

# SECURING THE FUTURE.



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## IN CONVERSATION WITH PETER TERIUM Chief Executive Officer of RWE AG



Peter Terium, CEO of RWE AG

Mr Terium, in December 2015 you announced a strategic realignment of the RWE Group. What exactly are you intending to do?

TERIUM: We are bundling renewable energies, grids and distribution in a new company and taking it to the stock exchange. This will give us a platform for growth with direct access to the capital market. We are planning to increase the capital for the new company by the end of 2016 through the issue of new shares by around 10%. The new money is going to finance further growth in future markets. RWE AG will remain a majority shareholder in the new company over the long term and also concentrate on conventional electricity generation and energy trading.

You have repeatedly highlighted the fact that RWE is not splitting up, but that everything will be happening under a single Group roof. Does this mean that it will be business as usual and nothing is going to change – apart from the fact that new money is flowing into the coffers?

TERIUM: No, things are certainly not going to continue as before – irrespective of the structure we move into the future with. Our business framework alone is much too dynamic for this. Both of our Group segments can now approach their future challenges even more strategically. Developing and selling digital products, tailoring distribution grids to match the energy transition and designing energy concepts for growing metropolises – this is rather different from operating conventional large-scale power plants and trading in raw materials.

Is it the case that in future there will be a sustainable and a non-sustainable RWE?

TERIUM: That would be too simple. In future, both of these companies will be needed to provide a sustainable energy supply. Conventional power plants will continue to be indispensable for security of supply. They have to generate electricity when renewable energies are not available. Both parts of RWE are also an important factor for the regional economy as an employer and purchaser. We take social responsibility at our locations. All RWE companies remain committed to our conceptual understanding of sustainability as it is defined in the principles of the UN Global Compact.

Aren't there nevertheless different issues in the individual companies?

TERIUM: Yes, there are differences. Let's take climate protection. The reduction of CO<sub>2</sub> emissions from our own power plants remains the most important function if we are to become more sustainable. This is no longer an issue for the new company – ultimately we generate electricity there primarily from wind energy and hydropower. This leads to other issues. How do we also ensure that our customers and our suppliers alike improve their individual CO<sub>2</sub> footprint too? What incentives can we apply and which innovative solutions are we able to offer for this?

„RWE is one of the most important players in the energy transition“

### What solutions are you thinking of there?

TERIUM: One example: We are currently testing a prototype for a product called Consenze. This stands for Connected Sensors. Consenze empowers all the production companies to identify the electricity consumption of different plants quickly and to make processes more efficient. This is achieved by an array of small sensors providing data from the operating sites. In future, Consenze will even control the energy consumption of machines and heating systems fully automatically. This saves money and effort at our industrial and commercial customers, as well as helping the climate.

### The countries at the Paris Climate Summit in December 2015 set ambitious targets. How does the climate footprint at RWE look for the past year?

TERIUM: We are satisfied. All the important indicators in our climate footprint are pointing in the right direction. In 2015, we produced more electricity than in 2014. However, we also reduced our CO<sub>2</sub> emissions at the same time – both for per generated unit of electricity and in absolute terms. We have carried out a number of measures in order to achieve this – e.g. with the construction of the two new offshore wind farms Nordsee Ost and Gwynt y Môr.

### For many years, the focus of RWE was almost exclusively on Europe. In the meantime, your employees are now also working in other regions – for example in the Arabian Peninsula. Will RWE be seeking its fortune in new markets?

TERIUM: Western and Central Europe remains our core area. However, we are also looking at other countries and regions, such as Turkey, the Middle East and North Africa, the so-called MENAT region. We have ambitious targets there for restructuring the energy supply. Our know-how is in demand in these markets – for the expansion of renewable energies and for the management of energy systems.

### How are you going to convince customers in these regions to work together with RWE?

TERIUM: When we constructed Gwynt y Môr we proved that we have the capability to roll out major projects. Building the wind farm took up more than nine million working hours – half of this time was spent on the water, sometimes under extremely adverse weather conditions.

### Is good project management enough of a reason for doing business?

TERIUM: Gwynt y Môr is not just a symbol of good management. The project has also demonstrated that we have harnessed the complex technologies necessary for the energy system of the future. RWE is one of the most important players in the energy transition. We are developing a new infrastructure for grids, storage facilities and control technologies in order to systematically convert an industrial country to renewable energies.



## OUR COMPANY

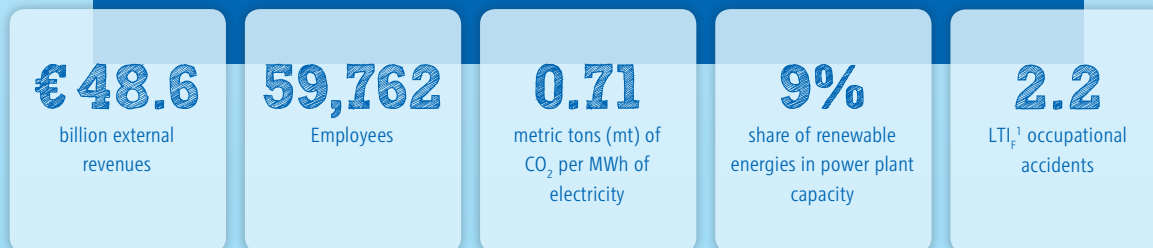
RWE is one of the biggest electricity and gas utilities in Europe. We supply more than 16.4 million customers with electricity and another 7 million with gas. Around 59,700 employees work at all levels of the supply chain to ensure that all our customers are satisfied. Alongside electricity and gas, we also supply our customers with products like energy advice, photovoltaic systems (PV), storage facilities, electromobility solutions and house automation technology.

In Europe, we are ranked by retail business in second place for electricity and in sixth place for gas. In Germany, the Netherlands and the United Kingdom, we are positioned among the biggest electricity and gas utilities. In the Czech Republic, we occupy the first place in the gas business and we also have leading positions in other markets located in Central Europe. We have electricity and gas distribution grids with a total length of around 505,000 km in Germany, the Czech Republic, Hungary, Poland and Slovakia. RWE is also working on innovative solutions in the area of grids and the company is carrying out research into new technologies.

At the end of 2015, RWE had power plant capacities totalling 48,052 megawatts (MW). Out of this 32% were attributable to gas (2014: 32%), 23% to lignite (2014: 23%), 22% to hard coal (2014: 21%), 8% to nuclear energy (2014: 8%) and 9% to renewable energies (2014: 8%). This includes 4,373 MW of capacity generated by contracted power stations owned by other companies. We are able to access these capacities freely through long-term contracts.

RWE covers the entire energy value chain. We are involved in the production of lignite, the generation of electricity from gas, lignite and hard coal, nuclear energy and renewable sources, energy-trading operations, distribution and supply of electricity and gas, as well as operating in the supply of energy-related services. As an international group, we have a workforce of full-time employees in 21 countries. In the business year 2015, we generated revenue of around € 48.6 billion.

### Overview of the key performance indicators for the company in 2015:



<sup>1</sup> Number of accidents leading to the loss of at least one person day per 1 million worked hours (Lost Time Incident Frequency) incl. reports known to us from partner companies (subcontractors).

