
  - ►T&I: Renewable Energies

#### **Added Value for our Customers**

Price reductions, climate protection and security of supply are among the reasons why commercial and private customers demand new energy solutions from E.ON. We intend to develop products and solutions which offer our end customers greater convenience, security and energy efficiency, while at the same time providing us with new distribution, network and generation business models.

- How do German, British or Swedish householders use electro mobility? And what are the differences? We are conducting an experiment on this question. Almost one in every five euros from our technology development budget flows to our retail division.
  - ►T&I: Sales and End-use

- Generating your own power all well and good, but it is even better when small and large generators are linked to industrial and private consumers via smart systems. This is why we established our new business unit Connecting Energies (ECT). Read more about it.
  - ► <u>Customer Orientation</u>

#### **Smart Use of Conventional Power Plants**

Consumption of electricity generated by conventional means fluctuates wildly with the growing share of renewables. We are working towards meeting future demands for system stability by making conventional generation more flexible and by linking it intelligently with decentralized generation and manageable demand.

- Solar and wind power are increasing in importance. This makes improving the flexibility of conventional power plants all the more urgent. Increasingly, plants can be ramped up and down again without suffering any damage.
  - ► T&I: Conventional Generation

# **Exploration, Procurement and Trading**

# **Enforcement of International Standards and Prevention of Corruption in the Supply Chain**

A key requirement for our business success is for us to be able to procure fuels and equipment securely and at a reasonable price. As statutory requirements vary around the world, and there is often a lack of standards, since 2007 we have required our suppliers to follow our principles of sustainable procurement and ensure appropriate working conditions as well as uphold environmental standards. We are aware that our procurement activities cover countries where there is a greater risk of corruption and therefore conduct relevant risk analyses.

- Clear rules apply to E.ON employees on appropriate conduct in day-to-day business. There are no exceptions, even at subsidiaries and majority holdings. Despite this, we repeatedly receive reports of compliance guideline violations

   96 times last year alone. We are committed to tackling this and follow up each and every report.
  - ► Good Governance
- E.ON is active in 13 countries which are all below the threshold of 60 points of Transparency International's Corruption Perception Index (CPI). How are we dealing with this?
  - ► Compliance and Prevention of Corruption

**Human Rights and Environmental Standards in Mining** 

Mining fuels such as coal or uranium can cause environmental damage through harmful emissions or groundwater contamination. In some countries, we have to assume that human rights and workers' rights are not always respected. Until now, there has been a lack of industry-wide environmental and social standards. We are, however, actively involved in developing and implementing them as part of the Bettercoal initiative as well as in a corresponding World Nuclear Association working group.

 Appropriate attention is not always given to environmental protection and human rights where coal is mined. Major consumers such as E.ON responded in 2012 by founding the Bettercoal initiative. In 2013 the first group of mine operators will be required to undergo strict auditing.

#### ► Sustainable Procurement: Coal

- Sustainability means nothing when upstream vendors disregard it. E.ON is involved in the econsense Sustainability in the Supply Chain project group – a German industry sustainability think-tank which is devoted to tackling precisely this issue.
  - ► Protection of Human Rights
- A working group led by the World Nuclear Association is currently agreeing minimum standards for uranium mining. E.ON is actively following the process.
  - ► Sustainable Procurement: Uranium

#### Occupational Safety and Environmental Protection in the Supply of Natural Gas

When it comes to the security of gas supplies in Europe, it is essential that E.ON can rely on multiple suppliers and have alternative procurement options available. Expanding our own support activities is having a direct impact on raising the importance of occupational health and safety, and the compliance with environmental standards at E.ON. This applies both to our own plants as well as to contractually secured pipeline or liquefied natural gas (LNG) terminal capacities.

- We are aiming for diversity in the supply of natural gas. Five countries currently cover our natural gas requirements. In the near term, a fifth of our requirements are to come from our own sources.
  - ► Sustainable Procurement: Natural Gas
- The accident rate in the Group is trending in the right direction: Down. Third-party companies reported a clear drop in the accident rate indicator: From 3.1 to 1.9. Tragically, however, five work-related fatalities were suffered at our contractors and one at E.ON. Our contractual partners will now be trained even more rigorously in accident prevention.
  - ► Occupational Health & Safety

- Major projects such as the Nord Stream Baltic Sea pipeline cannot avoid impacting marine diversity. The consortium of operators, of which E.ON is a member, has therefore commissioned the most extensive environmental study to date on the Baltic Sea. It is investing EUR 100 million in environmental protection.
  - ► Environmental Protection

## Generation

#### **Decommissioning Fossil Fuel-Fired Power Plants**

Whether a power plant is decommissioned is a question of economic viability. Under our nuclear power plant program, which runs until 2015, we will disconnect total capacity of around 11 GW generated by older fossil fuel-fired and nuclear power plants from the network. Here, climate protection and economic viability play a joint role. We are in discussion with regulators and employee representatives to minimize the impact on energy supply and the social consequences as far as possible.

- Our generation fleet is undergoing rapid change. In 2012 we closed five coalfired and gas-fired power plants, and modified other plants to co-fire biomass.
  At our large Scholven power plant in Germany, we launched a project to
  achieve greater efficiency which could serve as a blueprint for other
  locations.
  - ► Energy Mix & Carbon Reduction
- E.ON also takes its social responsibility seriously when it comes to headcount reduction. This is proven by the instruments and packages agreed with the codetermination committees.
  - ► Human Resources

#### **Considering the Impact of Energy System Transformation on Communities**

Energy system transformation can have various impacts on communities. The closure of a power plant, for instance, can cost jobs and valuable tax revenues. Besides that, there are many important acceptance issues such as rising energy costs, additional investments by local suppliers, and the identification of preferred wind park sites. E.ON is able to assist with these questions such as by producing regional energy plans.

- Stakeholders such as shareholders, residents, environmental protection associations and employees have varying expectations and fulfilling them all is impossible. However, we want to better understand them and further expand dialogs with our stakeholders.
  - ► Stakeholder Management

 In the event of essential headcount restructuring, E.ON always has the consequences for the community in mind. Here, open and prompt communication is especially important to us.

#### ► Human Resources

- Generating your own power all well and good, but it is even better when small and large generators are linked to industrial and private consumers via smart systems. This is why we established our new business unit Connecting Energies (ECT).
  - ► Customer Orientation

#### **Reducing the Environmental Impact of Generation Plants**

Power plants lie close to centers of consumption and can therefore have a direct impact on the population. We utilize the best possible technologies and meet environmental and safety standards. Thanks to our extensive plant and process safety, we are preventing uncontrolled environmental impacts – and since 2010 we have established EN ISO 14001 or EMAS II compliant environmental systems, mostly certified by independent third parties, at all our relevant locations.

 E.ON power plants emit pollutants such as sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>). Last year, they emitted more than ever before. One reason is the price drop within the European Emissions Trading System. Learn more about the context.

#### ► Air Emissions

- It may sound bureaucratic, but it is important to experts: Besides process water consumption, we measure our power plants' freshwater consumption. By 2015 we intend to meet all the requirements of the UN CEO Water Mandate for efficient water management.
  - ► Water Management
- Regrettably, last year we suffered a serious incident at one of our hydropower plants in Spain. Read about implications and the action we are taking.
  - ► Environment-related Incidents

## Distribution

#### **Undisturbed Electricity Supply**

The ups and downs of generating electricity from solar power plants and wind parks places high demands on network management. Besides energy storage and flexibility, the demand for innovative network services will increase in future in order

to maintain a problem-free supply. E.ON is already developing and testing suitable solutions.

In many regards, Sweden is among the worlds' most advanced countries –
also in terms of its electricity network. There, E.ON is among the fastest and
most efficient providers when resolving power failures. Customers can even
track progress live on the Internet.

#### ► Prices & Security of Supply

 Adapting the network to meet new challenges requires a great deal of research. Since 2010, E.ON has tripled its infrastructure expenditure – and we are showing what is technically possible today on the North Sea island of Pellworm.

#### ► T&I: Infrastructure

#### **Appropriate Handling of Local Resistance to Grid Expansion**

Public protests in Germany and elsewhere show that grid expansion harbors considerable potential for conflict. For example, opponents fear they will suffer negative health effects caused by electro-smog and huge changes to the landscape, reductions in regional tourism and a fall in property values. E.ON intends to take a constructive approach to every such development. We involve citizens in the planning of new pipelines, and try to maintain the greatest distance possible between existing and planned residential areas when routing power lines.

 Citizens are often critical in their questioning when large-scale projects are planned. E.ON takes a constructive approach in these developments. Last year, we established a central approval platform which ensures an agreed approach is taken when dealing with all external stakeholders, including local residents, European institutes and non-governmental organizations.

#### ► Integrated Environmental Management

 The key decision-makers are local. Therefore, E.ON is increasingly using forums and political discussions when it comes to grid expansion, new wind parks or large solar power plants. The ideal points of contact are our regional Group units – which also happen to be local.

#### ► Stakeholder Dialog

#### **Reducing the Environmental Impact of Grid Expansion**

The construction of new power lines may affect protected areas, natural formations and cultural monuments, areas covered by the European Habitats Directive or special Important Bird Areas. Therefore, we produce extensive studies and weigh up the various technical options in great detail. Utilizing the existing infrastructure enables us to reduce interference.

- We have produced a new Environmental Footprint Policy, which enables us to evaluate the environmental impact of both our technical decisions and changes to our investment portfolio.
  - ► Integrated Environmental Management

# **Sales and Consumption**

#### **Affordable Energy for Customers**

Affordable energy has become a focal topic of public discussions. E.ON is striving to increase energy generation efficiency and has set itself the aim of noticeably reducing the costs of expanding the use of renewables. Depending on local conditions we are also implementing measures to increase social acceptability at our regional units. However, E.ON only has limited influence on end consumer prices. Regulated price components, taxes and duties can be felt on bills just as much as global commodity market price fluctuations.

- The majority of energy costs are set by the state. But companies also have an influence such as through fixed price tariffs.
  - ► Prices & Security of Supply
- The economic viability of renewables is far from exhausted. E.ON engineers still see a potential to reduce offshore wind costs by 40 percent – and this potential could even be increased in the near-term.
  - ► T&I: Renewable Energies

#### **Climate Protection through Innovative Products and Services**

Emissions generated by the electricity and gas consumed by our end-customers are higher than those we cause ourselves – and our carbon footprint confirms this. We offer a variety of eco-friendly tariffs such as certified green power or energy saver tariffs. Our smart meters make it easier to view consumption, enabling our customers to save energy. In addition, we are developing innovative technical solutions such as our Smart Home technology and testing out e-mobility in fleet trials.

- Energy saving only works when customers take part. In Spain, E.ON has
  found a solution which invites the whole family to get involved, learn from each
  other's behavior and save energy: Triple Energía.
  - ► Climate-friendly Products & Services

#### **Transparent Pricing**

While electricity prices are falling on the stock exchange, they are rising for households. There are different reasons for this, and many consumers are starting to

call for greater transparency. To address this, E.ON is supporting initiatives on European energy markets.

- Information on when which particular power plant is operating is also important to experts and traders outside the Group. Therefore, E.ON publishes the availability of its power plants for Germany and other European countries.
  - ► Prices & Security of Supply
- Every large corporation needs to have a presence at a European level, but it is
  essential to ensure transparency when lobbying in Brussels. Since 2011 E.ON
  has been included in the EU Transparency Register for organizations and
  private individuals engaged in shaping and implementing EU policy.
  - ► Responsible Lobbying

http://www.eon.com/en/sustainability/at-a-glance/eon-value-chain.html

# **Designing Cleaner and Better Energy for the Future**

With our 'cleaner & better energy' Group strategy, we have a basis for our sustainability activities and we report our progress on these regularly to our stakeholders. In this way we also strive to meet their expectations regarding our contribution towards reengineering the energy supply in Germany and Europe. Instead of pursuing the same targets worldwide, we are working to make continuous improvements adjusted to the relevant local market conditions. Our products and services are 'cleaner' if they improve environmental protection and efficiency. And our energy is 'better' if we provide services and utilize technologies which exceed the usual standards. Climate protection in particular is of outstanding importance to us as an energy company: E.ON already avoids 11.5 million tons CO<sub>2</sub> emissions per year compared to the average CO<sub>2</sub> intensity of electricity generation in our markets.

#### **Core Elements of Group Strategy**

Following the announcement of our new strategic direction on November 10, 2010, the transition began at E.ON from a primarily European energy supplier to becoming a global, specialized provider of energy solutions. In accordance with the four key strategic elements (Europe, outside Europe, Performance and Investment) we are focusing more than ever before on competitive business areas, expanding our geographic focus, establishing a sustainable performance culture and developing business models which increasingly prioritize competence over capital.

In the following interactive chart, we show how these four key elements are related to sustainability at E.ON.



## Investment

#### **Focus points**

- 1. The focus of our investments in Europe and North America is on climatefriendly growth areas, especially renewable energy and decentralized energy generation.
- 2. Alongside these investments, we are designing our portfolio to be increasingly climate-friendly through the sale, decommissioning and conversion of power plant capacities.
- 3. In new growth markets outside of Europe we are counting on modern technologies for the secure and sustainable coverage of increasing energy demands. Here, we benefit from our expertise in energy generation and financially sound partners.

#### Milestones 2012

#### For 1.:

- Investment of a total of 1,791 million euros in the renewable energy segment in 2012, 677 million euros more than in the previous year
- Construction of nearly 600 MW additional generating capacity from renewables, in particular offshore wind power in Europe and onshore wind power in North America – the total installed capacity for Renewables was 10.3 GW at the end of 2012
- Start of the construction phase of the London Array currently the largest offshore wind farm in the world – which will save about 1.9 million t CO2 equivalent annually, as part of our strategic partnership with Masdar

#### For 2.:

- Sale of E.ON's 50 percent share in three American wind parks to the Danish pension fund PensionDanmark shows how we utilize our competencies to enhance value with modest capital commitment
- Focus of future investments in the UK on renewables, decentralized generation and energy efficiency through disposal of shares in Horizon Nuclear Power
- Conversion of power plants from coal to biomass (co-firing) in three countries

#### For 3.:

 Commissioning of four ultra-modern CCGT power plant units at the Russian sites Shaturskaya, Yaivinskaya and Surgutskaya with a total capacity of 1,600 MW: total investment volume 1.8 billion euros

#### **Further Information**

- ► Energy Mix and Carbon Reduktion
- ► Work Program 2012-2015

## **Performance**

#### **Focus points**

- 1. Our E.ON 2.0 efficiency program increases our performance through more efficient structures and leaner administrative functions.
- We are increasing the competitiveness of energy generation through the E.ON 2.0 efficiency program by optimizing our operational business. At the same time we are reducing the effects of energy generation on the environment and society.
- 3. We are actively pursuing the expansion of renewable energies. At the same time, we have set ambitious targets for reducing specific costs. We are working on the efficient implementation of solutions for climate-friendly energy generation.

#### Milestones 2012

#### For 1.:

- Savings measures as part of E.ON 2.0 with specific targets, which have already delivered a contribution to EBITDA of around 258 million euros in 2012. This sum helps to create leeway for investments.
- Socially acceptable process for necessary staff reductions, especially due to the merging and leaning of administrative functions, with the aid of agreeing a collective pay-scale agreement, an E.ON 2.0 Labor Agreement and a model E.ON 2.0 redundancy plan
- Introduction of a new Group-wide organization model for better steering and systematic implementation of the corporate goals, including in the area of Health, Safety & Environment (HSE)

#### For 2.:

- Start of the Transformation project at the Scholven site (savings potential approx. 12 million euros) as a blueprint for subsequent improvement of competitiveness at other sites within the generating section
- Decrease in the key figure for work-related accidents from 3.9 to 2.9 for all E.ON employees and the employees of partner companies

#### For 3.:

- Decrease of specific costs in the area of offshore wind power by 25 percent since 2011 – the target is cost reduction of 40 percent by 2015
- Decrease of specific costs in the area of onshore wind power by 40 percent since 2011 – the target is cost reduction of 25 percent by 2015
- Decrease of specific costs in the area of photovoltaic by 35 percent since 2011
   the target is cost reduction of 35 percent by 2015

#### **Further Information**

- ► Energy Mix and Carbon Reduction
- ► Health and Safety
- ► Human Resources
- ► Strategy and Guidelines

# **Europe**

#### **Focus points**

- 1. By 2025 our generation fleet in Europe plans to emit 50 percent less CO<sub>2</sub> compared with 1990; that is, 0.32 t CO<sub>2</sub> per MWh generated.
- Our power plant renewal program includes the closure of about 30 units with a total capacity of approx. 11 GW by 2015, primarily old, less efficient fossil-fuel power plants.
- 3. We are developing products and services for our customers for a reliable, clean and cost-effective energy supply.

#### Milestones 2012

#### For 1.:

- Reduction of CO<sub>2</sub> intensity in power generation by 30 percent compared to the benchmark year 1990, to 0.44 t/CO<sub>2</sub> per MWh. Despite a slight increase in 2012, E.ON remains on track towards achieving its target.
- Increase of power generation from renewables by 2.2 TWh to 31.8 TWh. This
  is the equivalent of over twelve percent of own generation.

#### For 2.:

 Closure of coal-fired power plants at Kingsnorth in the UK as well as Cercs and Escucha in Spain, and the oil-fired power plants at Grain in the UK, with a total of 3,500 MW

#### For 3.:

- Creation of the E.ON Connecting Energies (ECT) business unit with focus on the provision of decentralized generation, energy management and efficiency solutions at customer sites
- Market introduction of 'eHome', a smart home solution in cooperation with Telefunken. With eHome, heating and electric appliances can be controlled efficiently, even away from the home if required.

#### **Further Information**

- ► Carbon Reporting
- ► Energy Mix and Carbon Reduction
- ► Customer Orientation
- ► Climate-friendly Products and Services

# **Outside Europe**

#### **Focus points**

- 1. Together with local partners who fit with our strategic approach, we are opening up new markets in growth regions such as Turkey, Brazil and Russia.
- 2. We are building effective governance structures into the joint ventures in our new growth regions.
- 3. The development of generation projects locally or of particular products provides people with access to energy.

#### Milestones 2012

#### For 1.:

- Contract signed for a joint venture between MPX and E.ON in April, which will form the largest private energy company in Brazil
- Received 50 percent of EnerjiSA A.Ş. in Turkey with 1.7 GW installed capacity in gas, hydropower and wind power plants in exchange for shares in Bavarian hydropower plants, in agreement with Austrian Verbund AG

#### For 2.:

 Inclusion of sustainability aspects as part of our activities in new growth markets such as Brazil and Turkey, for example the application of the Hydropower Sustainability Assessment Protocol of the International Hydropower Association to evaluate sector-specific factors

#### For 3.:

 Transfer of a project idea for providing cost-efficient, decentralized energy generation plant in rural areas to the operational responsibility of E.ON Climate & Renewables (ECR)

#### **Further Information**

- ► Technology Development
- ► Compliance and Prevention of Corruption

http://www.eon.com/en/sustainability/at-a-glance/strategic-focus.html

# Increasing Focus on Capital Market Requirements

Social and environmental developments are increasingly shaping the environment for commercial enterprises, bringing both opportunities and risks. The way in which companies react to global and local challenges, such as scarcity of resources, global climate change and establishing humane working conditions in the supply chain, can offer an opportunity to distinguish themselves positively in the marketplace. This development is reflected in the fact that standardized indicators from the areas of Environment, Social and Governance (ESG) are gaining in importance among participants in the capital markets.

Shareholders, investors and analysts regularly enquire about our principles for responsible governance and the environmental and social effects of our business activity. To evaluate how successful we have been, for example in implementing our targets as part of the Work Program 2012–2015, we need measurable, significant and valid indicators. We are aiming here for balanced reporting which represents both successes and negative events transparently.

#### **ESG Performance 2012**

For many years we have structured the reporting of our sustainability performance along material ESG criteria. We evaluate these topics as part of our regular materiality analysis from an external point of view as well. As a foundation we also use reporting standards that have significance 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 (DVFA). These core non-financial indicators are valid across Europe and also include sector-specific criteria. It is E.ON's goal to integrate particularly meaningful key figures for our sustainability performance even better into our reporting and thereby enable rapid access to information for our stakeholders. We remain one of the few companies in Germany to offer standardized ESG key indicators. The following represents a summarized overview of the most important key figures and progress indicators for 2012.



#### **Environment**

As an energy company, we are aware that we have a particular responsibility on the road towards a sustainable energy supply. Climate and environmental protection are closely linked with each other. We are reducing CO<sub>2</sub> emissions and environmental effects systematically, investing in climate-friendly power generation and working on early detection of relevant technological developments.

	Performance 2012	Further Information
Total carbon emissions (EFFAS E03-01)	CO2 emissions from power and heat generation rose by 1.2 to 125.76 million metric tons.  CO2 emissions in the United States and Russia were a total of 11.4 million metric tons below those of the average power producer in these countries.	Carbon Reportin     Energy Mix and Carbon Reductic     Annual Report (53 f.)     CDP Global 500 Report (PDF 2 MB)
Specific carbon emissions (EFFAS E03-03)	Carbon intensity rose to 0.46metric tons of CO2/MWh of electricity generation in 2012 (2011: 0.43), Europe 0.44 metric tons CO2/MWh. Target: Halve the carbon intensity of our power generation business in Europe by 2025 compared with a 1990 baseline. We have reduced the carbon intensity of our power generation by 30 percent from a 1990 baseline (value 0,63 metric tons CO2/MWh).	Carbon Reportin Energy Mbx and Carbon Reductic Annual Report (53 f.) CDP Global 500 Report (PDF 2 MB)
Carbon emissions scope 2 & 3 (EFFAS E02-01)	Scope 2: 4.4 million metric tons CO2     Scope 3: 149.6 million metric tons CO2	Carbon Reportin     CDP Global 500     Report (PDF 2     MB)
Owned generation & capacity by renewables	Renewables (including large-scale hydro) accounted for 31.8 terawatt-hours (2011: 29.6 TWh). This is 12.1 percent of our owned generation in 2012. In Germany renewables accounted for 9.1 percent of our owned generation.  Renewables capacity (including large-scale hydro) rose by 0.62 GW to 10.3 GW, particularly by new wind parks in the USA.  Target: Increase renewables' share of our owned generation to more than 20 percent by 2020.	Energy Mix and Carbon Reduction     Annual Report (20, 29 ff.)     Facts & Figures 2013 (20 ff.)

Profitability and renewables

- The EBITDA of our subsidiary E.ON Climate & Renewables, which bundles significant activities CO2-Reduktion in the area of Renewable Energy (excluding large water power), fell by 13 percent to 1.271 (2011: 1.459).
  - · Energiemix und
  - Annual Report (37, 47, 60)
- · Our 2013-plan calls for increased investments, particularly in new generation capacity from wind and solar energy.
- Investments in renewables increased by 61 percent compared to 2011 totaling EUR 1.8 billion.
- . Targets: Investments in renewables up to EUR 1.3 billion in 2013, as well as reduction of specific costs for offshore wind power by 25, onshore wind power by 40 and photovoltaic by 35 percent since 2011.



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#### **Technology Developement**

Performance 2012

Further Information

support university research (EFFAS V04-01 & V04-04)

- Investments in R&D & We invested EUR 144 million in R&D, roughly a third more than in 2011 (EUR 107 million). The increase was mainly due to higher expenses in smart world and cross technology projects.
  - · Figures include increased funding and sponsoring of energy research at universities and institutes totaling EUR 36 million (2011: EUR 26 million).
- Technology Development Annual Report

(20)



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#### **Environmental Protection**

Performance 2012

Information

Number of Sites with Environmental Management Systems (EFFAS E33-01)

- · We have put environmental management systems in place (in compliance with EN ISO 14001 or EMAS II) at all sites with substantial environmental impacts and subjected in most cases to certifications by independent third parties.
- Targets: Introduction of integrated environmental risk management covering our entire value chain.
- Environmental Protection

Air Emissions (EFFAS E03-01 und E03-02)

- The amount of nitrogen oxide rose to nearly
   Air Emissions 132 kt (2011: 124.5 kt). The specific NOx emissions came to 0.50 kg/MWh in 2012 (2011: 0.46 kg/MWh).
- · Sulfur dioxide emissions rose to 112kt (2011: 86kt). Specific SO2 emissions per energy unit came to 0.42 kg/MWh (2011: 0.32 kg/MWh).

and Non-hazardous Waste (EFFAS E04-01, E05-01, E06-01)

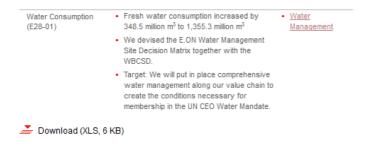
- Total Waste, Hazardous . The total volume of hazardous waste increased to a total of 104kt.(2011: 67kt). Of this recycled 30kt.
  - . The volume of non-hazardous waste fell to 496kt in 2012 (2011: 1,065kt). Of this 318kt were recycled.
- Ressource Efiziency and Waste

E08-02 und E08-03)

- Nuclear Waste (E08-01, . The volume of low and intermediate-level radioactive waste fell to 3.407t (2011: 3.576t).
- Ressource Efiziency and <u>Waste</u>
- . The volume of high-level readioactive waste increased to 246t (2011: 235t).

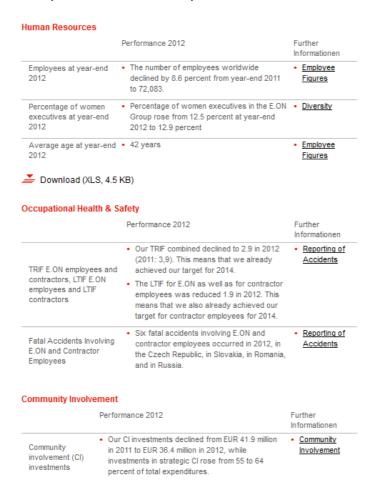
Environmental-related Incidents

- · A serious incident took place in Spain covered by our 24-hour reporting requirement. During this accident one woman unfortunately lost her life and two further people were injured.
- Environmentrelated Incidents
- · There were no category one to seven incidents as measured on the seven-step International Nuclear Event Scale (INES) at our nuclear power plants



#### Social

Employees are a major success factor for E.ON. Therefore, we place great importance on strategic human resources management as well as high standards for occupational health and safety Group-wide. With our commitment in the regions, we are working toward sustainable development in society and ensure the social acceptance for our entrepreneurial activities in the long term.



#### **Governance & Integrity**

Due to the current market situation and turbulence in the European energy business, we are faced with sizeable challenges. Good Corporate Governance is fundamental at E.ON for responsible and value-led business management, efficiency and appropriate risk management.

#### **Customer Orientation**

Customer Orienta	tion	
	Performance 2012	Further Informationen
Customer satisfaction (EFFAS V06-01)	<ul> <li>Currently, we survey customer satisfaction through the Net Promoter Score at E.ON in Germany, the UK, Italy, Sweden, Czech Republic, the Netherlands and Spain.</li> </ul>	<u>Customer</u> <u>Satisfaction</u>
Smart metering (EFFAS V11-02)	<ul> <li>Increase of the proportion of customers who use Smart Metering to 1.5 million (2011: approx. one million) – that's around eight percent of the total number of our electricity customers.</li> </ul>	• <u>Customer</u> <u>Orientation</u>
Customer	<ul> <li>E.ON UK: "Most favorite energy and gas supplier in the United Kingdom" (uSwitch.com)</li> <li>E.ON España: "Customer Care Company of The Year Award" and the product "Triple Energia" one of the five most innovative energy ideas in Spain</li> </ul>	Customer     Orientation     Climate-friendly     Products and     Services
Good Governance		
	Performance 2012	Further Informationen
Corruption risks (EFFAS V02-01)	We have operations in 13 countries and suppliers in six others that score below the 60-point threshold on Transparency International's Corruption Perception Index. We generated 7.5 percent of our sales in these countries.	Good Governance     Compliance and Prevention of Corruption     Strategy and Guidelines
Compliance	Ninety-six alleged compliance violations were reported and thoroughly investigated in the E.ON Group.  Medical Complex Co	Compliance and     Prevention of     Corruption
reporting	We designed and conducted compliance risk assessments at three of our regional units.      Target: Conduct risk assessments across all units in 2013.	
Compliance training	or conduct.	Compliance and Prevention of Corruption     Strategy and Guidelines
	<ul> <li>To date, 83 percent of these have successfully completed the program.</li> </ul>	Guideillies
Contributions to political parties (EFFAS G01-01)	We do not make contributions (either monetary or in kind) to political parties, individual politicians, or not-for-profit political organizations in the countries where we do business.  In December 2011 E.ON joined the European	Responsible     Lobbying
	Union Transparency Register.	
German Sustainability Code	<ul> <li>Since 2012 our sustainability reporting incorporates the requirements outlined in the German Sustainability Code.</li> </ul>	German     Sustainability     Code
Sustainable Procu	rement	
	Performance 2012	Further Informationen
	<ul> <li>Analyses of our high-risk suppliers for supplier preselection are available for 2012.</li> </ul>	
Supply chain evaluation (EFFAS V28-04)	The successful qualification of over 500 suppliers accounts for the majority of our expenditure and covers also compliance and sustainability risks.	<u>Sustainable</u> <u>Procurement</u>
Fuel procurement	<ul> <li>Bettercoal was registered as a not-for-profit organization in 2012 and given an organization setup. Pilot assessments of mines were conducted and assessment guidelines were revised.</li> </ul>	Sustainable     Procurement:     Coal     Sustainable     Procurement:
	<ul> <li>We take part in the development of minimum standards for uranium mining. They are in the process of being approved by an international working group coordinated by the World Nuclear Association (WNA).</li> </ul>	<u>Uranium</u>

http://www.eon.com/de/nachhaltigkeit/im-ueberblick/esg-performance-2012.html



# Our Reporting Approach – Overview

Since 2008 E.ON SE's annual corporate sustainability (CS) reporting has mainly appeared online. You can access all contents on the top navigation level at www.eon.com under "Sustainability". Where there are web pages displaying additional relevant content which is not part of the report, we provide links to these in the text or in the margin column. Previous reports are available in the Download Center.

We strive to ensure balanced reporting of the environmental, social and commercial aspects of our business activities. Here, we feel it is important to present a transparent overview of our strengths, but also negative events such as workplace accidents or environmental damage caused by us. In selecting the topics for our reporting, we are guided by the results of our Materiality process – in which we analyze and define which issues we deem important – and include the key expectations of our stakeholders.

## **Reporting and Editorial Information**

The Sustainability Report published by E.ON SE in May 2013 is the Group's ninth successive report. It covers the period from January 1 to December 31, 2012, and is available in German and English. The copy deadline for established content relevant to the Report was March 31, 2013. The next Sustainability Report will be published in the second quarter of 2014.

The target groups of our CS reporting are:

- Investors
- Customers
- Rating and ranking agencies
- Opinion leaders in the field of sustainability such as decision makers in politics, civil society and research
- Employees and future employees.

Feedback from the different user groups is continuously evaluated. We take the findings into account for future publications, for example, by aligning our presentation of key figures more strongly on Environmental, Social and Governance (ESG) aspects, which we have been doing for many years now, or by placing the focus of our reporting on the value chain, which we did in 2012.

Since 2005 we have oriented our reporting on Global Reporting Initiative (GRI) guidelines, whereby we also incorporate the Electric Utilities Sector Supplement applicable to our industry. According to our self-assessment, our 2012 reporting complies with Application Level B+ of the GRI guidelines 3.1. In doing so, we classify the level of our Sustainability Report as Advanced under the GRI scheme and affirm that the Report has been verified externally. At the same time, our CS reporting serves as a Communication on Progress within the framework of the United Nations Global Compact.

In the interests of legibility, we avoid using double-gender pronouns as well as the company's full legal designation.

## **General Structure of our Online Reporting**

The chapters "Approach", "Reporting", "Environment", "Social" as well as "Governance and Integrity" form the core of our 2012 Sustainability Report. Our reporting on our progress in the reporting period including the associated key figures and activities planned for the future are organized into nine topic-based Fields of Action, in which we orient ourselves consistently towards key ESG aspects for the energy sector. In keeping with the strategic relevance of stakeholder management, the chapter "Stakeholder Management" is integrated into the chapter Approach. In addition, we provide a summary of our regional units' sustainability activities under the heading Regional Activities.

Furthermore, as part of our 2012 Sustainability Report we have created special quick links for interested stakeholders so they can better find their way around the content of the online report. These quick links illustrate at a glance:

- Our strategic priorities
- Our value chain with key challenges
- Key ESG performance.

Several Web pages under the Sustainability heading contain links to other Group pages with information on sustainability topics. The Sustainability channel provides a platform for presenting our activities in full detail. We also address our approach to the topic of sustainability in our Annual Report.

# **Summary Report 2012**

In addition to our extensive online reporting on the topic of sustainability at E.ON, we have summarized key areas of progress in a Summary Report which is available to download as a pdf file at www.eon.com. With this report our aim is to focus on the core of our involvement more closely and link it clearly with our operational activities.

This is why the topics covered in the Summary Report follow the key challenges relating to the field of sustainability along the value chain. We evaluated and rated the individual topics in our internal Materiality Workshop with the intention of offering our stakeholders a transparent and balanced picture of our activities.

## **Object of the Report**

The E.ON Sustainability Report is a Group report. Its object is E.ON SE, including any shareholdings it holds directly. The information in the Report consistently relates to all subsidiaries and power plants in which E.ON has a majority holding and which are fully consolidated in the financial statements. Any exceptions to this, such as in the area of occupational safety where we consider all units in which we are responsible for operational control, are marked accordingly.

This online report contains forward-looking statements relating to the development of the E.ON Group and its subsidiaries. These statements are assumptions made on the basis of information available at the time of reporting. If these assumptions turn out to be incorrect, the actual results may vary from the statements.

## **Sustainability Report Audit**

As in previous years, substantial parts of the 2012 Sustainability Report were audited by PricewaterhouseCoopers (PwC) using the ISAE 3000 criteria (International Standard on Assurance Engagements) of the International Federation of Accountants. This includes the contents under the headings of Approach, Reporting as well as parts of the nine Fields of Action under the chapters on Environment, Social as well as Governance and Integrity. Verified content is marked with the logo "Reviewed 2012". It is valid until publication of the next Sustainability Report and will not be updated during the course of the year.

http://www.eon.com/en/sustainability/reporting/reporting-approach.html



# **Awards, Ratings and Rankings**

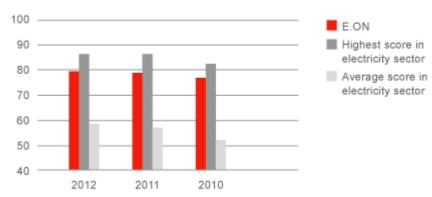
For years, E.ON has scored well in numerous sustainability ratings and rankings. We also regularly receive external recognition for our sustainability activities – both regional projects and those with a wider focus. In the following section we highlight awards, ratings and rankings that are relevant to the Group as a whole.

# Dow Jones Sustainability Index and RobecoSAM Sustainability Yearbook

Each year, the investment specialist RobecoSAM assesses the economic, environmental and social performance of over 2,500 listed companies. The globally recognized Dow Jones Sustainability Index (DJSI) and the KPMG/RobecoSAM Sustainability Yearbook are both based on the findings of this evaluation. Up until 2012, E.ON qualified for a listing in the DJSI which was the fifth year in succession we had achieved this. In the KPMG/RobecoSAM Sustainability Yearbook 2013, we earned a place in the Runners Up category. This inclusion places us in the top 15 percent of the electricity sector. Our aim is to be re-included in the European and global DJSI this coming year.

#### SAM Assessment 2010 to 2012





## **Carbon Disclosure Project**

The goal of the Carbon Disclosure Project (CDP) is to facilitate sustainable business decision-making. Acting on behalf of more than 650 institutional investors, each year the CDP calls upon companies to disclose their CO<sub>2</sub> emissions and strategies for handling climate change and water resources. The results are published online.

E.ON has participated in the CDP since 2004. We employ this platform to communicate our responsible corporate management to investors and other stakeholders and to learn from other companies across sectors. We also aim to increase awareness within our company for the importance of current and future activities related to water and climate change while improving our relationship with our stakeholders.

# **Sustainalytics Sustainability Ratings of DAX 30 Corporations**

Every two years the Sustainalytics rating agency performs a comparative analysis of the sustainability performance of Germany's 30 largest DAX-listed companies. E.ON was ranked fourth in the 2011 sustainability rating, an outstanding result. Compared to 2009 the most substantial improvement came in the environmental category, although E.ON also performed well in the governance and social fields.

#### **ASPI Eurozone®**

E.ON has been listed in the Advanced Sustainable Performance Indices (ASPI Eurozone®) since September 2007. The share index features the 120 eurozone companies with the best sustainability ratings as assessed by the French rating agency Vigeo Group.

#### **Storebrand**

The Norwegian financial services provider Storebrand awarded E.ON a best-in-class rating for its sustainability performance. E.ON has met this quality standard since 2007. After sustainability performance has been analyzed, only the leading companies in each industry are eligible to receive this symbol of excellence.

# **Recognition for Online CR Reporting**

In 2011 E.ON was again ranked in the top ten in a comparison of online Corporate Responsibility (CR) reporting by all DAX 30 companies conducted by the Lundquist communications agency in Milan. Compared to 2010 E.ON scored higher in the CSR Online Awards Europe 100, moving up to eighth place. In the CSR Online Awards Germany 2011 we also improved our ranking from fourth to second. These results are underpinned by the annual review conducted by KWD Webranking, which examines the scope and quality of companies' web-based CR reporting. As in the previous year, in 2010 E.ON was rated as one of the best companies in Europe, ranking fourth in Germany and 31st in Europe.

## **Global Energy Award**

As part of its Global Energy Awards, in 2011 the Platts consulting firm named the global unit Renewables "Green Energy Generator of the Year." The company's achievements in developing offshore wind parks were singled out for special praise. According to the jury, E.ON has positioned itself as a global leader in this sector in just five years.

# **TOTAL E-QUALITY Award for Equal Opportunity**

In 2010 E.ON received its first ever TOTAL E-QUALITY award from the organization of the same name. Presented every three years, the prize recognizes equal opportunity excellence in HR policies and is supported by the German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth.

http://www.eon.com/en/sustainability/reporting/external-recognition.html



# Sustainability Steering Measures

To evaluate how successful we have been in implementing our projects, processes and strategies, we need measurable indicators that are economically, socially and environmentally relevant. Since 2005 we have oriented our reporting towards Global Reporting Initiative (GRI) guidelines, whereby we also incorporate the Electric Utilities Sector Supplement applicable to our industry. At the same time, our CS reporting serves as a Communication on Progress within the framework of the United Nations Global Compact. Our 2012 Sustainability Report also incorporates the requirements outlined in the German Sustainability Code.

#### **Improving Comparability**

In 2010 we expanded the scope of our reporting to include additional key figures in line with the standards defined by the German Association for Financial Analysis (DVFA) and Asset Management and the European Federation of Financial Analysts Societies (EFFAS). Our 2012 Report presents the progress we have made in the reporting period, the associated key figures as well as activities planned for the future as part of our nine Fields of Action, in which we orient ourselves consistently towards key Environmental, Social and Governance (ESG) aspects for the energy sector. In doing so, we intend to improve the comparability of our reporting activities and make information more easily accessible to financial analysts interested in ESG topics.

http://www.eon.com/en/sustainability/reporting/figures-and-standards.html

# **Facts and Figures**

In the following we present an overview of our key figures relating to Environment, Social and Governance (ESG) aspects. Selected figures from our CS reporting in 2012 were verified by external auditors as part of our assurance engagement, and are reported in the following table as well as within our nine Fields of Action (Reviewed 2012). There, we also provide more detailed information and break the information down for instance by region or segment.

#### **Environment**

#### Carbon Emissions

	Reviewed 2012	2012	2011
Carbon Emissions from Power and Heat Generation (metric tons in millions)	yes	125.8	124.6
EU Carbon Allowances Received (in millions)	yes	83.5	80.7
E.ON Group Carbon Intensity (metric tons of CO per MWh)	yes	0.46	0.43
E.ON Group Carbon Footprint (metric tons in millions)	-	-	-
Scope 1 emissions	partly <sup>1)</sup>	129.9	129.3
Scope 2 emissions	yes	4.4	5.3
Scope 3 emissions	partly <sup>2)</sup>	149.6	154.7



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#### **Environmental Management**

	Reviewed 2012	2012	2011
Number of environment-related incidents	-	-	-
Severe (according to mandatory reporting within 24 hours)	yes	1	1
Medium (no mandatory reporting)	yes	15	3
Incidents as measured on the seven-step International Nuclear Event Scale INES	-	0	0
Provisions for environmental protection measures and similar liabilities (€ in millions)	-	-	-
Short-term	yes	101	42
Long-term	yes	836	924



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<sup>1)</sup> Emissions from electricity and heat generation were verified externally.

<sup>2)</sup> Gas sales to end users and emissions from end use of purchased electricity were verified externally.

#### Air Emissions

	Reviewed 2012	2012	2011
SO <sub>2</sub> Emissions (kilotons)	yes	111.6	85.4
SOz Intensity (kilograms per MWh)	-	0.42	0.32
NO Emissions (kilotons)	yes	131.9	124.5
NO Intensity (kilograms per MWh)	-	0.5	0.46
Particulate Emissions (kilotons)	yes	6.2	6.2



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## Ressource Efficiency

	Reviewed 2012	2012	2011
Ash and Slag (kilotons)	-	-	-
Recovered	-	3,432.1	4,019.7
Disposed	-	847	792.1
By-products	-	439.8	281.1
Gypsum (kilotons)	-	-	-
Recovered	-	432.5	602.4
Disposed	-	62.2	56.8
By-products	-	1,646.4	1,160.4



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#### Waste

	Reviewed 2012	2012	2011
Non-hazardous Waste (kilotons)	-	-	-
Recovered	-	318	687
Disposed	-	178	378
Hazardous Waste (kilotons)	-	-	-
Recovered	-	30	35
Disposed	-	74	30
Nuclear Waste (tons)	-	-	-
Low and intermediate-level waste	yes	3,407	3,576.5
High-level waste	yes	245.9	235.2



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### **Water Management**

	Reviewed 2012	2012	2011
Total Water Withdrawal (m in millions)	yes	14,277.2	14,793.4
Fresh Water Consumption (m in millions)	-	1,355.3	1,006.8

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# Social

### **Employee Figures**

	Reviewed 2012	2012	2011
Group Employees (31.12.)	yes	72,083	78,889
Employees with Full-time or Permanent Employment Contracts	-	-	-
Full-time contracts (percentage)	yes	92	91
Permanent employment contracts (percentage)	yes	95	95
Part-time contracts (number)	yes	6,305	7,932
Personnel Costs	-	-	-
Wages and salaries (€ in millions)	yes	4,013	4,882
Social security contributions (€ in millions)	yes	645	648
Pension costs (€ in millions)	yes	473	410
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 Trainings1 per Employee (€)	-	1,047	894

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<sup>1)</sup> Since 2012 we use a broader definition of trainings and seminars due to reorganization processes.

# **Diversity**

	Reviewed 2012	2012	2011
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



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### Safety

	Reviewed 2012	2012	2011
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



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# Community Involvement (CI)

	Reviewed 2012	2012	2011
Total CI Investments (€ EUR)	yes	36.4	41.9
Involvement of E.ON Employees (number of volunteer hours)	-	14,300	29,000



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# **Governance & Integrity**

# **Operating Figures**

	Reviewed 2012	2012	2011
Sales (€ in millions)	yes	132,093	112,954
EBITDA (€ in millions)	yes	10,786	9,293
Electricity sales (billion kWh)	yes	740.4	733.7
Gas sales (billion kWh)	yes	1,162.1	1,107.5
Net income (€ in millions)	yes	2,641	-1,861



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#### Generation

	Reviewed 2012	2012	2011
E.ON Group's owned generation (billion kWh)	yes	263.2	271.2
Owned Generation by Energy Source (percentage)	-	-	-
Lignite, hard coal	yes	32	29
Nuclear	yes	22	23
Natural gas, oil	yes	34	38
Hydro	yes	7	6
Wind	yes	4	3
Other (Renewables incl. Waste)	ves	1	1



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### Technologie and Innnovation

	Reviewed 2012	2012	2011
Research and Development Expenditures (€ in millions)	yes	144	107



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#### **Procurement**

	Reviewed 2012	2012	2011
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



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http://www.eon.com/en/sustainability/reporting/figures-and-standards/facts-andfigures.html



Since 2005 E.ON has been committed to upholding the ten principles of the United Nations (UN) Global Compact. With more than 10,000 members from over 130 nations, the Global Compact is the world's largest sustainability initiative.

# The Basis for Group Policies and Standards

As a signatory we affirm our commitment to the observance of human rights, labor and environmental protection standards and the fight against corruption. Accordingly, we have anchored anti-corruption measures in our corporate policies. We participate in national and international Global Compact networks in countries such as Germany and Sweden, working across sectors to strengthen the structures that will help master these challenges around the world. The Global Compact provides us with external points of reference as we develop our Sustainability Work Program. We incorporate its principles in our policies and standards, and are guided by them in managing our internal compliance systems.

# **Reporting on the Global Compact Principles**

When we became a signatory to the Global Compact, we undertook to publish an annual Communication on Progress (COP). Consequently, in our 2012 Sustainability Report we also report on our progress in implementing the Ten Principles of the Global Compact. The following table includes references to our reporting on the Principles of the Global Compact.

# Principle 1: Support and respect the protection of international human rights

- Protection of Human Rights
- Strategy and Guidelines
- Sustainable Procurement
- GRI Content Index
- Human Rights Policy Statement (PDF, 76 KB)
- E.ON Responsible Procurement Policy (PDF, 36 KB)
- E.ON Code of Conduct (PDF, 116 KB)

# Principle 2: Make sure to not be complicit in human rights abuses

- Protection of Human Rights
- Strategy and Guidelines

- Sustainable Procurement
- GRI Content Index
- Human Rights Policy Statement (PDF, 76 KB)
- E.ON Responsible Procurement Policy (PDF, 36 KB)
- E.ON Code of Conduct (PDF, 116 KB)

# Principle 3: Freedom of association and the effective recognition of the right to collective bargaining

- Strategy and Guidelines
- Human Resources
- GRI Content Index
- E.ON Code of Conduct (PDF, 116 KB)

# Principle 4: Elimination of all forms of forced and compulsory labor

- Protection of Human Rights
- Strategy and Guidelines
- Sustainable Procurement
- Human Resources
- GRI Content Index
- Human Rights Policy Statement (PDF, 76 KB) (PDF, 75.83 KB)
- E.ON Responsible Procurement Policy (PDF, 36 KB) (PDF, 32.15 KB)
- E.ON Code of Conduct (PDF, 116 KB) (PDF, 116.49 KB)

# Principle 5: Effective abolition of child labor

- Protection of Human Rights
- Strategy and Guidelines
- Sustainable Procurement
- Human Resources
- GRI Content Index
- Human Rights Policy Statement (PDF, 76 KB) (PDF, 75.83 KB)
- E.ON Responsible Procurement Policy (PDF, 36 KB) (PDF, 32.15 KB)
- E.ON Code of Conduct (PDF, 116 KB) (PDF, 116.49 KB)

# Principle 6: Elimination of discrimination in respect of employment and occupation

- Strategy and Guidelines
- Human Resources
- GRI Content Index
- E.ON Code of Conduct (PDF, 116 KB)

# Principle 7: Support a precautionary approach to environmental challenges

- Strategy and Guidelines
- Work Program 2011-2015
- Climate Protection
- Environmental Protection
- GRI Content Index

# Principle 8: Undertake initiatives to promote greater environmental responsibility

- Strategy and Guidelines
- Work Program 2011-2015
- Climate Protection
- Environmental Protection
- GRI Content Index

# Principle 9: Encourage the development and diffusion of environmentally friendly technologies

- Strategy and Guidelines
- Work Program 2011-2015
- Technology Development
- Climate Protection
- Environmental Protection
- GRI Content Index

# Principle 10: Work against corruption in all its forms, including extortion and bribery

- Strategy and Guidelines
- Compliance and Prevention of Corruption
- Responsible Lobbying
- GRI Content Index
- E.ON Responsible Procurement Policy (PDF, 36 KB) (PDF, 32.15 KB)
- E.ON Code of Conduct (PDF, 116 KB) (PDF, 116.49 KB)

http://www.eon.com/en/sustainability/reporting/figures-and-standards/un-global-compact.html

# **DVFA/EFFAS KPIs**

Overview of indicators covered in line with the standards defined by the German Association for Financial Analysis and Asset Management (Deutsche Vereinigung für Finanzanalysten – DVFA) and the European Federation of Financial Analysts Societies (EFFAS) standards.

#### **DVFA/EFFAS KPIs**

	-	2012	2011	2010
E03-01	Total Carbon Emissions (metric tons in millions)	125.8	124.6	116.7
_	Total NO Emissions (kilotons)	131.9	124.5	133.2
-	Total SO₂ Emissions (kilotons)	111.6	85.4	79.7
E03-03	Carbon Emissions (kilograms of CO₂ per MWh)	460	430	420
_	NO Emissions (kilograms of NO per MWh)	0.5	0.46	0.48
_	SO <sub>z</sub> Emissions (kilograms of SO <sub>z</sub> per MWh)	0.42	0.32	0.29
E04-01	Total Waste (kilotons)	600	1,065	1,055
	Low and intermediate-level waste (tons)	3,407	3,576.5	2,447.9
E08-03	High-level waste (tons)	245.9	235.2	289
E11-01	EU Carbon Allowances Received (in millions)	83.5	80.7	75.1
E12-05	Reserves for Future Environmental Remediation	937	966	873

E26-01	Generation Portfolio (percentage)	-	_	-
_	Lignite, hard coal	32	29	28
_	Nuclear	22	23	26
-	Natural gas, oil	34	38	35
-	Hydro	7	6	6
-	Wind	4	3	3
-	Other (Renewables incl. Waste)	1	1	2
E28-01	Total Water Withdrawel (m³ in millions) <sup>1)</sup>	14,277.2	14,793.4	-
E33-01	Number of Sites with ISO 14001 <sup>2)</sup> Certification	as in the previous year	as in the previous year	Since 2010: environmental management systems in place at all sites with substantial environmental impacts (subjected in most cases to certifications by independent third parties).
S01-01	Turnover Rate (percentage)	3.6	3.6	4.5
S02-02	Spending on Trainings per Employee (€) <sup>3)</sup>	1,047	894	860
S03-01	Average Employee Age (percentage)	<30:18%31-50:55% >50:27%	<30:19%31-50:54% >50:27%	<30:28%31-50:56%>50:16%
S08-03	Consideration of ESG Performance in Target Agreements	yes, see <u>Good</u> <u>Governance</u>	-	-
V04-01	Total R&D Expenses(€ in millions)	144	107	93
V04-03	Total R&D Expenses of Research to External Partners, Suppliers or AcademicResearch(€ in millions)	36	26	32
V11-02	Customers Equipped with Smart Meters (millions)	1.5	ca. 1	ca. 1
V28-04	Supply Chain: Key Performance Narrative	see <u>Sustainable</u> <u>Procurement</u>	-	-



- <sup>1)</sup> Total water withdrawal is measured since 2012 and retroactively for 2011.
- <sup>2)</sup> The statement covers also sites with EMAS certification.
- <sup>3)</sup> Since 2012 we use a broader definition of trainings and seminars due to reorganization processes.

http://www.eon.com/en/sustainability/reporting/figures-and-standards/dvfa-effas-kpis.html



# **GRI Content Index**

We base our CR reporting on the current G3.1 guidelines of the Global Reporting Initiative (GRI), including the final version of the Electric Utilities Sector Supplement (EUSS) of April 2009. According to our self-assessment, our 2012 reporting complies with Application Level B+ of the GRI guidelines. In doing so, we classify the level of our Sustainability Report as Advanced under the GRI system and affirm that the Report has been verified externally.

# **About the Global Reporting Initiative**

The GRI was established in 1997 with the goal of developing an internationally recognized guideline system for voluntary reporting of the economic, environmental and social performance of organizations. The GRI guidelines comprise indicators for all sectors and all types of organization that aim to achieve transparent, comparable and stakeholder-oriented sustainability reporting. The current G3.1 standard was introduced in 2006. There are also sector supplements with industry-specific indicators. The EUSS applies to companies in the electric utility sector.

# Our 2012 CS Reporting

Our stakeholders are increasingly demanding more specific information from our company – we see this as a clear trend. In 2009 we revised the indicators on which we report to comply with the requirements of the final version of the EUSS and, along with the general indicators of the GRI guidelines, adapted them to meet the changing information needs of our stakeholders. We do not consider some indicators to be material and/or significant. In these cases, we have added an appropriate comment in the GRI Content Index.

#### **GRI Content Index**

The GRI Content Index shows at a glance how E.ON's reporting meets GRI requirements. The Index lists:

- Which indicators we report on and to what extent
- Where they can be found on our website or in our Annual Report (AR)
- Which indicators we are unable to include due to certain circumstances.

In addition, the GRI Content Index includes comments and additional information on selected indicators.

# **Strategy and Analysis**

#### 1. Strategy and Analysis

1.1 Statement from the most senior decision-maker

Commitment to Sustainability fully covered

1.2 Key impacts, risks, and opportunities

Strategy and Guidelines

Risk Management

Materiality Analysis

Reporting

Strategic Focus

Value Chain

Regional Activities fully covered

# **Organizational Profile**

#### 2. Organizational Profile

2.1 Name of the Organization

fully covered

2.2 Brands, Products, and/or Services

Business Areas

<u>Sales</u>

Customers fully E.ON Vertrieb Deutschland covered

2.3 Operational Structure

Structure

Group Management

Global Units

Regional Units

Support Functions

Company Finder fully covered Strategy and Guidelines

2.4 Headquarter Location

fully Düsseldorf (Germany) covered

2.5 Countries in Operation

Global Units

Regional Units

Company Finder fully Regional Activities covered

2.6 Nature of Ownership

AR (11 ff.) covered

fully

2.7 Markets Served

Global Units

Regional Units

Company Finder Regional Activities

fully GB (12 ff., 60 ff.) covered

### 2.8 Scale of the Organization

Profile AR (2–4)	fully covered
2.9 Significant Changes Regarding Size, Structure, or Ownership	
Strategic Priorities Transformation of E.ON Structure AR (2-4, 12 ff.)	fully covered
2.10 Awards Received	
External Recognition  Awards – Work Environment  Social Responsible Investment	fully covered
EU1 Installed Capacity	
Facts and Figures AR (29)	fully covered
EU2 Net Energy Output Broken Down by Primary Energy Source and by Region	
Facts and Figures AR (31)	fully covered
EU3 Number of residential, industrial, institutional and commercial customer accounts	
Customer Orientation AR (34 f.)	fully covered
EU4 Length of Transmission and Distribution Lines by Region	
We regularly report our grid activities. The latest data is available in our Facts & Figures publication, which is updated annually.	partly covered
EU5 Allocation of CO₂ Emissions Permits	
Facts and Figures AR (54)	fully covered

# **Report Parameters**

#### 3. Report Parameters

3.1 Reporting Period	
The 2012 CS Report covers the period from January 1 to December 31, 2012.	fully covered
3.2 Date of Most Recent Previous Report The most recent CS Report was published in May 2012.	fully covered
3.3 Reporting Cycle	
E.ON reports on its sustainability-related activities annually. The next report is due to appear in the second quarter of 2014.	fully covered
3.4 Contact Point for Questions	
Contact	fully covered

#### 3.5 Process for Defining Report Content

E.ON defines the content of the report on the basis of its objectives and

#### Reporting

#### Materiality Analysis

experience as well as the expectations and interests of stakeholders. For example, relevant topics are identified by the E.ON materiality process.	fully covered
3.6 Boundary of the Report	
Reporting	fully covered
3.7 Limitations on the Scope or Boundary of the Report Reporting	fully covered
3.8 Joint Ventures, Subsidiaries, and Outsourced Operations	
	fully
AR (12 f., 60 ff.)	covered
3.9 Data Collection Methods and Basis of Calculation	
Reporting	
The regulations of our financial market oriented reporting are applied. Where specific measurement methods were used or special explanations of indicator calculations are required, they are noted in the respective diagrams and graphics.  E.ON bases its reporting on the GRI indicator protocols, but also reserves the right	

3.10 Effects of Re-Statement of Information Provided in Earlier Reports

to deviate from these protocols. Data and content is double-checked for

correctness, as is customary in management accounting.

Reporting	fully
Materiality Analysis	covered

3.11 Significant Changes in the Scope, Boundary, or Measurement Methods

Reporting

Materiality Analysis

No significant changes.	fully covered
3.12 GRI Content Index  GRI Index	fully covered
3.13 External Assurance Assurance	fully covered

# **Governance, Commitments and Engagement**

#### 4. Governance, Commitments and Engagement

#### 4.1 Governance Structure

E.ON has been a European Company (Societas Europaea, or "SE") under European laws of incorporation since November 15, 2012. Being an SE strengthens E.ON's corporate governance and enhances the Supervisory Board's efficiency and effectiveness. Limiting the Supervisory Board to twelve members while maintaining parity between shareholder and employee representatives is an important aspect of this.

AR (77 ff.)

fully covered

covered

#### 4.2 Indication Whether Chairperson is also Executive Officer

#### Board of Management

The Chairman of the Board of Management of E.ON SE is also the company's chief fully executive officer. fully

#### 4.3 Independent Members at the Board

According to the G3 definition, this element is only applicable to organizations without a Supervisory Board. As E.ON has a Supervisory Board, this indicator is not applicable.

not relevant

# 4.4 Mechanisms for Shareholders and Employees to Provide Recommendations to the Board

AR (192 ff.)

Shareholders and employees have the following opportunities to make recommendations or provide information to the Supervisory Board and Board of Management:

- Shareholders: According to the "Aktiengesetz" (German Joint Stock Corporation Act), shareholders can submit recommendations to the general meeting of shareholders. In addition, they can submit proposals and address questions to the Board of Management/Supervisory Board.
- Employees: Fifty percent of E.ON Supervisory Board members are employee representatives. These representatives can submit recommendations to the Board of Management. Recommendations to the Board of Management/Supervisory Board may also be made through the Works Council. In addition, employees may also submit proposals for decisions to the Board of Management.

The Board of Management intends to propose to the 2012 Annual Shareholders

Meeting that E.ON AG be transformed into a European Company (Societas

Europaea, or "SE"). E.ON plans to continue equal representation in the Supervisory fully

Roard covered.

fully covered

#### 4.5 Linkage Between Executive Compensation and Organization's Performance

# Good Governance fully AR (77 ff.) covered

#### 4.6 Processes to Avoid Conflicts of Interest at the Board

#### Good Governance

AR (77 ff.)

The requirements of the German Corporate Governance Code are met. Our Code of Responsible Conduct for Business, which we adopted in 2010, demonstrates our clear commitment to the social market economy and to fair trading in global competition.

fully covered

# 4.7 Process for Determining the Qualifications of the Members of the Highest Governance Body in Sustainability

#### Good Governance

AR (77 ff.)

The performance of the highest governance body is assessed by the Supervisory Board, which includes environmental, occupational health and safety and social criteria in its assessments (see answer to 4.5). The highest governance body is the Board of Management.

fully covered

#### 4.8 Statements of Mission, Codes of Conduct, and Principles

Corporate Culture

Corporate Governance

Commitment to Sustainability

Strategy and Guidelines Good Governance

fully covered

4.9 Procedures of the Highest Governance Body for Overseeing Sustainability Performance

Strategy and Guidelines

Good Governance

Corporate Governance

Important events relating to the environment and occupational safety are always promptly reported to the Board of Management. Key figures are also regularly reported to the Board of Management.

fully covered

4.10 Processes for Evaluating the Highest Governance Body's Sustainability

Strategy and Guidelines Good Governance

fully covered

4.11 Precautionary Approach

Strategy and Guidelines

Good Governance

Environmental Protection

AR (62 ff.)

As a general principle, all E.ON operations are governed by a long-term perspective. This applies to all units of the Group and all areas of activity. The precautionary principle is applied in the field of environmental protection in everyday business, investment projects and impact assessments. The E.ON risk management system already takes ecological and social risks into account, in some cases beyond legal requirements.

covered

4.12 External Charters, Principles, or Other Initiatives

Strategy and Guidelines

On all levels E.ON is active in a variety of initiatives. At the Group level, these include

- · Global Compact
- . World Business Council for Sustainable Development (WBCSD)
- fully · Econsense covered

4.13 Memberships in Associations and Advocacy Organizations

Stakeholder Dialog Stakeholder Management Strategy and Guidelines

fully covered

4.14 Stakeholder Groups

Stakeholder Management

Materiality Analysis

Reporting

Regional Activities

Dialog - Investors

Dialog - Media

Customers

As an international company, E.ON engages in constant dialog with a large number fully of stakeholders

covered

#### 4.15 Stakeholder Identification and Selection

#### Stakeholder Management

Materiality Analysis

Reporting

As an international company, E.ON engages in constant dialog with a large number of stakeholders. The stakeholders addressed in each case depend on the specific fully topic.

4.16 Approaches to Stakeholder Engagement

Stakeholder Management

Materiality Analysis

Reporting

Regional Activities

Dialog - Investors

Dialog - Media

Employee Participation fully
Customers covered

4.17 Key Topics and Concerns Raised by Stakeholders

Stakeholder Management

Materiality Analysis

Reporting

Regional Activities
Customer Satisfaction
Dialog – Investors

FAQ Retail Investors Dialog – Media fully covered

### **Economic Indicators**

Economic indicators are divided into the three categories "Economic performance", "Market presence" and "Indirect economic impacts". The indicators provide information on the economic success of E.ON as well as the impact that this has on various stakeholder groups. Further information can also be found in the Annual Report.

#### **Economic Indikators**

Disclosure on Management Approach (including EU6, 7, 8 and 9)

Strategy and Guidelines

Governance and Integrity

Stakeholder Management

Strategic Focus

Regional Activities

Innovation

Corporate Governance fully AR (14 ff.) covered

EC1 Direct Economic Value Generated and Distributed

Facts and Figures

AR (96)

fully covered

#### EC2 Financial Implications Due to Climate Change

#### Climate Protection

AR (14 ff., 27, 66 ff.)

E.ON regularly investigates what impacts climate change- e.g. gradual temperature increase or extreme weather- has on the business. In this context we evaluate potential physical risks for our employees as well as material risks to our buildings and network systems. In addition we analyze financial risks like accidents. The probability of occurrence and potential impact of these risks are determined every year. These risk analyses are intended to identify focus areas for precautionary measures.

covered

#### EC3 Coverage of the Organization's Defined Benefit Plan

#### Human Resources

Facts and Figures AR (123 ff.)

We offer our employees at many locations comprehensive possibilities of providing for their retirement, in addition to the statutory requirements. In Germany, company pension plan benefits are a component firmly integrated in the overall remuneration system. In addition to an attractive pension scheme financed by the Group, E.ON offers its German employees the possibility of earning additional benefits by paying contributions. Depending on their individual needs and possibilities, employees can choose between a number of different models (such as direct life assurance schemes, supplementary pensions in accordance with the statutory provisions and/or the conversion of remuneration) and also combine these possibilities.

partly covered

#### EC4 Financial Government Assistance

AR (110)

partly covered

#### EC5 Entry Level Wage Compared to Local Minimum Wage(Add)

material

not

#### EC6 Locally-based Suppliers

#### Sustainable Procurement

When selecting suppliers, we attempt to ensure appropriate economic relationships between the shares of individual suppliers to our market units. Services are often sourced in the immediate vicinity of our locations. In this way, fully we demonstrate our responsibility for the regions where we are active.

covered

#### **EC7 Local Hiring**

#### -Human Resources

We select employees on the basis of our human resources strategy. The main criteria are qualifications and motivation. Preferential treatment for certain groups of people would run counter to the principle of non-discrimination.

fully covered

# EC8 Infrastructure Investment and Services for Public Benefit

Technology Development

Facts and Figures

AR (47)

partly covered

EC9 Indirect Economic Impacts (Add)

not

We do not collect detailed data on this area at present.

material

EU10 Planned Capacity Against Projected Electricity Demand Over the Long Term

### Climate Protection

AR (13 ff., 60 ff.)	partly covered
EU11 Average Generation Efficiency of Thermal Plants by Energy Source and Region	
Climate Protection-Owned Generation	partly covered
EU12 Transmission and Distribution Losses as a Percentage of Total Energy	partly
AR (31)	covered

# **Ecological Indicators**

The information requirements of ecological indicators range from consumption of materials to greenhouse gas emissions.

### **Ecological Indicators**

Disclosure on	Management	Annroach	(including	EH6 7	(0 bac Q

Disclosure on Management Approach (including 200, 7, 0 and 5)	
Environmental Protection	
Climate Protection	
Strategy and Guidelines	
Stakeholder Management	
Strategic Focus	
E.ON Value Chain	
ESG Performance 2012	
Work Program 2012-2015	fully
Regional Activities	covered
EN1 Materials Used by Weight or Volume	
Responsible Procurement	partly
Responsible Procurement Facts and Figures	partly covered
Facts and Figures  EN2 Percentage of Materials used that are Recycled Input Materials	covered
Facts and Figures  EN2 Percentage of Materials used that are Recycled Input Materials  Environmental Protection	covered
Facts and Figures  EN2 Percentage of Materials used that are Recycled Input Materials	covered
Facts and Figures  EN2 Percentage of Materials used that are Recycled Input Materials  Environmental Protection	covered
Facts and Figures  EN2 Percentage of Materials used that are Recycled Input Materials  Environmental Protection Facts and Figures	covered
EN2 Percentage of Materials used that are Recycled Input Materials  Environmental Protection Facts and Figures  EN3 Direct Primary Energy Consumption  Environmental Protection	covered
EN2 Percentage of Materials used that are Recycled Input Materials  Environmental Protection Facts and Figures  EN3 Direct Primary Energy Consumption  Environmental Protection Facts and Figures	partly covered
EN2 Percentage of Materials used that are Recycled Input Materials  Environmental Protection Facts and Figures  EN3 Direct Primary Energy Consumption  Environmental Protection	covered

#### **EN4 Indirect Primary Energy Consumption**

AR (31 f.)

The purchase of primary energy sources for electric power generation partly accounts for the greater part of direct primary energy consumption. covered

EN5 Energy Conservation (Add)

Environmental Protection

Climate Protection

Technology Development

Customer Orientation

Regional Activities partly
Group-wide data is not available, individual examples are provided. covered

EN6 Initiatives for Energy Efficiency and Renewable Energy (Add)

Environmental Protection

Climate Protection

Technology Development

Customer Orientation

 Regional Activities
 fully

 AR (53)
 covered

EN7 Initiatives for Reducing Indirect Energy Consumption (Add)

**Environmental Protection** 

Climate Protection

Technology Development

Customer Orientation partly Regional Activities covered

**EN8 Total Water Withdrawal by Source** 

Environmental Protection We anticipate that climate change will impact the availability of water around the world. Water is an important resource for E.ON's operations, used primarily for cooling and processes. This is why we published even more extensive data in 2011 in our key figures section and in our response to the CDP Water Disclosure.

fully covered

EN9 Water Sources Significantly Affected by Withdrawal of Water (Add)

Environmental Protection fully covered

EN11 Location and Size of Land Assets in or Adjacent to Protected Areas

In our opinion, this is not a material indicator with regard to statements on biodiversity. E.ON owns a large number of land assets in many countries, which means that a list would not be meaningful for the reader.

not material

**EN12 Impacts of Activities on Biodiversity** 

partly Environmental Protection covered

EU13 Biodiversity of Offset Habitats Compared to Biodiversity of the Affected Areas

In our opinion, this is not a meaningful indicator on issues of biodiversity management or the impact of corporate activities on biodiversity.

not covered

EN13 Habitats Protected or Restored (Add)	
Environmental Protection	partly covered
EN14 Strategies for Biodiversity (Add)	
Environmental Protection Responsible Procurement Key Figures—Environment	partly covered
EN15 Endangered Species (Add)	
In our opinion, this is not a meaningful indicator on issues of biodiversity management or the impact of corporate activities on biodiversity.	not covered
-EN16 Greenhouse Gas Emissions	
Climate Protection Facts and Figures-AR (53) We report on CO as the most important greenhouse gas for energy utilities. SF and CH are lower priorities.	fully covered
EN17 Other Greenhouse Gas Emissions	
For E.ON, other indirect greenhouse gas emissions are not relevant compared with direct emissions.	not material
EN18 Initiatives to Reduce Greenhouse Gas Emissions (Add)	
Environmental Protection Climate Protection Technology Development Customer Orientation Regional Activities AR (53)	fully covered
EN19 Emissions of Ozone-depleting Substances	not
No significant emissions due to business activities.	material
EN20 NOx, SOx, and Other Air Emissions	
Environmental Protection	6.11.
<u>Facts and Figures</u> The most important other air emissions are NO, SO, CO and particulate matter	fully covered
EN21 Water Discharge	not.
We do not collect detailed data on this area at present.	not material
EN22 Waste by Type and Disposal Method	
Environmental Protection Facts and Figures	fully covered
EN23 Total Number and Volume of Significant Spills	
Environmental Protection Facts and Figures	fully covered

(Add)	material
EN25 Impacts of Discharges and Runoff on Biodiversity (Add)	
We do not collect detailed data on this area at present.	not material
EN26 Initiatives to Mitigate Environmental Impacts	
Environmental Protection Climate Protection Technology Development Customer Orientation Regional Activities	fully covered
EN27 Percentage of Products Sold and their Packaging Materials that are Reclaimed	not material
EN28 Sanctions for Non-Compliance with Environmental Regulations	
Environmental Protection	partly covered
EN29 Environmental Impacts of Transport (Add)	
We do not collect detailed data on this area at present.	not covered
EN30 Environmental Protection Expenditures	
Environmental Protection Facts and Figures	partly covered

EN24 Waste Deemed Hazardous Under the Terms of the Basel Convention

not

### **Labor Practices and Decent Work**

#### **Labor Practices and Decent Work**

Disclosure on Management Approach (including EU14, 15 and 16) Strategy and Guidelines Stakeholder Management Regional Activities Sustainable Procurement Health and Safety Human Resources partly AR (54 ff.) covered LA1 Total Workforce by Employment Type, Employment Contract, and Region Human Resources partly AR (54 ff.) covered -LA2 Employee Turnover partly Human Resources-Facts and Figures covered EU17 Days Worked by Contractor and Subcontractor Employees E.ON has services performed by a large number of contractors and

subcontractors. In our opinion, central recording and reporting of days worked

would not be material with respect to statements concerning working practices. material

not

EU18 Percentage of Contractor and Subcontractor Employees that Have Undergone Relevant Health and Safety Training Health and Safety Safety training is a binding requirement for all our contractors and subcontractors. E.ON also offers contractors additional safety training and intends to extent its certification scheme for contractors, which requires such training, to the entire Group.	partly covered
LA3 Benefits to Full-Time Employees (Add)	
<u>Human Resources</u> AR (54 ff., 117) see also EC3	partly covered
LA4 Employees with Collective Bargaining Agreements	
Human ResourcesFacts and Figures	partly covered
LA5 Minimum Notice Period(s) Regarding Operational Changes	
Human Resources The principle of co-determination applies in Germany. Locations in other countries are included via the European Works Council. The minimum notice periods fulfill or exceed the legal requirements.	partly covered
LA6 Workforce Represented in Joint Health and Safety Committees (Add)	
Health and Safety In Germany, all employees are represented in occupational safety committees by the industrial council. Under the German Occupational Safety Act (Arbeitssicherheitsgesetz, ASiG), companies with 20 or more employees are legally required to have an occupational safety committee. Similar legal requirements apply in almost all countries in which we operate.	partly covered
LA7 Occupational Diseases, Lost Days, and Number of Fatalities	
Health and Safety Facts and Figures	partly covered
LA8 Training on Serious Diseases	
Health and Safety	partly covered
LA9 Trade Union Agreements on Health and Safety  In countries in which unions represent employees directly, occupational safety	partly
issues are included in agreements.	covered
LA10 Training per Employee	
Human Resources Facts and Figures	partly covered
LA11 Programs for Lifelong Learning (Add)	

<u>Human Resources</u> <u>Further Education</u> AR (55)

partly covered

#### LA12 Regular Performance and Career Development Reviews (Add)

Human Resources Performance-related Compensation Further Education	partly covered
LA13 Composition of Governance Bodies	
Strategy and Guidelines AR (78 ff.)	fully covered
LA14 Gender Pay Disparity	
In accordance with our anti-discrimination guidelines, we do not differentiate by gender.	not covered
LA 15 Return to Work and Retention Rates After Parental Leave	not covered

# **Human Rights**

### **Human Rights**

-Disclosure on Management Approach

Strategy and Guidelines Proctection of Human Rights-Sustainable Procurement Stakeholder Management -	partly covered
HR1 Significant investment Agreements that Include Human Rights Clauses	
Human rights compliance is a key concern for E.ON. In 2008, we issued a Human Rights Policywhich applies throughout the Group. Human rights aspects are considered as part of risk management.	partly covered
HR2 Supplier Screening on Human Rights	

# Proctection of Human Rights Sustainable Procurement

E.ON's Responsible Procurement Policy places suppliers and contractors under an obligation to observe human rights. E.ON carries out regular checks to verify compliance with the policy. In our opinion, the indication of the percentage of major suppliers and contractors subject to human rights screening would not be material with respect to human rights issues. We believe that integrating these aspects into day-to-day business is the best way of ensuring that human rights are observed.

partly covered

#### HR3 Training on Human Rights (Add)

Proctection of Human Rights partly covered

#### HR4 Incidents of Discrimination and Actions Taken

#### Good Governance

Proctection of Human Rights E.ON complies with all statutory

non-discrimination requirements and has also introduced systems to uphold this behavior. All incidents are handled using a Group-wide reporting system. An immediate response is required for any incident that is reported.

partly covered

#### -HR5 Freedom of Association and Collective Bargaining

#### Good Governance-Strategy and Guidelines

See management approach. No business activities were identified in which infringements of freedom of association and collective bargaining rights were registered. This is backed up by the Human Rights Policy Statement of the E.ON Group. In purchasing, freedom of association and collective bargaining rights are covered by the E.ON Responsible Procurement Policy.

fully covered

#### -HR6 Child Labor

#### Good Governance-Strategy and Guidelines

#### UN Global Compact

See management approach. No business activities were identified in which the ban on child labor was infringed. This is backed up by the Human Rights Policy Statement of the E.ON Group. In purchasing, compliance with the ban on child labor is covered by the E.ON Responsible Procurement Policy.

fully covered

#### **HR7** Forced Labor

#### Good Governance

#### Strategy and Guidelines

#### UN Global Compact

See management approach. No business activities were identified in which the ban on forced labor was infringed. In purchasing, the ban on forced labor is covered by the E.ON Responsible Procurement Policy. In purchasing, compliance with the ban on forced labor is covered by the E.ON Responsible Procurement Policy.

covered

#### HR8 Training for Security Personnel (Add)

material

not

#### HR9 Violations of Rights of Indigenous People (Add)

#### Good Governance

Strategy and Guidelines

Proctection of Human Rights

#### UN Global Compact

As part of our materiality process, we have classified the topic as non-priority. E.ON complies with all legal and regulatory requirements in the markets in which it operates. This is backed up by the Human Rights Policy Statement of the E.ON Group. No business activities were identified that violated the rights of fully indigenous populations.

covered

#### LA 10 Operations Subject to Human Rights Reviews

-Proctection of Human Rights

**UN Global Compact** 

#### LA 11 Complaints and Grievances related to Human Rights and Resolution

-Proctection of Human Rights

UN Global Compact

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# **Society**

#### Society

Disclosure on Management Approach (including EU19, 20 and 21)

Strategy and Guidelines

Risk Management

Compliance and Prevention of Corruption

Community Involvement

Stakeholder Management fully
Regional Activities covered

**SO1 Impacts on Communities** 

Risk Management

Community Involvement

Stakeholder Management

Regional Activities

Ecological and social risks resulting from company activities are analyzed and managed by the risk management system. In addition to mandatory involvement of stakeholders in areas such as environmental compatibility

fully covered

EU22 Number of People Displaced (by New or Expansion Projects)

tests, we also engage our stakeholders in wide-ranging dialog.