# IMPORTANT SUSTAINABILITY INDICATORS

		2015	2014	2013 <sup>1</sup>	2012	2011
<b>Environment</b>						
NO <sub>x</sub> emissions <sup>2</sup>	g/kWh	0.54	0.60	0.68	0.69	0.60
SO <sub>2</sub> emissions <sup>2</sup>	g/kWh	0.25	0.33	0.37	0.40	0.31
Particulate emissions <sup>2</sup>	g/kWh	0.017	0.020	0.022	0.025	0.021
Ash <sup>2</sup>	thousand mt	8,495	8,115	8,308	8,710	7,843
Gypsum <sup>2</sup>	thousand mt	2,172	2,200	2,192	2,200	2,148
Primary energy consumption <sup>2</sup>	billion kWh	407.4	393.4	409.6	435.7	390.6
Water consumption <sup>2,3</sup>	m <sup>3</sup> /MWh	1.40	1.46	1.45	1.56	1.62
CO <sub>2</sub> emissions Scope 1 <sup>4,5</sup>	million mt	152.3	156.6	165.8	181.7	163.8
CO <sub>2</sub> emissions Scope 2 <sup>6</sup>	million mt	1.3	1.4	1.5	1.9	2.4
CO <sub>2</sub> emissions Scope 3 <sup>7</sup>	million mt	93.9	90.8	105.0	105.2	121.0
Specific CO <sub>2</sub> emissions	mt/MWh	0.708	0.745	0.751	0.792	0.787
Capital expenditure of the Renewables Division	€ million	418	738	1,086	1,093	891
Share of the Group's electricity generation accounted for by renewables	%	5.3	4.8	6.3	5.5	4.3
R&D costs	€ million	101	110	151	150	146
<b>Society</b>						
Employees <sup>8</sup>		59,762	59,784	64,896	70,208	72,068
Fluctuation rate	%	11.2	14.2	11.5	10.8	10.1
Training days per employee (Germany)		3.8	3.9	4.2	4.5	4.6
Health ratio	%	95.1	95.4	95.4	95.5	95.8
Lost-time incident frequency	LTI <sub>F</sub> <sup>9</sup>	2.2	2.3	2.3	2.8	2.8
Fatal work-related accidents <sup>10</sup>		4	5	1	4	3
<b>Corporate governance</b>						
Share of women in the company	%	26.8	26.6	27.7	27.5	27.1
Share of women in executive positions <sup>11</sup>	%	15.2	14.3	13.9	12.3	11.3
Share of the RWE Group's revenue earned in countries with a high or a very high risk of corruption <sup>12</sup>	%	10.5	10.0	13.0	13.7	12.4

- 1 Figures for 2013 adjusted due to the first-time application of IFRS 11.
- 2 Since 2015 including power plants not owned by RWE that we can deploy at our discretion on the basis of long-term agreements.
- 3 Difference between power plant water withdrawals and returns to rivers and other surface water; excluding power plants with sea water cooling.
- 4 Scope 1: direct CO<sub>2</sub> emissions from in-house sources (oil and gas production, gas transmission and electricity generation).
- 5 Including power plants not owned by RWE that we can deploy at our discretion on the basis of long-term agreements.
- 6 Scope 2: indirect CO<sub>2</sub> emissions from the transmission and distribution of electricity purchased from third parties.
- 7 Scope 3: indirect CO<sub>2</sub> emissions that do not fall under scope 1 and scope 2, produced through the generation of electricity procured from third parties, the transmission and distribution of electricity in third-party networks, the production of used combustion fuels, as well as the consumption of gas sold to customers.
- 8 Converted to full-time positions.
- 9 Lost Time Incident Frequency (sum of all accidents resulting in at least one day of absence for every 1 million hours worked). Figures for 2012 incl. reports known to us from third-party companies (subcontractors).
- 10 Including employees of partner companies (subcontractors).
- 11 In 2015, encompasses the top four management levels.
- 12 Countries rated lower than 60 on a scale of 0 to 100 in the Corruption Perceptions Index by the anti-corruption organisation Transparency International (TI), with 100 corresponding to the lowest risk of corruption.





## OUR VALUE CHAIN

RWE is an integrated energy supplier and operates at all stages of the value chain. At the moment, we are adapting our business model to the changes in the sector. This is because the energy industry in Europe is undergoing a fundamental change. We are increasingly focusing on initiatives for local energy supply, seeking out partnerships with municipal utilities and other investors, and we want to drive the energy transition forward together with local residents in the community. We are achieving these goals by offering our customers products and services on the basis of innovative technologies. This is also reflected in the structure of our value chain.

We have allocated our CR areas for action to the stages of the value chain and highlighted the relevant challenges. These vary according to the different stages of the value chain. Furthermore, the representation includes an allocation of the key aspects in accordance with the requirements of the Global Reporting Initiative (GRI) (p. 24). The GRI Guidelines are the leading standard in sustainability reporting and they have been implemented by RWE since 2001. Within this framework, we also state whether the opportunities for exerting influence to overcome the key challenges confronting us are inside or outside the RWE Group.

## Our value chain



### Extraction of lignite and provision and supply of biomass

<b>Activities:</b> RWE extracts lignite in its own opencast mines, and produces wood pellets and other biomass fuels	<b>KPIs 2015:</b> 5 opencast lignite mines (10,823 hectares) 104 million mt of lignite products at our opencast mines in the Rhineland lignite mining area and in Hungary	22,950 hectares of recultivated land at opencast mines in the Rhineland lignite mining area 699,719 t mt of wood pellets manufactured at the Waycross pellet plant (USA)
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#### Challenges and key impact opportunity

Area for action	Challenges	Material GRI aspects	Key impact opportunity	
			Inside the RWE Group	Outside the RWE Group
Environmental Protection and Biodiversity	<ul style="list-style-type: none"> <li>- Sustainable recultivation of mining areas</li> <li>- Safeguarding the water resources in the region</li> <li>- Structuring environmental mitigation measures</li> <li>- Minimising particulate and noise emissions</li> </ul>	<ul style="list-style-type: none"> <li>- Water</li> <li>- Biodiversity</li> <li>- Effluents and waste</li> <li>- Compliance (environment)</li> <li>- Overall (environment)</li> <li>- Environmental grievance mechanisms</li> </ul>	●	
Supply Chain	<ul style="list-style-type: none"> <li>- Sustainable production of wood pellets and other biomass fuels</li> </ul>	<ul style="list-style-type: none"> <li>- Procurement practices</li> </ul>	●	
Community Engagement	<ul style="list-style-type: none"> <li>- Resettlement of residents under social and ethical conditions</li> <li>- Acceptance in the population</li> </ul>	<ul style="list-style-type: none"> <li>- Indirect economic impacts</li> <li>- Local communities</li> <li>- Public policy</li> <li>- Grievance mechanisms for impacts on society</li> </ul>	●	●
Occupational Safety and Healthcare Management	<ul style="list-style-type: none"> <li>- Guaranteeing the health and work ability of our employees and the employees of our subcontractors</li> </ul>	<ul style="list-style-type: none"> <li>- Occupational health and safety</li> </ul>	●	
Security of Supply	<ul style="list-style-type: none"> <li>- Quality and appropriate quantities supplied to power plants</li> <li>- Maintenance of infrastructure for coal extraction from approved mines</li> </ul>	<ul style="list-style-type: none"> <li>- Availability and reliability</li> <li>- Demand-side management</li> </ul>	●	





## Supply and trading

<b>Activities:</b> RWE supplies and trades in commodities including coal, natural gas, biomass, electricity and CO <sub>2</sub> certificates	<b>KPIs 2015:</b> 1,448 TWh of electricity      864 million mt of hard coal      557 million CO <sub>2</sub> certificates 648 billion m <sup>3</sup> of gas      1,258 million barrels of oil		
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Challenges and key impact opportunity				
Area for action	Challenges	Material GRI aspects	Key impact opportunity	
			Inside the RWE Group	Outside the RWE Group
Supply Chain	- Human rights, social standards, and environmental protection in the producing countries - Sustainable cultivation of biomass in the supply countries	- Procurement practices - Supplier environmental assessment - Supplier assessment for labour practices - Supplier human rights assessment - Supplier assessment for impacts on society		●



## Power and heat generation

### Activities:

RWE constructs and operates fossil-fired power stations, in the field of renewable energies principally wind farms as well as hydropower plants, and biomass power stations. Other activities of the Group include operation and decommissioning of our nuclear power stations.

### KPIs 2015:

77.8 TWh of lignite  
46.5 TWh of hard coal

42.6 TWh of gas  
31.7 TWh of nuclear energy

11.4 TWh of renewable energies  
3 TWh of pumped storage, oil, miscellaneous

### Challenges and key impact opportunity

Area for action	Challenges	Material GRI aspects	Key impact opportunity		
			Inside the RWE Group	Outside the RWE Group	
Climate Protection	<ul style="list-style-type: none"> <li>- Reduction in CO<sub>2</sub> emissions</li> <li>- Making the power plant portfolio more flexible in order to adjust to the volatile feed-in of renewable energies</li> <li>- Connection to offshore wind farms</li> </ul>	<ul style="list-style-type: none"> <li>- Plant decommissioning</li> <li>- Efficiency of the power plant portfolio and the distribution</li> <li>- Emissions</li> <li>- Products and services</li> </ul>	●		
Energy Efficiency	<ul style="list-style-type: none"> <li>- Increase in the efficiency of energy use in the power plants</li> </ul>	<ul style="list-style-type: none"> <li>- Efficiency of the power plant portfolio</li> <li>- Energy</li> </ul>	●		
Environmental Protection and Biodiversity	<ul style="list-style-type: none"> <li>- Limiting the emissions of pollutants</li> <li>- Treatment and minimisation of the (cooling) water used</li> <li>- Use of pumped water for heat supply</li> <li>- Reduction of particulate and noise emissions</li> <li>- Safe operation of nuclear power stations</li> <li>- Disposal of radioactive waste</li> </ul>	<ul style="list-style-type: none"> <li>- Preparation and safe implementation of decommissioning concepts</li> <li>- Sustainable freshwater management</li> <li>- Noise abatement during the construction of offshore wind farms</li> <li>- Compliance with national and international requirements for the sustainability of the biomass used</li> </ul>	<ul style="list-style-type: none"> <li>- Water</li> <li>- Biodiversity</li> <li>- Effluents and waste</li> <li>- Compliance (environment)</li> <li>- Overall (environment)</li> <li>- Environmental grievance mechanisms</li> </ul>	●	
Community Engagement	<ul style="list-style-type: none"> <li>- Acceptance for construction measures</li> <li>- Acceptance for plant operation</li> </ul>	<ul style="list-style-type: none"> <li>- Indirect economic impacts</li> <li>- Local communities</li> <li>- Public policy</li> </ul>	<ul style="list-style-type: none"> <li>- Grievance mechanisms for impacts on society</li> </ul>	●	●
Occupational Safety and Healthcare Management	<ul style="list-style-type: none"> <li>- Safeguarding the health and work ability of our employees and the employees of our partner companies (subcontractors)</li> </ul>	<ul style="list-style-type: none"> <li>- Occupational health and safety</li> </ul>		●	
Security of Supply	<ul style="list-style-type: none"> <li>- Guaranteeing security of supply</li> <li>- Contribution to system stability</li> </ul>	<ul style="list-style-type: none"> <li>- Availability and reliability</li> </ul>	<ul style="list-style-type: none"> <li>- Demand-side management</li> <li>- Access</li> </ul>	●	●
Innovation	<ul style="list-style-type: none"> <li>- Development of climate-friendly and efficient technologies, projects and concepts</li> </ul>	<ul style="list-style-type: none"> <li>- Research and development</li> </ul>		●	●



## Distribution of electricity and gas

<b>Activities:</b> RWE expands, operates and maintains distribution grids for electricity and gas.	<b>KPIs 2015:</b> 393,000 km of distributions grids for electricity 112,000 km of distribution grids for gas	315,000 of generating plants for renewable energies connected to our German grids
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### Challenges and key impact opportunity

Area for action	Challenges	Material GRI aspects	Key impact opportunity	
			Inside the RWE Group	Outside the RWE Group
Environmental Protection and Biodiversity	- Reduction of impacts on local ecosystems	- Water - Biodiversity - Effluents and waste - Compliance (environment) - Overall (environment) - Environmental grievance mechanisms	●	
Occupational Safety and Healthcare Management	- Safeguarding the health and work ability of our employees and the employees of our partner companies (subcontractors)	- Occupational health and safety	●	
Security of Supply	- Concepts for flexible load distribution for feed-in of renewable energies - Expansion of suitable storage facilities - Uninterrupted supply with electricity - Acceptance of grid expansion - Uninterrupted supply with gas	- Availability and reliability - Demand-side management - Access	●	●
Innovation	- Integration of renewable energies, innovative and technical solutions for avoiding unnecessary grid expansion	- Research and development	●	●



## Retail business and use of electricity and gas

### Activities:

RWE supplies electricity and gas to residential, business and industrial customers, and to distributors such as municipal utilities. RWE also offers its customers a broad range of innovative products and services, such as energy consulting, electromobility and intelligent house control.

### KPIs 2015:

16.42 million electricity customers  
7.02 million gas customers

262.1 TWh of external retail business for electricity  
296.7 TWh of external retail business for gas

### Challenges and key impact opportunity

Area for action	Challenges	Material GRI aspects	Key impact opportunity	
			Inside the RWE Group	Outside the RWE Group
Climate Protection	- Measures and packages for climate protection at our customers	- Emissions - Products and services	●	●
Market and Customers	- Competitive, individualised and flexible packages - Support for customers in energy savings	- Demand-side management - Products and services - Product and service labelling - Customer privacy	●	●
Innovation	- Development of technologies, products and services for controlling the generation, consumption and storage of energy at the customer	- Research and development	●	●



## Our employees

### Activities:

RWE takes responsibility for its employees and offers them support for their personal and career development alongside ethical treatment and fair remuneration.