No displacements were identified. fully covered

SO2 Corruption Risks

Compliance and Prevention of Corruption

Risk Management party
AR (62 ff.) covered

SO3 Anti-corruption Training

Compliance and Prevention of Corruption partly
Risk Management covered

SO4 Actions Taken in Response to Incidents of Corruption

Compliance and Prevention of Corruption partly Risk Management covered

SO5 Public Policy Positions and Participation in Public Policy Development and Lobbying

Strategy and Guidelines

Responsible Lobbying

E.ON Value Chain

Strategic Focus

Stakeholder Management fully
AR (14 ff.) covered

SO6 Donations to Political Parties and Politicians (Add)

fully Responsible Lobbying covered

#### SO7 Legal Actions for Anticompetitive Behavior (Add)

Strategy and Guidelines

Compliance and Prevention of Corruption

Responsible Lobbying fully
AR (62 ff., 168) covered

SO8 Sanctions for Non-Compliance with Laws and Regulations

Strategy and Guidelines

Compliance and Prevention of Corruption

Responsible Lobbying
AR (62 ff., 168)

# **Product Responsibility**

#### **Product Responsibility**

Disclosure on Management Approach (including EU23 and 24)

Strategy and Guidelines

Stakeholder Management

Regional Activities

Technology Development

<u>Customer Orientation</u> partly <u>Sustainable Procurement</u> covered

PR1 Health and Safety Impacts along Product Life Cycle

-Technology Development

**Customer Orientation** 

Sustainable Procurement

Safe use of gas and electricity is part of E.ON's activities in energy, safety and partly environmental education as well as our information campaigns. covered

PR2 Non-Compliance with Health and Safety Standards (Add)

E.ON complies with all legal and regulatory requirements in the markets in hot which it operates. not covered

EU25 Number of Injuries and Fatalities to the Public Involving the Company's Operations

E.ON distributes products which pose a risk that is not immediately identifiable. These products are distributed across an incredibly large and publicly accessible infrastructure (high-voltage lines, substations and pipelines). In 2010, we began Group-wide internal reporting and launched a reporting tool that records information on injuries and deaths among the general public that are related to our facilities and infrastructure. Regardless of who is at fault, our goal is to learn from these incidents and, where possible, to better inform and educate the public with regard to dangers.

partly covered

fully

covered

PR3 Products and Service Labeling

Regional Activities partly
Customer Orientation covered

PR4 Non-Compliance with Product Information Standards (Add)	not material
PR5 Customer Satisfaction (Add)	
Customer Orientation Regional Activities	partly covered
PR6 Marketing Communication Standards	
E.ON complies with all legal and regulatory requirements in the markets in which it operates.	partly covered
PR7 Non-Compliance with Marketing Communication Standards (Add)	
See also PR6	not material
PR8 Complaints Regarding Customer Privacy (Add)	
E.ON complies with all legal and regulatory requirements in the markets in which it operates.	not material
PR9 Sanctions for Non-Compliance with Product and Service Related Regulations	
No sanctions were reported to the Group Management as part of the existing Group-wide risk management system.	fully covered
EU26 Percentage of Population Unserved in Licensed Distribution Areas	
Wherever E.ON operates as a licensed energy company, the portion of the population served in the distribution areas is generally 100 percent.	fully covered
EU27 Number of Residential Disconnections for Non-Payment	
Customer Orientation	
Regional Activities  E.ON takes its responsibility towards customers very seriously. E.ON has	
adopted a voluntary commitment as regards needy customers. Nevertheless,	partly
E.ON also disconnects electricity customers in some cases.	covered
EU28 Power Outage Frequency	not covered
EU29 Average Power Outage Duration	not covered
EU30 Average Plant Availability Factor	partly
www.eon-schafft-transparenz.de	covered

http://www.eon.com/en/sustainability/reporting/figures-and-standards/gri-index.html

# **German Sustainability Code**

Our 2012 Sustainability Report incorporates the requirements outlined in the German Sustainability Code. The full Declaration of Compliance is available for download here.

• E.ON Declaration of Conformity (German) (PDF, 174.21 KB)

 $\underline{\text{http://www.eon.com/en/sustainability/reporting/figures-and-standards/german-sustainability-code.html}$ 

# Independent Assurance Report<sup>1</sup>

To E.ON SE, Düsseldorf

We have performed a limited assurance engagement on selected areas of the Sustainability Reporting 2012 of E.ON SE, Düsseldorf. The Sustainability Reporting is released as an online version on www.eon.com/sustainability2.

Based on our assignment, our assurance engagement has been applied to the websites under the heading of "Approach" and "Management" as well as selected performance indicators under the heading "Fields of Action" ("Environment", "Social" and "Governance and Integrity"). The content reviewed by PwC is marked with a "Reviewed 2012" sign.

#### **Management's Responsibility**

E.ON SE's Board of Managing Directors is responsible for the preparation of the Sustainability Reporting in accordance with the criteria stated in the Sustainability Reporting Guidelines Vol. 3.1 (pp. 7-17) of the Global Reporting Initiative (GRI)

- Materiality,
- Stakeholder Inclusiveness.
- Sustainability Context,
- Completeness,
- Balance,
- Clarity,
- Accuracy,
- Timeliness,
- Comparability, and
- Reliability.

This responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the Sustainability Reporting and the selection and application of appropriate methods to prepare the Sustainability Reporting.

#### **Practitioner's Responsibility**

Our responsibility is to express a conclusion based on the work we performed as to whether any matters have come to our attention that cause us to believe that the websites under the heading of "Approach" and "Management" and selected performance indicators under the heading "Fields of Action" ("Environment", "Social" and "Governance and Integrity") have not been prepared, in all material respects, in accordance with the above mentioned criteria of the Corporate Sustainability Reporting Guidelines Vol. 3.1 of the GRI. We have also been engaged to report on recommendations for the further development of Sustainability Management and Sustainability Reporting on the basis of the results of this engagement.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement such that we are able to express our conclusion with limited assurance.

In a limited assurance engagement the procedures for gathering evidence are less comprehensive than in a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement.

The procedures selected depend upon the practitioner's judgment. Within the scope of our work we performed amongst others the following procedures:

- Interviews with representatives of the Corporate Responsibility department in charge of the preparation of the Sustainability Reporting on the process of establishing the group-wide Sustainability Reporting 2012 and internal controls supporting this process.
- Interviews with management of specialist departments in charge of Corporate Communication, Corporate Responsibility, Health, Safety & Environment and Incident & Crisis Management, Community Involvement, Human Resources Controlling and Fuel and Non-Fuel Procurement.
- Inspection of relevant corporate guidelines and documents describing the Sustainability Management approach and the Work Programme 2012-2015.
- Review of E.ON's materiality process to determine relevant topics for the Sustainability Reporting 2012.
- Examination of definitions on selected Sustainability Indicators and review of documentation of requirements on the group-wide processes for collecting, analysing, and aggregating Sustainability data.
- Site visits at Group Management in Düsseldorf as well as E.ON UK, E.ON Generation Germany, E.ON Avacon, and E.ON Benelux as part of our sample assessments of relevant systems and processes.
- Evaluation of the consistency of the statements provided on the websites under the heading "Approach" and "Management" with the findings obtained during our engagement.

#### Conclusion

Based on our limited assurance engagement, nothing has come to our attention that causes us to believe that the websites under the heading of "Approach" and "Management" and selected performance indicators under the heading "Fields of Action" ("Environment", "Social" and "Governance and Integrity") have not been prepared, in all material respects, in accordance with the above-mentioned criteria of the Corporate Sustainability Reporting Guidelines Vol. 3.1 of the GRI.

#### **Additional Recommendations**

Without qualifying our conclusion above, we express the following recommendations for the further development of Sustainability Management and Sustainability Reporting:

We recommend EON to carry out the plan to set up a sustainability council in 2013. This council should report directly to the board of management and support coordinating sustainability topics across business functions and management units.

E.ON should further develop the approach to promote, steer, and monitor the objectives defined in the sustainability work program. This includes strengthening efforts to communicate the business relevance of sustainability group-wide.

To improve the maturity of sustainability reporting, E.ON should further optimize data collection processes and controls. In this regard, we recommend specifying the accounting procedures for further sustainability indicators.

Düsseldorf, April 26, 2013

PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft

- 1) Translation of the independent assurance report, authoritative in German language.
- 2) Our engagement applies to the German Version of the CS Reporting on www.eon.com/nachhaltigkeit. Data referred to and links on the CS Reporting websites were not included in the scope of our assurance engagement.

http://www.eon.com/en/sustainability/reporting/assurance-report.html

# Reviewed 2012



# **Anchoring Sustainability in our Business Processes**

We have divided the management of our Group-wide sustainability activities into the fields of Health, Safety & Environment (HSE) and Corporate Responsibility (CR). Our functional CR and HSE units in Group Management as well as our global and regional units chart the course for anchoring social and environmental requirements in our daily operating processes. Group-wide policies, which we apply nationally and internationally, are an important tool for implementing these. By doing this, we intend to establish uniform sustainability standards that apply across the Group, as a cornerstone of our Group strategy: "cleaner & better energy".

#### **Our Commitments, Guidelines and Policies**

Our sustainability standards apply across the Group and are based on internationally recognized ethical, social and environmental principles, which we duly apply to our corporate processes. At the same time, we respond to the ever-changing attitudes and expectations of the general public. Our Group policies have a directive character and are issued by the Board of Management of E.ON SE. These policies, which we review regularly, provide an operational framework and define minimum standards for our business processes.

The members of the Board of Management and the managing directors of the individual Group companies adopt and implement the policies, reporting back to E.ON SE's Board of Management once they have done this. This process also applies to all individual companies in which we are majority shareholders as well as to projects and shareholding for which we bear operational responsibility. Moreover, contractors and suppliers are required to meet our minimum standards. While our Group policies do not apply automatically when we enter into joint ventures with equal partners, policies are negotiated and issued based on these; if necessary we adapt policies to suit local circumstances.

### **External Frameworks and Commitments of E.ON**

Commitment to the Ten Principles of the UN Global Compact (2005)	Observance of human rights, labor and environmental protection standards and the fight against corruption form the basis of corresponding Group policies.
Self-Commitment by the E.ON Board (2006)	Affirming the importance of the company's social responsibility.
E.ON Commitment to Human Rights (2008)	Commits employees and business partners to maintain appropriate working conditions and ethical business practices, and respect human rights.
Luxembourg Declaration (2009)	Implementation of European standards on occupational health promotion.
Seoul Declaration (2009)	Health and safety standards at work and benchmarks for preventative measures.
Code of Responsible Conduct for Business (2010)	Joint commitment of German companies to sustainable business conduct promoting human welfare. The Code's declared goal is to rebuild trust in the social market economy and business leaders that was lost as a result of the financial crisis.
Declaration of Conformity with the German Corporate Governance Code (2012)	Annual declaration by E.ON SE's Board of Management and Supervisory Board of conformity with the German Corporate Governance Code pursuant to Article 161 of the German Stock Corporation Act.
Declaration of Compliance with the German Sustainability Code (2012)	Annual publication of E.ON SE's sustainability performance following the criteria of the German Council for Sustainable Development.

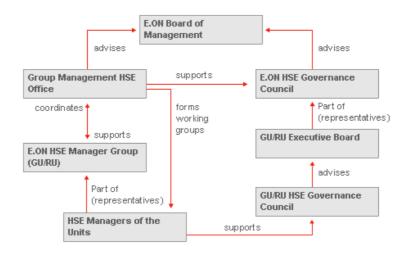
### Internal Policies and Frameworks

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	Equal Opportunity and Diversity Framework (2006)	Framework for non-discriminatory practices and the promotion of diversification in E.ON's work environment.
	Community Involvement Handbook (2006)	Declaration of a Group-wide strategy in the area of community involvement, as well as guidance for E.ON employees for implementation in our units.
	Responsible Procurement Policy (2007)	Group-wide policy governing the strategic and operational duties for collaboration between the local procurement organizations in the E.ON Group (E.ON Procurement Network). It is based on the principles of the United Nations Global Compact and is part of our company's Standard Terms and Conditions of Purchase.  • Biomass Purchasing Amendment to E.ON Responsible Procurement Policy (2010): Additional requirements to uphold sustainability criteria when procuring biomass, risk analysis and supplier auditing, joint venture guidelines.
-	Compliance Delieu	
	Compliance Policy (2008)	Group-wide policy to set out compliance structures, standardized application and to demonstrate implementation.
	Minimum Environmental Management Standards (2008)	Lays down how environmental protection is organized across the E.ON Group to meet our overarching Global Climate Change and Environment Policy.  • Environmental Footprint Standard (2012): Requirements for determining and calculating the environmental footprint of fuels, processes and products.
	Minimum Health and Safety Management Standards (2008)	Organization of occupational health and safety as well as product safety (incl. process safety and technical reliability) for the E.ON Group and its shareholdings.  • Procedural Incident and Crisis Management instructions (2008): Standardized approach for risk-based management of process and plant security across the entire E.ON Group to prevent injury to people and damage to the environment throughout the entire lifecycle of our plants.
	E.ON Code of Conduct (2010)	Covers interactions with business partners, third parties and government agencies; avoiding conflicts of interest, handling information, use of company property and resources, the environment, occupational health & safety.  • Annex 1: Compliance Checklist (2010), List of questions used to determine whether proposed activities are in keeping with E.ON's principles of integrity.  • Annex 2: Anti-Trust Law Guidelines (2010), Commitment to abide by all anti-trust law provisions and procedures in the event of violations.  • Annex 3: Gifts and Benefits Guidelines (2010), Principles relating to the acceptance and giving of gifts and benefits in dealings with business partners, competitors and government agencies.

Stakeholder Management Policy (2011) Definition of key stakeholder groups (excl. capital market participants), guidelines and topics for exchange, regulations regarding internal and external communication as well as sustainability management. A revised version will enter into force on July 1, 2013.

### **Managing Sustainability in the Group**

E.ON also applies the principle of functional management to sustainability management. Under this principle, responsibilities are clearly divided between the Group Management and the global and regional units in the Group. Group Management manages all departments responsible for the topics of Corporate Responsibility (CR) as well as Health, Safety & Environment (HSE). By doing this, we intend to better implement our cleaner & better energy strategy by clarifying our extensive involvement in HSE topics, providing an overview of our Group-wide HSE management structure, introducing a Group-wide HSE management system, establishing the relevant responsibilities, defining reporting paths as well as setting targets and creating programs that enable us to continually improve our HSE performance. In the majority of cases, our HSE management system is certified externally and meets OHSAS 18001 (health and safety) as well as ISO 14001 or EMAS (environmental protection) standards. The latter also includes EU directives for an effective energy management system in accordance with ISO 50 001.



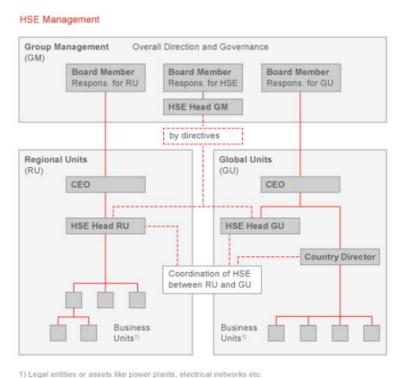
GU = Globale Einheiten (Global Units), RU = Regionale Einheiten (Regional Units)

### **Introducing a Sustainability Council**

We also plan to establish a Sustainability Council (SC) composed of department heads and presumably a member of the Board of Management. Senior E.ON executives will be invited periodically to assess a sustainability issue in their area of responsibility with an external expert. After sharing experiences and approaches, they will be advised of potentials for improvement and possible implementation at E.ON, as part of round table discussions. Proposals generated by these discussions will be presented to the SC twice per year. The SC will decide which of the proposals to adopt as recommendations for our operating units. The SC will report to the Board of Management twice ayear. We did preparatory work in 2012 for establishing the CR and round tables, which will meet for the first time in 2013.

#### **Model for Setting HSE Targets**

The head of the Group Management HSE Department is responsible for supporting those responsible for HSE in the operational management units. To do this, the head uses an annual target-orientated management model called the Target Operating Model (TOM). This process also applies to those units that do not have their own HSE or CR department. The manager of the respective HSE head of the particular unit has overarching responsibility for setting the target and for performance development. Target definition is closely associated with the development of a standardized Group strategy. The purpose of these targets is to ensure HSE activities are standardized across the Group, to implement clear management rules, and continually improve our HSE performance.



- Legal enulies or assets like power plants, electrical networks etc.
- Group Management activities: Overarching Group strategy, setting of targets, HSE audit system, establishing rules and standards in corporate management.
- Group Unit activities: Global Unit HSE strategy, provision of technological expertise, ensuring a standardized management system.
- Regional Unit activities: The general activities that the regional units must offer the global units include monitoring of country-specific legislation, audits, knowledge management, waste management and HSE training.

Where no regional units exist, the global units ensure that an adequate level of HSE resources is available. They do this by supporting relevant activities at a local level, ensuring that all relevant local laws and guidelines as well as all Group-internal regulations are known about, and guaranteeing that a clear management structure is in place.

#### **Success Factors on the Path to Sustainability**

A number of success factors underpin the progress of our sustainability efforts. These include the E.ON Board of Management's personal commitment which represents the tip of our implementation pyramid for sustainability topics. Currently, CR and HSE functions are working closely together as part of our current Sustainability Work Program 2012-2015, which provides standardized sustainability management and reporting structures. Another key success factor is transparency in our interactions with both internal and external stakeholders. Transparency reinforces our stakeholders' trust – which is vital for our ongoing business as well as our future plans.

http://www.eon.com/en/sustainability/approach/strategy-and-guidelines.html



# Our Work Program 2012-2015

Since 2005 we have regularly produced binding, Group-wide CR and Sustainability Work Programs. These give a clear overview of our goals and the measures we intend to use to achieve them.

With the launch of our new Sustainability Work Program 2012-2015 we are building on the previous program, which has now been completed. The results of the dialogs with internal and external stakeholders have provided us with key ideas in this process.

Below are the eleven elements of our Sustainability Work Program.

# 1. CO<sub>2</sub> reduction (electricity generation)

Reduce CO2 for the European generation fleet and use the best technologies in the markets where we operate to increase operating revenue through reduced EU ETS financial risk and to establish a sustainable generation portfolio.

#### **Objective**

Reduce CO2 emissions by optimizing E.ON's conventional generation portfolio and expanding the use of renewables.

Halve the carbon intensity of our electricity generation in Europe by 2025 (against the 1990 baseline) by improving our conventional generation portfolio and expanding the use of renewables (due to Germany's exit from nuclear power, this is five years later than originally planned).

#### **Measurement Criteria and Target**

- Criterion: Carbon intensity (t/MWh) of electricity generation in Europe
- Target: 50% reduction by 2025 to 0.32 metric tonnes of CO2 per MWh (1990 baseline: 0.63 metric tonnes of CO2 per MWh)

2012	2013	2014	2015	Status		
-	_	-	0.39 t/MVVh	Ongoing process/project: Carbon intensity 0.44 t CO2/MWh (2012). Target to be achieved through planned portfolio changes.		

### 2. Carbon footprint

Reduce the carbon footprint of E.ON's day-to-day business activities to increase efficiency and reduce costs.

#### **Objective**

Set minimum building energy efficiency standards for new and existing E.ON properties, implement a CO2 target for E.ON's vehicle fleet and reduce CO2 emissions from business travel.

#### **Measurement Criteria and Target**

Criterion: Tons CO<sub>2</sub> (absolute)

Target: 20% reduction by 2020 (2010 baseline)

2012	2013	2014	2015	Status
-	_	approx. 10 %	approx. 15 %	Process/project started in 2012: Establish a system of reporting E.ON's indirect CO2 emissions including external verification by auditors.

# 3. Water management

Establish a sustainable water management framework within E.ON to better identify and mitigate current and future water risks for E.ON in relation to permits, costs, availability, discharge and the supply chain.

#### **Objective**

Develop and implement a Group-wide qualitative sustainable water management framework along the entire value chain of E.ON's operational business by 2015, including those areas of the supply chain for which significant risks exist (based on the CERES framework), and establish practices which enable E.ON to become a signatory to the UN CEO Water Mandate.

#### **Measurement Criteria and Target**

Criterion: UN CEO Water Mandate compliance

Target: 100% by 2015

20	112 201	13 2014	2015	Status
_	_	-	100% compliance	Process/project has been started: Committment to fulfill the requirements of the UN CEO Water Mandate for more efficient water management by 2015. We are assessing how to apply the Ceres Aqua Gauge to our conventional power plants to achieve this goal.

#### 4. Inclusive business

Explore inclusive business opportunities in the energy sector to develop scalable business opportunities and provide sustainable solutions to people at the base of the pyramid.

Inclusive business is a business model that incorporates low-consumption and low-income sections of the population at the base of the pyramid by developing affordable products and services across companies' value chains.

#### **Objective**

Support sustainable rural energy projects in emerging and developing countries, contribute to international research & development, and raise awareness of what inclusive business means.

#### **Measurement Criteria and Target**

- Criterion: Number of supported (expertise/funding) inclusive business projects
- Target: Three supported projects by 2015

2012	2013	2014	2015	Status
				Process/project has been started: We are currently developing an off-grid project to electrify communities in Africa which are not
0	0	1	2	connected to the regional power grid.

#### 5. Stakeholder

Proactive stakeholder engagement and dialogs to identify and anticipate trends with an impact on our business to secure general acceptance of our activities and – where possible – to strengthen it.

#### **Objective**

Improve stakeholder participation in E.ON business activities and strengthen integration of stakeholder concerns in strategy development.

#### **Measurement Criteria and Target**

Criterion: Number of multi-stakeholder dialogs

Target: Three dialogs per year

2012 2013 2014 2015 Statu	ıs
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Process/project has been started: A multi-stakeholder dialog was held at a power plant in Hessen, Germany, in 2012. In addition, around 40 0 1 2 3 individual events as part of E.ON in Dialog.

## 6. Occupational Safety

Improving safety performance to increase employability and reduce losses/lost time.

#### **Objective**

Increase the number of E.ON companies which comply with OHSAS 18001 as well as H&S certified contractors, standardize processes (incl. improving procedures for high-risk activities).

#### **Measurement Criteria and Target**

- Criterion 1: LTIF (Lost Time Injury Frequency Index) for a) E.ON employees and b) contractors
- Criterion 2: TRIF (Total Recordable Injury Frequency Index) for c) E.ON employees and contractors combined
- Targets: Reduction of LTIF to a) 1.0, b) 3.0 and c) TRIF to 3.0 by 2014.

2012 2013 2014 2019		2015	Status				
		a)1.0		Ongoing process/project: a) LTIF E.ON employees 1.9 (2012); b)			
		b)3.0		LTIF third-party companies 1.9 (2012); c) Combined TRIF 2.9			
-	-	c)3.0	-	(2012)			

#### 7. Health

Improve employees' mental and physical health to maintain employability, reduce work-related illnesses and lost time, and counterbalance demographic trends.

#### **Objective**

Improve employees' mental and physical health to maintain employability, reduce work-related illnesses and lost time, and counterbalance demographic trends.

#### **Measurement Criteria and Target**

- Criterion: Participation in health measures
- Target: Min. 50% participation by risk group

Ongoing process/project: We employ various measures to promote our employees' health. Each year we set a focus topic for the whole Group with which we address stress factors in a targeted way. Due to the measures of the efficiency-improvement program E.ON 2.0 and the related organizational changes in 2012, we are currently unable to provide reliable data on the participation percentages of risk groups in

13% 25% 38% 50% health measures.

## 8. Gender diversity

Increase gender diversity of the workforce to benefit from the global talent pool.

#### **Objective**

Increase gender diversity when filling executive positions in the company. Diversity and equal opportunities have a lasting positive impact on the company's success.

#### **Measurement Criteria and Target**

- Criterion: Increase the percentage of female executives
- Target: Share of 14% of female executives by 2016 (Germany)

 2012
 2013
 2014
 2015
 Status

 10.6%
 11.75%
 2014
 2015
 Status

 10.6%
 2012
 Percentage of female executives 10.1% in Germany (2012) and 12.9% across the Group (2012)

#### 9. Procurement (non-fuels)

Factor in sustainability criteria when selecting suppliers and making procurement decisions to identify and mitigate non-financial risks. This will enable us to manage non-financial risks and meet our stakeholders' growing demands and expectations, e.g. investors, (industry) customers, business partners and NGOs.

#### **Objective**

By 2015, to have evaluated almost 100% of our critical (as measured by spending volume) non-fuel suppliers as part of E.ON's Supplier Pre-Qualification Program. They represent ~ 80% of total non-fuel spending volume in this sector.

#### Additional objective (since 2013)

By 2013, to have established a supplier management system to manage strategic partnerships with our key suppliers across the Group, increase transparency, and implement global procurement approaches which open up access to new and favorable procurement markets for us.

#### **Measurement Criteria and Target**

Criterion: Percentage of of evaluated critical suppliers

Target: 100% by 2015

2012 2013 2014 2015 Status

Process/project has been started: Analyses of our high-risk suppliers for supplier preselection are available for 2012. As a result, we are providing substantial support to award decisions based on our E.ON standards. The successful qualification of over 500 suppliers accounts for the majority of our expenditure and covers also compliance and sustainability risks. Consequently, we are clearly

60% 70% 80% 100% above our target of 60%.

## 10. Procurement (fuels)

Factor in sustainability criteria when selecting suppliers and making procurement decisions to identify and mitigate non-financial risks. This will enable us to manage non-financial risks and meet our stakeholders' growing requirements and expectations, e.g. investors, customers, business partners and NGOs.

#### **Objective**

Develop and establish the Bettercoal initiative with the aim of making the coal supply chain more sustainable, and together to standardize and expand coal-mine audits by 2015.

#### **Measurement Criteria and Target**

Criterion: Number of auditsTarget: 4 audits by 2015

2012 2013 2014 2015 Status

Process/project has been started: The initiative was officially established in 2012 and the way it is organized was further developed. Initial pilot audits were conducted on individual mines and a corresponding manual was further developed. Furthermore, all member companies commit their suppliers to conduct a self-assessment according to set standards. The Bettercoal Code is

) 1 1 2 expected to be ratified in 2013.

#### 11. Investment/divestment

Like other business risks, sustainability risks are factored into investment/divestment decisions in order to decrease risks in the context of environmental liabilities, remediation requirements or other environmental matters that may impact future cash flows.

#### **Objective**

Integrate sustainability standards in relevant policies, directives and processes related to investment/disinvestment decisions.

#### **Measurement Criteria and Target**

Criterion: Degree of integration

• Target: 100% by 2015

#### 2012 2013 2014 2015 Status

Process/project has been started: Development of a new policy to systematically incorporate Environment, Social and Governance (ESG) risks for all external business activities over a certain magnitude as well as establish minimum Group wide standards to identify ESG

25% 50% 75% 100% risks. Planned completion of policy by end of 2013.

http://www.eon.com/en/sustainability/approach/work-program-2012-2015.html



# **Systematically Involving Stakeholders**

E.ON must balance the demands and interests of different groups in society (stakeholders), both globally and locally. This is why we have made stakeholder management a core process of our corporate management, and clearly set out the duties and responsibilities for the entire Group. A policy that applies Group-wide is instrumental in this effort.

We are in continual contact with all social groups important to us: Our customers and suppliers, policymakers, public administration and authorities, the general public and the media, environmental protection and social associations, employees and trade unions, business partners and competitors as well as investors. One of our challenges lies in balancing the sometimes conflicting expectations of our stakeholders in the areas of climate and environment protection, security of energy supply, job security and profitability. It is a responsibility we must master in a challenging market environment marked by increasing regulations and inevitable technological change.



We assess the relevance of stakeholders using a variety of criteria, including their needs and requirements, the issues they raise, their importance in shaping public opinion, and their position towards E.ON or a specific project. This evaluation takes place on two levels: at the project level, for instance when planning new facilities, or at Group level, carried out by central units such as Investor Relations and Energy Trading.

#### Standardized Framework for Stakeholder Management

We strive for open and consistent communication with our stakeholders. Our policy on stakeholder management offers a standardized framework for interacting with external stakeholders and employees. It lays down standards for the information we convey and regulates responsibilities, processes and instruments. This includes the transparent management of information and political dialog by the Group's representatives.

The policy applies to all topics that we discuss with internal or external stakeholders, for example European regulation, technology and innovation, and strategic issues such as the acquisition of new subsidiaries or disposal of parts of the company. This also includes topics of regional significance. We intend to coordinate our communication activities efficiently. Therefore, the policy includes all functions, areas and units in the Group which have an interface with our stakeholders by setting out the internal roles and responsibilities.

The policy also describes how stakeholders are informed proactively about the environmental or social impacts of our projects. Besides these rather formal procedures, we implement structured dialogs with stakeholders in Power Forums, such as at our location in Datteln, Germany, where we consider their concerns. We revised our policy last year, particularly in regard to making the way in which we organize sustainability management more transparent. The new version comes into force on July 1, 2013. Moreover, we have adapted the responsibilities in the interaction between Group Management, global units and regional units in line with our new Group structure.

#### **Stakeholder Involvement in Operational Business Activities**

Stakeholder dialog is part of our day-to-day business processes. Stakeholder management coordinates contact between many E.ON functions, areas and units and the above-mentioned interest groups. We hold dialogs at different levels and as part of various formats, with our Health, Safety & Environment, Corporate Responsibility, Political Affairs, Communications, Investor Relations, Sales and Marketing, Purchasing, Business Compliance (including Corporate Governance), Licensing & Permitting as well as Human Resources (including relationships with trade unions) areas being involved the most. As part of our materiality process, selected employees from these areas regularly discuss expectations, derive common requirements for action, and implement relevant measures.

#### Stakeholder Management as a Part of Risk Management

The permission to operate our plants is not only granted by the responsible authorities. More importantly, the acceptance of society is required to build new plants and run our business – a "license to build and operate". We therefore view the cultivation and maintenance of our relationships with stakeholders as an integral part of our risk management: During the dialog, we identify potential sources of conflict, but also new business opportunities. Transparent and trusting stakeholder relationships also make long-term infrastructure investments more secure and give us agility and foresight in our strategic fields of action. Here, the many different dialogs with stakeholders in our regional units are particularly important.

#### **Local Implementation**

Typically, our regional units know the needs and requirements in their area the best. This is why they are the ideal point of contact for local stakeholders. They are also involved in regional dialog and participatory forums, for instance as part of projects for new facilities. Wider concerns, such as monitoring or the materiality process, are dealt with and further developed centrally. Group Management is responsible for dialog with stakeholders relevant to the Group. In some circumstances, global units also engage in stakeholder dialog such as when specific expertise is called for. In principle, we place a great deal of importance on transparency in the dialog with stakeholders. Moreover, through the Group-wide exchange of best practices, we are developing a common understanding of the importance and management of stakeholder dialogs.

#### **Further Expanding Stakeholder Dialogs**

Under the circumstances, we cannot always meet all competing expectations equally well; this is why we intend to further improve and expand our dialogs in the future. To achieve this, at Group level we have made it our aim in our Sustainability Work Program to focus our efforts even more strongly in future on addressing our stakeholders' expectations with the additional intention of incorporating them into our reporting and strategy development. In 2012 we held a multi-stakeholder dialog at a Power Forum in Hessen, Germany, and roughly a further 40 events in Germany as part of our E.ON in Dialog initiative.

Guided by the AA1000 standard developed by AccountAbility, we are working toward the long-term goal of anchoring its principles of:

- **Materiality** (relevance of topics to stakeholders),
- Inclusivity (inclusion of stakeholders in strategy development) and
- Responsiveness (reaction to stakeholder concerns and willingness to participate in a dialog and take action)

more firmly in our stakeholder relations.

http://www.eon.com/en/sustainability/approach/stakeholder-management.html



# In Dialog with our Stakeholders

Depending on the target group and topic, we are in dialog with our stakeholders at various levels – from providing information, through engaging in dialog, to direct involvement.

- Information: We use different platforms to reach stakeholders depending on the target group – including mobile information points, our Energy Truck and a Visitors' Center. Specific investor questions are addressed by providing sustainability indicators. We also provide information on our sustainability performance in our Investor Roadshows. In addition, our Sustainability Report offers information relevant to all target groups.
- Dialog: Our E.ON in Dialog initiative strengthens communication with decision makers from the worlds of business, politics and society. We also engage in dialog with our stakeholders through international and trans-regional initiatives. For example, we are part of a network with 33 leading global companies forming econsense Forum for Sustainable Development of German Business. We are also active in the World Business Council for Sustainable Development (WBCSD), where we are part of a multi-stakeholder process and are contributing to the development of industry-wide standards. In addition, we have our strategic approaches reviewed in our materiality process. We incorporate the results of the materiality analysis, including customer and investor-relations surveys, when developing our focus issues and goals.
- Involvement: Power forums and discussions with policymakers help to involve our stakeholders in corporate decision-making processes. One priority is the dialog in communities where new facilities are being built, e.g. onshore and offshore wind parks and solar projects.

Promoting sustainable development demands a coordinated approach by business, government and civil actors. We are actively involved in a large number of initiatives, joint projects and networks, and nurture and maintain cross-industry dialog. In the following we offer examples of our engagement.

#### **Bettercoal Initiative**

Bettercoal is an initiative established by eight leading European electric utilities which aims to continually improve sustainability in the coal supply chain, with a specific focus on the mines themselves. A host of stakeholders jointly developed a Bettercoal Code which lays down globally recognized social, environmental and ethical principles and provisions that companies will be expected to comply with. The initiative was officially established in 2012 and the way it is organized was further developed. Initial pilot audits were conducted on individual mines and a corresponding manual was further developed. Furthermore, all member companies commit their suppliers to conduct a self-assessment according to set standards. The Bettercoal Code is expected to be ratified in 2013.

# econsense – Forum for Sustainable Development of German Business

Leading global companies and organizations from German industry have joined forces under the umbrella of econsense – Forum for Sustainable Development of German Business. The network was founded in 2000 as a think-tank and central dialog platform for sustainable development. Since then we have been involved in working groups focusing on topics such as sustainability in the supply chain and assessing sustainability performance. Within the working groups we share experiences and develop joint approaches to specific sustainability issues. Our dialog makes an active contribution to shaping political and social decision-making processes: In 2011 econsense expressly welcomed the revised German Sustainability Code adopted by the Council for Sustainable Development. In addition, the network worked on new initiatives for the further development of integrated reporting.

# **Enterprise for Health**

Enterprise for Health (EfH) is a network of international companies dedicated to developing a corporate culture based on partnership as well as modern corporate health management policies. The group meets twice a year to share best practices and discuss lessons learned.

## German Sustainability Code Established through Mulit-Stakeholder Process

The capital market originally devised the German Sustainability Code, but industry and civil society representatives also quickly adopted the idea. As a result, the Code was created in a two-year process of dialog whereby we were actively involved in discussions and took part in the pilot phase of the German Sustainability Code. We announced our Declaration of Compliance with the German Sustainability Code for the first time in 2012 – meaning we provided an assurance that our processes and structures comply with the Code. In doing so, we support the German government's

declaration of intent on sustainability, and are contributing to the political discussion on non-financial reporting at a national and European level.

#### **Power Forums**

We utilize Power Forums to involve our stakeholders in corporate decision-making processes as part of power plant projects. Here, regional stakeholders engage in round table discussions with us, the power plant operator. All Forum members have the same rights and obligations. They meet several times a year and discuss the different interests. The Forums published the results of this work in press releases, in a newsletter and on their homepage. In 2012, we conducted a multi-stakeholder dialog as part of the Power Forum at our location in Datteln, Germany.

# **UN Global Compact**

The UN Global Compact is a voluntary corporate citizenship initiative led by the United Nations. In 2005, E.ON became a signatory to the Global Compact, making a commitment to the UN to comply with Ten Principles in the areas of human rights, labor standards, environmental protection and anti-corruption. Each year, E.ON issues a Communication on Progress to report on the realization of these principles. In addition, we make regular contributions by regularly attending events as a member of the Global Compact.

# **World Business Council for Sustainable Development**

The World Business Council for Sustainable Development (WBCSD) is a CEO-led international business initiative, which aims to promote responsible business practices. The initiative focuses on energy and climate protection, ecosystem protection and fostering sustainable development. E.ON has been involved in task forces such as the Greenhouse Gas Emissions Working Group, and has also worked in collaborative projects such as to develop industry standards for sustainable water management in the energy sector. By participating at various events we continually involve ourselves in the activities of the WBCSD.

# **World Energy Council and World Economic Forum**

E.ON is also involved in national and international energy initiatives such as the World Energy Council (WEC) and as a member of the World Economic Forum (WEF). Our global and regional units take an active role in additional initiatives and networks. Initiatives aligned with specific elements of our strategic sustainability approach can also be found under the relevant fields of action.

http://www.eon.com/en/sustainability/approach/stakeholder-management/stakeholder-dialog.html



# What is Relevant?

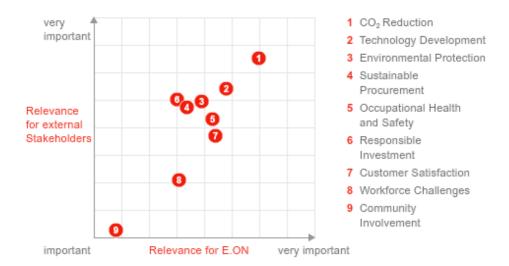
What topics are relevant, that is, material? Which path should we follow? Whose needs should we and can we take into account when addressing these issues? These are the questions we ask ourselves when developing our Sustainability Work Program and our targets. Our stakeholders have complex, partly conflicting interests. Some of these interests are consistent with our strategic approach – expanding the use of renewables generally meets with the general public's approval, for instance. Others are contradictory with that: For example, local residents are often critical of the construction of wind farms near to where they live.

#### **Regular Review of Key Issues**

Since 2006 our CR reporting has been underpinned by an annual materiality analysis. Here we evaluate reporting topics in terms of their relevance to the company and our stakeholders so we can give them corresponding weight in our reporting. We are constantly developing and refining our materiality process. For the first time at the close of 2011, we surveyed a larger group of relevant internal and external stakeholders and also included our facilities in the United Kingdom, Sweden, Benelux and Italy. In addition, we have refined our surveying methodology: Instead of the traditional ranking of topics, this time we requested an evaluation of the strategic fields of action that make up our Sustainability Work Program, as well as measures within the specific fields. This represents a quantitative and qualitative improvement in the analysis – a move away from a simple weighting of the reporting topics.

The main points of our new Sustainability Work Program 2012-2015 were also evaluated with the survey of goals and measures. The high scale values confirm the high degree of relevance of our program; however, we also plan to integrate the results into our strategic development as part of our continuous improvement process. We present the results of our materiality process in the form of a matrix which shows the relevance that each topic has for E.ON and our stakeholders.

#### Materiality Matrix 2011/2012



The topics with the highest priority for both sides are located in the upper right quarter of the matrix. Our stakeholders rated the topics on a scale of 1 (not important) to 5 (very important). CO2 Reduction, Environmental Protection and Sustainable Procurement in particular have increased in importance. Participating stakeholders assessed the fields of actions and measures separately. In the aggregate, all individual measures were ranked higher than 2.5. To present the weighted fields of action more clearly, the scale of the matrix has been adjusted to start at 3.4.

#### **Materiality Analysis 2012/2013**

Instead of conducting an external survey, in the reporting period we concentrated on utilizing the results of the previous materiality analysis to work out central topics in our sustainability strategy. At the same time, we intend to improve the associated reporting activities and improve the link between our approach to the topic of sustainability and our corporate activities. We analyzed in more detail those fields of action and topics along the value chain that were rated as important the year before. To do this, representatives from different specialist areas, who represent our stakeholder groups, shared their assessments.

We took a similar approach in previous years, but what was new this time was that we systematically included different employees in a collective process. Together, employees from the areas of Procurement, HR, Political Affairs, Communications, Strategy and Sustainability all discussed the challenges that had been identified, and then organized them by their degree of urgency. The aim was to define those topics that are relevant for us and our stakeholders in more detail, and to be more selective in deriving the action required. The following table summarizes the result of this further development. The E.ON value chain in our Sustainability Report reveals how we are meeting these challenges.

#### **Materiality Process 2012 Results**

Value Chain Level	Prioritized Challenges				
	Incorporation of environmental standards beyond Europe				
Strategic Planning	2. Balancing of climate protection and economic activities				
	3. Social acceptance of energy sector projects				
	Power supplied solely through renewables?				
Technology and Innovation	2. Solutions with added value for our customers				
	3. Smart use of conventional power plants				
	Enforcement of international standards and prevention of				
Fortentian Bossons and and	corruption in the supply chain				
Exploration, Procurement and Trading	Human rights and environmental standards in mining				
	3. Occupational health and safety and environmental protection in				
	the supply of natural gas				
	Decommissioning of fossil-fuelled power plants				
	2. Incorporation of impacts of the transformation of energy				
Generation	systems on communities				
	3. Reducing the environmental impact of generation plants				
	Problem-free electricity supply				
Distribution	2. Appropriate handling of local resistance to grid expansion				
	3. Reducing the environmental impact caused by grid expansion				
	Affordable energy for customers				
Sales and Consumption	Climate protection through innovative products and services				

The team comprising members from different functions will meet again in the fall to continue dialog and derive additional steps together. The aim is to continually further develop our systematic materiality process.

http://www.eon.com/en/sustainability/approach/stakeholder-management/materiality-analysis.html

# Foresighted and Systematic Risk Management

Operating at a global level always entails risks. Besides market developments, we are also affected by events such as the global financial crisis or the reactor accident in Fukushima, Japan – just like any other company. Megatrends such as climate change, the shortage of resources and urbanization strike at the heart of our business activities and entail risks, but at the same time they bring us new opportunities. E.ON is confronted with challenges when conducting analyses and making decisions. If we do not incorporate developments or if we evaluate them incorrectly, they may pose serious business risks. Therefore, it is critical to find strategic, conceptual and operational answers to these developments. To identify, evaluate and systematically address risks early on, we have established management and monitoring systems: These are consolidated into a standardized, Group-wide risk management system.

#### **Key Risk Categories**

Identifying risks and evaluating them in relation to their likelihood and potential amount of damage they may cause is a key task of all areas involved in the risk management process. Our risk management system meets general best practice standards in the industry and aims to enable corporate management to take suitable measures in good time. In this regard, the key risk categories are:

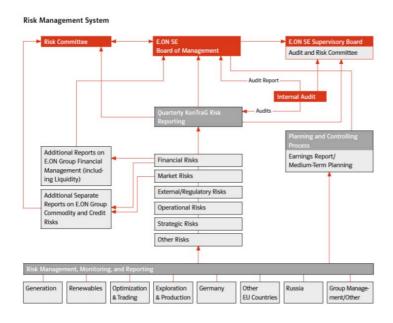
- Market and Price Risks: Our national and international electricity and gas
  business is exposed to greater competition and general economic risks.
  Furthermore, price risks also arise as gas supply prices are partly linked to the
  oil price, whereas the sales price is guided by the retail market. In our
  operational business, price risks exist with electricity, gas, coal, emissions
  rights and oil price hedging transactions.
- **Financial Risks**: Like other global companies, we are exposed to risks through exchange rate, interest rate and share price fluctuations. In addition, short and long-term investments, which we use to cover longer-term pension and asset-retirement obligations, give rise to loss-making risks.
- Strategic Risks: Our strategy incorporates acquisitions and investments in the core business as well as disinvestments, giving rise to countless risks. Among other considerations, we need to familiarize ourselves in new geographical areas and business fields with unknown sales markets and competitors.
- Operational Risks: The increase in decentralized feed-in, primarily from renewables, has led to a shift in load flows in the electricity networks. This development demands expansion of the distribution networks. There is also the risk of power failures or shutdown of power plants, for instance as a consequence of unforeseen operational problems. Production stoppages, environmental damage and problems in developing gas fields could have a considerable impact on our cost situation. Climate change has also become a key risk factor which may affect our operational activities, for instance due to a lack of rainfall, among other factors.

- External Risks: Changes in the political, legal and regulatory sphere pose a
  risk to us as soon as they lead to planning uncertainties. Examples include
  ongoing legal action and proceedings, the decision by the German
  government to exit from nuclear power, lack of clarity regarding a disposal site
  in Germany, implementation of a European directive on energy efficiency from
  2014 as well as the planned reform of the energy feed-in tariff in the United
  Kingdom.
- Reputation Risk: Discussions on nuclear power or energy prices affect the reputation of many energy utilities. In Germany, as the largest company listed on the German DAX stock exchange, E.ON is especially exposed and is always mentioned in public discussions on the supply of energy.
- IT Risks: Management of the Group is reliant on complex information technology. This gives rises to risks through unauthorized access to data, its misuse and loss.

#### **Comprehensive Risk Management System**

Our risk management system is embedded in our organizational and operational structure. As a result, it is an integral part of our business processes and corporate decisions. Our risk management system encompasses all fully consolidated E.ON Group companies, and all companies accounted for at-equity whose book value exceeds €50 million. It also includes risks relating to dam breaks as well as accidents at nuclear plants and offshore platforms.

The risk management system comprises a number of components, as the following diagram illustrates



The key components of our risk management system include Group-wide policies and reporting systems, our standardized Group-wide strategy, planning and controlling process, internal auditing activities, specific Group-wide risk reporting based on the German Corporate Sector Control and Transparency Act (KonTraG), and the creation of the Risk Committee. This committee, to which the relevant areas

and departments of E.ON SE belong, ensures the implementation of and compliance with the strategy agreed by the Board of Management in relation to the risk policy covering commodity and credit risks.

#### **Additional Risk Mitigation Measures**

We also implement additional measures to mitigate risk. These include countering market risks through extensive sales control activities, close customer management, mitigating operational risks through network management and ensuring the optimal utilization of our power plants. In addition, we have factored the operational and financial effects of environmental risks into our emergency plan. They are part of a catalog of crisis and system-failure scenarios prepared for the Group by our Incident and Crisis Management Team. Additional risk mitigation measures and the current risk situation are regularly explained in our latest Annual Report.

#### **New Risk Analysis and Reporting Methodology**

In 2013 we implemented a new, IT-based method to assess risks, named "risk2chance". It allows us to assess the impact of quantifiable risks based on their distribution, for instance standard distribution or even distribution. Using simulations, we can quantify the severity – ranging from "worst case", "likely" to "best case" – of the individual risks and the aggregate risks to the Group. Furthermore, new, additional risk categories as well as a method to classify the intensity and likelihood of non-quantifiable risks are part of the process. For the first time, these also allow us to systematically assess their potential impact on our assets, which were previously very difficult to calculate.

We successfully piloted the instrument in 2012 and rolled it out uniformly across the Group at the start of 2013. Besides the analyses, it also performs Group-wide KonTraG risk reporting whereby it stores the data and calculations in a dedicated risk register.

#### Significance of ESG Risks

Besides pure financial reporting, non-financial key figures are increasingly taking center stage in our extensive risk reporting activities. This is being reinforced by additional reporting requirements with the aim of taking a closer look at the value chain. It is often the case that non-financial risks are non quantifiable. Despite this lack of quantifiability, they can help mitigate risks to our reputation and also serve as an early warning indicator of future financial risks. When considering non-financial risks, we focus on the Environmental, Social and Governance (ESG) approach. This enables us to better incorporate environmental, social and governance aspects, and in doing so systematically close risk gaps. This covers various areas ranging from operational environmental protection, through upholding employee interests, to fighting corruption.

ESG aspects are now a key component of the assessments conducted by analysts and investors such as within the framework of the Equator Principles, a voluntary set of rules established by banks to uphold environmental and social standards in the area of project finance. The principles of the United Nations Principles for

Responsible Investment (UN PRI), an investor-led initiative in partnership with the UN environmental program UNEP and the UN Global Compact, also underscore this development. In addition, our major business customers are already making their own demands for transparency and sustainability along the supply chain. Among other reasons, this is due to the awareness that environmental and social challenges connected with value adding cannot be solved by one company alone, but only through collaboration along the supply chain.

Governments around the world are also increasingly demanding that companies measure and publish details of their environmental and social performance. Examples of this include the changes to the EU directive on the transparency of non-financial information, and the German Sustainability Code. We are aware of our stakeholders' growing awareness about the non-financial reporting of our activities. By publishing these in a transparent way, we would like to ensure our business activities gain the necessary amount of acceptance.

#### **New Policy Incorporating ESG Risks**

To better incorporate non-financial aspects, we are currently working on a new policy with which we are integrating ESG risks in a standardized and more extensive way into our Group-wide risk management system. Early identification of underestimated risks in the areas of the environment, social aspects and good governance mitigates undesirable consequences for investments or when selecting external business partners, for instance. The new policy is intended to create a uniform framework for incorporating relevant ESG criteria and lays down corresponding minimum standard for all business areas. We plan to complete the policy by the end of 2013. Following that, we will implement it in our operational business processes.

http://www.eon.com/en/sustainability/approach/risk-management.html



# Helping Create a Climate-Friendly Future

There's broad consensus among scientists that global warming must be limited to 2 degrees Centigrade to prevent potentially catastrophic changes to the earth's climate. As an energy company, we have a special responsibility to help achieve this objective. Our greenhouse-gas emissions consist primarily of carbon dioxide (CO2), which is a by-product of the combustion of fossil fuels like coal. In line with our corporate strategy, which we call "cleaner & better energy," we're developing solutions to systematically reduce our specific carbon emissions. We aim for our generation business in Europe to emit an average of less than 0.32 metric tons of CO2 per megawatt-hour (MWh) of electricity, a reduction of 50 percent from our 1990 average. In fast-growing markets outside Europe we're committed to building power plants that are cleaner than the best technology currently deployed in these markets, which will help make their power supply significantly more sustainable.

#### **Reducing our Carbon Intensity**

In 2007 we set the goal of reducing our specific carbon emissions. We monitor our 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. We also measure the E.ON Group's entire carbon footprint. We use this information to help us find ways to reduce our indirect carbon emissions as well (for example, the emissions caused by business travel, E.ON company vehicles, and the transport of coal to our power stations). As part of our 2012–2015 work program, we set the following binding targets:

#### Climate-Protection Targets

Target	Status in 2012
Halve, by 2025, the carbon intensity of our power generation in Europe from a 1990 baseline of 0.63 to 0.32 metric tons of CO₂ per MWh (owing to Germany's decision in 2011 to accelerate the phaseout of nuclear energy, our target is five instead of ten years earlier than originally planned).	We've already reduced the carbon intensity of our power generation by 30 percent from a 1990 baseline. In 2012 it was 0.44 metric tons of CO₂ pro MWh.
Increase renewables' share of our owned generation to more than 20 percent by 2020.	Renewables (including large-scale hydro) accounted for 31.8 terawatt-hours, or 12.1 percent, of our owned generation in 2012 compared with 29.6 TWh in 2011. In Germany renewables accounted for 9.1 percent of our owned generation.
Reduce, by 2020, our indirect carbon emissions (those not resulting from power generation) by 20 percent from a 2010 baseline.	This project begins in 2013.

#### **Achieving Our Targets, Earning Our Stakeholders' Trust**

As we work to decarbonize our operations, we face a number of different – and sometimes divergent – stakeholder interests, both locally and globally. We intend to achieve our targets primarily by improving the climate performance of our conventional generation portfolio and by expanding our renewables capacity. Using energy more efficiently at our facilities and reducing the carbon emissions of our vehicle fleets and business travel will also help us get there. These improvements will not only make our power generation climate-friendlier, they'll also reduce our costs and price risks. To succeed in this effort, we need the trust of our stakeholders: the people who live near our existing facilities and the sites where we intend to build new ones, our customers, our employees, policymakers, representatives of government agencies, and the general public. We're open to their ideas as well as their constructive criticism, and we try to present our point of view as comprehensibly and transparently as we can.

#### **Specialist in Efficient Project Development**

E.ON faces the challenge of creating value for our company and for society while operating in an increasingly divergent national, European, and international policy and regulatory environment. We believe that the energy system must be transformed as efficiently and cost-effectively as possible. We believe that the only way to ensure that the energy supply is reliable and affordable is for the energy system to be transformed as efficiently and cost-effectively as possible. Our renewables business is already doing this successfully. It generated a significant share – 13 percent – of our consolidated earnings in 2012. We specialize in developing renewables projects efficiently, which has made us a world leader in asset availability and cost reduction. The marketing of distributed generating units is a business in which we still need to

grow. We've formed a company for this purpose and will be expanding our activities in 2013.

http://www.eon.com/en/sustainability/environment/climate-protection.html

# A Stable Investment Climate for Climate Protection

The European Union aims to reduce its greenhouse-gas (GHG) emissions by 80 to 95 percent by 2050 compared with a 1990 baseline. In 2009 E.ON and other European energy companies pledged that 95 percent of the electricity they supply will be zero carbon by 2050. To be politically and financially viable, the strategies for achieving these objectives require a stable investment climate. Such strategies will involve capital-intensive assets with operating lives lasting several decades. To have the confidence to build such assets, energy companies like E.ON need a consistent, predictable policy and regulatory environment. This is absolutely essential if we are to do our part to help transform Germany's energy system and to help Europe achieve its climate-protection targets for 2050, while at the same time ensuring supply security at affordable prices. In our opinion, the current investment climate isn't sufficiently stable.

### **Factoring Climate Protection into Our Decisions**

Two factors are of decisive importance when we make decisions about deploying our existing generation assets and investing in new ones: economic considerations in light of our climate-protection targets and our expectations for future policy and regulatory developments. The EU Emissions Trading Scheme (ETS) was designed to play an important role in the formation of energy prices in Europe. We treat carbon emissions as a factor of production which we continually try to use more efficiently, just as we do with other factors of production like capital and fuel. To assist us in our decision-making, we design a range of scenarios reflecting assumptions about carbon prices (for example, that carbon allowances may become more scarce, resulting in higher carbon prices) and other future developments in energy markets. In this way, climate protection is factored into our long-term planning, investment decisions, and risk management.

As required by European law, E.ON has participated in the ETS since 2005. The ETS has several important advantages: it's simple, transnational, market-based, and can easily be extended to new countries and industries. At this time, however, the ETS isn't performing its intended function. Because too many EUAs are in circulation, EUA prices are too low to create incentives to invest in climate-friendly technology. The ETS was originally intended to result in carbon prices of about EUR 30 per metric ton by 2020. Current EUA prices are just 10 percent of this figure.

There are three main reasons for low EUA prices. First, economic stagnation has resulted in lower GHG emissions than anticipated. Second, the growth in renewables capacity has exceeded expectations. Third, energy efficiency has improved, in part because of an EU directive which prescribes an energy-efficiency management system.

#### **Received EU Carbon Allowances**

Under the national allocation plans of the EU countries in which we operate, in 2012 we received EUAs equal to 83.5 million metric tons of CO2. Our carbon emissions from power and heat generation at plants covered by the ETS were about 5.5 million metric tons higher than the EUAs we received.

#### Received EU Carbon Allowances to E.ON Group<sup>1</sup>

Million metric tons	2012	2011	2010	2009	2008²
Carbon Allowances	83.45	80.7	75.1	77.6	78.5
Carbon Emissions	88.96	88.5	85.4	84.7	80.2

<sup>1)</sup> Russia is not covered by the EU Emissions Trading Scheme.

We created the E.ON Competence Service Center CO2 to serve as our central entity for collecting and managing data relating to carbon emissions and EUAs. This will improve the quality of our planning and make our participation in the ETS more efficient. In 2012 we rolled out a new software package for our ETS trading activities; the software can also support trading in other types of emission certificates.

#### **Revitalizing the ETS**

For Europe to reach its climate-protection targets, we believe it's urgent to revitalize the ETS. In February 2013 we joined five other large German companies in signing a declaration, sponsored by environmental group Germanwatch, calling on the German federal government to support the European Commission's proposal to withdraw 900 million metric tons of EUAs from the market. A total of 30 companies across Europe signed the declaration. Temporarily removing surplus EUAs from circulation (by means of a process called "backloading") would lead to higher carbon prices, which would create incentives to invest in climate protection.

#### **More Ambitious European Climate-Protection Targets**

We also believe that the European Union's climate-protection targets aren't ambitious enough. We therefore advocate that the overall GHG emission reduction target be increased to 30 percent by 2020 and for plants covered by the ETS to reduce their carbon emissions by 50 by 2030. In our opinion, setting more ambitious climate-protection targets is an essential precondition for the ETS to function properly again and to send price signals that promote the transformation of Europe's energy system. We also call for an EU-wide harmonization of renewables subsidy schemes, which currently vary considerably by country. These steps would create a stable environment for investments in decarbonization and new technology that would help Europe reach its climate-protection targets for 2050.

#### **Support for International Climate Treaty**

<sup>2) 2008</sup> figures have been adjusted in 2009 due to changes in the consolidation basis.

We follow the debate about the United Nations Framework Convention on Climate Change (UNFCCC) and participate in it actively through industry associations of which we are members. We support a global climate treaty and call on governments to look beyond their national interests to develop a joint solution for the global challenge of climate change.

#### Participation in U.S. Carbon Market

Regardless of the progress of the UNFCCC, we're already active internationally in carbon trading. E.ON Global Commodities, our energy-trading arm, is now active in the United States, where it trades a number of carbon certificates, including Regional Greenhouse Gas Initiative Allowances and Climate Reserve Tons. This enables us to monitor developments in the U.S. carbon market, assess their consequences for Europe, minimize risks, and take advantage of new trading opportunities.

#### **Project-Based Mechanisms**

We earn certificates called Certified Emission Reductions (CERs) through two project-based mechanisms (Joint Implementation and Clean Development Mechanism) included in the Kyoto Protocol. In 2012 the number of CERs we earned declined relative to 2011. Emitters in the EU can use CERs through 2020 to meet their reduction targets. In addition, in line with our corporate strategy ("cleaner & better energy"), we help reduce carbon intensity in Russia and Turkey by investing in projects to build renewables capacity and higher-efficiency conventional capacity.

 $\underline{\text{http://www.eon.com/en/sustainability/environment/climate-protection/climate-policies-and-emissions-trading.html}}$ 

# **Energy Mix and Decarbonization**

When planning the energy mix of our future generation portfolio, we try to achieve a balance between cost-effectiveness, supply security, and climate protection. We're convinced that only a balance energy mix will enable us to successfully address all future challenges. To plan for the future, it's important for us to know how much power we produce using each of the technologies in our current portfolio.

#### **Energy Mix of Our Owned Generation**

We adjust the composition of our generation portfolio to respond to changes in its business environment. In recent years, for example, renewables have accounted for an increasing share of our owned generation.

✓ Reviewed 2012			
Energy mix of Electricity Generated			
in %	2012	2011	2010
Lignite	6	6	5
Hard coal	26	23	23
Nuclear	22	23-	26
Gas/Oil	34	38	35
Hydro	7	6	6
Wind	4	3	3
Others (Renewables including waste)	1	1	2

<sup>1)</sup> Adjusted for discontinued operations.

Total

#### **Integrating Renewables into the Power System**

Wind and solar power account for an increasing share of the energy mix. This is helping to reduce carbon emissions but is also causing the power system in Germany and some other countries to be more unstable. To ensure that power supply remains affordable and reliable, we continue to operate conventional power plants. Large-scale energy storage systems would also help enhance the reliability of the power system. E.ON believes that maintaining a broad and balanced mix of different generation technologies is the best way for Germany to transform its energy system as efficiently and cost-effectively as possible.

100

100

100

The output of wind and solar facilities fluctuates, sometimes dramatically. These fluctuations must be balanced out by energy-storage devices and by other generation resources, particularly those that can ramp up and ramp down on short notice. Gasfired power plants are especially well-suited to this role. They provide intermediate-load and peakload power and emit less CO2 than other fossil-fueled power plants. Low carbon prices, however, are currently rendering this advantage void with the

result that more power is being generated in coal-fired plants. Particularly in Germany, gas-fired plants are no longer profitable to operate because they're producing power too few hours to earn a return on the capital invested to build them.

Pumped-storage hydroelectric stations are capable of efficiently storing a large quantity of electricity and releasing it when needed to meet spikes in load or to respond to fluctuations in renewables output. Another technology called power-to-gas makes it possible to use surplus renewables output to produce hydrogen which can be piped can be fed into the gas pipeline system. The batteries of electric vehicles could, in the future, constitute a huge distributed energy storage system.

#### **Adjusting Our Generation Portfolio in Europe**

Only profitable power plants are sustainable. Owing to the collapse of carbon prices and the other developments described above, however, gas-fired plants are often no longer profitable to operate. We're responding by achieving further cost reductions and efficiency enhancements that will rapidly improve the competitiveness of our conventional generation fleet. We also plan to decommission or mothball roughly 30 generating units – an aggregate 11 gigawatts (GW) of capacity – in Europe by 2015. These units emitted 17 million metric tons of CO2 in 2012. At the same time we invested 1629 million EUR in renewable energies – the triple of our spending in other generation technologies.

#### **Growing outside Europe**

Unlike Europe, many other parts of the world need to build lots of new generating capacity. We're meeting this need by building conventional and renewables capacity in a number of fast-growing markets outside Europe, where we provide solutions that significantly improve the energy supply. In North America we rank among the leading wind-farm operators. In Russia we've commissioned several high-efficiency combined-cycle gas turbines in recent years. In 2012 our carbon emissions in the United States and Russia were a total of 11.4 million metric tons below those of the average power producer in these countries. Alongside our successful businesses in North America and Russia, Brazil and Turkey are our next growth markets.

#### Owned Generation and Carbon Emissions outside Europe

	Owned generation	Average carbon intensity for entire country'	Emissions if E.ON's output had been produced by average generator	Emissions E.ON 2012	Savings 2012	
-	in TVVh	in g/k/Vh	in million metric tons of COz	in million metric tons of CO <sub>2</sub>	in million metric tons of CO <sub>2</sub>	
USA	6.9	528	3.6	0.0	3.6	
Russia	64.2	684	43.9	36.1	7.8	

<sup>1)</sup> Source IEA Publication "CO<sub>2</sub> Emissions From Fuel Combustion – Highlights (2012 Edition)"

# **Expanding Our Renewables Capacity**

To significantly reduce our carbon emissions, over the next five years we're investing at least EUR 7 million wind, hydro, solar, biomass, and other renewables. This is roughly the same amount we invested in renewables during the previous five years. Our subsidiary E.ON Climate & Renewables manages the global expansion of our renewables business. We aim for renewables to produce 20 percent our power by 2020. In 2013 alone, our installed renewables capacity (excluding large-scale hydro) will increase from 3.6 to 5.5 GW, which is 400 percent more than we had five years ago. At year-end 2012 our renewables capacity including large-scale hydro totaled more than 10.3 GW. By taking an industrial-scale approach, we also aim to achieve significant reductions in the cost of building new assets. This will make renewables more competitive and, in line with our cleaner & better energy strategy, create value for our company. By 2015 we intend to reduce capital expenditures per MW of new capacity by 25 percent for onshore wind, 40 percent for offshore wind, and 35 for photovoltaic.

#### **Growth Offshore**

Building and operating offshore wind farms – particularly deepwater farms located many kilometers from the coast – presents a considerable technical challenge. E.ON is a global leader in offshore wind. On our own and with partners, we've built six offshore wind farms in the North, Baltic, and Irish Seas. We believe offshore wind has a lot of potential and plan to invest considerably more in it than in onshore wind. At year-end 2012 we had 451 MW of offshore capacity, about the same as at year-end 2011. The connection of some new farms has been delayed by supply difficulties and the local network operator's substantial liability risk. Nevertheless, we stand by our objective of commissioning a new offshore wind farm roughly every 18 months. E.ON owns a 30-percent stake in London Array wind farm in the outer Thames Estuary, which is one of the world's largest offshore farms. Phase 1 of London Array was completed in December 2012, and the farm's 360 MW of capacity is now fully operational. Together with partners we plan to build three more large offshore wind farms in the North and Baltic Seas. One of them is Kårehamn wind farm in Sweden, which is scheduled to enter service in 2013.

In April 2012 we reached another milestone in the development of Amrumbank West wind farm when we signed a leasing agreement for the use of land on the island of Helgoland, which we plan to use as a maintenance base. Amrumbank West will be located roughly 35 kilometers northwest of Helgoland and consist of 80 wind turbines with a total capacity of 288 MW. It will be able to power up to 300,000 households and will displace more than 740,000 metric tons of CO2 annually. E.ON is the sole owner of Amrumbank West and plans to invest about EUR 1 million in the project. Construction is scheduled to begin at the end of 2013. The wind farm is expected to enter service in the first quarter of 2015.

#### **Growth Onshore**

In less than five years E.ON has become one of the world's top ten wind farm operators. At year-end 2012 we had about 4 GW of onshore wind capacity, just under 0.6 GW more than at year-end 2011. Three new wind farms in Texas and Indiana commissioned in 2012 accounted for 0.5 GW of the increase. In October 2012 we sold a 50-percent stake in three wind farms in the United States to a Danish pension fund. We retained a significant stake in, and operational control of, the farms, which produce enough power for 120,000 households. Although the sale reduces renewables' share of our generational portfolio, it improves our ability to deliver our pipeline of renewables projects, thereby contributing to the transformation of the energy system. The sale is also in line with our strategy of creating more value from less capital. Onshore wind will continue to account for a significant share of renewables growth worldwide. We intend to expand our onshore capacity by about 0.6 GW per year.

#### **Innovative Approaches to Biomethane Production**

Once upgraded to pipeline quality, biomethane can be transported safely in the natural gas system. E.ON is actively involved in developing this market segment, primarily in Germany and Sweden. In September 2012 a new biomethane plant entered service in Wolnzach in southeast Germany. It's the first in the world to use hops residue, a by-product of the brewing industry, to generate biomethane. Because the process uses a by-product, no additional hops production is necessary. E.ON planned and built the state-of-the-art plant, which is operated by Bioerdgas Hallertau, a joint venture of E.ON Bioerdgas and other partners. Investments in the project totaled about EUR 20 million. The plant produces about 1,000 cubic meters of biomethane per hour, which is enough to meet the gas needs of about 5,000 households. The residue of the fermentation process is captured and used as a fertilizer in hops and other agricultural production. A lack of investment incentives make the further expansion of biomethane production capacity difficult.

#### **Solar Power**

Sunlight can be transformed into electricity directly by means of photovoltaic (PV) cells or indirectly by means of concentrated solar power (CSP). CSP plants use mirrors to concentrate sunlight to heat a liquid, producing steam to drive a turbine and generator. We have a 50-percent stake in Helioenergy, a CSP plant in Algeciras, Spain. Our CSP strategy focuses on gaining experience from Helioenergy and sharing knowledge with other project developers. PV, by contrast, is a growth market for us. At year-end 2012 we had more than 57 MW of installed PV and CSP capacity. We aim to commission 120 MW of new solar capacity each year, primarily in Southern Europe. Our pipeline includes about 600 MW of capacity in Italy and France. We intend to reduce the specific costs of building solar assets by 35 percent by 2015 and to achieve the same degree of industrialization we do in our wind power business. For example, we can achieve substantial savings in the time and costs of development and construction by adding PV arrays to an existing wind farm.

**Enhancing Efficiency and Flexibility in Conventional Generation** 

Although renewables are growth business, our generation portfolio still contains fossil-fueled assets. Enhancing their efficiency and operational flexibility is a top priority, since it will reduce costs and carbon emissions. Our Generational global unit works continually to develop and implement new improvement measures.

#### **Improving Our Existing Assets**

In 2012 we invested about EUR 1.6 billion to improve our existing conventional assets. We invested EUR 42 million to research and develop conventional generation technology. The average fuel efficiency of our coal-fired and gas-fired power plants is currently 39 percent, which surpasses both the European (36 percent) and global (30 percent) average. Our focus in Europe is to optimize asset performance and improve profitability. Our aim is to increase our conventional assets' operational flexibility so that they can serve as reserve capacity, both of which enhance the reliability of the power supply.

#### **Co-firing Biomass**

To improve the climate performance of our coal-fired power stations, we've begun to co-fire biomass or to fully convert some assets to biomass. For example, we're converting generating units in France, Belgium, and the United Kingdom to burn wood pellets instead of coal. Both 370 MW units at Ironbridge power station have operated using wood pellets since the start of 2013. This important test will provide us with insight that we can use for future biomass conversion projects. Depending on the generating unit, conversion to biomass enables us to displace carbon emissions around 80 percent compared with coal. We're conducting lifecycle analyses to monitor the climate performance of converted assets.