### KPIs 2015:

59,762 employees<sup>1</sup>

26.8% proportion of women in the company

2,339 apprentices

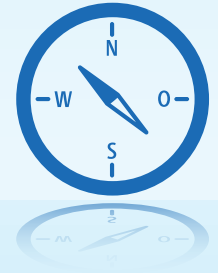
2,381 severely disabled employees in Germany

### Challenges and key impact opportunity

Area for action	Challenges	Material GRI aspects	Key impact opportunity	
			Inside the RWE Group	Outside the RWE Group
Employees	<ul style="list-style-type: none"> <li>- Maintaining and promoting the motivation and work ability of our employees</li> <li>- Restructuring measures at social and ethical conditions</li> <li>- Promotion of diversity and inclusion in the company</li> </ul>	<ul style="list-style-type: none"> <li>- Employment</li> <li>- Labour/Management relations</li> <li>- Training and education</li> <li>- Diversity and equal opportunity</li> <li>- Equal remuneration for women and men</li> </ul>	●	
		<b>Other material GRI aspects (across value added stages):</b> <ul style="list-style-type: none"> <li>- Economic performance</li> <li>- Labour practices Grievance mechanisms</li> <li>- Humans rights Grievance mechanisms</li> <li>- Anti-corruption</li> <li>- Anti-competitive behaviour</li> <li>- Compliance (society)</li> <li>- Disaster/Emergency planning and response</li> </ul>		

<sup>1</sup> Calculated in Full Time Equivalents (FTE)

## DEVELOPMENTS IN OUR REGIONS



Our market environment and the demands of the community are changing with the transition of the energy systems in Europe. We are meeting the diverse challenges faced by the RWE group at all levels of the value chain and in all the regions where we are operating.

### Europe's energy industry in transition

Climate-friendly, decentralised and digital: These are the current trends in the energy economy. They have arisen particularly as a result of the expansion of renewable energies and the trends are associated with increasing challenges for integration in the grid. These changes are modifying the way energy markets operate – with major impacts on our business success.

As a result, the operating result of RWE Innogy, the subsidiary focusing on renewable energies, more than doubled in 2015. This has therefore consolidated the position of the company in the marketplace.

In wholesale markets for electricity generation, regulatory instruments like the feed-in priority for renewable energies and their remuneration through the system of subsidies increase demand. As a result, electricity prices are falling in this market segment and also the associated utilisation of our conventional power plants.

These factors and the ongoing reduction of prices in the electricity wholesale market are therefore cutting down the revenues derived from our conventional power plants, especially in Continental Europe. Many plants, in particular gas-fired power plants, are no longer able to cover their operating costs. Paradoxically, their use is popular with a large number of stakeholders because they are regarded as flexible and by comparison with coal-fired power stations emit less CO<sub>2</sub> per unit of electricity generated. Alongside energy generated in a climate-friendly way, customers in virtually all European countries expect more service quality and lower prices for electricity and gas. A top priority for RWE is therefore on good value for money in existing brands and when new brands are introduced.

Citizens, companies and energy cooperatives generate electricity themselves at decentralised plants, for their own use or to feed into the public electricity grid. This opens up opportunities for new business models such as offers of package solutions for photovoltaic systems, which also include assembly and an insurance policy.

These systems have already been prepared for connection to an electricity storage device. We also offer solar power storage units for controlling electricity generators' own consumption of the energy they have produced and energy cooperatives in which citizens themselves can be directly involved in expansion of renewable energies.

Digitisation helps to link up these and other local market players with each other as efficiently as possible. As a consequence of the change in market conditions, RWE is taking on an aggregator role as a marketer of flexibilities.

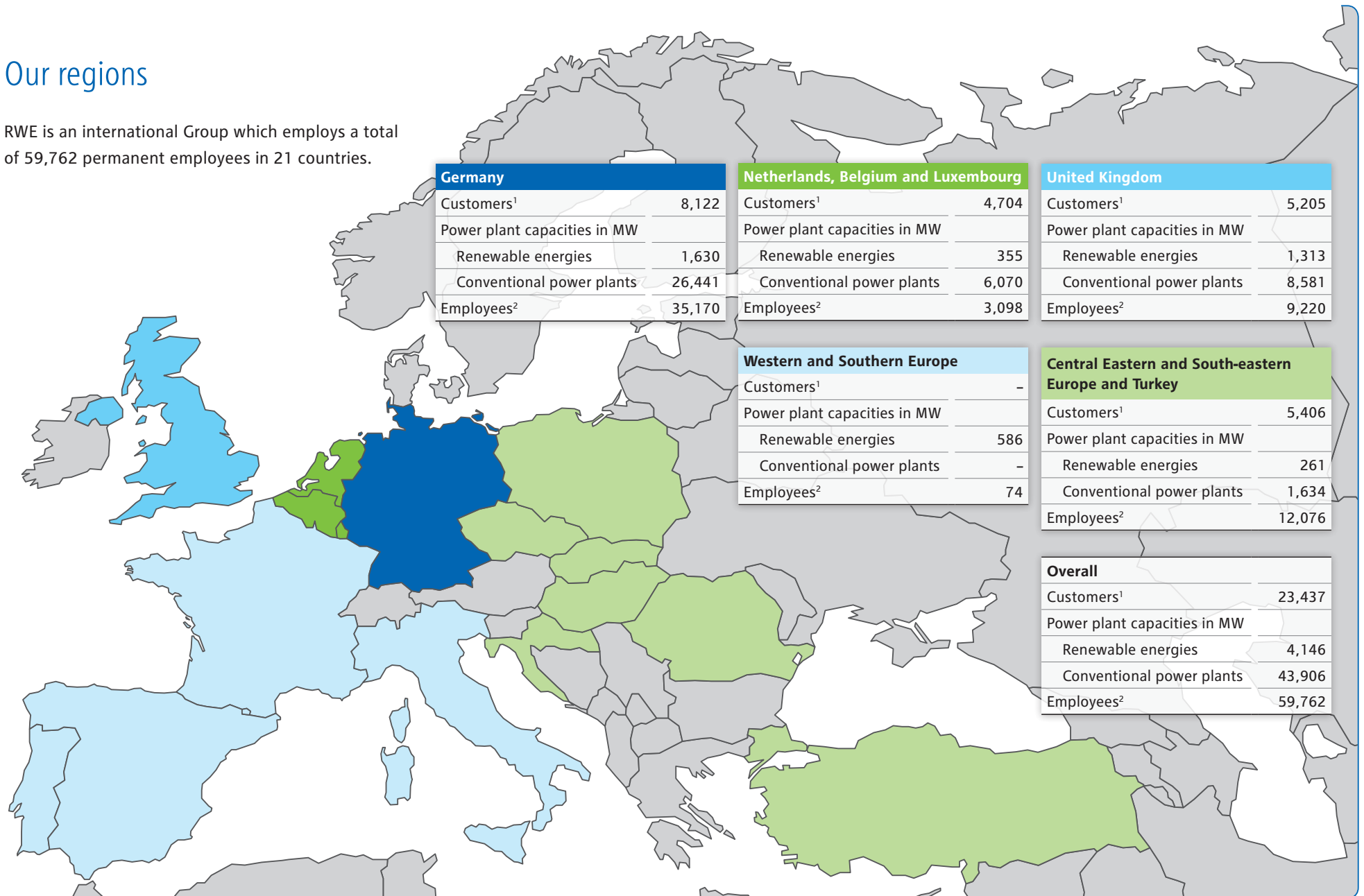
So that we can continue to successfully maintain our position in the changed market environment, we have already taken a variety of measures. These include comprehensive activities for reducing costs and a strategic realignment with a stronger focus on new business models so that we are in a position to offer our customers innovative solutions. RWE is continuing to expand the Innovation Hub established in 2014 to further development of these solutions ([p. 84](#)).

At the same time, the motivator of innovations is also driving forward new conceptual and operational approaches with the organisation at RWE. In 2015, measures supporting the cultural change included the following projects:

- **New Way of Working (NWoW):** The name of the programme represents a new mindset and approach to carrying out work. In a difficult period the Group wants to strike out on the new pathways into the future created by NWoW. This will change our entire working culture over the long term.
- **Next Level Leadership (NLL):** NLL is a programme for our top managers. It is intended to empower them to successfully bring about the transformation of RWE.
- **Deliver Breakthrough Performance (DBP):** We are carrying out the DBP in order to implement group-wide projects and establish a uniform understanding of change and leadership.

## Our regions

RWE is an international Group which employs a total of 59,762 permanent employees in 21 countries.



<sup>1</sup> In thousands. <sup>2</sup> Employees in FTE. The total number incl. 9 FTE in Switzerland, 95 FTE in the USA and 20 FTE in Asia.



## Germany

Our biggest market is Germany. This is where we generate 57% of our total sales amounting to € 26.3 billion (not including levies on natural gas/electricity). The historic roots of our company are also based in Germany. We manage the entire RWE Group from our Head Office located in Essen.

### Grids and retail business

RWE is one of the biggest operators of distribution grids in Germany and we operate electricity distribution grids with a total length of 331,000 km and gas distribution grids with a total length of around 48,000 km. At the end of 2015, we were granted around 3,000 electricity grid and 800 gas grid concession agreements in Germany with a term of at least 15 to 20 years. Alongside the sale of electricity, gas and heat, we are also active in the areas of energy efficiency and electromobility, as well as in the development and operation of smart devices to measure and control energy consumption. Overall, we supply around 8.1 million customers in Germany with electricity and gas, in addition to other energy services. The regional companies enviaM, LEW, Süwag and VSE are part of the RWE Group and we also have shareholdings in around 70 regional and local-authority energy utilities.

### Renewable energies

In Germany, we are particularly strong in the area of renewable energies. At the end of 2015, RWE in Germany was operating consolidated generating capacity of renewable energies amounting to 1,630 MW, of which 621 MW is generated by hydropower, 921 MW is wind energy, and 31 MW is biomass. In May 2015, RWE officially opened the Nordsee Ost offshore wind farm off the German coast. It

has an installed output of 295 MW and this ranks it among the biggest wind farms of its kind. At the beginning of the autumn months when there is plenty of wind, a production record of around 6,500 MWh was achieved at this wind farm in one day. In the Rhineland lignite mining area, we also brought the Königshoven Heights wind farm on stream. This is a joint project between RWE Innogy and the town of Bedburg, with total installed output of 67 MW. RWE also supports the development of future-proof technologies and provides seed capital for innovative companies at the pump-priming stage or finance for them in the growth phase.

### Extraction and conventional generation of electricity

RWE operates three large opencast mines in Germany for the production of lignite. We have four lignite-fired power stations with a total generating capacity of 10,221 MW located very close to our lignite mines at Neurath, Niederaußem, Weisweiler and Frimmersdorf. These include the lignite-fired power stations BoA1, and BoA 2 & 3 with optimised plant technology, which are currently the most advanced lignite-fired units in the world. In Germany, we also have generating capacity of 5,352 MW from hard coal and 4,411 MW from gas in our portfolio. At the end of 2015, we additionally had generating capacities of nuclear energy in Germany amounting to 3,908 MW. Following the exit from nuclear energy adopted by the German Government, our last nuclear power station is scheduled to exit from the grid in 2022. We are not involved in investment projects for nuclear energy. We have a further generating capacity of 2,549 MW in the area of pumped-storage and other power-plant capacities. Overall, RWE in Germany operates conventional power plants with a total capacity of 26,441 MW.

## Further stages in the energy transition

By 2020, CO<sub>2</sub> emissions in Germany are projected to fall by 40% compared with levels in 1990. The German Government has made a commitment to this target. The reduction of electricity generation from lignite is intended to make a major contribution. In October 2015, the Federal Ministry of Economic Affairs and Energy submitted a plan detailing how older and less efficient lignite-fired power stations should gradually be phased out from the grid. Eight power-plant units across Germany are affected with a combined output of 2,730 MW, including five units operated by RWE in Frimmersdorf, Niederaußem and Neurath (p. 44).

Initially, they are to be used for security standby, but after this period has come to an end they will be shut down completely. This would reduce the production of electricity from lignite extracted in the Rhineland lignite mining region by 15%. While the power-plant units are kept in reserve, the operators will receive remuneration. RWE welcomed this plan as a constructive solution for structuring the energy transition with socially ethical conditions. The security standby replaced the climate protection levy rebate for older power plants that had previously been considered. The rebate was strongly criticised by companies and unions alike because of its impact on jobs in the region.

## United Kingdom

The United Kingdom is an important market for us. RWE is one of the six biggest energy suppliers in the country and produces around 10% of the electricity used there. In 2015, we generated sales of € 10 billion in the UK with a total workforce of 9,220 employees.

### Retail business

We are one of the leading suppliers of electricity and gas with around 5.2 million retail and business customers in the United Kingdom. We also offer energy services.

Our retail company there – RWE npower – concluded 2015 with an operating loss of € 137 million. Apart from market-related effects, process and system problems in residential customer accounting played a major role in this result. RWE accepted the consequences in 2015 and appointed a new Board of Management for its British subsidiaries. A restructuring concept was also submitted and a lot of work was done on stabilisation of the IT infrastructure. Most of the process and system problems should have been eliminated by the end of 2016.

### Renewable energies

In 2015, RWE in the United Kingdom concentrated on the expansion of renewable energies in onshore and offshore wind farms. Overall, we operate 1,313 MW of generating capacity from renewable energies.

In 2015, we brought on stream the second biggest offshore wind farm in the world, Gwynt y Môr wind farm located off the coast of North Wales with a total capacity of 576 MW, and it is now operating at full capacity. This enables Gwynt y Môr to supply 400,000 households with electricity, and this amounts to approximately one third of

all the households in Wales. The capital expenditure of € 2.8 billion has been split between RWE Innogy (50%), Stadtwerke München GmbH (30%), Siemens (10%) and UK Green Investment Bank (10%).

The construction phase for the onshore wind farms Goole Fields 2 with a planned capacity of 35 MW and Batsworthy Cross with a planned capacity of 18 MW started in 2015. We also started up operation with a hydropower plant at Black Rock, Scotland, with a capacity of 3.5 MW.

### Conventional electricity generation

In the United Kingdom, RWE operates hard-coal, and combined-cycle gas turbine power stations, as well as efficient cogeneration power plants, with a total capacity of 8,581 MW. Gas-fired power stations form the biggest proportion. The Pembroke combined-cycle gas power station is one of the most efficient power plants of its kind in Europe with a net output of more than 2,200 MW. It also has the highest level of efficiency with more than 60%.

In 2011, the government of the United Kingdom announced a plan to reform the electricity market. One element of this plan is the auction of electricity in the capacity market. It was introduced two years ago and is intended to prevent potential power outages. Generators guarantee the availability of certain capacities over a period of four years and receive financial compensation for this.