#### **Pilot Carbon-Capture Unit**

As part of our climate strategy, we're also exploring options for making coal-fired power stations climate-friendlier by retrofitting them with carbon capture and storage (CCS) technology. In 2012 we began testing a new CCS pilot unit at a coal-fired power station in Wilhelmshaven, Germany. The project's main purpose is to further refine the capture process, which is based on.

#### **Withdrawal from Nuclear-Power Projects**

Following a comprehensive strategic reevaluation, in March 2012 we decided to sell our stake in Horizon Nuclear Power, a joint venture formed to develop nuclear power plants (NPPs) in the United Kingdom. Instead, we plan to focus our U.K. investments on strategic projects that deliver benefits for customers and our company in the near term. These include investments in renewables, distributed generation, and energy efficiency. We also owned a 34-percent stake in a project to develop an NPP in Finland. The project, called Fennovoima, is at an early stage. As part of a strategic reorientation, E.ON Sverige decided to focus more on its operations in Scandinavia and therefore to sell its assets in Finland, including Fennovoima.

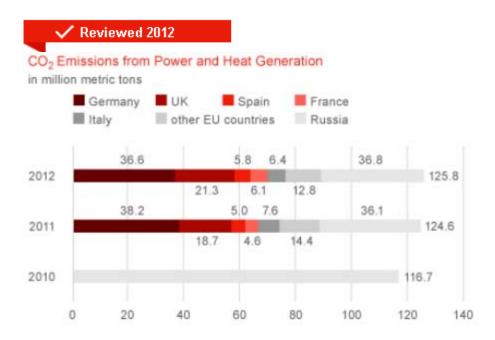
 $\underline{\text{http://www.eon.com/en/sustainability/environment/climate-protection/energy-mix-and-carbon-reduction.html}$ 

# Promoting Climate Protection through Transparency

Transparent reporting is an essential part of our climate strategy. We've participated in the Carbon Disclosure Project since 2004 by publishing our annual carbon emissions from power generation. We're reported our carbon intensity, a key metric for our decarbonization effort, since 2005 and our total carbon footprint since 2010.

#### Carbon Emissions from Power and Heat Generation

Anthropogenic carbon emissions are responsible for most of global warming and are by far the most important greenhouse gas (GHG) emissions in power generation. Other GHGs like sulfur hexafluoride (SF6) and methane (CH4) play a less significant role, as do indirect carbon emissions.



E.ON emitted nearly 125.8 million metric tons of CO2 from power and heat generation in 2012, 1.2 million metric tons more than in 2011. There were two reasons for the increase. First, the government-mandated closure of some of our nuclear power stations in Germany in 2011, which eliminated a portion of our carbon-free generating capacity, impacted our carbon performance for all of 2012. Second, coal and carbon prices were low, which favored coal-fired generation. E.ON emitted approximately 89 million metric tons of CO2 in Europe, roughly the same as in 2011.

#### **Carbon Intensity**

Our main carbon-reduction target is to halve the carbon intensity of our power generation business in Europe by 2025 compared with a 1990 baseline.

#### Reviewed 2012

#### E.ON Group Carbon Intensity<sup>1</sup>

in metric tons of CO₂ per MWh	1990	2010	2011	2012
Germany	-	0.32	0.38	0.38
United Kingdom	-	0.66	0.62	0.68
Spain	-	0.51	0.55	0.64
France	-	0.81	0.71	0.82
Italy	-	0.41	0.45	0.48
Other EU countries	-	0.27	0.26	0.27
E.ON Group (Europe only) <sup>2</sup>	0.63	0.39	0.41	0.44
Russia	0.62	0.56	0.56	0.56
E.ON Group <sup>3</sup>	0.66	0.42	0.43	0.46

<sup>1)</sup> Specific carbon emissions are defined as the amount of CO<sub>2</sub> emitted for each MWh of electricity generated.

Our carbon intensity rose from 0.43 metric tons of CO2 per MWh of electricity generation to 0.46 metric tons in 2012. In Europe it rose from 0.41 to 0.44 metric tons. The increase resulted from the same market factors that affected our total carbon emissions. Our carbon intensity in 2012 was 30 percent below our 1990 baseline.

### **Carbon Footprint**

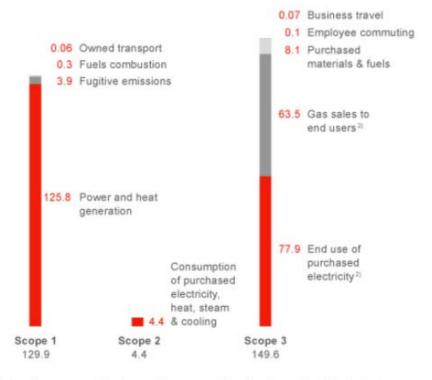
Along with the carbon emissions from power and heat generation, we also measure our total carbon footprint, which extends from our suppliers to our end-customers. To make these complex calculations, we use the internationally recognized WRI/WBCSD Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

<sup>2)</sup> Includes renewables generation in Europe.

<sup>3)</sup> Includes renewables generation outside Europe (wind power in the United States).

#### Carbon Footprint<sup>1)</sup>

Total CO2-equivalents in million metric tons



- Emissions from power and heat generation, consumption of purchased electricity, heat, steam
  and cooling as well as end use of purchased electricity and gas sales to end users were verified
  by PricewaterhouseCoopers (PwC), totaling 95.6 % (217.5 million tons CO<sub>2</sub>) of the E.ON carbon
  footprint 2012.
- 2) Figures include private, business and industrial customers.

Scope 1 consists of emissions from our own facilities and plants, such as the emissions resulting from power generation. It accounts for the majority of our carbon emissions. Increases are often the result of growth-driven increases in power demand and/or price developments. In 2012 our carbon emissions from power and heat generation rose slightly to 129.9 million metric tons (2011: 129.3 million metric tons). This increase also resulted from the above-described market factors.

Scope 2 consists of emissions that we can influence indirectly, such as those that result from the production of electricity we purchase to run our facilities, from the generation of heat and steam, and from losses in the transportation of natural gas. In 2012 our scope 2 carbon emissions fell to 4.4 million metric tons (2011: 5.3 million metric tons). Because we're enhancing the efficiency of our assets and expanding our renewables production, we expect our scope 2 emissions to decline further.

Scope 3 consists of all other indirect emissions resulting from our business activities: those from our supply chain, business travel, and from electricity and gas that customers purchase from us and consume themselves. The latter account for the majority of our scope 3 emissions, which is why we're developing new products and services in energy efficiency and distributed generation. In 2012 our scope 3 carbon emissions fell to 149.6 million metric tons (2011: 154.7 million metric tons).

#### **Carbon Reporting for Investors**

On behalf of more than 600 institutional investors, the Carbon Disclosure Project (CDP) publishes the CDP Global 500 Report, an annual report on carbon emissions, climate risks, and emission-reduction targets. The CDP has the world's largest database of climate and emissions data. CDP also uses a hundred-point scale to rate companies and organizations on the transparency and thoroughness of their carbon reporting. In 2012 E.ON received a rating of 78 points (2011: 80 points). We also participate in five other investor ratings and rankings in which we provide comprehensive reports on our carbon emissions, strategy, and reduction plans.

#### **Improving Reporting Standards**

We're actively involved in a number of multi-stakeholder working groups, including the World Business Council for Sustainable Development's Greenhouse Gas Protocol Working Group. Our aim is to help improve the standards by which companies and their stakeholders (such as investors) calculate greenhouse-gas emissions und use these data.

http://www.eon.com/en/sustainability/environment/climate-protection/carbon-reporting.html



# Helping Build a New Energy System

Global trends like climate change, urbanization, and energy-market restructuring are fundamentally transforming the energy-supply landscape. Each stage of this transformation will present new challenges but also new opportunities. The transformation won't succeed without innovative technologies and solutions. We're confident that they'll be developed. And our Technology and Innovation (T&I) department is helping to make it happen. It's too early to say exactly what tomorrow's energy world will look like. That's why we try to recognize emerging technologies early and draw on them to design energy solutions that are both sustainable and commercially viable.

# **Closely Aligned with Our Corporate Strategy**

In line with our corporate strategy ("cleaner & better energy"), our T&I activities focus on three types of energy generation: conventional, renewable, and distributed. We conduct flagship projects to spur the development of specific technologies in each of these areas.

Our T&I activities are guided by a number of key assumptions:

T&I Focus	
Key Assumptions	T&I Activities (2012)
Renewables growth is transforming the power-generation landscape.	<ul> <li>optimize our existing renewables assets,     particularly offshore wind (examples: preventive     diagnostics for turbine gearboxes, new types of     foundations for turbine towers)</li> <li>study the potential of new technologies     (examples: wave, photovoltaic, biomass)</li> </ul>
Conventional power generation will become less prevalent and will need to achieve greater operational flexibility	the ramp-up times and minimum load factors) of

•	study the feasibility of retrofitting combined-cycle
	gas turbines (CCGTs) to burn climate-neutral or
	low-emission fuels (biomethane, hydrogen)

Transportation and space-heating are trending toward low-carbon solutions.

- evaluate a range of e-mobility solutions and conduct demonstration projects
- refine gas heat-pump technologies

Distributed generation will play an increasingly important role.

- improve combined-heat-and-power (CHP)
  technologies (fuel cells and other micro CHP
  units) that enable end-users to generate their own
  low-carbon energy, in some cases using
  renewable fuels
- enhance the efficiency and reduce the production costs of photovoltaic technology

Energy-distribution infrastructure will become more integrated and incorporate more information and communications technology.

- evaluate opportunities for using IT to enhance the efficiency of existing assets and to lay the foundation for a smart energy world
- further develop smart metering, optimize facility management and data gathering

Energy generation and consumption will be more closely calibrated.

- increase active use of energy-storage technologies (examples: batteries, power to gas, compressed air, and thermal)
- make networks smarter and more flexible so that they can support a distributed energy system
- use the flexibility potential of the local energy system (distributed generation, power and gas storage) to adjust output more closely to demand and develop smart home solutions utilizing real-time monitoring and remote control
- continue the rollout of smart meters and promote standardization



Reviewed 2012

# Research and Development (R&D) Expenditures

We enhance our ability to succeed in growth businesses like renewables and distributed generation by investing in R&D and demonstration projects and by funding university research. The projects supported by these expenditures yield results that also help us make our existing operations more efficient. 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 that continued in 2012: we invested EUR 144 million in R&D, 34 percent more than in 2011.

#### **Technology and Innovation**

Total	144	107
Demonstration projects University support	8	8
Other	28	18
R&D Technology	108 <sup>1)</sup>	81 <sup>1)</sup>
DOD		
€in millions	2012	2011

<sup>1)</sup> R&D expenses pursuant to IAS 38 (EUR 59 million; see Note 14 to the Consolidated Financial Statements of the 2012 E.ON Annual Report) plus other projects that are part of our R&D effort.

The subpages on renewables, conventional generation, infrastructure, and retail/enduser contain further information about our investments in these areas totaling 122 million EUR in 2012. E.ON spent further 22 Mio EUR on cross-technology projects. In the years ahead we plan to maintain our R&D expenditures at least the current level.

#### **E.ON Innovation Centers**

In 2011 we created a new division at Group Management – Technology and Innovation (T&I) – to address the many different aspects of tomorrow's energy world. T&I manages our relationships with research institutes, universities, and technology firms around the world and coordinates our innovation network. It also guides the activities of the 14 E.ON Innovation Centers (EICs), which are embedded in our existing businesses. The mission of each EIC is to integrate cutting-edge technologies of its particular area into our value-creation processes.



Our EICs belong to one of five technology areas: renewables, conventional generation, infrastructure, retail/end-use, and energy intelligence/energy systems. The metering technology of the smart energy world will generate a wealth of data about energy production and consumption at our customers' homes and businesses.

In 2012 we created a new EIC called Smart Energy Systems whose mission is to use these data to provide value-adding services while at the same time respecting our customers' privacy. For example, if a refrigerator consumes significantly more power, it may be nearing the end of its useful life. E.ON could, if customers want this service, inform them when an appliance begins to use more power and also provide them with advice about choosing an energy-smart model as a replacement.

## **Scouting Out New Trends**

It's important for our company to detect technology trends early and to develop new, pioneering business models. In early 2011 we created a new role at T&I to support us in this effort: technology scouts. Their responsibilities also include safeguarding E.ON's patents and other intellectual property, serving as our interface with research institutes and other technology organizations, and identifying investment opportunities. In September 2012 the E.ON Board of Management empowered T&I to make strategic co-investments in startup companies so that E.ON can benefit directly from their innovative business models and products. Each year we plan to invest in several new startups (somewhere between one and nine) that fit with our strategic ambitions. Each year T&I also assigns flagship status to two projects within our company that have the potential to become new and innovative businesses in which we would have a competitive advantage. The flagship projects for 2012 were Smart Energy and Dismantling Nuclear Power Stations.

http://www.eon.com/en/sustainability/environment/technology-development.html

# Making Renewables More Efficient and Competitive

The purpose of our renewables R&D is to optimize our existing assets and to realize the untapped potential of new technologies like wave and solar energy. We focus on selected R&D topics, which include improving wind-power technology, particularly for offshore applications. We also conduct R&D to develop new hydro technologies, derive more energy from biomass, enhance the competitiveness of photovoltaic (PV) panels, and deepen our expertise in concentrated solar power (CHP).

# Rising Investments in Renewables R&D

Our expenditures for renewables R&D, which have increased modestly but steadily in recent years, totaled EUR 15 million in 2012 and comprised 10 percent of our R&D budget. In prior years these expenditures were allocated across a broad range of technologies. Although we still conduct important R&D in areas like marine energy and CHP, in 2012 we set clear priorities and targeted our expenditures accordingly. As a result, our renewables R&D focused primarily on demonstration projects for PV and wind farms. Going forward we intend to continue to adopt this more focused approach.

#### **R&D** Expenditure Renewables

	2012	2011	2010	
Expenditures (€ in millions)	15	13	14	
Share of R&D budget	10%	12%	15%	

# **Selected Projects from 2012**

In this section we present just some of the renewables R&D projects we initiated or conducted in 2012. Each of these projects promotes sustainability by reducing carbon emissions and the environmental or social impact of power generation. You'll find information about other T&I projects at eon.com/innovation.

#### **Offshore Wind**

Improving offshore wind technology, including technology for maintenance and repair, is one of our top R&D priorities. For example, we're developing predictive diagnostic software that calculates the likelihood that a wind-turbine gearbox will break down over certain period of time. We can use this information to conduct preventive maintenance. At just two of our offshore wind farms (Scroby Sands and Robin Rigg in the United Kingdom), predictive diagnostics could deliver millions of euros in cost savings. It will also enhance safety for maintenance crews, who can perform preventive maintenance during periods of calm weather instead of having to repair a broken gearbox when seas may be rough.

We began testing a new, cost-effective process for preventing seabed erosion near the monopile foundations of turbine towers. This process would further minimize the impact of our offshore wind farms on the marine ecosystem. It could also be used to prevent erosion around other underwater components likes cables. Starting in 2015, we plan to invest about EUR 20 million per offshore wind farm to improve foundation technology.

In 2012 we conducted successful tests of a new system for transferring personnel and equipment to and from offshore wind turbines. The system consists of a hydraulic, motion-compensated gangway mounted on the bow of a workboat that maintains its position even in rolling seas. This innovative technology improves safety for maintenance crews and increases the availability (and thus the profitability) of our wind farms.

# **Hydro**

Our hydro R&D aims not only to improve our existing assets and evaluate new technology but also to protect biodiversity. One example is a project in which we're assessing the feasibility of building small-scale, damless hydro units – known in the industry as very-low-head (VLH) units – on rivers that have a small change in elevation. VLH units are particularly suitable for environmentally sensitive sites where dams or other structures would interfere with fish habitats and movements.

#### **Biomass**

Our biomass R&D focuses in particular on improving energy density. Wood, grass, and other biomass fuels can contain up to 50 percent water. The greater a fuel's moisture content, the more of it needs to be burned to yield a given amount of energy, which, in turn, results in higher emissions. Excess water weight also increases the cost of transporting biomass. In 2012 we tested a procedure for increasing the energy density of biomass, which will reduce both carbon emissions and transport costs.

In 2012 we also took numerous measurements to study the methane emissions from one of our biomethane plants. The data show that these emissions are smaller than previously assumed.

http://www.eon.com/en/sustainability/environment/technology-development/renewable-energies.html

# **Higher Efficiency, Lower Emissions**

Our R&D in this area aims to test and perfect technology that will increase the fuel efficiency and operational flexibility and reduce the emissions of our various types of conventional power stations. This includes developing technology to capture and store carbon. In addition, we're designing even safer solutions for decommissioning and dismantling nuclear power stations.

# **Smaller Share of R&D Budget for Conventional Generation**

Although R&D expenditures for conventional generation rose slightly to EUR 42 million in 2012, their share of our R&D budget declined considerably (from 37 to 29 percent). R&D in 2011 focused primarily on increasing the fuel efficiency of new power plants, whereas in 2012 it focused on optimizing existing plants. One key aim of our research is to improve monitoring technology, which will enable us to increase asset flexibility and reduce operating costs. We anticipate that in the years ahead conventional power plants will have to further improve their performance in terms of operational flexibility, fuel efficiency, and emissions.

## **R&D Expenditures Conventional Generation**

	2012	2011	2010	
Expenditures (€ in millions)	42	40	38	
Share of R&D budget	29%	37%	58%	

#### **Selected Projects from 2012**

In this section we present just some of the R&D projects in conventional generation we initiated or conducted in 2012. Each of these projects promotes sustainability by reducing carbon emissions and the environmental or social impact of power generation. You'll find information about other T&I projects at eon.com/innovation.

# **Increasing Operational Flexibility**

As installed renewables capacity increases, conventional power stations will need to operate more flexibly in order to maintain power-system stability during periods of peak demand or when wind and solar output fluctuates. We're developing new procedures to make this possible and testing them at our power stations. These procedures will enable us to reduce ramp-up times and to operate assets stably at 20 percent or less of their normal load factors. This capability would give us a competitive advantage, particularly in grid segments where renewables output is very high and only a small amount of load needs to be covered by conventional resources.

We're conducting other R&D projects aimed at extending our assets' operating lives and reducing downtime, which could deliver savings of millions of euros per power

station. We're also determining whether mathematical simulations can be used to make equipment tests more cost-efficient.

# **Reducing Emissions**

Emissions from coal-fired power stations are responsible for a large share of several airborne pollutants, including nitrous and sulfur oxides. That's why we're conducting R&D to make scrubbers and other emission-abatement equipment even more effective. At one of our power stations we're also developing a new process for capturing mercury from the exhaust stream. We intend to deploy this process at other power stations so that we can comply with stricter EU mercury-emission limits which take effect in 2016.

In partnership with the University of Stuttgart, we conducted a project to identify a material that could protect a power station's catalytic converters from being damaged when biomass is co-fired with coal. Maximizing co-firing opportunities is attractive because the carbon emissions from biomass are climate-neutral.

# **Dismantling Nuclear Power Plants (NPPs)**

Many countries are looking for ways to make the decommissioning and dismantling of NPPs as safe as possible. We addressed this issue early and have already gathered extensive experience from the dismantling of two NPPs in Germany (Würgassen and Stade). In collaboration with the Nuclear business unit, our T&I division at Group Management is drawing on this experience to make solutions and processes even safer. In 2012 we assigned NPP dismantling the status of a flagship project, which means it has the potential to become a business in which we have a competitive advantage.

 $\underline{\text{http://www.eon.com/en/sustainability/environment/technology-development/conventional-generation.html}$ 

# **A Smarter Future**

Our infrastructure R&D focuses primarily on smart grids and energy storage, in particular on achieving advances in smart metering and improving devices (like large-scale batteries) for storing electrical energy. We also conduct research in other storage technology, including power to gas, compressed air, and thermal, the latter of which is especially relevant for combined-heat-and-power applications.

# **Infrastructure R&D Trends Significantly Higher**

Although our 2012 infrastructure R&D expenditures of EUR 24 million were down slightly year on year, they were triple the figure for 2010. Their share of our R&D budget nearly doubled over this period, rising from 9 percent to 17 percent. Our R&D for distribution networks continued to focus on smart technology that will improve our networks' ability to handle greater amounts of renewable-source electricity. In energy storage, we launched several demonstration projects. Going forward, our infrastructure R&D will continue to focus on smart grids and energy storage.

#### **R&D Expenditures Infrastructure**

	2012	2011	2010	
Expenditures (€ in millions)	24	26	8	
Share of R&D budget	17%	24%	9%	

# **Selected Projects from 2012**

In this section we present just some of the infrastructure R&D projects we initiated or conducted in 2012. Each of these projects promotes sustainability by reducing carbon emissions and the environmental or social impact of power generation. You'll find information about other T&I projects at eon.com/innovation.

#### **Smart Cities**

E.ON is playing a key role in making Hyllie the most sustainable neighborhood in Malmö, the third-largest city in Sweden. We've contractually obligated ourselves to ensuring that by 2020 Hyllie gets all its power from renewable or recycled sources. We're also helping to put in place a fully integrated infrastructure for supplying Hyllie with power, heat, and cooling. Much of this energy will come from locally sited distributed generating units, thereby enhancing Hyllie's energy autonomy. We're also deploying smart energy infrastructure that communicates with innovative in-home technology. This will increase energy efficiency, reduce energy losses, manage peakload situations better, and make the power supply more reliable.

# **Energy Storage**

E.ON is testing innovative solutions for piping biomethane (upgraded from biogas) and hydrogen (produced through electrolysis by surplus wind and solar power) into

the gas distribution system. The resulting gas mixture results in lower carbon emissions than pure natural gas. As part of this process, we conducted successful tests of a new, simulation-based procedure for monitoring gas quality. Thanks to its proven accuracy, the procedure earned regulatory approval in Germany in August 2012. The procedure will make it easier to produce pipeline-quality biomethane and will mean that fewer quality sensors will be needed in the gas pipeline system.

In August 2012 we began building a power-to-gas (P2G) pilot unit sited at a wind farm in eastern Germany. The unit, which is scheduled to begin operating in the third quarter of 2013, will use the wind farm's surplus output to produce hydrogen which will be piped into the natural gas network. P2G will make it possible for wind turbines to keep turning even when the local power grid is congested, thereby enabling us to harness more clean wind power.

In partnership with mobile telecom Vodafone, we're developing and testing a distributed, lithium-based energy-storage system using components of the mobile communications network. The aim is to combine small storage devices into a large-scale virtual battery.

On Pellworm, a small island off Germany's North Sea coast, we're building a pioneering hybrid storage system that will enable us to deftly calibrate power production and consumption. The system, which is scheduled to enter service in the spring of 2013, will store surplus wind and solar power in large-scale batteries and in residential heating systems. As a result, the island will import less power from the mainland, which will reduce the need to expand network infrastructure.

http://www.eon.com/en/sustainability/environment/technology-development/infrastructure.html

# **Focusing on Our Customers**

The aim of our retail 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 also design smart-home solutions that enable residents to monitor and control their home's electrical devices, appliances, and heating and cooling system from their computer or smartphone. These solutions enhance the comfort, security, and energy efficiency of customers' homes and provide us new opportunities in our retail, network, and generation businesses. They offer other advantages as well. They enhance customer loyalty, simplify network management, increase the load factors of generation assets, and reduce commodity price risks. We're also developing and testing a variety of e-mobility technologies that will enable us to tap new markets here as well.

## Significant Investments to Develop New Products and Services

Retail and end-use technologies represent an important focus of our R&D. In 2012 our expenditures in this area rose by EUR 5 million to EUR 31 million and accounted for 21 percent of our R&D budget. In the years ahead we plan to conduct demonstration projects that highlight the customer benefits of distributed generation, such as integrated applications that combine solar panels and batteries for storage.

## R&D Expenditures Retail/End-Use

	2012	2011	2010	
Expenditures (€ in millions)	31	26	8	
Share of R&D budget	21%	24%	9%	

#### **Selected Projects from 2012**

In this section we present just some of the retail/end-use R&D projects we initiated or conducted in 2012. Each of these projects promotes sustainability by reducing carbon emissions and the environmental or social impact of power generation. You'll find information about other T&I projects at eon.com/innovation.

## **E-Mobility**

Electric vehicles (EVs) can significantly reduce carbon emissions in two ways. First, electric motors consume less energy than internal-combustion engines. Second, EV batteries can be charged with renewable-source electricity and, collectively, can function as a huge distributed storage system. We're currently conducting an EV trial in the United Kingdom, Germany, and Switzerland. Its purpose is to evaluate, under real-world conditions, how participants use their EV and a special smart charging point installed at their home. The trial will teach us a lot about user behavior, information that we can factor it into the design of future charging stations and entire charging infrastructures.

We donated an EV to Caritas, a charitable organization in Germany that helps people in need, for a two-year trial. The EV, which is driven by Caritas staff who provide inhome care in Datteln in west-central Germany, is charged at an E.ON charging station installed in Caritas's parking facility. The project helps Caritas improve its climate performance and will provide us with extensive data. Analyzing these data will give us valuable insights into the EV use habits of an organization that operates a large vehicle fleet. Such operators represent an important potential market for EVs.

In June 2012 we installed a solar carport at Scholven, our power station in Gelsenkirchen, Germany. The carport has four parking bays equipped with charging points for EVs. On sunny days, most of the power for charging comes from solar panels on the carport's roof. We also replaced two of Scholven's diesel-powered company cars with EVs, which employees use to reach the outer areas of the property. The project has significantly shrunk the carbon tire print of Scholven's vehicle fleet and supports Gelsenkirchen's ambition to become a solar city.

# **Customer-friendly heat sinks**

Environmentally friendly distributed-energy systems like heat pumps, biomass-fired boilers, and solar-thermal units require a thermal-storage device to operate efficiently. To be viable in residential applications, however, such devices must be relatively small. That's why we're conducting a project to develop small, customer-friendly thermal-storage options for each of the above distributed-energy systems. This will make it possible for us to mass-market these systems und give us a competitive advantage in this segment, which in Germany alone is expected to nearly double in size, from EUR 48 million in 2010 to EUR 106 million in 2015.

#### **Smart Homes**

We partnered with the Milton Keynes Council, the National Energy Foundation, and a number of U.K. universities to install smart-home technology in 75 homes in Milton Keynes, located about 70 kilometers northwest of London. The project, called "Thinking Energy", has provided us with a wealth of quantitative data as well as qualitative data about users' experiences with this technology. We'll use this information to design future field tests and commercial trials, all of which will comply fully with European and national data-protection laws.

http://www.eon.com/en/sustainability/environment/technology-development/sales-and-end-use.html



# **Group-wide Commitment to Environmental Protection**

The E.ON Global Climate Change and Environment Policy, which came into force in 2008, ensures Group-wide environmental management with consistent standards. This guideline helps us to keep the negative impacts of our activities along the value chain as low as possible. The underlying principle for our actions is the precautionary principle, as promoted by the United Nations. In order for damage not to occur in the first place, we ensure early on that legal requirements are fulfilled and environmental dangers are prevented. That is why since 2010 we have put environmental management systems in place (in compliance with EN ISO 14001 or EMAS II) at all sites with substantial environmental impacts and subjected in most cases to certifications by independent third parties.

For E.ON as an energy utility, protecting the environment and the climate go hand in hand, since neglecting the climate while optimizing electricity generation would have additional impacts on the environment. By contrast, using climate-friendly technology not only reduces the emission of greenhouse gases, but also other environmental effects from generating energy such as those that can result from the emission of sulfur dioxide (SO2).

## **Expanding Environmental Management**

Apart from reducing specific CO2 emissions from our power generation, we have set ourselves the following targets to improve our environmental protection:

#### **Environmental Targets**

Target	Status 2012
Introduction of integrated environmental risk management covering our entire value chain.	We reached our first milestone with the development of a Group-wide policy on our environmental footprint which came into force in February 2012.
By 2015, we will put in place comprehensive water management along our value chain to create the conditions necessary for membership in the UN CEO Water Mandate.	Apart from our E.ON Water Management Site Decision Matrix, we developed additional key figures in 2012 in order to implement financial water management.

In 2012 we also started to integrate our activities in the growth areas of gas mobility and bio natural gas better into the existing environmental management system. Within the organizations, respective Health, Safety & Environment (HSE) management systems are being set up and every unit has nominated an HSE representative.

#### **Organization of Environmental Management at E.ON**

Our Group-wide activities in the environmental arena have been brought together in the HSE area. The Group Board of Management holds responsibility for it, controls all measures and expands these as needed. A policy framework applies to all parts of the Group and was developed by the HSE committees together with expert teams of specialized managers. In every unit, an HSE Governance Council nominated by the respective Management Board will raise further awareness for environmental topics among employees and thus progress the HSE culture. Since 2010, it reports directly to the Board of Management. The Group Management Governance Council sets the direction and priorities for our Group-wide HSE activities. Its members are the Board of Management member responsible for the topics of Health, Occupational Safety and Environment as well as the directors of global and regional units. By assuring environmental management standards and exchanging knowledge and experience, we are working towards integrating environmental aspects better in decision-making across the entire Group. This applies not just to majority holdings, but also joint ventures.

The E.ON Group continually acts to further reduce the environmental effects of its activities or to prevent them completely. In 2012, we began to introduce a new organizational model in the HSE area as part of the Group-wide realignment of the administrative functions. In addition, we are installing an auditable data collection process which enables us to provide HSE performance indicators to Group Management. Since 2012, we have provided special Group-wide monthly reports about incidents in the area of occupational safety and environmental protection.

In order to bring management and organization in the HSE area even close together, we are currently working on a new Group policy which will be adopted in the second quarter of 2013. Amongst other elements it includes a declaration of principles, defines values and takes up our targets from the Work Program 2012-2015 in the area of the environment.

http://www.eon.com/en/sustainability/environment/environmental-protection.html

# **Establishing Integrated Environmental Management**

We have defined environmental standards that apply to the whole Group. We also oblige our partners to adhere to them. This is an important condition for realizing integrated environmental management along the whole value chain. With our Policy on Protecting the Environment and Climate, we have been implementing Group-wide minimum requirements since 2008. In 2012, we also agreed a new guideline on our environmental footprint, which sets out environmental indicators that we will take into account in our portfolio management and in the assessment of technologies and marketing strategies. We defined the indicators on the basis of generally accepted environmental categories, such as climate change and protecting resources, depending on their respective relevance for E.ON. Determination and assessment of the indicators are carried out within the respective topic areas in each project.

#### Environmental protection risks as component of strategic planning

Current and possible future developments in the energy industry are a factor we include in our risk management. In strategic planning we systematically take environmental protection aspects into account, such as climate change, water scarcity, resource consumption and forthcoming environmental regulations. Therefore, dealing with environmental risks over the whole value chain plays an important role in our risk management, in accordance with the Control and Transparency in Enterprises Act (KonTraG-Risk Management). In its World Energy Outlook forecast report, which is published annually, the International Energy Agency (IEA) assumes a scenario in which conventional energy sources continue to contribute towards meeting the energy demand despite a strong growth in renewable sources. The effect of the utilization of coal, oil and natural gas on the environment and climate therefore continues to be a central topic. E.ON is constructing modern gas-fired power plants, for example in Irsching, which cause comparably low pollution emissions and which can offset the fluctuating generation from renewable energies, thanks to their flexibility.

In 2012, we introduced a new system in our global unit New Build & Technology (ENT) to support power plant newbuilds through project management and project execution. This allows us to systematically discover and evaluate environmental risks for projects and innovations and to consider environmental protection aspects even better in planning and adjusting our generating portfolio. Every individual investment must fulfill sustainability criteria alongside economic demands. This we understand to mean its potential to lower the emission of greenhouse gases and to improve energy efficiency, but also adherence to other obligations towards maintaining environmental standards (cross-compliance).

## Central approval platform for construction and operation of plant

Both the requirements of approval processes and the expectations of our stakeholders are becoming increasingly complex. Efficient and integrated environmental management is therefore all the more important. Examples such as

the EU Water Framework Directive to prevent water pollution and the adjustment of EU industrial emissions guidelines that set lower threshold values for large fuel-fired power plants demonstrate the tightening of regulations regarding the environment. Against this background, in 2012 E.ON introduced a central approval platform for the construction and operation of plant. This platform enables us to continuously observe and evaluate current and potential framework conditions and legislation on a national, European and extra-European level that are of importance for any approval. In addition, the platform is intended to contribute towards a consistent alignment of our actions in the Group towards external stakeholders and make an integrated approach possible towards national and European institutions, politicians, local governments, residents, non-governmental organizations (NGOs) and other interest groups.

#### Climate and environmentally friendlier generation

For E.ON's future generation portfolio, the development of climate policy conditions within Europe also plays a central role. We operate ultramodern gas power plants that are more climate and environmentally friendly than coal power plants; some of the latter will be affected by the strict environmental constraints of the Large Combustion Plant Directive as of 2015. For strategic reasons, as a rule we phase out these plants. In some cases, we retrofit them in order to comply with the demands of the guideline. Where it is viable we will also convert coal-fired power plants, for example at Ironbridge in the UK, to operation with wood pellets from sustainable forest management, in which mixed firing with coal is also possible. However, climate, and therefore environmental protection aspects cannot be sufficiently considered in the optimization of electricity generation while the European Emissions Trading System (EU ETS) is not functioning effectively.

## **Environmental standards for investment decisions and joint ventures**

We want to be among the leaders in environmental protection, both inside and outside Europe. Through our Code of Conduct we are committed to taking environmental standards into account also within investment decisions, joint ventures and minority shareholdings. As part of our activities in new growth markets such as Brazil and Turkey, investigating investments for potentially contaminated sites and environmental damage (Environmental Due Diligence) plays an increasingly important role. For example, we use content of the International Hydropower Association's Hydropower Sustainability Assessment Protocol to evaluate the situation. In addition, outside of Europe we are committed to the medium and long-term implementation of European standards, for example in Russia regarding asbestos handling. Last year, as part of our Health, Safety & Environment (HSE) improvement plans, we agreed to measure asbestos exposure under European standards for 2013. In addition, we are already running an asbestos exchange program to replace asbestos in Russian power plants.

#### **Environmental aspects within transport and distribution**

E.ON operates extensive distribution networks and creates connections: From power plants to industry, from biogas plants to gas filling stations, from wind turbines to private households. The environmental impacts of these distribution networks differ

greatly and range from minimal impacts through to high space usage in creating transport routes. The maintenance and servicing of gas pipes, for example, releases methane, a greenhouse gas which has 25 times the climate impact of CO2. In addition, there are special challenges here, such as the impairment of biodiversity in oceanic habitats when offshore wind parks are being connected, or leaks and escapes from pipelines. As part of large projects such as the Nordstream pipeline, we therefore carry out extensive environmental impact assessments.

#### New products for better environmental protection for customers

We also help our customers through innovative, intelligent solutions to contribute to climate and environmental protection themselves. For example, we are active in the market for gas mobility. The utilization of natural gas vehicles lowers CO2 emissions in the transport sector. To systematically optimize the overall balance for natural gas filling stations, we make use of tools to calculate their environmental footprints. Our activities in the area of gas mobility additionally fall under our policy on sustainable procurement. We ensure that our supply chain also takes into account our environmental protection guidelines. CO2 balance sheets and calculations for the potential to lower the emission of greenhouse gases give important pointers as well for environmental relevance in the area of biogas. Due to increased demand for certified products in the market for compressed biogas and bio natural gas, we have trained our employees with regard to sustainability criteria and certification and sustainably certified the whole production of biogas and bio natural gas. In production for other markets without a legal certification process we apply the criteria of the Biofuel Sustainability Regulation.

 $\frac{http://www.eon.com/en/sustainability/environment/environmental-protection/integrated-environmental-management.html}{}$ 

# **Environment-related Incidents**

We can prevent incidents with environmental effects if we apply extensive plant and process safety procedures which take into account the whole lifecycle, include environmentally critical operational aspects and improve the assessment and management of environmental risks. Thanks to our systematic environmental and safety management, environment-related incidents in the 'serious' category are very rare within the E.ON Group. Nevertheless, we remain vigilant to identify even lesser risks and reduce the likelihood of accidents. If damage is caused, worst-case the only option is on-site remedial action. Environmentally relevant incidents are covered by our 24-hour reporting requirement. Accidents in this category must fulfill at least one defined criterion, which includes for example irreparable damages to protected habitats or clean-up costs exceeding 1.5 million euros.