In 2015, there was a change in energy policy. The United Kingdom Government announced proposals to build new gas-fired power stations and close existing hard-coal power stations. The consultation period for these proposals is scheduled to start at the beginning of 2016.

## A new purchasing concept for energy

In 2015, RWE concluded a partnership with a company from New Zealand, Meridian Energy, which presents an innovative concept for obtaining energy.

This partnership enables RWE to bring “Powershop” to the United Kingdom as the world’s first online shop for gas and electricity. The shop concept is easily accessible and allows customers to purchase energy in defined units known as Power Packs. This enables them to purchase electricity precisely when energy prices are particularly low. Long-term contractual conditions are no longer necessary.

Customers of Powershop can also decide whether they pay for their energy before or after consuming it, and they can change the way they pay at any time. They can also opt to get their energy from renewable sources.

A comprehensive system test by the project team at Powershop and RWE will be carried out in 2016. This is intended to ensure that the launch of the pack age runs smoothly and that customers have good experiences with it.

## Netherlands, Belgium and Luxembourg

RWE is one of the leading energy utilities in the Netherlands and Belgium, with conventional and renewable electricity generation, as well as electricity and gas supply.

### Retail business

In the Netherlands, in Belgium and in Luxembourg we have about 4.7 million electricity and gas customers. Since the start of 2015, our retail company there – Essent – has become the market leader and the largest utility in the Dutch Energy market. The biggest challenger in the market is our subsidiary Energiedirect.nl. More than one million customers use our “green power” product. In Belgium, we have 350,000 customers and we are continuing to expand our energy retail business there to offer our customers products and services alongside gas and electricity.

### Renewable energies

RWE is one of the major investors in wind farms in the Netherlands and Belgium, and its portfolio includes onshore and offshore facilities. At the end of 2015, we were operating wind turbines here with a total capacity of 203 MW. In November 2015, the first 7.5 MW turbine of the Zuidwester (90 MW) wind farm was connected to the grid. From 2017, this wind farm is estimated to provide electricity for nominally 90,000 households. In the north of the Netherlands, the government is currently examining various possible sites for new wind farms with the objective of minimising the impacts on local residents. The plan favoured by the government involves RWE building 15 wind turbines.

The Thornton Bank offshore wind farm has a capacity of 325 MW and is one of the biggest facilities of its kind in the Belgian section of the North Sea. RWE has a stake of around 27% in this offshore wind farm.

At the end of 2015 RWE Innogy announced its intention join forces with partners and take part in the tender for the Borssele offshore wind farm with a planned capacity of 700 MW.

### Conventional energy generation

In the Netherlands and Belgium, RWE operates conventional power plants with a total generating capacity of 6,070 MW. At our coal-fired power station in Geertruidenberg, the older Amer 8 unit was taken out of the grid at the end of 2015. The Amer 9 power plant is equipped to fire up to 35% biomass. As a result of a technical fault, this amount of combined combustion was not fully utilised. Furthermore, the government support scheme for combined combustion came to an end in April 2015. We hope to restart cofiring biomass to replace hard coal in 2017. The new hard-coal power station in Eemshaven with a total capacity of 1,554 MW started commercial operation in 2015. We also intend to use biomass for electricity generation there as well if technical and commercial conditions permit. RWE also holds a minority shareholding of 30% in the Borssele nuclear power station in the Netherlands.

In Luxembourg, we operate the Vianden pumped-storage power plant. This is one of the largest power generating facilities of its type in Europe. The plant plays a key role in the stabilisation of Europe's electricity grids and in maintaining the balance between feed-in and consumption of electricity and it is connected to the German grid.

Following the Paris Climate Conference in December (p. 42), the Dutch Parliament adopted a motion to work out scenarios for exiting from coal-fired generation of electricity in the Netherlands. The government has made a commitment to the Parliament that it would reach a decision based on the results of a study about the future development of the Dutch energy market before the end of the current legislative period in March 2017.

## Retail channels in transition

In the Netherlands, we are being challenged by increasing switch and price competition, and a decreasing energy and gas usage as a result of increasing energy efficiency and decentralised generation. In 2015, we successfully maintained our position in this competitive situation by increasing our retail channel footprint and claiming the home domain of residential customers in a strong business. Alongside energy and gas, we offer customers other products for digital control of household technology that increase their comfort and quality of life, as well as helping them to save energy at the same time.

A successful retail channel was provided by the "shop-in-shop" concept in partnership with well-known retail stores. This concept involves customers receiving a gift voucher when they opt for an Essent energy contract. In 2015, issues were raised in the market

relating to the legislation governing this form of selling. After consultation with the Consumer Authority, Essent has now extended its two-week cooling-off period, when a new customer is free to reverse their decision. This now includes all retail channels and the intention is to avoid any confusion among customers.

Our aim is to gradually make Essent a more efficient company with the customer placed at the centre of all our activities. In 2015, Essent Retail was awarded the Bronze Standard for our internal so-called House in Order programme.

In Belgium, Essent plays an active role in the debate about energy policy conducted in the public domain. The company actively looks to cooperate with the government and other parties with the objective of offering alternative solutions for energy supplies in Belgium and constructing a new, sustainable model for the energy market of the future.

## Central Eastern and South-eastern Europe and Turkey

RWE is also an active player in Central Eastern and South-eastern Europe, and Turkey with operations in the areas of retail business and grids. The Group also operates in conventional generation and renewable energies. We have businesses in the Czech Republic, Hungary, Poland, Slovakia, Croatia, Slovenia, Romania, and Turkey. Overall, we supply around 5.4 million customers there with energy and services.

### Grids and retail business

Retail business, distribution, decentralised energy generation and storage of gas are the focus of our business in the Czech Republic. RWE operates a gas distribution grid there with a length of 63,875 km and supplies 1.35 million customers with natural gas. We also sell electricity in the Czech Republic and we supply around 300,000 customers with power. In Hungary, RWE operates an electricity distribution grid with a length of 46,200 km and we supply around 2.1 million customers with electricity. The retail business of selling gas to business customers started up in 2015. We have an electricity distribution grid in Poland with a total length of 15,998 km and we supply around 934,000 customers with electricity. We also supply natural gas in Poland. We supply more than 125,000 customers in Slovakia with natural gas. We also operate an electricity grid 22,108 km in length and we are developing decentralised energy solutions in Central and Eastern Slovakia. We are active in energy retail business in Croatia and we supply nearly 107,000 customers with electricity. This year also saw the gas retail business starting up in this country. Since 2014, RWE has been operating a nationwide retail organisation in

Romania and we supply customers there with electricity. Our focus is directed towards small and mid-size companies, and industrial customers. Since the summer of 2015, RWE has been supplying commercial and residential customers in Slovenia with electricity. We were the first large European energy company to start operating in this country.

### Renewable energies

In Hungary, the Czech Republic and Poland, we have a consolidated generating capacity of renewable energies amounting to 261 MW. In Poland, we are continuing to expand these capacities. We have a total of eight wind farms there with an installed output of 242 MW. In Hungary, we opened a photovoltaic plant with an installed output of 16 MW next to the Mátra power plant. The plant can supply an estimated 4,000 households with renewable energy.