### A Serious Incident in the Reporting Year

In September 2012, a serious incident sadly took place in Spain due to a canal breach at the hydropower station Arenas de Cabrales in Asturias, an autonomous community in the north of Spain. During this accident one woman unfortunately lost her life and two further people were injured. Factory premises and vegetation in the immediate environment were destroyed. E.ON Spain technicians immediately worked together with the local emergency services under the direction of the regional authorities. The canal breach was caused by higher groundwater flow, which triggered a landslide, which in turned led to the canal breach. In conclusion it could not be ruled out that water escaping from the canal contributed towards the landslide. E.ON checked a further eight facilities in Europe as to whether similar geological conditions could pose a risk of a canal breach. The investigations are nearly complete, and seven of the facilities are back in operation.

# **Planned Capture of Moderately Serious Incidents**

In future, we will further develop Group-wide environmental reporting for moderately serious incidents. As part of the revision, accidents in this category must be reported from summer 2013. A data system has already been introduced and used for monthly reports to Group management. For 2012, 15 incidents have been reported within our existing systems.

#### **No Incidents at Nuclear Power Plants**

In 2012, as in the year before there were no category one to seven incidents as measured on the seven-step International Nuclear Event Scale (INES) at our nuclear power plants.

#### **Provisions for Environmental Protection Measures**

Our short-term provisions for environmental protection measures and similar liabilities amounted to EUR 101 million in 2012 (2011: EUR 42 million); long-term provisions decreased to EUR 836 million (from EUR 924 million in 2011).

 $\underline{\text{http://www.eon.com/en/sustainability/environment/environmental-protection/environment-related-incidents.html}$ 

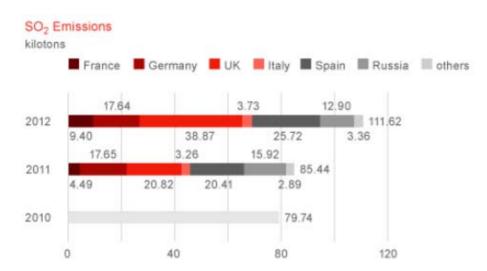
# **Reduction of Air Pollutants**

The majority of emissions caused by E.ON result from electricity generation. This includes the atmospheric pollutants sulfur dioxide (SO2) and nitrogen oxide (NOx) in particular. As a power plant operator, E.ON is obliged to ensure an improvement in air quality. We want to lower these emissions significantly through investments in renewable energies and efficiency measures. However, current developments in the European Emissions Trading System (EU ETS), with very low prices for emissions rights, could lead to more coal-fired power plants being utilized. If the EU ETS is not adjusted, this presents a threat in the form of increased CO2 emissions and other air pollutants.



#### **SO2 Emissions**

The primary source of sulfur dioxide emissions is the combustion of coal containing sulfur. We can reduce our SO2 emissions by using additional filters, for example, and increasing the proportion of gas in our energy mix.

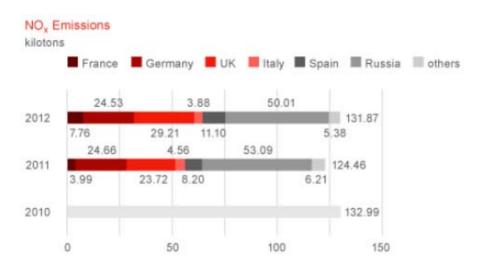


Since 2010, our SO2 emissions have risen continuously. At around 112 kt the total volumes emitted during 2012 are clearly above the value from the previous year. The increase is due to higher usage of coal as a primary energy source for generating electricity. Particularly in Spain, the UK, France and Italy, more coal rather than natural gas or oil was used, which led to increased SO2 emissions. The background to this is the current price development for certificates in the emissions trading system (ETS): The low prices are benefitting coal-fired electricity generation, compared to other energy sources such as natural gas.

The specific SO2 emissions per energy unit increased in the reporting period from 0.32 kg/MWh in 2011 to 0.42 kg/MWh in 2012.

#### **NOx Emissions**

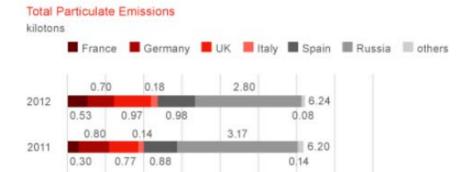
Nitrogen oxide emissions arise mainly from atmospheric nitrogen under high combustion temperatures. NOx emissions are related to the burning of gas or coal in our power plants: We therefore have a particular responsibility to further reduce emissions of this pollutant. Plants that we have recently brought onstream, as well as several installations included in our portfolio in 2009, have been fitted with modern filter technology. We have therefore been able to report a reduction in NOx emissions since 2009; however, this did not continue in the reporting period:



The amount of nitrogen oxide rose from 124.5 kt in the previous year to nearly 132 kt. This increase, like those for CO2 and SO2 emissions, is due to the fact that against the background of current price developments in the emissions trading system, coal has been increasingly used instead of natural gas as the primary source of energy for generating power. Likewise, in proportion to the amount of electricity generated (271.2 GWh in 2011), the values increased further: The specific NOx emissions came to 0.50 kg/MWh in 2012, whereas in 2011 it was 0.46 kg/MWh.

#### **Dust Emissions**

Coal-fired power plants generate dust in the form of particulate emissions. In 2012 our particulate emissions totaled around 6.24 kt.



4

2010

0

2

E.ON's particulate emissions are almost unchanged from the previous year at 6.24 kt. The slight increase, as with the CO2, SO2 and NOx emissions, is due to the shift in the primary sources of energy. An increased use of coal, despite a lower amount of kWh generated, has also led to higher dust emissions. Thanks to bringing gasfired power plants onstream in Russia, our dust emissions lessened. Investments into the improvement of electronic filters in other countries achieved further reductions. However, the slight overall increase due to intensified use of coal was not completely compensated by these measures.

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http://www.eon.com/en/sustainability/environment/environmental-protection/airemissions.html

# Resource Efficiency and Waste Prevention

Resource efficiency in the construction and operation of our plants is also an important and measurable key figure within our environmental management. There is a direct link here between conserving resources and preventing waste. Therefore, but also for financial reasons, preventing waste generally takes priority at E.ON over waste recycling as the second-best option, and disposal as the last option.

# **Increasing Efficiency**

E.ON operates highly efficient power plants which contribute to saving raw material resources as well as to climate and environmental protection, while at the same time lowering costs. A further ultramodern gas turbine unit with energy recovery was brought onstream in Philippsthal, Germany in 2012. The optimum utilization of natural gas as fuel helped the 30 MW installation to achieve a very high overall efficiency degree of just under 90 percent. Compared to generation with older plants, this saves around 95,000 metric tons CO2 per year.

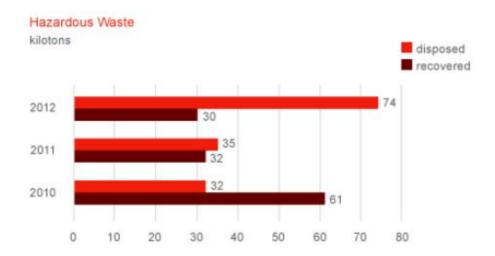
We are also improving resource efficiency in our other business activities. The utilization of vehicles with gas, for example, requires electricity to run the compressor at fuelling stations. Here we select motor aggregates according to their electrical efficiency factor and constantly observe available technologies with a view towards improvement potentials.

#### **Preventing and Recycling Waste**

As plant operators we are under obligation to recycle waste or to dispose of it safely and appropriately. For recycling we use various methods, independently of which processes the waste stems from. We have already gathered many years of experience in the resource-efficient reutilization of waste products such as slag, ash and gypsum.

#### **Hazardous Waste**

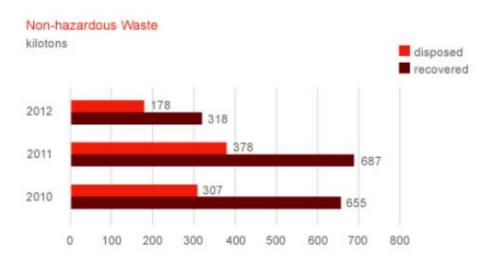
In 2012 the total volume of hazardous waste increased by 56 percent compared to the previous year, to a total of 104 kt.



Of the total amount we were able to recycle 30 kt altogether. We disposed of 74 kt in accordance with regional laws; of these, 10 kt originated from our operational business. This is a reduction of around 40 percent (2011: 24 kt). 64 kt resulted from project-related measures. A large ground remediation project in Germany alone generated about 62 kt of excavated soil for disposal.

#### **Non-hazardous Waste**

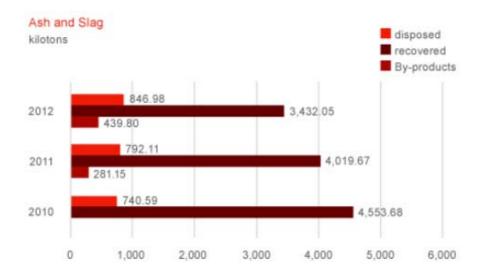
The volume of non-hazardous waste fell by 569 kt to 496 kt in 2012.



Of the total amount of non-hazardous waste we were able to recycle 318 kt altogether, less than in the previous year. We disposed of 178 kt in accordance with regional laws.

# **Ash and Slag**

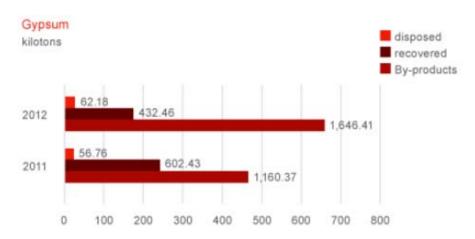
Burning coal produces considerable amounts ash and slag. In 2012, the amount of ash and slag amounted to 4,718.8 kt overall. We work consistently to recycle this waste to the greatest extent possible.



The amount of ash and slag accumulated for recycling and disposal decreased by 532.8 kt compared to the previous year, to reach 4,279 kt in 2012. Including by-products of power plant operation which are distributed to the construction material industry, the total amount increased by 374.1 kt to 4,718.8 kt. We have recorded these since the beginning of the 2012 reporting year and retroactively for 2011.

# **Gypsum**

At our coal-fired power plants we generate significant quantities of gypsum as a by-product of flue gas desulfurization. It is non-hazardous and can be used as a construction material, which also helps cut down on gypsum mining and its negative environmental impacts. In line with anti-pollution laws, power plants are fitted with flue gas filters, which extracts environmentally damaging materials from flue gas. However, this is still a long way from being an environmentally neutral form of disposal. We are working with Baumineral AG on the processing of residues from flue gas desulfurization installations in our coal power plants in Germany, Belgium and the Netherlands. Baumineral AG distributes by-products accruing from power plant operation. This includes flue ash, bottom ash and gypsum. The residues are turned into products such as clinker brick and ready-mix concrete for the construction materials industry. A similar cooperation also takes place in Italy.

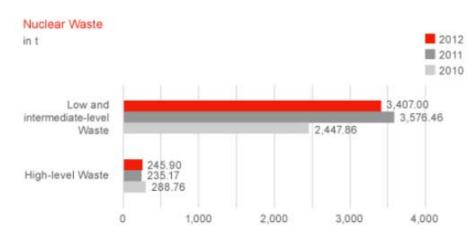


The amount of gypsum accumulated for recycling and disposal decreased by 164.6 kt compared to the previous year, to 494.6 kt in 2012. Including the by-products, which we have recorded since the 2012 reporting year and retroactively for 2011, the total amount increased by 321.5 kt to 2,141.1 kt. This rise is due to the increased use of coal as a primary energy source in 2012.

#### **Raddioactive Waste**



Radioactive waste is produced at our nuclear power plants in Sweden and Germany. We distinguish between low or intermediate-level and highly radioactive wastes.



Following an increase in 2011, the volume of low and intermediate-level radioactive waste fell again slightly in 2012. At 3,407 t in 2012 we fall once more below our level of 2009, when we carried out construction measures at Swedish nuclear power plants. Added to this are just under 246 t of Group-wide highly radioactive waste. These accrued both from the operational business and from dismantling of the power plants at Stade and Würgassen, which are being decommissioned.

http://www.eon.com/en/sustainability/environment/environmental-protection/ressource-efficiency-and-waste.html

# Strategic Importance of Water as a Resource

The availability of sufficient amounts of water is one of the central challenges for the energy sector, according to the latest World Energy Outlook forecast report by the International Energy Agency (IEA). We anticipate that climate change will impact the availability of water around the world. Water is an important resource for E.ON's operations, used in the production process primarily as cooling agent for thermic energy generation and for our nuclear power plant. We therefore placed the responsible handling of water on the list of strategic topics in 2010. As part of the Carbon Disclosure Project (CDP) Water Disclosure, we have published extensive data on this since 2011. On behalf of investors, the program surveys large companies on their water-related risks. Detailed information is contained within our response.

## **Target: Efficient Water Management**

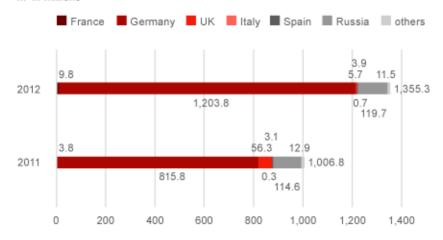
We follow legal and environmental guidelines in the withdrawal and recirculation of cooling water. Apart from cooling water, we use water to generate steam. 95 to 99 percent of the water used for this condenses and is reused. However, it is important to reduce the consumption of fresh water. We are also committed to fulfilling all of the requirements of the UN CEO Water Mandate for more efficient water management by 2015. To help us achieve this objective we are assessing how to apply the Ceres Aqua Gauge – a tool provided by the not-for-profit investor association CERES for managing water risks – to our conventional power plants.

#### **Fresh Water Consumption**

In 2011, we joined other major energy providers in supporting the development of the Global Water Tool (GWT) by the World Business Council for Sustainable Development (WBCSD). We have aligned our water indicator with the GWT and since 2011 have measured the consumption of fresh water in our operations rather than process water. This indicator represents the difference between our fresh water in- and output. It therefore shows the amount of fresh water we actually consume and which is no longer available to third parties as a result.

#### Fresh Water Consumption

m3 in millions



In 2012, fresh water consumption increased by 348.5 million m3 to 1,355.3 million m3. This rise is mainly due to the increased use of nuclear power plants for electricity generation in Germany. In other countries decline or rise was due to changes in generated output, deployed technology, changing fresh water share, new technologies or improved capturing.

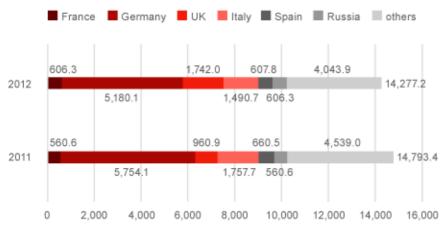
To gain an even more comprehensive overview of our water management, we also measure total water input for the E.ON Group alongside our fresh water consumption. We have recorded this since the 2012 reporting year and retroactively for 2011.

# Reviewed 2012

Total water withdrawal fell by 516.1 million m3 to 14,277.2 million m3 compared to the previous year. Particularly in Germany and Italy, the amount of water withdrawn decreased.



m³ in millions



**New Method for Assessing Water Availability** 

To investigate to what extent water consumption in water-scarce areas is related to our business processes, in 2012 we devised the E.ON Water Management Site Decision Matrix together with the WBCSD. This will help the systematic identification of regions in which water scarcity poses risks for us and for the communities in which we operate. Water availability is therefore a fixed component of risk management. According to our analyses, 23 of our facilities are located in sites where water scarcity is a factor. Thanks to our long years of experience in the operation of installations under strict constraints regarding water consumption and water withdrawal, E.ON is also well prepared for growing water resource scarcity.

http://www.eon.com/en/sustainability/environment/environmental-protection/water-management.html



# **Essential to Our Success**

The E.ON Global Climate Change and Environment Policy, which came into force in 2008, ensures Group-wide environmental management with consistent standards. This guideline helps us to keep the negative impacts of our activities along the value chain as low as possible. The underlying

Our employees – their knowledge, motivation, and dedication – are essential to our success, particularly in an increasingly competitive business environment. They're also essential to our "cleaner & better energy" strategy. We need people with the right capabilities and attitudes for our new markets (Brazil and Turkey) and our new growth businesses (renewables and distributed generation). HR is about meeting these needs by hiring and retaining highly talented people and systematically fostering their personal and professional development.

## **HR Management in a Changing Environment**

We have to ensure that our company has the optimal combination of capabilities and skills that will enable us to succeed in our new growth businesses and our established core businesses. Our HR management faces a number key challenges resulting from our company's specific situation and from external factors like demographic and cultural change.

#### Challenges

#### Internal Challenges

- Staff reductions and recruiting needsWe
   Trend toward individualizationThis need to implement E.ON 2.0 staff reductions in a socially responsible way and at the same time fill new positions. We're doing this by retraining our employees and, where necessary, by making selective new hires.
- Growth outside EuropeTo tap new markets outside Europe, we'll need managers and employees who are internationally minded, have the necessary language skills, and are highly mobile.
- Changing image as an employerOur. growth businesses increasingly enable us to offer new career opportunities.

#### External Challenges

- megatrend is raising employees' expectations regarding flexible work schedules, work-life balance, and the degree to which they find their job as interesting and rewarding.
- Demographic changeAs our workforce ages, health maintenance and employability programs become more important. They help us reduce the risk of age-related absences and the additional personnel costs that go with them.

# Strategic HR

Our strategic HR response to these different challenges focuses on four key areas:

#### 1. Qualitative HR planning

We continually compare our talent needs with the available labor pool so that we can act early to meet these needs. For example, we may increases the number of trainees we have in certain vocational areas or geographic regions or target our communications at potential hires in certain job families. We continually refine our HR planning so that we can respond appropriately to emerging challenges.

#### 2. Talent management

We support our employees' professional and personal development through specific programs, periodic feedback on their performance, and ongoing training. These include certification programs for specific roles, job transfers and foreign assignments, and Talent Boards, whose purpose is to support the development of high-potential employees across our company.

#### 3. Global learning

Temporary assignments in another department and particularly another country enhance our employees' motivation and expand their knowledge and horizons. The number of our employees on foreign assignments is increasing, and we support their special needs through our International Transfer Policy. We also offer global learning programs tailored to the specific needs of our global and regional units and their employees.

## 4. Strategic recruiting and HR marketing

As part of our strategic recruiting effort, we participate in Quality Engineering for Sustainability, an initiative of the German Association of Engineers (VDI) and UNESCO's German arm. We've also joined forces with four other German companies and nine of the country's leading technical universities to develop a program to improve engineering training in emerging and developing countries.

#### Socially Responsible Staff Reductions under E.ON 2.0

Preparing and beginning to implement the far-reaching measures of E.ON 2.0, our Group-wide efficiency-enhancement program, formed an important part of our HR work in 2012. The objective of E.ON 2.0 is to reduce E.ON's controllable costs to EUR 9.5 billion per year by 2015 at the latest in order to give us greater flexibility for investments. To achieve this objective, it's unavoidable that we eliminate about 11,000 jobs across our company and simplify our organizational setup, which will speed up our decision-making. Social responsibility towards our employees is a high priority at E.ON. This is why E.ON management and employee representatives have agreed on a variety of mechanisms and benefits for employees affected by E.ON 2.0 staff-reduction measures. These mechanisms and benefits reflect country-specific legal requirements and standard practice. When a company must reduce its workforce, open and timely communications with employees are particularly important. We expect our managers to maintain an ongoing dialog with their employees and talk with them about the changes and their consequences.

In January 2012 E.ON and two trade unions in Germany, ver.di and IG BCE, concluded the E.ON 2.0 Labor Agreement, thereby laying the foundation for suitable and fair support mechanisms for staff-reduction measures. The agreement contains a variety of mechanisms, including voluntary-resignation packages (containing severance pay and preretirement components) and the creation of E.ON Perspekt GmbH, a company at which redundant employees can work and obtain additional qualifications during a transition period. Management and employee representatives lived up to their responsibilities, paving the way for E.ON 2.0 to be implemented as planned. In June 2012 E.ON and employee representatives reached agreement on a model E.ON 2.0 redundancy plan, which contains additional mechanisms. This plan served as the template for local redundancy plans agreed on at E.ON entities in Germany affected by E.ON 2.0. The 2012 E.ON Annual Report describes similar agreements reached by management and employee representatives in other European countries.

#### **HR and Accounting Functions Centralized at Four Locations**

As part of our effort to reorganize our support functions, we're combining HR and accounting functions at a new unit called E.ON Business Service Center (EBUS), which will have offices in Germany (Berlin, Regensburg, and Hemmingen, a suburb of Hanover) and Romania (Cluj). This will lead to significant cost savings. But more importantly, it will enable us to improve and standardize our processes, deploy our expertise better, and establish consistently high quality standards for these functions. In both Germany and Romania we concluded collective-bargaining agreements with unions that stipulate the future workplace conditions and employment arrangements for the respective EBUS entities.

#### Codetermination at E.ON SE

Representation on supervisory boards and participation in various works councils gives our employees the opportunity to influence our company's development. Employee representatives and works councils are involved in all relevant processes. Codetermination at E.ON fulfills all statutory requirements, reflects the different cultural expectations of the countries where we operate, and is animated by a shared commitment to work together to design socially responsible solutions.

The involvement of our European employees at the Group level was given a new platform in 2012. In preparation for E.ON's transformation into a European Company (SE), management and employee representatives reached an agreement in October 2012 on the involvement of employee representatives at the European level and on the composition of the employee-representative side of the E.ON SE Supervisory Board. The agreement had been preceded by constructive talks between the employee negotiation committee (which consisted of employee representatives from 19 European countries) and E.ON management. Under the employee-involvement agreement, employees from all European countries in which E.ON operates will be represented in the E.ON SE Works Council. The E.ON SE Works Council appoints the six employee-representative members of the E.ON SE Supervisory Board, which has twelve members in total.

## **E.ON SE Works Council**

The E.ON SE Works Council represents all E.ON employees in Europe. It is informed and consulted about all company issues that transcend national borders. It also appoints the employee-representative members of the E.ON SE Supervisory Board. It has at least one representative from every European country in which E.ON operates. The number of representatives from a given country is weighted to reflect the number of E.ON employees who work there.

# **E.ON SE Group Works Council**

Pursuant to Section 58 of the German Labor Management Relations Act (BetrVG), the Group Works Council is responsible for matters affecting either the whole Group or several Group companies in Germany. It may also be asked by local works councils to carry out certain tasks. The Group Works Council consists of members of works councils of E.ON business units in Germany.

# **Group Council for Severely Disabled People**

The mission of the Group Council for Severely Disabled People is to advise and work with management to ensure that our companies in Germany support the employment of people with severe mental or physical challenges.

http://www.eon.com/en/sustainability/social/workforce-challenge.html

# **Our Workforce Figures**

This section provides an overview of our workforce numbers by unit, country, degree of employment (full or part time), and type of employment contract (temporary or non-temporary).

# **Number of Employees**



At year-end 2012, the E.ON Group's fully consolidated companies had 72,083 employees worldwide, a decline of 8.6 percent from year-end 2011. E.ON also had 2,252 apprentices and 274 board members and managing directors.

#### E.ON Group Employees1 at Year-End

	2012	+/- %	2011	2010
Generation	10,055	-4.9%	10,578	n/a
Renewables	1,810	0.1%	1,808	n/a
Optimization & Trading	2,190	-44.4%	3,941	n/a
Exploration & Production	183	-9.9%	203	n/a
Germany	20,363	-5.7%	21,602	n/a
Other EU Countries	28,628	-10.3%	31,909	n/a
Russia	5,038	2.9%	4,896	n/a
Group Management <sup>2</sup>	3,816	-3.4%	3,952	n/a
E.ON Group	72,083	-8.6%	78,889	85,105

<sup>&</sup>lt;sup>1)</sup> Does not include board members/managing directors (2012: 274) or apprentices (2012: 2,252).

Generation's headcount was lower owing mainly to the expiration of temporary contracts, early retirement arrangements, and staff reductions as part of E.ON 2.0. The transfer of employees from Generation to the UK regional unit was another factor. The number of employees at Optimization & Trading declined owing to the sale of Open Grid Europe along with staff reductions as part of E.ON 2.0. The closure of Exploration & Production's Essen office led to a reduction in its staff numbers. The headcount at the Germany regional unit was lower mainly because of E.ON 2.0 staff reductions and the closure of E.ON Energie's office in Munich. The decline in the number of employees at Other EU Countries is chiefly attributable to the disposal of E.ON Bulgaria and SAKAB. Efficiency-enhancement measures (particularly in the United Kingdom) and staff reductions resulting from E.ON 2.0 (particularly in Hungary and Romania) constituted another factor. The headcount at Russia increased slightly because of the expansion of a new central maintenance

<sup>&</sup>lt;sup>2)</sup> Includes E.ON SE, EOI, ENT, E.ON Risk Consulting, E.ON Connecting Energies.

entity and hiring for new-build projects. Staff reductions as part of E.ON 2.0 also affected the headcount at Group Management.

# **Geographic Profile**



#### Employees by Region<sup>1</sup>

	2012	2011	2010
Germany	31,548	35,133	35,116
United Kingdom	11,556	12,264	16,343
Romania	6,324	6,457	6,535
Hungary	5,246	5,337	5,431
Russia	5,050	4,912	4,828
Czech Republic	3,451	3,477	3,454
Sweden	3,360	3,530	5,064
Spain	1,240	1,287	1,310
Other <sup>2</sup>	4,308	6,492	7,024

<sup>&</sup>lt;sup>1)</sup> Does not include board members/managing directors (2012: 274) or apprentices (2012: 2,252).

At year-end 2012, 40,535 employees, or 56 percent of all staff, were working outside Germany, slightly higher than the percentage at year-end 2011.

# **Average Length of Service**

## Reviewed 2012

#### Average Length of Service<sup>1</sup>

E.ON Group	13.9	-1.8%	14.2	14.7
Group Management <sup>2</sup>	10.5	-0.7%	10.6	n/a
Russia	8.9	-27.1%	12.2	n/a
Other EU Countries	12.8	7.1%	12.0	n/a
Germany	15.3	-9.8%	17.0	n/a
Exploration & Production	3.1	-3.1%	3.2	n/a
Optimization & Trading	9.5	-19.1%	11.8	n/a
Renewables	13.4	-11.3%	15.1	n/a
Generation	18.8	6.1%	17.7	n/a
Years	2012	+/- %	2011	2010

<sup>1)</sup> Includes board members, managing directors, and apprentices.

<sup>2)</sup> Includes Italy, France, the Netherlands, Poland, and other countries.

<sup>2)</sup> Includes E.ON SE, EOI, ENT, E.ON Risk Consulting, E.ON Connecting Energies.

In 2012 the average E.ON Group employee had worked for us for about 14 years, almost unchanged from the prior-year figure.

# **Employee Turnover**



The turnover rate is defined as the number of voluntary terminations relative to the average workforce figure for the respective year.

#### Turnover Rate<sup>1</sup>

Percentages	2012	2011	2010
Generation	2.2	2.5	n/a
Renewables	4.1	3.5	n/a
Optimization & Trading	3.0	2.9	n/a
Exploration & Production	12.6	7.3	n/a
Germany	3.1	2.6	n/a
Other EU Countries	3.7	4.5	n/a
Russia	7.6	4.8	n/a
Group Management <sup>2</sup>	3.2	4.4	n/a
E.ON Group	3.6	3.6	4.5

<sup>1)</sup> Includes board members, managing directors, and apprentices.

The turnover rate averaged around 3.6 percent across our organization, about the same as in the prior year.

**Number of Employees by Degree of Employment and Employment Contract** 



A total of 6,305 E.ON Group employees were on a part-time schedule, of whom 4,490, or 71 percent, were women.

<sup>2)</sup> Includes E.ON SE, EOI, ENT, E.ON Risk Consulting, E.ON Connecting Energies.

### Percentage of Workforce with Full-Time and Non-Temporary Employment Contracts in 2012<sup>1</sup>

Percentages	Full-time 2012	Non-temporary 2012
Generation	95%	97%
Renewables	92%	96%
Optimization & Trading	91%	94%
Exploration & Production	97%	99%
Germany	87%	92%
Other EU Countries	93%	97%
Russia	100%	97%
Group Management <sup>2</sup>	89%	96%
E.ON Group	92%	95%
E.ON Group 2011	91%	95%
E.ON Group 2010	91%	96%

<sup>1)</sup> Includes board members, managing directors, and apprentices.

Although the number of part-time employees declined from the 2011 figure (6,305 of whom 4,386 were women), the percentage of part-time employees increased slightly because of the decrease in the size of our workforce.

Ninety-five percent of E.ON Group employees have a non-temporary employment contract, unchanged from the prior year. Collective-bargaining agreements cover 83 percent of E.ON Group employees.

### **Job Satisfaction Survey**

Engaging our employees in dialog across hierarchies is a top priority at E.ON. In addition to talking to our employees directly, we conduct opinion surveys to assess their job satisfaction and to learn more about their needs. According to our most recent survey, which was conducted in 2011, 78 percent of our employees are proud to work for E.ON; 80 percent would recommend E.ON as employer to friends and acquaintances.

http://www.eon.com/en/sustainability/social/workforce-challenge/employee-figures.html

# Systematically Developing Our Employees' Capabilities

One of our managers' most important responsibilities is to ensure that their employees receive proper training as well as support for their development throughout their career. We believe in life-long learning and conduct systematic talent management. The first step is to work with senior managers at our business units to define their quantitative and qualitative talent needs. We then compare this

<sup>2)</sup> Includes E.ON SE, EOI, ENT, E.ON Risk Consulting, E.ON Connecting Energies.

information with the current situation and consider ways to close any talent gaps that may exist. Deploying our core capabilities is central to our "cleaner & better energy" strategy, and systematically developing these capabilities is central to our HR work.



### **Helping People Enter the World of Work**

E.ON has always placed great emphasis on vocational training. We took on 592 new apprentices in Germany in 2012.

#### Apprentices in Germany at Year-End

E.ON Group	2,252	2,466	2,501
Group Management 1)	95	128	n/a
Germany regional unit	1,507	1,551	n/a
Optimization & Trading	94	197	n/a
Renewables	65	68	n/a
Generation	491	522	n/a
	2012	2011	2010

<sup>1)</sup> Includes E.ON SE, EOI, ENT, E.ON Risk Consulting, E.ON Connecting Energies.

The E.ON Group had a total of 2,252 apprentices and work-study students in Germany in 2012, 8.6 percent fewer than in 2011. The sale of Open Grid Europe was the main reason for the decline. Apprentices accounted for 7 percent of our workforce Germany in 2012, unchanged from 2011.

As in previous years, in 2012 we again conduced the E.ON training initiative to combat youth unemployment. Through the initiative, we offered more than 900 young people in Germany prospects for the future through vocational training, an internship to prepare them for training, and school projects.

### **Talent Management**

We want to identity and deploy our high-potential employees as early and efficiently as possible. We use Talent Boards to embed talent management in our operating business. Their purpose is to define our qualitative and quantitative talent needs across all job families, identify potential talent gaps, and design appropriate countermeasures. One of the actions we took in 2012 was to launch a high-potential program for engineers. It gives participants the opportunity to gain a broad range of experience and business skills through rotations in difference departments and participation in projects. Senior managers from the Engineering division oversee the program and serve as mentors. We assess the success of our talent management by our ability to fill vacancies and assign the right staff to projects and also by means of internal performance evaluations.

### **Fostering Continual Learning**

Through a broad range of programs, seminars, courses, and on-the-job training we ensure that our employees keep their skills up to date and also expand their capabilities. In 2012 we spent an average of EUR 1,047 per employee (measured in full-time equivalents) on advanced training. No comparison with prior years is possible because, in the wake of our reorganization, we now use a broader definition of training programs and seminars. On average, E.ON employees received about three days of advanced training in 2012.

### Compensation, Performance Evaluation, Employee Participation

Attractive compensation and appealing fringe benefits are essential to a competitive work environment. Company contributions to employee pension plans represent an important component of an employee's compensation package and, along with our employee share-purchase program, foster employee retention.

Our senior managers and executives receive compensation that includes variable, performance-based components such as bonuses, salary adjustments, and, in some cases, long-term incentives. Their short-term incentives depend on their personal performance and the company's performance. Personal performance assessment is based on a competency model that defines the key competencies for each job family – from board member to administrative assistant – in our company. The competency model is an important tool for identifying potential as part of the Management Review process or 360° Feedback and for assessing the capabilities of potential new hires and trainees.

http://www.eon.com/en/sustainability/social/workforce-challenge/employee-development.html

# **Diversity's Creative Potential**

Equal opportunity and diversity have long been integral to our corporate culture. We take action to promote diversity with regard to nationality, culture, age, and gender. We strive to provide our people with a work environment that is free of prejudice, that motivates them to be creative and reach their potential, that ensures equal opportunity, and in which people with different abilities enjoy working together. The Equal Opportunity and Diversity Framework of the E.ON Group obliges to uphold the following principles across our company:

- · zero tolerance of discrimination, prejudice, or harassment
- active promotion expansion of workforce diversity
- equal opportunity for personal and professional development
- equal opportunity, not homogeneity: respecting individuality
- fostering intensive dialog to increase mutual understanding.

Every E.ON unit has programs and initiatives to promote diversity. These include measures to help our employees maintain a healthy work-life balance, preventive healthcare offerings which respond to the needs of our aging workforce, and targeted support for specific employee groups. We've also added diversity to the curriculum of our executive development programs. We believe that harnessing the creative potential of diverse teams of employees will enhance our competitiveness and help us implement our "cleaner & better energy" strategy.

### **Doubling the Percentage of Women Executives**

Just under 30 percent of E.ON employees are women. Our objectives are to raise the percentage of women in executive positions to 14 percent in Germany by the end of 2016 and to more than double it for the Group as a whole by 2020. To encourage our global and regional units to play an active role in helping us achieve these objectives, we set individual targets for each of them. These targets are included in the performance targets of top executives, and so whether units achieve these targets affects their executives' variable compensation. Progress toward the targets is reviewed every six months.

### Women in executive positions

Target	Status at Year-End 2012	-
We aim to more than double the percentage of women executives in the E.ON Group by 2020 and, as an intermediate target, to raise it in Germany from 9.5 percent in 2011 to 14 percent by 2016.	At year-end 2012, 12.9 percent of E.ON Group executives were women (2011: 12.5 percent). In Germany the percentage rose from 9.5 to 10.1 percent.	_

### **Support for Women**

Throughout our company we support women in a variety of ways, including mentoring programs, help finding daycare, and flexible work schedules. In 2011 we revised our Group-wide Placement Policy for management positions: at least one

male and one female must be considered as potential successors for each vacant management position. We also work with outside partners, including the Association of German Engineers and Femtec, . In 2011 we signed MINT, a pact initiated by the German Federal Ministry of Education and Research to encourage more women to choose scientific and technical careers. To do our part to make MINT a success, we offer special support to women university graduates in the fields of mathematics, computer science, the natural sciences, and engineering.

### **Gender Profile**

Engaging our employees in dialog across hierarchies is a top priority at E.ON. In addition to talking to our employees directly, we conduct opinion surveys to assess their job satisfaction and to learn more about their needs. According to our most recent survey, which was conducted in 2011, 78 percent of our employees are proud to work for E.ON; 80 percent would recommend E.ON as employer to friends and acquaintances.

# Reviewed 2012

#### Women as a Percentage of Our Workforce<sup>1</sup>

	2012	2011	2010
Generation	11.8%	12.0%	n/a
Renewables	19.2%	19.5%	n/a
Optimization & Trading	34.0%	27.3%	n/a
Exploration & Production	34.7%	34.0%	n/a
Germany	30.1%	30.2%	n/a
Other EU Countries	32.7%	32.4%	n/a
Russia	31.1%	31.4%	n/a
Group Management²	29.6%	30.9%	n/a
E.ON Group	28.4%	28.3%	27.3%

<sup>1)</sup> Includes board members, managing directors, and apprentices.

Women made up 28.4 percent of the E.ON Group's workforce at year-end 2012, roughly the same as at year-end 2011 (28.3 percent).

### **Percentage of Women Executives**

<sup>2)</sup> Includes E.ON SE, EOI, ENT, E.ON Risk Consulting, E.ON Connecting Energies.