### Conventional electricity generation

In our region of Central Eastern, and South-eastern Europe and Turkey, we operate conventional power plants with a total capacity of 1,634 MW. In Hungary, we operate the Mátra lignite-fired power station in conjunction with two associated opencast lignite mines encompassing an operating area of 1,283 hectares. In 2015, we produced a total of 8.8 million mt of lignite. The power plant has a generating output of 780 MW and it was also fuelled using biomass. In Turkey, RWE operates a modern, highly efficient gas-fired power station with an output of 775 MW.

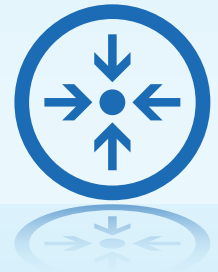
## Western and Southern Europe

RWE is only active in the area of renewable energies in Spain, Italy, France and Portugal. It operates wind farms and hydropower plants in these countries. Furthermore, RWE has a stake in the Andasol solar thermal power plant in Spain. Overall, we have a total installed generating output of 513 MW for wind energy and 73 MW for hydropower in Spain, Italy, France and Portugal.

## Other countries

We carry out activities outside Europe in the USA and the MENAT region (Near East, and North Africa). RWE also has trading locations in Mumbai, New York and Singapore.





## CR STRATEGY AND MANAGEMENT

We pursue the objective of integrating sustainability in the core business of RWE through our Corporate Responsibility (CR) Strategy. At an early stage, we defined ten areas for action with concrete goals and measurable key performance indicators (KPI), and these have been developed over the years. The realignment of the Group that has now been adopted and the rapid transformation of our sector means that we now also have to consider and modify our CR Strategy.

### Roadmap of our Corporate Responsibility

	<b>Launch (1998–2000)</b>	<b>Structuring (2001–2005)</b>	<b>Implementation (2006–2010)</b>	<b>Role of CR driver (2011–2015)</b>
<b>Strategy</b>	Group Guideline on Environmental Management	Group CR guidelines	Review of CR areas for action	Continuous updating of the CR areas for action
		CR strategy	Embedding of CR in all business areas	
<b>Coordination and management</b>	Permanent staff of environmental officers	Introduction of occupational safety management system	Key performance indicators concept for CR	CR targets as a constituent element of the variable compensation payable to members of the Executive Board
	Introduction of Environmental Reporting and Information System	Introduction of group-wide Code of Conduct	Group programme for implementation of CR	Regular reporting on KPIs (Key Performance Indicators)
<b>Reporting and dialogue</b>	1st systematic environmental report	1st CR Report	Institutionalised stakeholder dialogue	Industry leader in transparency
	Inclusion in the Dow Jones Sustainability Index	Convention on the future of sustainable development	Corporate Volunteering – Programme	



### Ongoing development and transformation

In our Roadmap 2020, we defined our goal of being the transparency leader in the sector by 2015. We achieved this goal with acknowledged comprehensive reporting, controlling of our areas for action in accordance with measurable key performance indicators, and integration of CR aspects in the variable compensation for the members of the Executive Board. The goal for the upcoming years was defined as: Best in Class. Fundamentally, this goal is still driving us forward. However, the radical structural changes in the energy industry and the agreed realignment of the Group mean that we now have to redefine exactly what we mean by this, and how it can be measured and controlled. Some of our previous ten areas for action will simply be developed further, although we will additionally define completely new focuses for others in order to reflect the transformation of our sector and the restructuring of our Group.

Corporate Responsibility will continue to play a central role at RWE. The objective will be to deal with the changes taking place within our company and our lines of business, and to be a successful commercial player with a sound community reputation in the energy world of tomorrow. The many years of experience in dialogue with our stakeholders will assist us in this endeavour alongside the tested structures of our CR Management, which we have built up and developed continuously since 1998.

### Anchoring CR in the organisation

The group-wide implementation and realisation of Corporate Responsibility is coordinated by the Group Corporate Responsibility/Environment/Diversity Department within Group Corporate Affairs. The head of this department reports directly to the Chief Executive Officer.

Since 2014, the RWE Stakeholder Council (p. 30) has been advising the Executive Board of the Group on sustainability issues. Furthermore, representatives from the Group Centre and the major operating companies come together at meetings held by the staff of CR officers several times a year. These meetings serve as forums for coordinating ideas and discussing joint activities.

### Making CR successes quantifiable

We consistently pursue the goal of making governance and its effectiveness quantifiable and controllable. Targets, measures and concrete key performance indicators underpin each of our ten areas for action. The annual review shows whether we are on the right track or highlights whether modifications need to be made and where these are required. This review takes account of developments in the areas for action, the strategy of the RWE Group and the expectations of our stakeholders (p. 35).

We have also created long-term incentives for sustainable corporate governance by linking part of the variable compensation payable to Members of the Executive Board with the achievement of our CR goals. The assessment of the outcome is carried out by the Supervisory Board of the RWE Group. Relevant CR aspects are also channelled into the individual balanced scorecards of the operating companies.

### Transparency with high standards

Our reporting is based on the globally acknowledged guidelines of the Global Reporting Initiative (GRI), the principles of the UN Global Compact, and the demands of the financial market – the so-called ESG Model (Environment, Social, Governance). This enables us to ensure that we comply comprehensively with the growing demands being placed on

the quality of our CR Management and our reporting. We have also developed a Data Recording Manual with the aim of continuously improving the quality of our CR indicators. This manual sets out binding definitions, assessment limits and processes for collecting data.

#### Transparency with dialogue

The community has expectations of openness, dialogue and participation, and RWE meets these expectations by going beyond the scope of reporting. In collaboration with the operating companies,

we track all important developments on the issue of sustainability and evaluate them for their relevance to the RWE Group. We engage in dialogue with stakeholders at different levels – European, national, and regional – and they provide us with important information. However, we are also aware that broad sections of society have a critical stance in relation to our company. A key target of our CR Strategy in the process of realignment will therefore also be the expansion of dialogue in order to generate understanding and acceptance for our actions.

# COMPLIANCE AND RISK MANAGEMENT

## Challenge and targets

Acting in accordance with the law and rules and procedures is an integral part of our corporate culture at RWE. Any breaches mean that the company can suffer major and serious reputational damage. RWE therefore bases all its activities and business decisions on established rules for compliance and does not tolerate any corruption or other breaches of compliance regulations. Compliance requirements are factored in when taking all decisions on entering into business relations with suppliers or business partners (p. 70f.).

The main focus of our internal compliance management is to raise the level of awareness among our employees and our governance bodies in order to prevent the possibility of any breaches. The RWE Code of Conduct is a group-wide reference standard which sets out a guidance framework for all our employees. This document defines binding conditions for compliance with national and international laws and regulations, as well as rules for fair dealings with market participants and competitors. The prevention of corruption is particularly important here. Compliance with the guidelines is supported by organisational regulations, notably the double-checking principle, separation of functions, authorisation concept and rules for approval. The Code of Conduct is given concrete form by additional Group Guidelines.

## Compliance organisation

The Centre of Expertise Legal & Compliance based at RWE Group Business Services GmbH is responsible for directing our Compliance Management system. The Group Centre continues to have overall responsibility for governance. National Compliance Officers in all the operating companies are responsible for uniform implementation of group-wide principles. In some regions where RWE is operating with several subsidiary companies, compliance functions are bundled and dealt with by a national compliance officer. An independent, external ombudsman is also available to receive information about any reaches of the Code of Conduct from employees and from external third parties. Reports can be submitted in the relevant national languages and must remain anonymous if requested by the whistleblower.