# ✓ Reviewed 2012

### Percentage of Women Executives

	2012	2011	2010
E.ON Group	12.9%	125%	11.5%

<sup>1)</sup> Includes board members, managing directors, and apprentices.

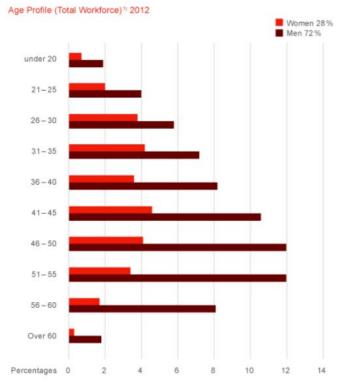
The percentage of E.ON Group executives who are women rose from 12.5 percent in 2011 to 12.9 percent in 2012.

E.ON was one of the first DAX 30 companies to have a female board member when Regine Stachelhaus joined the E.ON Board of Management in 2010. The percentage of women E.ON employees, particularly in executive positions, is well above the average for comparable German companies. In 2012 woman made up 25 percent of the E.ON Supervisory Board and 17 percent of the E.ON Board of Management.

### **Age Profile**



At year-end 2012 the average E.ON Group employee was about 42 years old, which is comparable with average ages at other DAX 30 companies. It also reflects demographic developments in Germany, where in 2012 18 percent of labor force was under 30 years of age, 55 percent between 31 and 50, and 27 percent over 50.



1) Including Board Members/Managing Directors and apprentices.

E.ON is prepared for demographic change and have taken appropriate steps in the areas of health promotion, recruiting, and talent management.

### Number of Severley Handicapped E.ON Employees in Germany

#### Number of Severely Handicapped Employees at E.ON Companies in Germany<sup>1</sup>

E.ON Group	1,883	2,212	2,092
Group Management <sup>2</sup>	122	127	
Germany	1,130	1,360	n/a
Exploration & Production	0	1	n/a
Optimization & Trading	54	124	n/a
Renewables	85	115	n/a
Generation	492	485	n/a
	2012	2011	2010

<sup>1)</sup> Includes board members, managing directors, and apprentices.

The 2012 figure represents a decline of 329 employees from the 2011 figure. The percentage of severely handicapped E.ON employees in Germany declined as well, from 6.3 to 5.8 percent.

The number of severely handicapped apprentices at E.ON companies in Germany declined from 29 at year-end 2011 to 24 at year-end 2012. Social responsibility remains at the foundation of our commitment to training.

### **Nationalities in Our Workforce**

### **Nationalities in Our Workforce**

	2012	2011	2010
E.ON Group	106	108	108

E.ON Group employees come from more than 100 different countries and every continent except Antarctica.

http://www.eon.com/en/sustainability/social/workforce-challenge/diversity.html

<sup>2)</sup> Includes E.ON SE, EOI, ENT, E.ON Risk Consulting, E.ON Connecting Energies.

# Flexibility to Make Life Choices

To execute our strategy and at the same time meet the challenges of demographic change, we need to recruit and retain highly qualified people. That's why we offer our employees a wide range of programs that help them achieve a balance between their career and private lives. These include flextime arrangements, preferential access to daycare centers, and help finding homecare for family members. We expand these offerings continually to respond to specific needs.

### **Flexible Work Arrangements**

We offer our employees a variety of flexible work arranges to help them maintain a healthy work-life balance. These arrangements include part-time schedules, home offices, trust-based working hours, and sabbaticals.

### **Supporting Parents**

We support the parents among our employees in a variety of ways. Those on parental leave are given the opportunity to stand in when colleagues are on vacation or sick leave, enabling them to stay in contact with developments at our company and their workplace. We also arrange for preferential access to daycare centers. We work with outside service providers to help employees organize childcare on short notice. At year-end 2012 there are 1,069 E.ON employees on parental leave.

Our membership in a network of German companies dedicated to promoting family-friendly policies has led to us learning about a number of helpful ideas in this area. In addition, the family policies of E.ON companies in Germany are audited by the Hertie Foundation. After a three-month audit, successful companies receive a quality seal that they may bear for three years. Several E.ON companies were recertified in 2012, demonstrating that they've successfully achieved their targets and are embracing a family-friendly corporate culture.

http://www.eon.com/en/sustainability/social/workforce-challenge/life-balance.html



# High Standards for Health and Safety (H&S)

Nothing we do is so important or urgent that our people should ever work in unsafe conditions. Our Group Policy on H&S Management commits us to maintaining high safety standards and promoting our employees' health. In 2009 we signed the Luxembourg Declaration on Workplace Health Promotion in the European Union and the Düsseldorf Statement in support of the Seoul Declaration on Safety and Health at Work. We strive continually to improve the H&S culture at our company so that we do an even better job of protecting our own employees, contractor employees, visitors, and the general public. We're committed to being an H&S pacesetter in the energy industry.

### **Binding Group-wide Standards and Rules**

Our safety culture is based on zero tolerance for accidents. We've established binding safety standards and rules for our entire company and expect our contractors to comply with them as well. Generally, the occupational H&S management systems of E.ON units involved in energy production are certified to comply with internationally recognized standards such as OHSAS 18001. When we acquire new companies or form joint ventures, we address H&S issues as a matter of course. Our health management effort focuses mainly on continually enhancing our people's awareness of the importance of health maintenance and disease and illness prevention. We intend to make health management more systematic at E.ON units so that we can address important issues across our organization. All of these measures are important components of an efficient and effective H&S organization and represent another facet of our "cleaner & better energy" strategy.

### **Fewer Injuries, More Health Maintenance**

We aim to continually improve our H&S performance. We set measurable targets for the period 2012–15 and are monitoring our progress toward them.

### **H&S Targets**

Targets	Status at Year-End 2012
Reduce E.ON and contractor employees' total recordable injury frequency per million hours of work (TRIF) to 3 by 2014.	Our TRIF was 2.9 in 2012. This means that we already achieved our target for 2014.
Reduce E.ON employees' lost-time injury frequency per million hours of work (LTIF) to 1 and our contractor employees' LTIF to 3 by 2014.	The LTIF for E.ON and contractor employees was reduced 1.9 in 2012. This means that we already achieved our target for contractor employees for 2014. The achievement of our targets in these categories was overshadowed by the six fatalities that occurred at our operations in 2012.
Achieve a 50-percent participation rate in health-promotion measures for employees at risk for certain health issues.	We foster our employees' health in a variety of ways. Each year we define a health issue for the entire company and take action to address it. Owing to the numerous measures of our E.ON 2.0 efficiency-enhancement program and the resulting organizational changes in 2012, at this time we have no reliable data with which to calculate the participation rate of at-risk employees.

### **H&S Focus Areas in 2012**

We work to continually improve our H&S activities. As part of the changes to our company's organizational setup, in 2012 we began the process of designing a new organizational model for the Health, Safety & Environment (HSE) department at Group Management. We also began putting in place an auditable data-collection process for compiling HSE key performance indicators. A key challenge during the year was to retain our ability to continue enhancing E.ON's HSE performance despite a reduction, measured in full-time-equivalent positions, in the size of our HSE team. This challenge will continue going forward.

### **Clearly Defined HSE Responsibilities and Organization**

The E.ON Board of Management bears overall responsibility for our HSE activities, which are coordinated and continually refined and optimized by the HSE department at Group Management. A number of committees work with teams of HSE experts to establish HSE standards, rules, and targets for our entire company. The Board of Management at each of our units appoints an HSE Governance Council, whose mission is to enhance the unit's HSE culture. Specific Group-wide safety issues, such as contractor management, are addressed by the E.ON HSE Manager Group, which brings together HSE managers from around E.ON.

Over the last few years, our units' safety improvement plans (SIPs) have helped us establish and implement safety processes and structures. In 2011 a project team consisting of experts from Group Management and selected units developed instructions for process and plant safety management that are binding across our company. The instructions establish uniform, high standards for support processes and will be gradually rolled out at our units in line with their respective risk assessment. Since 2011 we've set additional specific standards, particularly for our global units, to ensure implementation of, and compliance with, our Group-wide

safety requirements. These efforts help ensure that our facilities operate without interruption and without harm to people or the environment. SIPs have proven their effectiveness in enhancing our safety performance. In 2013 we plan to develop similar improvement plans for health and environmental protection so that we use such plans to promote improvement of our entire HSE performance.

### **Revised Group Policy Promotes Systematic Implementation of HSE**

We're currently revising our group policies on HSE management to join H&S Group Policy with our Group Policy on Environment. The purposes of the revision are to have the HSE department's organizational setup more closely mirror its management functions and to improve our ability to implement HSE activities systematically across our company. The revised policy, which will likely be adopted in the second quarter of 2013, contains a policy statement that defines our HSE objectives, underscoring our commitment to further enhancing our company's HSE culture. Other important revisions include:

- harmonizing the requirements of, and establishing uniform structures for, our HSE management mechanisms
- embedding occupational health management in our organizational setup.

The new policy, along with the guidelines and standards based on it, describes the organization and scope of HSE management systems and the management requirements for our own company and our contractors.

http://www.eon.com/en/sustainability/social/health-and-safety.html

# **Systematic Accident Prevention**

o 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 Groupwide incident management system, in early 2012. E.ON units that have installed the system can use it to record, analyze, and disseminate to appropriate departments information about injuries, risk-related incidents, and non-work-related injuries affecting E.ON employees and those of our contractors. We're committed to a high degree of transparency with regard to workplace injuries, including fatal injuries, which we strive systematically to prevent. Once fully rolled out, Prevent! will enable us to take rapid preventive action across our entire company to address the risks we identify. The system will be deployed at E.ON companies in and outside Germany. Analyses based on Prevent! data will be possible starting in 2013.

### **Comprehensive Data Facilitate Detailed Accident Analysis**

Our units' monthly Prevent! accident reports record accidents that result in injuries as well as near misses that could have. In the future we intend to assess the risk potential of near misses, which, had they turned out badly, may have caused serious damage or harm. Detailed information about high-risk incidents helps us take appropriate preventive action and further improve our safety performance.

### **Advances in Injury Reporting**

We report the frequency of total recordable and lost-time injuries for the last three years.

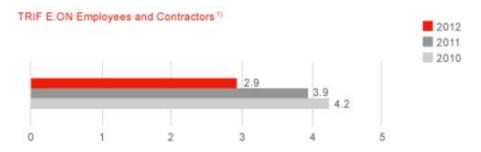
### **TRIF of E.ON and Contractor Employees**

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 E.ON employees since 2008 and for contractor employees since 2011.

### Combined TRIF12

	2012
Generation	3.4
Renewables	6.9
Gas	1.2
Trading	0.0
Exploration & Production	4.5
Germany	3.6
Other EU Countries	2.9
Russia	0.2
Group Management/Consolidation	1.4
E.ON Group	2.9

<sup>&</sup>lt;sup>1)</sup> Total 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.
<sup>2)</sup> Unlike the rest of our sustainability reporting, our safety indicators include companies that are not fully consolidated but over which E.ON has operational control.



 Total Recordable Injury Frequency – sum of work-related accidents per million hours worked that result in fatalities, lost workday cases and a limited ability to work, or where employees and contractors have received medical attention, but where no time is lost.

We set the target of reducing our combined TRIF to 3 by 2014. We've already achieved it. In 2012 our combined TRIF was 2.9, significantly below the 2011 figure (3.9). TRIF for E.ON and contractor employees declined to 2.6<sup>1</sup> and 3.4<sup>1</sup>, respectively. Both were well below the respective 2011 figures (3.3 and 4.9). Nevertheless, we still see improvement potential at some units and with our contractors. The improvement in our performance over the past few years demonstrates that we can achieve significant reductions in injury frequency. Preventing work-related fatalities remains our top priority.

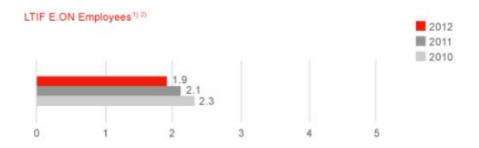
1) The figures TRIF Employees were verified by PricewaterhouseCoopers (PwC) as part of the CS Report 2012.

### **E.ON Employees' LTIF**

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

# ✓ Reviewed 2012

Lost-time injury frequency (LTIF), which measures the number of lost-time injuries per million hours of work, is another safety indicator. By increasing and improving our safety training and by further enhancing our safety culture, we aim to reduce our LTIF index to 1 by 2014.

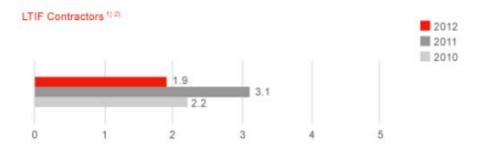


- 1) Lost Time Injury Frequency work-related accidents with lost time per million working hours.
- In deviation from standard the safety indicators includes also companies with a minor shareholding of <50% when E.ON has the operational control.</li>

E.ON employees' LTIF has declined steadily in recent years. It improved from 2.1 in 2011 to 1.9 in 2012. We intend to achieve further reductions in injury frequency by implementing results-oriented measures, including getting management more involved and doing more to promote safety awareness. Clear rules and targets will remain indispensible to this effort. Our 2014 LTIF target for E.ON employees is 1.

### **Contractor Employees' LTIF**

Because we expect our contractors to meet our safety standards, we calculate their employees' LTIF as well. Our 2014 LTIF target for contractor employees is 3.



- 1) Lost Time Injury Frequency work-related accidents with lost time per million working hours.
- In deviation from standard the safety indicators includes also companies with a minor shareholding of <50% when E.ON has the operational control.</li>

Since 2009 LTIF for contractor employees has been trending generally lower as well. After rising sharply to 3.1 in 2011, it fell to 1.9 in 2012, which was also below the 2010 figure. This means that we've already achieved our 2014 LTIF target for contractor employees. Regrettably, however, five contractor employees suffered fatal injuries while working for us in 2012. We intend to conduct structured contractor management as part of our intensified effort to further improve our contractors' safety performance.

### **Fatal Accidents Involving E.ON and Contractor Employees**

Despite our stringent safety standards, six fatal accidents involving E.ON and contractor employees occurred in 2012. In March a contractor employee suffered a fatal fall in the Czech Republic. In June an E.ON employee died while working on electrical equipment in Slovakia. In July two contractor employees died in the Czech Republic, and another died in Romania while working on electrical equipment. In October a contractor employee in Russia was fatally injured by a moving piece of equipment.

We deeply regret each one of these deaths. That's why we're working hard to further enhance our company's safety culture. In addition to the official investigation by government agencies, an E.ON investigation committee analyzed the precise course of events that led to the accident. We then designed measures to improve specific work behaviors and processes and made them available to all of our operating units. This is part of our commitment to do everything we can to prevent future fatal accidents.

### **Results of Accident Investigations**

A commission of experts conducted comprehensive investigations of the fatal accidents that happened last year in the Czech Republic, Slovakia, Romania, and Russia. The results show that we have not succeeded in making sure that all of our contractors embrace our high safety standards. Consequently, contractor management will be a big part of our health, safety and environment strategy and programs in the years ahead. One of the purposes of revising our Group Policy on H&S Management is to improve key aspects of our interactions with contractors. The next update of our HSE standards for contractor management will contain specific, detailed procedural instructions.

http://www.eon.com/en/sustainability/social/health-and-safety/reporting-of-accidents.html

# **Continual Monitoring and Improvement**

Detailed information about accidents and near misses enables us to determine how they happened and to conduct comprehensive risk analysis. We use these results to design specific preventive measures as well as broader, long-term approaches that will help us continually enhance our health and safety (H&S) performance. Safety improvement plans (SIPs) are a key management mechanism for our continual improvement effort. SIPs set specific, measurable risk-reduction targets and prescribe process improvements that an E.ON unit must achieve within a certain time span, typically one year. We monitor progress at regular interval and, if necessary, intensify our efforts.

### **SIP Audits**

All of our global and regional units have implemented SIPs since 2010. SIPs are updated annually by the units' HSE Governance Councils. Pursuant to certification under OHSAS 18001, all EON units must update and implement their SIP annually. We monitor their progress periodically by means of audits. In 2012 we conducted SIP audits of E.ON units in Sweden, the Czech Republic, Russia, and Germany.

### **Involving Management**

We actively involve our top managers in safety management and expect them to serve as role models. In 2009 we introduced a special training program called Leaders in Safety to raise our top managers' safety awareness, and all are required to complete it. Total recordable injury frequency (TRIF) has been the key indicator of our safety performance since 2011. E.ON units are expected to meet or surpass their previous year's TRIF. To encourage top managers to play an active role in establishing preventive safety measures, their variable compensation is impacted by their unit's TRIF and by its success at implementing its SIP.

### **Involving Employees**

We offer all our employees safety training programs that are consistent across our company. In 2012 selected employees from several countries participated in training sessions based on practices developed by Britain's National Examination Board in Occupational Safety and Health. We also took steps to provide qualified employees with advanced training in accident investigation.

Safety F1RST!, a Group-wide informational campaign we launched in 2011, is another important way we raise the H&S awareness of our employees and those of our contractors. It uses a variety of media (comics, videos, posters, and stickers) to communicate our three fundamental safety rules:

- Rule No. 1: We take care of our colleagues.
   Everybody working for E.ON actively takes care of their own and the colleagues' safety.
- Rule No. 2: We stop unsafe work.
   Everybody working for E.ON intervenes in unsafe or unhealthy situations.

• Rule No. 3: We learn from near misses and mistakes.

Everybody working for E.ON reports near misses and accidents and is ready to learn and improve.

http://www.eon.com/en/sustainability/social/health-and-safety/preventive-safety-management.html

# **Helping Employees Live Healthier**

A healthy work environment is one in which our employees can sit, stand, move, and see in ways that support their health. We also want them to have the opportunity to talk to their supervisor openly and objectively. From ergonomic workstations to individual health programs and noise protection, we have a wide range of measures in place to promote our employees' health. Each year we define a health issue for the entire company and take action to address it.

### **New Program for Promoting Health in Germany**

We strive to offer broad support for our employees' health. In June 2012 the E.ON Board of Management approved the Employee Assistance Program (EAP), expanding the offerings for E.ON managers and employees in Germany. EAP is an independent consultation service to which our people can turn for individualized, confidential assistance for dealing with professional, personal, and health problems. EAP's certified care and consulting professionals will help employees deal with psychological problems (addictive behavior, stress, mental overload on or off the job) and life crises. The purpose of this service is to promote and maintain our employees' health, well-being, and performance. It's completely confidential, and our employees are the ones who decide whether to use it. EAP professionals provide specific, practical, solution-oriented, and effective advice via the web, by telephone, and in person. If appropriate, they can refer employees to specialists, therapists, and other healthcare providers.

EAP also offers our managers in Germany support in identifying and engaging with employees who are showing signs of psychological strain or substance abuse. Managers typically aren't trained to deal with employees facing these issues. In the future they'll have an EAP professional to support them.

### **Focus on Mental Health**

Statistics show that mental-health issues are responsible for rising rates of employee absenteeism. Consequently, mental health was again a focus of H&S initiatives at many E.ON units. One main aim is to enhance managers' ability to recognize the signs of mental illness early: in themselves, their colleagues, and their employees. It's important for managers to be able to correctly interpret patterns of absenteeism and address the issue promptly.

In 2012 we developed a pilot project for promoting mental-health awareness and implemented it at the end of the year. The project was the result of close collaboration between the Health Safety & Environment (HSE) department at Group Management, E.ON health experts, and the HSE Governance Council of the E.ON unit at which it was to be conducted. Its aims are to improve employees' quality of life, to find help quickly for those who need it, to do a better job of pinpointing causes, and, if possible, to remove or mitigate them. We also want to reduce absenteeism and enable employees who have had mental-health issues to be reintegrated into the workplace as quickly as possible. The project will be evaluated in 2013. Once approved, it will be rolled out gradually at all E.ON units in Germany.

### **Training Programs**

E.ON has a wide variety of HSE training programs. In 2012 we began cataloging, restructuring, and harmonizing them. In 2013 we plan to hold four workshops at which outside experts will work with HSE staff to put together a more consistent palette of training offerings. They will range from company-wide programs that address broader issues to training that teaches employees how to use specific equipment, materials, and processes. Environmental-protection programs will also be available.

http://www.eon.com/en/sustainability/social/health-and-safety/health-promotion.html



# Community Involvement (CI)

At E.ON, we strive to meet our social and environmental responsibilities and to promote sustainability in the communities and regions where we do business. This is part of how we try to earn the public's understanding and support for our business operations. We focus primarily on CI projects in which we can draw on our core competencies and, whenever possible, involve our employees. It's our hope that these activities help promote positive and mutually beneficial relations between business enterprises and the local community.

### **Fit with Our Core Business**

We want our CI to be effective and credible. That's why our strategic CI focuses mainly on issues that fit with our core business: energy and environmental education, climate protection, and access to energy. And why we support local programs – often by means of long-standing partnerships – that address the needs of a variety of stakeholders. These programs and partnerships create opportunities for us to engage our stakeholders in dialog and benefit from their feedback to rethink and, if necessary, adjust our vision of sustainability.

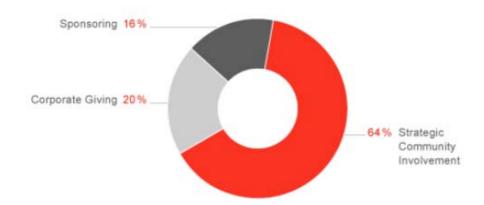
Our corporate giving refers to our donations, which are typically monetary, to charitable and other not-for-profit organizations. Our donations are guided by the objectives defined by the World Business Council for Sustainable Development and, whenever possible, are targeted at projects relating to health, education, employment, and the environment.

Reviewed 2012

### **2012 CI Investments**

We have three categories of CI investments: strategic CI, corporate giving, and sponsorship (culture, arts, sports).

### Community Investments 2012, by Type

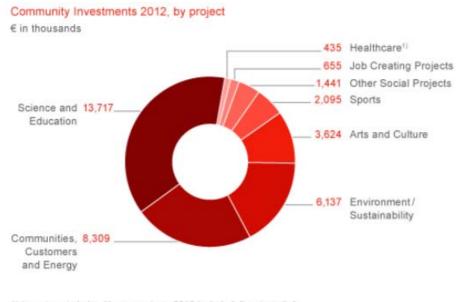


Our CI investments declined from EUR 41.9 million in 2011 to EUR 36.4 million in 2012, owing mainly to reductions in corporate giving and sponsorships.

As with our other expenditures, we must adjust our CI investments to our lower earnings expectations. But we also intend to focus more on projects that fit with our core business. This is reflected in the relative allocation of our 2012 CI investments relative to 2011: investments in strategic CI rose from 55 to 64 percent of total expenditures, whereas sponsorship and corporate giving declined from 45 to 36 percent.

We intend to retain this sharper focus going forward. This means that we'll continue working with many of our long-standing CI partners. It also means that we'll asses carefully whether new requests for support are aligned with our strategic CI priorities and what their positive social or environmental impact will be.

We disclose our annual CI investments and assign them to nine categories:



1) Investments in healthcare projects 2012 included disaster relief.

The biggest share of our CI investment went to science and research. These figures do not include our expenditures for R&D, customer marketing, or activities to comply with laws and regulations.

### **Encouraging Our Employees to Get Involved**

Employee involvement in charitable projects is a key element of our CI. Since 2009, we've had employee-involvement programs in place in every country where we operate, although the scope of these programs varies. E.ON Group employees logged a total of roughly 14,300 volunteer hours in 2012, representing about EUR 360,000 in labor costs. Nearly 2,300 of our employees were active as volunteers in 2012, about 700 fewer than in 2011. This decline mainly reflected the reduction in our workforce resulting from our company's ongoing transformation, which also affected the availability and flexibility of our remaining employees. We continue to support employees who are active as volunteers in their spare time.

### **Local implementation**



Our operating companies are responsible for implementing our CI programs and, where necessary, adjusting them to local circumstances. They receive support and guidance from Group Management in Düsseldorf. Energy for Children (EfC) is one of our biggest Group-wide CI programs. It was launched in 2007 and is now active in 13 countries. Its objective is to raise the energy and environmental awareness of

children and young people aged 3 to 18 by means of innovative educational programs. E.ON companies in each country design a flagship EfC project tailored to their country's circumstances. Thanks to their pedagogical quality, many EfC projects have set new standards for energy and environmental education in their respective country. This applies in particular to "Leuchtpol," our flagship EfC project in Germany, which concluded according to schedule in 2012.

http://www.eon.com/en/sustainability/social/community-involvement.html



### **Customer Orientation**

Customer orientation is one of our company's guiding principles. We focus on our customers' needs and are revamping our sales organization in order to enhance our service and our customers' satisfaction. The essence of our strategy is to provide our customers with products and services that are cleaner and better than our competitors'.

### **Markets and Regions**

Eleven regional units manage our downstream operating business in Europe: retail sales, energy infrastructure, and distributed generation. Through these units we supply energy products and services to residential customers and small and medium-sized enterprises (SMEs). In addition, offer custom-tailored energy-supply solutions to commercial and industrial (I&C) customers in 16 European countries. In some of these we also work closely with the retail arms of regional and municipal utilities whose community presence is often particularly strong.

Electricity and gas each accounted for about 47 percent of our 2012 sales to residential, SME, and I&C customers in 2012. (other services and trading activities accounted for the rest). In the residential and SME segments we had 18.9 million electricity and 7.6 gas customers in Europe at year-end 2012.

### **Improving Our Competitiveness**

We intend to make our retail business more competitive. We're making our organizational setup and business processes more efficient and offering our customers innovative products and services for power, gas, and heat. At the same time, we're significantly expanding our distributed-energy business. Building on a variety of activities at our company, we're giving a broad range of our customers access to micro generating units and smart energy technology. The next step will be to conduct centralized energy management of these units. When integrated into the overall power system, distributed generating units could play a key role in the transition to a lower-carbon future. And from a business and value perspective, one thousand 1 MW mini units are just as interesting to us as one big power station.

**New Business Unit for Distributed Energy Solutions** 

Distributed energy is one of the fastest-growing segments of the global energy business and is expected to account for 30 to 40 percent of new generating capacity between now and 2020. To expand this business, in July 2012 we created a new business unit called E.ON Connecting Energies (ECT). ECT will offer customers complete solutions that include small-scale on-site power generation, energy management, heating and cooling, energy efficiency, and a better integration of the local energy system into the wholesale energy market. ECT will do this by acquiring attractive projects, by aiming to establish long-term relationships with customers, and by developing large-volume supply capability for certain solutions, which will enable our regional units to offer their customers a broader spectrum of solutions.

### **Recognized for Superior Service**

In 2012 our regional units received a number of awards for customer orientation and scored very well in surveys.

- Actualidad Económica, a Spanish business magazine, named "Triple Energía", a retail product marketed by E.ON España, one of the five most innovative energy ideas in Spain. "Triple Energía" was the only commercial product among the top five. The award ceremony was held in Madrid in May 2012. You'll find more information in the profile of our Spain regional unit.
- Dirigentes, a Spanish management magazine, nominated E.ON España for its Customer Care Company of The Year Award in recognition for achieving other significant improvement in customer experience, in particular for launching a toll-free customer hotline.
- In the United Kingdom E.ON energy was the overall winner of the 2012
  uSwitch Customer Satisfaction Awards, achieving a combined score of about
  74 percent, a 10-percent improvement from its 2011 score. E.ON energy
  earned the highest score in six of twelve individual categories, including
  reward schemes and value for money.

http://www.eon.com/en/sustainability/governance-and-integrity/customer-orientation.html

# Regionally oriented, centrally coordinated

The employees at our regional retail businesses know best what their customers want. That's why we take a regional approach to customer orientation. But a certain degree of central coordination is important so that we can share knowledge and leverage synergies. Customer orientation guides how we do business in all of our markets. We listen to our customers and respond: by adjusting tariffs, introducing new products, and making our customer hotlines toll-free. Our key performance indicator for customer satisfaction and loyalty is net promoter score (NPS), which is explained below. The E.ON Board of Management sets a broad target for improving NPS; the degree to which this target is met is reflected in executives' annual bonuses. Our regional units set their own specific NPS target based on their particular market situation. Their executives report their progress toward this target to the E.ON Board of Management on a quarterly basis. By the end of 2014, we intend for the business processes of all our regional units to be even more customeroriented so that we have a distinctly positive image among customers in all our markets. Starting in 2014, we intend to launch programs that will enable us to do a better job of meeting the particular needs of different customers groups.

### **Calculating Customer Satisfaction**

We calculate our NPS for each European country in which we have retail operations. We obtain data by surveying customers in certain types of contact situations that occur by telephone, email, and in person. We ask our customers to rate, on a scale of zero to ten, how willing they would be to recommend E.ON to their friends and to tells the reasons for their score. Specialists at each regional unit analyze the responses and use them to generate ideas and recommendations for improving our customer service and interactions. The survey indicates where we need to improve, information that we use to adjust our processes and systems.

We use the NPS system in Germany, the United Kingdom, Italy, Sweden, the Czech Republic, the Netherlands, and Spain are preparing to roll it out in Romania, Hungary, and Slovakia. In 2012 we surveyed customers in more than twice as many contact situations as in 2011.

In addition to direct customer surveys like NPS, in some markets we also analyze data on customer satisfaction relative to our competitors. We obtain it from market-research firms which we commission to conduct surveys on our behalf. We use these data to calculate our competitors' NPS in those countries in which it has been deployed and for Slovakia and Hungary.

### Center of Excellence for Customer Satisfaction

In 2010 we established a Center of Excellence to oversee the NPS program. It's responsible for monitoring progress, ensuring the consistency of NPS data, and assessing the economic advantages of customer loyalty. It also supports the units with its expertise and serves as a platform for sharing best practices.

### **Customer Dialog**

Our regional units use NPS data to improve their customer service. After listening to its customers, E.ON España became the first Spanish utility to launch a toll-free customer hotline. In a campaign called You Give Us Energy, E.ON España is promoting direct dialog between employees and customers with the aim of developing new customer-centric products and services.

We're enhancing customer dialog in the United Kingdom through a program called Reset. E.ON UK customers can use YourSay, an online forum, to express their opinions and make suggestions. Since 2010 roughly 28,000 customers have provided feedback on 100 different issues, enabling us to factor their expectations into our decisions. In 2011 we became the first U.K. energy supplier to create an independent customer council to address customers' concerns.

### **Customer Complaints Becomes Performance Indicator**

Along with NPS, in the future we intend to measure customer complaints. Our customers will be able to reach us 24/7 to make complaints via an online form. Complaint rates in our retail markets, which will be reported as a performance indicator to the E.ON Board of Management on a quarterly basis, will help us develop new products and identify where we need to improve.

http://www.eon.com/en/sustainability/governance-and-integrity/customer-orientation/customer-satisfaction.html

### **Fair Prices**

We strive continually to be more competitive so that we can make the energy we supply as affordable as possible. That said, our ability to influence end-customer prices is limited. Taxes, levies, and subsidy payments (for renewables, for example) account, on average, for 29 percent of residential electricity prices in Europe. This percentage varies considerably by country, from a low of 5 percent in the United Kingdom to a high of more than 50 percent in Denmark. Residential electricity prices, which rose by 7 percent in the EU27 in 2011, also reflect fluctuations in global commodity prices (source: Eurostat 2011).

### **Providing Customers with Price Security**

We offer our customers a wide range of products and services so that we can respond to their individual needs, preferences, and circumstances. Depending on the market, we offer:

- price-cap and fixed-rate products that shield customers from price increases
- installment plans in which customers' energy bills stay the same throughout the year, which protects them from seasonally high bills, particularly in the winter.
- reward programs in which customers can earn rebates or credit on their bill for reducing their consumption by a certain amount
- price-tracker products that set a cap on rising prices but allow customers to benefit from declining prices.

Customers' buying decisions ultimately determine which power and gas products succeed in the marketplace. We're studying customers' willingness to choose these options, which in some markets aren't well known. We want to find out in which areas we need to expand our palette of offerings. In addition, in some markets we offer customers courses in which they can learn ways to conserve energy and thus shrink their energy bill.

### **Helping Vulnerable Customers**

Were committed to helping our vulnerable customers: older people, people who are physically or mentally challenged, people on low incomes, or people who require life-support medical equipment. We want to ensure that their energy supply isn't cut off, particularly in the winter, if they have difficulty paying their bill. Our assistance for low-income customers varies according to the welfare programs that available in a particular country. Examples of this assistance include helping customers find out whether they qualify for government support schemes, partnering with other organizations to insulate customers' homes and thus reduce their energy bills, and sitting down with customers to work out a payment plan that fits with their budget.

### **Ensuring a Reliable Energy Supply**

We work hard to ensure that we provide a reliable energy supply. Generally speaking, in areas where E.ON is the licensed operator, every household and

business is connected to the grid. In Sweden we rank among the fastest and most efficient operators in terms of restoring service after an outage; customers can even monitor our progress live on the internet.

### **Long-Term Stability and Security**

We maintain a broad and balanced generation mix (which helps us respond to weather-driven fluctuations in output) and source our fuel from a variety of regions (which helps us respond to sudden changes in prices). The shift toward renewables and distributed energy will create a much greater need for energy-storage devices. Going forward, these devices will be needed to ensure supply reliability and quality as intermittent resources like wind and solar account for a bigger share of the energy mix.

Sudden, weather-driven declines in renewables output can be balanced out by existing storage devices (like pumped-storage hydroelectric stations) and by gasfired generating units, which can come online on short notice. When renewables output exceeds demand it can be stored using an innovative technology called power to gas (P2G), in which green electricity runs electrolysis equipment that transforms water into hydrogen, which can be piped into the natural gas pipeline system. In 2012 we began building a P2G pilot unit at an E.ON wind farm in eastern Germany; the unit will enter service in the third quarter of 2013. We're also working on smart grid solutions that will enable us to harness more of the renewable power that's available. Gas storage capacity is also important, and we're investing to expand it. In October 2012 we commissioned a new storage facility in Etzel, Germany, which is capable of balancing out short-term fluctuations in demand, like those that occur during periods of cold winter weather. It has a working gas capacity of about 2 billion cubic meters, which makes it one of Europe's largest underground storage facilities.

 $\underline{\text{http://www.eon.com/en/sustainability/governance-and-integrity/customer-orientation/prices-and-security-of-supply.html}$ 

# **Helping Customers Protect the Climate**

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 usage — about 141 million metric tons of CO2 in 2012 — actually exceed our own emissions. In line with our "cleaner & better energy" strategy, we strive to design efficient and climate-friendly products and services that support our customers' efforts to help protect the earth's climate.

### **Encouraging Conservation**

In every country where we supply energy, we offer our residential and business customers many opportunities to save energy and thus reduce their carbon emissions. As more and more people begin to produce their own energy, they're becoming partners as well as customers. We offer them products, services, and advice that will help them make and use energy more efficiently. These include products like high-efficiency heating units and micro cogeneration units. In several countries (including Italy, Germany, and Spain), we offer special tariffs and reward programs that give customers a financial incentive to use less energy. In Italy we run a program called E.ON EnergiaPremiata in which customers can earn loyalty points for saving energy, recommending us to their friends, and using an app that automatically sends us their meter readings.

# **E.ON Product Ranked among Top-Five Most Innovative Energy Ideas in Spain**

Triple Energía (Triple E), a product developed by E.ON España, also encourages customers to use less energy. Actualidad Económica, a Spanish business magazine, named it one of the country's five most innovative energy ideas. Triple E is the only one of the five ideas that's actually available in the market. Triple E rewards customers with a free month of electricity if they reduce their energy consumption by 10 percent. It has improved our price image in Spain and reduced customer requests for price reductions, which has played a role in lowering our churn rate in Spain to about 20 percent. The Triple E program, which attracted a lot of attention when it was launched, is still under way. Our focus now is on informing Triple E customers about their usage and helping them use energy more efficiently.

### **Eco-Friendly Electronic Bills**

We offering electric billing, which conserves resources and reduces costs, in all our markets. As of mid-year 2012, 22 percent of our customers chose this option. We intend to encourage more to do so; part of this effort will involve learning more about their preferences through our customer surveys. Customers who don't or seldom use the internet or who simply prefer a paper bill will still receive one.

### **Smart Meters**

One way we help our customers use less energy is to make their usage visible. Smart meters store customers' usage data and automatically transmit the data to their energy provider. Customers can view their usage online or on an in-home display screen. Information about their usage patterns helps customers find ways to use energy more efficiently. We've already rolled out smart meters in Sweden and Italy and begun to do in other countries. In a number of countries (these include Spain and France) installation of smart meters is required by law. Our regional unit in the Netherlands has made a voluntary pledge to provide 80 percent of its customers with smart meters by 2020. E.ON UK aims to install 1 million smart meters by 2014. At year-end 2012, 1.5 million E.ON customers had a smart meter.

### **Smart Homes**

In 2012 we partnered with an equipment manufacturer to launch a smart home product in Germany that enables customers to manage their usage and electrical devices more efficiently. Devices and heating units can be controlled remotely using a smartphone and tablet app. In 2012 we also joined the EEBus Initiative whose purpose is to promote uniform technology standards for smart home applications. In addition, the E.ON Innovation Center for Smart Homes began working with partners like Samsung, Miele, and EnBW to develop such standards, which will help ensure flawless communications and data transfer between consumers and energy companies. We're also developing a smart algorithm that will enable us to deftly coordinate customers' needs and network-management requirements.

### **Climate-Friendly Mobility**

We have a range of offerings to promote low-carbon mobility in vehicles powered by electricity and natural gas. We currently operate more than 120 natural gas fueling stations in Germany and just under 40 in Sweden. Natural-gas-powered vehicles (NPVs) emit about one quarter less carbon dioxide than comparable gasoline-powered vehicles. As more regenerative biomethane is fed into the gas pipeline system, NPVs' climate performance will improve even further.

Electric vehicles (EVs) can help make mobility cleaner and less dependent on fossil fuels. In Germany we offer customers a complete package that includes an EV, a charging point, and green power tariff certified to be 100 percent renewable. In a joint research project with a carmaker we demonstrated for the first time in Germany that it's already technically feasible to feed electricity from an EV's battery back into the grid. Projects like this one provide us with important insights into EVs' potential as energy-storage devices in tomorrow's energy world.

http://www.eon.com/en/sustainability/governance-and-integrity/customer-orientation/climate-friendly-products-and-services.html

# Solid Foundation for Good Corporate Governance

Companies like E.ON that operate around the world face complex societal challenges and expectations. We're expected to provide shareholders with a good return on their investment while at the same time managing our business sustainably and ensuring that our decision-making processes are transparent. Protecting the environment, respecting human rights, and avoiding conflicts of interest are very important to us. To ensure that we meet these and other sustainability standards, we've put in place effective organizational structures and established clearly defined responsibilities based on the principles of good corporate governance. In 2005 E.ON signed the United Nations Global Compact. With more than 8,000 members from 130 countries, the compact is the world's largest sustainability initiative. Becoming a signatory commits us to uphold the compact's ten principles encompassing human rights, labor and environmental protection standards, and the fight against corruption. In addition, in 2010 we signed another voluntary pledge, the Code of Responsible Conduct for Business, which underscores our commitment to a social market economy and fair rules for global competition.

### **Corporate Governance System**

Our corporate governance system ensures that the E.ON Supervisory Board and Board of Management work together efficiently and that our reporting practices are transparent. Our system complies, almost without exception, with the German Corporate Governance Code. This ensures that we safeguard the interests of our company and shareholders, that Board of Management decisions are reasonable and comprehensible, and that the Supervisory Board maintains its independence. E.ON AG was transformed into a European Company (Societas Europaea, or SE) on November 15, 2012. As previously (and in keeping with Germany's two-board system), the Board of Management and Supervisory Board will manage and monitor the E.ON Group. The Supervisory Board was reduced from 20 to 12 members; equal representation of shareholders and employees was maintained. The main purpose of the transformation was to make the Supervisory Board's work more efficient and effective and to achieve a broader European composition that reflects the increasing internationalization of our business.

### **Sustainability Embedded in Management Mechanisms**

The Board of Management and Supervisory Board have executive and oversight responsibility for key sustainability issues. Both boards are updated at regular intervals about important sustainability initiatives and events as well as key performance indicators (KPIs). They also receive a Quarterly Board Report, which contains KPIs for safety, environmental protection, climate protection, and the percentage of women in senior management positions. In addition, managers from the Corporate Responsibility (CR) and Health, Safety, and Environment (HSE) departments provide information to individual Board of Management members, usually by means of reports and briefings. Between the Sustainability Management and Technology and Innovation (T&I) departments there are areas of thematic

overlap that we use, in projects like Innovation City Ruhr, to design sustainability-oriented and products and services.

We also plan to establish a Sustainability Council (SC) composed of department heads and presumably a member of the Board of Management. Senior E.ON executives will be invited periodically to assess a sustainability issue in their area of responsibility with an external expert. After sharing experiences and approaches, they will be advised of potentials for improvement and possible implementation at E.ON, as part of round table discussions. Proposals generated by these discussions will be presented to the SC twice per year. The SC will decide which of the proposals to adopt as recommendations for our operating units. The SC will report to the Board of Management twice ayear. We did preparatory work in 2012 for establishing the CR and round tables, which will meet for the first time in 2013.

### **Sustainability Targets for Executives and Units**

One of the Supervisory Board's oversight duties is to evaluate the performance of the Board of Management. The Supervisory Board sets sustainability targets; the degree to which these targets are met is one of the factors that influences Board of Management members' variable compensation. This way, qualitative and quantitative sustainability criteria we implemented in our strategic orientation and operational business. The annual compensation of senior E.ON executives also has a variable component, which factors in both an executive's personal performance and the company's performance. In addition, gender-diversity and HSE targets are set for all E.ON units; the units' performance vis-à-vis these targets (and other targets they may have set for themselves) is factored into the variable component of their executives' annual compensation. The purpose of these targets is to motivate our executives to take a proactive approach to sustainability issues.

http://www.eon.com/en/sustainability/governance-and-integrity/good-governance.html

# Voluntary Commitment to Values and Principles

A company is in compliance when it conforms with all applicable laws and regulations. For E.ON it also means that we live up to the values and principles to which we've voluntarily committed ourselves. We've codified these values and principles in a Code of Conduct which is binding across our entire organization. The current version of the code has been in force since January 2010. We support the aims of the German Corporate Governance Code and comply, almost without exception, with its recommendations.

### **Code of Conduct for All Employees**

The Code of Conduct requires our employees to conform with central principles and rules for legal and responsible behavior, especially in their interactions with business partners and public officials. In all processes, decisions, and daily activities, each E.ON employee – in particular our managers and executives – must fully comply with the code at all times. The code encompasses:

- 1. interactions with business partners, third parties, and government agencies
- 2. the avoidance conflicts of interest
- 3. the handling of company information
- 4. the company property and resources
- 5. the environment and occupational health and safety

### The Code of Conduct's Scope

The Code of Conduct's rules apply to all of our global and regional units, all Group companies, and all subsidiaries in which we hold a majority stake. They apply to all board members, executives, and managers and to all employees who have an E.ON employment contract, even if they have been seconded to a join venture or a subsidiary in which we hold a minority stake. As part of our commitment to responsible procurement, we also require that our suppliers and business partners pledge to conform with our code's rules. For companies in which we hold minority stake, the degree to which the code applies depends on the percentage of our stake; for 50:50 joint ventures, we will reach an agreement with our partner on the basis on the code..

### **Comprehensive Compliance Organization**

The E.ON Board of Management and the Supervisory Board's Audit Committee have responsibility for the functioning of our compliance organization. The Chief Compliance Officer (CCO) reports to them on compliance issues such as antitrust law, securities law, insider-trading regulations, the Code, fraud, and corruption. The CCO is also responsible for updating the Code of Conduct and other compliance guidelines on a regular basis. All regional and global units have a compliance officer who reports directly to the CCO at Group Management. Any unit in which a

compliance rule is violated is directly responsible for investigating the violation, ensuring that it is rectified, and, if necessary, taking punitive action. An independent auditor is in the process of certifying our compliance organization for conformity with IDW PS 980, a German standard for compliance management systems.

All E.ON employees are required to familiarize themselves, and comply with, our prohibitions against insider trading and all other E.ON Group guidelines. The Code of Conduct is supplemented by a compliance checklist which our employees can use to determine whether proposed activities are in keeping with E.ON's principles of integrity. A violation may result in criminal or civil sanctions. Additional detailed provisions and specific instructions apply to antitrust law and gifts and benefits.

### **Addressing Violations**

The purpose of our compliance organization is to ensure that E.ON complies with law, regulations, and our own rules and principles. It also aims to identify and rectify any weak points related to proper ethical behavior. As part of our compliance organization, we've created an expert teams in the Compliance Audits and Internal Compliance Controls departments, which are part of our Corporate Audit division, to detect and investigate fraud. They play a key role in our efforts to fight corruption and fraud.

We want our employees to alert us to potential compliance violations and, if they wish, to do so anonymously. Consequently, since 2010 we've collaborated with a law firm to maintain a Group-wide whistleblower hotline that employees can use to report potential violations. The law firm forwards the report, anonymously if desired, to the CCO. Anonymity shields the whistleblower from any potential adverse consequences. Employees can also use anonymous employee opinion surveys (EOSs) to offer their opinion and draw our attention to potential violations. An EOS of the entire company is conducted roughly every two years; at the discretion of the E.ON Board of Management, EOSs of portions of the company may be held at more frequent intervals.

### **Compliance Reporting**

Ninety-six alleged compliance violations were reported and thoroughly investigated in the E.ON Group in 2012. Most were reported via our internal compliance system. Their gravity varied widely, from mistaken reports to serious violations that resulted in immediate termination and criminal investigation. Most were minor violations. But some caused significant financial damage. Avoiding such violations is a top priority for us. We're currently designing guidelines that will enable us to identify and prevent such risks at an early stage.

In addition to monitoring compliance with the Code of Conduct and investigating potential violations, we designed and conducted compliance risk assessments at three of our regional units in 2012. We plan to conduct assessments, which are tailored to the situation in each country and entity, across our entire organization in 2013 and present the results to the E.ON Board of Management.

### **Preventing Corruption**

Avoiding conflicts of interest is a top priority. By signing the UN Global Compact, we committed ourselves to combating corruption. Consequently, anticorruption measures are embedded in our corporate polices. We participate in national and international Global Compact networks in countries such as Germany and Sweden, working across sectors to strengthen initiatives to that will help combat corruption around the world.

We're aware that our business activities encompass countries where the risk of corruption is higher. We have operations in 13 countries and suppliers in six others that score below the 60-point threshold on Transparency International's Corruption Perception Index. We generated 7.5 percent of our sales in these countries in 2012. One of the purposes of our compliance risk assessments is to address different types of corruption risk.

### **Compliance Training**

Our employees can consult the text of our Code of Conduct at any time. In 2010 we launched a special e-learning program for the code with the aim of raising employees' awareness and helping them practice compliance. The program addresses topics such as:

- law-abiding behavior
- interactions with business partners, third parties, and government agencies
- the avoidance conflicts of interest and corruption
- the handling of company information, property, and resources

Roughly 60,000 E.ON employees (all of those who have access to our company intranet) can use the program; of these, 83 percent have completed it successfully. We issue brochures to employees without internet access so that they too can receive compliance training.

 $\frac{http://www.eon.com/en/sustainability/governance-and-integrity/good-governance/compliance-and-prevention-of-corruption.html}{}$ 

# **Protection of Human Rights**

E.ON SE and its predecessor entities have always respected human rights, although we did not make a formal declaration until 2005, the year in which, owing to the increasing internationalization of our business, we signed the UN Global Compact. The pledge to respect human rights is also contained the E.ON Board of Management's Commitment to Corporate Responsibility of 2006. As part of our CR work program for 2008–2010, we developed Human Rights Guidelines, in which we recognize the UN Universal Declaration of Human Rights and the International Labor Organization's convention on human rights. The Board of Management signed the ILO convention on the company's behalf in 2008 and explicitly stated (with reference to ILO conventions 29, 105, 132, and 182) E.ON's opposition to child labor. We integrate human rights issues into our procurement processes and CR audits. Since 2011, the UN Guiding Principles on Business and Human Rights have provided companies with global standards for respecting human rights and preventing and remedying violations. We observe these principles along with our own rules and guidelines.

### **Integrating Human Rights Issues into Procurement**

Our supply chain presents the greatest challenge in our effort to protect human rights, which also includes preventing child labor and ensuring acceptable working conditions and ethical business practices. Consequently, respect for human rights is codified in our Principles for Responsible Procurement, which have applied across our organization since 2007. We expect our suppliers to respect human rights and ensure fair working conditions for their employees. Compliance with the principles is monitored by staff at our units in collaboration with Group Management. Staff from the appropriate department (for example, Procurement) are responsible for implementing specific measures; they receive support from sustainability experts. We carefully analyze the potential for violations and take a preventive approach. We have risk-based processes for certain types of materials we procure and put together risk profiles for key suppliers.

### **Sustainable Supply Chains Project Group**

We participate in the Sustainable Supply Chains project group run by econsense, a forum for the sustainable development of German business. In 2012 the group developed guidelines for large and small companies, to foster a better understanding of corporate sustainability in a global context, and simplify dialog on sustainable supply chains. The guidelines represent a consensus of econsense members on key aspects of corporate sustainability in global supply chains and are closely modeled on internationally recognized standards. In particular, the guidelines are designed to help companies that don't yet conduct systematic sustainability management to embed sustainability into their business processes. The guidelines consist of three thematic and two process-oriented categories (management process, monitoring and results); the latter categories address human rights.

# **Coordinated Approach for Coal and Uranium Mining Standards**

The lack of industry-wide standards for coal and uranium mining presents another challenge. Currently, we can't be certain that the mines from which we source these fuels, some of which are open-pit mines in developing countries, 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, particularly at mines. In close and transparent 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. For example, child labor will be prevented by the establishment of a minimum age for employees. The codes are formulated as a set of specific criteria that can be used to verify compliance (a criterion for preventing child labor, for example, is that companies obtain verification of a potential employee's age prior to hiring). Bettercoal has set up a Secretariat which developed assessment quidelines and will coordinate on-site mine assessments. The assessments will be conducted by independent, qualified thirdparty assessors who will inspect the mine and interview managers, employees, and local residents. Mines that don't conform with the codes will receive feedback as well as targets for improving their processes and conditions. In April 2013 the draft codes, including the assessment guidelines, entered the second phase of the public consultation process, which involves a wide variety of stakeholders. The codes are expected to be approved by the summer of 2013. A shared online database for assessment results is scheduled to be in place by summer as well.

Minimum standards for uranium mining are in the process of being approved by an international working group coordinated by the World Nuclear Association. The group includes uranium producers and consumers. Prior to the working group, mine operators spent several years developing protocols for evaluating issues such as health, safety, and environment (HSE) and management systems. E.ON is observing this process and, depending on the outcome, may take these standards into account when we conduct our own periodic mine audits.

# **Commitment Encompasses All E.ON Global and Regional Units**

Our Human Rights Guidelines obligate all of our global and regional units to respect human rights. The guidelines are periodically reviewed and refined to ensure that they're properly embedded in our management processes. We also plan to establish the figure of a Chief Responsibility Officer (CRO) as a contact point at Group level. After defining relevant duties and responsibilities of the CRO, the E.ON Board will nominate an executive at Group level.

We use the company intranet to make our employees aware of the importance of our Commitment to Corporate Responsibility, Human Rights Guidelines, and Principles for Responsible Procurement. Roughly 60,000 of our employees have access to a special e-learning program for our Code of Conduct and compliance organization, which has a section on human rights. Key E.ON staff members participate in workshops conducted by, for example, the UN Global Compact Network, ensuring

that our company stays up to date on the latest developments and discussions in this area.

# **Respecting Human Rights at Our Subsidiaries**

Our Group-wide guidelines and standards apply to fully consolidated E.ON companies and other companies over which we have legal control. In the case of join ventures (JVs) and other subsidiaries over which we do not have legal control, we try, in our own interest, to apply our compliance standards. We conduct due diligence with regard to human rights issues and also assess environmental, social, governance risks. When we form joint ventures, we address compliance issues from the very beginning of negotiations. Our aim is the have E.ON standards, or qualitatively similar standards, written into the JV agreement.

# **Mechanisms for Reporting Violations**

E.ON employees can report suspected human rights violations through our Groupwide compliance organization. People outside our company can do so via customer hotlines set up by the lead E.ON company in each particular country. This company's management is responsible for deciding what action to take in view of local laws and regulations.

http://www.eon.com/en/sustainability/governance-and-integrity/good-governance/protection-of-human-rights.html

# **Responsible Lobbying**

Democratic countries have clear rules for participating in the legislative process. E.ON complies with applicable Europeans laws, with the laws of the countries in which we operate, and with rules for participating in committees and public-policy working groups. It's legitimate for companies to offer their expert knowledge to public decision-making processes as long as they do so openly. As an energy utility, we focus primarily on energy, environmental, and climate policy. More specifically, we participated in EU consultations and discussions about capacity mechanisms, the Emissions Trading Scheme, and the redesign of renewables subsidies. These issues, along with network fees, were also topics of debate in Germany. Renewables subsidies were also a key issue for us in the United States.

# Lobbying the EU

In December 2011 E.ON joined the European Union Transparency Register for organizations and self-employed individuals engaged in influencing the making and implementation of EU policy. This underscores our commitment to making our interactions with EU institutions as transparent as possible. In addition, our lobbyists have obtained accreditation from the European Parliament. We support efforts to introduce a similar accreditation process in Germany.

### **Clear Rules for Communications**

Our internal communications guidelines establish clear rules for our participation in political decision-making processes. They set standards for the information we convey and delineate responsibilities, processes, and mechanisms. These include rules regarding the transparent management of information and policy dialog by E.ON government affairs staff who interact with policymakers and government agencies. Our guidelines also prohibit the release or distribution of selective information or misleading publications containing inaccurate or incomplete facts. If this happens inadvertently, we issue a correction immediately. We strive to communicate openly and consistently with our stakeholders. To ensure that we do this across our organization, we've laid down clear rules and responsibilities and in a Group Policy on Stakeholder Management, which is being revised in 2013 to reflect E.ON's altered organizational setup. Two departments, Sustainability Management and Corporate Communications, provide further specific guidance on sustainability communications.

## **Rules on Gifts and Contributions**

Our Guidelines on Benefits state that we will neither give gifts nor grant other benefits to government officials. Our employees may only accept gifts if there's no possibility of the mere appearance that the gift is a quid pro quo for actions or behavior desired by the conferrer of the gift. In cases of doubt, employees must obtain the explicit consent of an E.ON Compliance Officer before accepting a gift. We categorically prohibit the conferral of gifts or contributions to policymakers in anticipation of pending official decisions. We respect the dignity of the individual and their right to form an opinion independently. Consequently, we do not make contributions (either

monetary or in kind) to political parties, individual politicians, or not-for-profit political organizations in the countries where we do business.

Companies in a range of industries benefit from government subsidies. The only significant subsidies E.ON receives are for research and development. We estimate that in 2011 these subsidies amounted to roughly EUR 4.5 million, of which subsidies for wind power in the United States constituted the largest item. We did not receive other forms of government financial benefits, such as favorable tax treatment or the waving of fees.

# **Lawsuits for Anticompetitive Practices**

In 2012 no lawsuits were filed against E.ON for alleged antitrust violations or anticompetitive practices neither lawsuits are pending. Consequently, there was no case settled out of court in 2012. Our total expenditures (fines, legal fees, court costs) for antitrust and anticompetitive lawsuits came to around EUR 150,000 in 2012.

http://www.eon.com/en/sustainability/governance-and-integrity/good-governance/responsible-lobbying.html



# Responsibility for a Sustainable Value Chain

Our ability to procure fuel and other materials securely and price-effectively is a key success factor in our business. At the same time, we believe that as a multinational corporation we bear a significant social responsibility. This includes doing our part to ensure that our entire supply chain meets minimum environmental, social, and governance standards. We strive to establish high standards the regions where we, our suppliers, and their suppliers are active. Differences in local laws and regulations along with the absence or inadequate enforcement of standards present us with special challenges in a number of areas.

# **Addressing Key Challenges**

We face a wide variety of challenges in our commitment to responsible procurement. Examples include:

- Hard coal. The coal industry still lacks globally recognized environmental and social standards. We're involved in developing them. Certain issues, such as preventing child labor, require greater vigilance in some regions.
- Natural gas. Reliable procurement pathways are important for ensuring price stability and supply security for our gas customers in Europe. We meet these objectives with a combination of long-term and flexible supply contracts.
- Uranium. The number of potential nuclear fuel suppliers is limited, and problems with one producer could harm the reputation of the entire nuclear industry. We aim to minimize this risk.
- Biomass. Biomass production must not crowd out food production or endanger biodiversity. The use of biomass should result in a significantly smaller carbon footprint relative to the use of fossil fuels. Our contracts with biomass suppliers and all of our biomass projects conform with these principles.
- Non-fuels. We expect our suppliers of non-fuels (technical components, office supplies, services, and so forth) to meet stringent globally recognized standards. This principle applies equally to all suppliers, regardless of the country or countries in which they operate.

# **Updating Our Group-Wide Standards**

In 2007 we established a Responsible Procurement Policy that's binding for our entire company. It's based on the principles of the United Nations Global Compact and are 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 ensure by means of audits and other processes that our suppliers fulfill these criteria. We conduct risk analyses prior to our procurement activities, including risk assessments and prequalification for major suppliers. Evaluating suppliers while they're performing their service helps ensure the quality of the procurement process. Where necessary, we also support our suppliers in their efforts to improve and develop their processes.

We develop our own environmental and social standards which reflect the results of our discussions with stakeholders as well as internationally recognized standards. For example, in November 2009 we established sustainability standards for all biomass procured by our company. Our objective is to steadily enhance our ability to influence and monitor our supply chain while at the same time minimizing risks to our reputation. As part of this process, we work with our industry peers and with stakeholders, such as non-governmental organizations, that take a critical view of us or aspects of our operations. A good example is Bettercoal, an initiative in which we've joined forces with other large companies and a variety of stakeholders to improve working conditions and environmental performance along the entire coal supply chain, particularly at mines. In addition, Bettercoal will conduct mine assessments according to consistent guidelines it's currently developing; the results of the assessments will be compiled in a database.

## **Enhancing Supply Chain Sustainability**

In 2012 we set specific targets for systematically embedding sustainability criteria in our procurement decisions and to address stakeholder concerns and criticisms. These targets are part of our work program for the period 2012-15.

### **Procurement Targets**

#### Status at Year-End 2012 Targets Identify all high-risk In 2012 we completed the qualification process for more than 500 suppliers, which account for a large majority of suppliers by analyzing our our expenditures. This process addressed also important major non-fuel suppliers, which account for 80 percent - compliance and sustainability risks. In 2013 we plan to put of our non-fuel procurement in place a Group-wide supplier management system for managing the strategic partnerships with our major volume. suppliers, enhancing transparency, and developing approaches for global procurement that will give us access to new and favorably priced procurement markets. Strengthen the Bettercoal Bettercoal was registered as a not-for-profit organization in initiative in order to make the 2012 and given an organization setup. Pilot assessments coal supply chain more of mines were conducted and assessment guidelines sustainable; expand were revised. All member companies pledged to require Bettercoal's assessment their suppliers to conduct self-assessments based on the activity with the aim of Bettercoal Code, which is expected to be approved in 2013. conducting four mine assessments by 2015.

We monitor our progress toward these targets annually in our sustainability reporting. We also consider whether to set additional targets. For example, we intend to further expand our procurement activities regarding sustainable biomass. Subpages about fuel and non-fuel contain additional information about important developments and key performance indicators.

# **Ensuring Compliance with our Procurement Principles**

To achieve our targets, our procurement and sustainability teams work together closely on the basis of our Responsible Procurement Policy. Our procurement processes differentiate between fuel for our power stations (hard coal, natural gas, uranium, biomass) and non-fuel items (technical components for our facilities, office supplies, services). With the support of sustainability experts, the process owners for our fuel and non-fuel procurement are responsible for ensuring compliance with our Responsible Procurement Policy.

### Sustainable Procurement Processes



We ensure our suppliers' compliance through the various steps of our qualification system:

 We conduct a prequalification process to determine whether new suppliers fulfill our sustainability criteria.

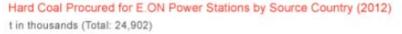
- We conduct risk analyses for major suppliers and, if necessary, training programs. If we identify shortcomings, we design action plans that set environmental and/or social targets and recommend measures the supplier can take to achieve these targets.
- E.ON and/or outside experts carry out inspections of production and manufacturing facilities. We also conduct audits of our major suppliers. In 2008 we instituted Group-wide training programs, which in some cases involve independent auditing firms, to provide our auditors with the necessary qualifications.
- Based on the audit results, we work with our suppliers to identify areas for improvement and agree on corrective measures and a timeline for their implementation. If suppliers are uncooperative, we may decide to end our business relationship with them.

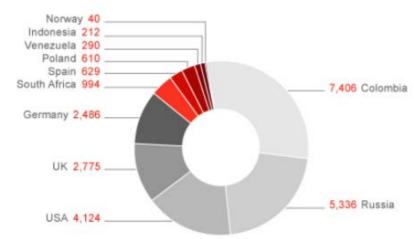
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# Improving the Coal Supply Chain

# ✓ Reviewed 2012

Hard coal meets more than one third of the world's electricity needs. The largest coal reserves are in Russia, Africa, and North and South America. Together, Russia and Columbia 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 Columbia, 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 from the 2011 figure of 23,800 kilotons.





## **Industry-Wide Collaboration to Promote "Bettercoal"**

We can't rule out the possibility that in some cases the extraction of coal, which often takes place in open-pit mines, may harm the environment, pollute the air, contaminate groundwater, or involve violations of human and workers' rights. Because we're aware of these risks, we're partnering with our industry peers and non-governmental organizations (NGOs) to improve coal-mining sustainability. We joined seven other leading European power producers to launch Bettercoal, whose aim is to promote the continuous improvement of environmental and social conditions in the international coal supply chain, particularly at mines.

#### **Bettercoal Code to Set Global Standards**

In close and transparent 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. For example, child labor will be prevented by the establishment of a minimum age for employees. The codes are formulated as a set of specific criteria that can be used to verify compliance (a criterion for preventing child labor, for example, is that companies obtain verification of a potential

employee's age prior to hiring). Bettercoal has set up a Secretariat which developed assessment guidelines and will coordinate on-site mine assessments. The assessments will be conducted by independent, qualified third-party assessors who will inspect the mine and interview managers, employees, and local residents. Mines that don't conform with the codes will receive feedback as well as targets for improving their processes and conditions.

Round tables with mine operators and stakeholders were held in key producer countries. After the draft code was written, NGOs were given the opportunity to review it and provide feedback by means of an online. The first phase of the transparent public consultation process has been completed. The draft code, including the assessment guidelines, has entered the second phase of a transparent public consultation process, which involves a wide variety of stakeholders. The final Bettercoal Code is expected to be approved by the summer of 2013. A shared online database for assessment results is scheduled to be in place by summer as well.

http://www.eon.com/en/sustainability/governance-and-integrity/sustainable-procurement/coal.html

# Procuring Gas from a Variety of Sources

We provide our customers with a reliable supply of gas. We ensure this supply with a combination of long-term and flexible procurement contracts, gas storage facilities, and supplies that we source from liquefied natural gas (LNG).



In 2012 we procured and traded 1,309.8 billion kilowatt-hours of natural gas. Besides trading activities of E.ON Global Commodities and E.ON Energy Trading this volume includes physical trading of gas distribution units in Germany and other European countries. (see Annual Report 2012, p.35). We procured gas from a variety of countries. Our biggest suppliers for the German market were Russia, Norway, Germany, and the Netherlands.

#### Gas Procurement by Country<sup>1</sup>

Billion kWh	2012	+/- %	2011	2010	2009
Norway	165.8	10.9%	149.5	174.2	166.8
Russia	181.1	1.7%	178.1	184.9	164.3
Germany	153.6	3.4%	148.6	159.7	134.4
Netherlands	120.5	2.0%	118.1	118.2	93.1
United Kingdom	1.6	-84.0%	10.0	4.0	2.8
Denmark	13.6	-4.9%	14.3	16.8	17.7
Other	61.3	46.3%	41.9	30.7	47.8
Total	697.5	2.9%	660.5	-	-

<sup>&</sup>lt;sup>1)</sup> Gas procured by E.ON Ruhrgas AG; total 697.5 billion kWh; figures have been rounded.

# **Expanding Our Own Production Sources**

Our long-term objective is to source from our own production assets up to 20 percent of the gas we need. This will enable us to better diversify risk and will keep us close to the upstream side of the business. Our Exploration & Production (E&P) global unit is separate from our wholesale gas business and focuses on E&P in the U.K. and Norwegian North Sea, North Africa and Russia. Partner companies serve as the operator on most of our E&P projects. Production at our North Sea fields declined to 615 million cubic meters in 2012 owing to technical reasons. Our stake in Yuzhno Russkoye gas field in Russia represented our biggest source of gas production in 2012.

# **Sourcing Gas Globally: LNG**

Over the past several years, LNG has become another important source of gas. We plan to further expand our LNG activities. We've booked E.ON regasification capacity at LNG terminals in the United Kingdom, the Netherlands, Spain, and Italy. Ships unload LNG at the terminals where it is regasified and piped into the gas transport

system. LNG is traded globally and can be procured under long-term contracts or as spot cargos.

# **Nord Stream's High Environmental Standards**

We're also active in gas infrastructure. We have a 15.5-percent stake in Nord Stream, a consortium to build and operate a pipeline to transport gas across the Baltic from Russia to Germany. Construction on the second of the tandem pipelines began in October 2012. Each pipeline has an annual transport capacity of 27.5 billion cubic meters. The construction and of the Nord Stream pipelines meets stringent international environmental and safety standards. The transport of gas conforms with internationally recognized standards as well as those of the operator and its shareholders. Nord Stream commissioned the largest-ever environmental study of the Baltic Sea and has invested more than EUR 100 million to assess and minimize the project's environmental impact.

http://www.eon.com/en/sustainability/governance-and-integrity/sustainable-procurement/natural-gas.html

# Strict Rules for Uranium Procurement

The largest uranium reserves are in politically stable countries like Canada and Australia. Natural uranium can be easily and safely stored since, compared with coal, only relatively small amounts are required for power generation. In 2012 deliveries from Canada met more than 50 percent of our needs for natural uranium. We also sourced uranium from Malawi, Kazakhstan, Russia, Australia, and Namibia. The uranium was enriched in Europe and Russia. We also have our own stock of natural uranium, one third of which was procured from Canada; other sources were Australia, Russia, Kazakhstan, and Namibia.

In 2012 we sourced a total of 1,450 metric tons of natural uranium for our nuclear power plants (NPPs) in Germany and Sweden (2011: 1,300 metric tons). As Germany phases out nuclear energy, going forward our uranium requirements for our NPPs in Germany will decline steadily.

# **Proactive Response to Procurement Challenges**

Our suppliers along the uranium value chain (mining, conversion, enrichment) must ensure that they comply with our Responsible Procurement Policy. To minimize risks, we source uranium from established suppliers that generally produce in politically stable countries. To our knowledge none of them violates applicable laws or regulations. If this was to change, we would no longer use the supplier in question.

Minimum standards for uranium mining are in the process of being approved by an international working group coordinated by the World Nuclear Association (WNA). The group includes uranium producers and consumers. Prior to the working group, mine operators spent several years developing protocols for evaluating issues such as health, safety, and environment and management systems. E.ON is observing this process and, depending on the outcome, may take these standards into account when we conduct our own periodic mine audits.

# **Assessing Allegations against Suppliers**

If there are negative public reports about one of our suppliers, we put the supplier on a watch list and demand that it respond to the allegations without delay. If the supplier confirms the allegations, we assess its plans for corrective action. If it has no such plans, we demand that it develop them. If the situation remains unresolved, we would consider suspending our relationship with the supplier. However, this case has not yet arisen. We've held initial talks with the WNA and with other European power producers about possibly working together on sustainability audits.

An audit of a uranium mine in Kazakhstan planned for 2012 has not yet taken place. The preparations for it proved to be more complicated than anticipated. We're deciding whether to conduct the audit in 2013 or whether to audit another mine. We also plan to share knowledge about audits with other European power producers.

http://www.eon.com/en/sustainability/governance-and-integrity/sustainable-procurement/uranium.html

# **Sustainability Criteria for Biomass**

Biomass is becoming an increasingly important renewable energy source. Biomass power plays a significant role in the EU's long-term energy strategy and, compared with intermittent renewables like wind and solar power, it has the advantage of being available 24/7 to meet demand. To be sustainable, biomass production must not crowd out food production or endanger biodiversity. The combustion of biomass releases only the carbon dioxide that was stored during biomass's growth phase; this carbon dioxide is then recaptured by new growth, resulting a largely climate-neutral lifecycle. However, we're aware that some people have concerns about biomass and we actively participate in the public debate. Conformance with sustainability criteria is the foundation for all our biomass projects and is often a prerequisite to qualify for government subsidies. Consequently, in November 2009 we codified our commitment to biomass sustainability in an amendment to the E.ON Responsible Procurement Policy. All our biomass contracts must conform with the amendment.

# **Developing Consistent Assessment Criteria**

Consistent criteria for biomass procurement are also important for the development of a functioning European wholesale biomass market. To help develop such criteria for wood pellet procurement, we participate in the Wood Pellet Buyers Initiative, which brings together European energy producers, pellet producers, inspection organizations, and other stakeholders. The first standards have already been adopted and tested. The initiative will adjust and refine the standards as necessary, and we intend to develop mechanisms so that we implement them routinely in our operations.

# **Using Biomass to Reducing Carbon Intensity**

E.ON Climate & Renewables operates Steven's Croft, one of the biggest dedicated biomass-fired power stations in the United Kingdom. It produces enough electricity to supply about 70,000 households. Compared with a similarly sized fossil-fueled power station, Steven's Croft displaces up to 140,000 metric tons of carbon dioxide annually. Our biggest biomass operations involve co-firing biomass in coal-fired power stations in Sweden.

## **Replacing Coal with Biomass**

In view of the comparatively poor climate performance of coal-fired power stations, we've begun converting some of ours to burn biomass. Among them is Ironbridge power station in the United Kingdom, which, after conversion, will be able to burn up to 100 percent wood pellets. We're starting with a 500 MW unit at Ironbridge, which begins burning wood pellets in 2013. Depending on government subsidy schemes, the unit will still be permitted to co-fire 20 percent coal. Thanks to biomass conversion, Ironbridge will be able to continue operating after the stricter standards of the EU Directive on Industrial Emissions take effect in 2015. In conjunction with the conversions at Ironbridge and Langerlo power station in Belgium, we've held informal discussions with non-governmental organizations that have concerns about the projects.

 $\underline{\text{http://www.eon.com/en/sustainability/governance-and-integrity/sustainable-procurement/biomass.html}$ 

# Transparent Supplier Selection Processes

We use the same processes and apply the same standards worldwide when we procure technical components, office materials, and other non-fuel goods and services. Our non-fuel procurement organization establishes a list of approved suppliers in all key categories and conducts risk analyses of all major suppliers. Many of our non-fuel supplies are based in countries of the Organization for Economic Cooperation and Development (OECD). In a large majority of these countries the procurement risks for environmental and social performance are lower than in countries outside the OECD. Regardless of where we operate, however, we intend to further standardize the reporting on our procurement processes and make it more transparent.

# **Numerous Audits in Europe**

As part of our supplier selection process we conduct audits in all key non-fuel markets. The audits are classified by material groups, manufacturers, and sectors. Our objective is to identify potential procurement risks early and to design countermeasures. We're happy to report that our audits identified no significant risks in 2012.

# **Central System for Enforcing Group-Wide Minimum Standards**

Our objective is to establish a consistent and fair selection process that familiarizes our suppliers with our environmental and social standards. We're compiling information relevant for procurement decisions in an external central database.

This process has worked well for years in several countries. By extending to it other countries and by using an independent third party to verify the information provided by suppliers, we aim to ensure that all of our suppliers worldwide conform with our minimum standards.

 $\underline{\text{http://www.eon.com/en/sustainability/governance-and-integrity/sustainable-procurement/non-fuels.html}$ 



# **Our Contact Persons**

Your contacts responsible for sustainability at Group level are detailed below. They will be happy to answer any questions you may have about sustainability at E.ON.

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