The Chief Compliance Officer submits regular reports about issues relevant to compliance to the Executive Board and the Audit Committee of RWE AG. Internal media within the Group inform our employees about behaviour that conforms with compliance guidelines and also highlight potential risks if compliance is breached. Members of our workforce are also able to take part in a wide range of training sessions through a web-based training programme and at presentation events. Participation is obligatory and calibrated according to the risk of corruption associated with the relevant activity. The Executive Board too is integrated in this training concept. We have

developed our training further taking risk aspects into account and we will start a new training cycle in 2016. On completion of the current cycle, we were able to deliver training at face-to-face events to around 2,800 employees in Germany and around 500 employees in other regions where RWE operates over the course of 2015.

#### Compliance monitoring

We are able to track all compliance-sensitive procedures using our group-wide database. The use of this compliance IT tool is mandatory. This is how we are able to guarantee maximum transparency within the company. We also offer comprehensive assistance in processing the defined transactions.

We use a two-stage process to identify and assess compliance risks which arise for the RWE Group in the area of corruption. After we had established the risk profiles for the Group companies reporting directly to RWE AG in 2012, we moved onto a second stage in 2013 which focused on developing detailed corruption risk scenarios. In 2015, other companies were included in the detailed analysis, and risk workshops were carried out for this purpose in the individual Group companies. The analysis is being continued in 2016.

The Group Audit Department regularly carries out preventive compliance audits in the Group companies. This enables us to review the implementation and effectiveness of our Compliance Management across the Group. We always follow up any information relating to potential breaches of compliance and we take any necessary measures as required. The reviews carried out by the Group Audit Department for the year 2015 revealed no material or systematic breaches of our compliance guidelines. Any individual shortcomings in processes or in the documentation were remedied.

Auditing firm KPMG audited the Compliance Management System in order to combat any corruption in accordance with the IDW Audit Standard 980 drawn up by the German Institute of Auditors (Institut der Wirtschaftsprüfer). The efficacy audit was successfully completed at year-end 2013/14.

#### Group security

As an operator of a critical infrastructure, RWE is aware of its community importance in delivering a secure supply of energy. Security Management is therefore a central management function at RWE. The Group Security Department reports directly to the Executive Board of RWE AG. As a governance function, it provides universal structures and controls for the issue of security in the Group. Measures are derived on the basis of predictive risk management which achieves a commercially appropriate level of protection for tangible and intangible company assets, and for personnel and sensitive business processes. Information security is an integral element of security management within this structure.

In July 2015, the German IT Security Act (IT-SiG) came into force in Germany. This act committed operators of critical infrastructures to protect their sensitive systems and processes against cyber-attacks. A directive providing specific guidelines is expected for the year 2016 and this will give further details. RWE is actively contributing its specialist expertise and is a member of various committees and specialist associations working on these issues. RWE has joined together with other energy utilities and is doing intensive work on establishing a sector solution (CyberSecurityHub-E) to implement the reporting requirements of the IT Security Act (IT-SiG).

RWE is a member of the “Cyber Security Council Germany” (Cyber-Sicherheitsrat Deutschland e.V.) and the “Alliance for Cyber Security” of the Federal Office for Security in Information Technology (Bundesamt für Sicherheit in der Informationstechnik, BSI). At the moment, Group Security provides the Spokesman for the Energy Sector in the UP KRITIS of the Federal Office for Information Security (BSI), the initiative for cooperation between industry and government for protecting critical infrastructures in Germany.

However, we are not only investing in security partnerships but also in the high quality and advanced training of our employees. The qualifications of our security specialists are therefore based on internationally accredited and verifiable standards. We believe that it is important to engage in ongoing communication with other experts. Training courses for RWE security experts, including courses provided at the National Cyber-Forensics & Training Alliance (NCFTA) in the USA make an important contribution on this issue.

More information is provided on additional management systems in the sections on the relevant areas for action:

- Environmental Management ([p. 51](#))
- Occupational Safety and Healthcare Management ([p. 75](#))
- Innovation Management ([p. 84](#))

## STAKEHOLDER DIALOGUE

Our stakeholders include all persons and organisations with which we maintain relations and engage in dialogue. We also regard as stakeholders individuals and entities who seek communication with us or who are interested in our company. The expectations placed on RWE are very different and depend on the area of business and on the region.

In order to identify the different aspirations and take account of them in our corporate policy, we are in continuous communication with our stakeholders. Our company regularly engages in communication based on differing formats with customers, academics, politicians, representatives of environmental organisations, neighbours of our locations and other citizens. We also seek contact with other players who are involved in issues relating to the energy industry and the entrepreneurial actions of RWE and their effects on the community at large.

### Constructive exchange of ideas at different levels

The communication with our stakeholders gives us valuable ideas for the orientation of our corporate activities (p. 35). As a company undergoing a process of change at the present time, it is particularly

important for us to discuss expectations and projections about the future of energy supply with external stakeholders. At the same time, this dialogue provides us with the opportunity to give them better communication on our company decisions and explain the underlying motivation.

The dialogue takes place at different levels. Accordingly, we engage in discussions at local level with neighbouring residents and citizens' initiatives, for example about construction measures and approval proceedings. Our local residents frequently follow our projects and activities with a great deal of interest, perhaps because they may be looking for positive effects to give upside impact on the local economy. Alternatively, they may be anxious about negative effects on their own lives and the surrounding environment. We meet these expectations with an honest exchange of views and an interest in constructive proposals. At national level, we engage in discussions with our stakeholders about wide-ranging issues, such as our contribution to the energy transition and climate change, the future of the energy market, sustainability in international supply relationships or a responsible approach to customers.



## STATEMENT

## STAKEHOLDER COUNCIL



Professor Dr Justus Haucap,  
Chairman of the RWE Stakeholder  
Council

The RWE Stakeholder Council was rolled out in 2014. The council has a remit to raise the profile within the company for expectations from the wider community through regular communication with the Chief Executive Officer of RWE. This body is made up of experts representing different specialist perspectives and from various regions in Europe.

The Stakeholder Council enables us to hear about opinions from people who we would not normally come into contact with in the course of our routine business activities.

#### Dear Colleagues, Stakeholders and Partners,

The report by the Stakeholder Council is provided below. This is the first time it will be published in this form in the RWE CR Report. The RWE Stakeholder Council was established in 2014. The Council is an external body and it is intended to support the Executive Board of RWE AG on its journey of steering the company towards being a more sustainable enterprise. The RWE Stakeholder Council achieves this by bringing the positions and assessments of stakeholders into the company and discussing them together with the Chief Executive Officer Peter Terium and other representatives of the company. The preparation for the meetings and the organisational implementation are carried out by the Department of Corporate Responsibility.

#### Members

Since 2015, the Stakeholder Council has had the following composition: Richard Adams (United Kingdom), Christoph Bals (Germany), Steven De Bie (Netherlands), Anke Domscheit-Berg (Germany), Stephanie Draper (United Kingdom), Manfred Fishedick (Germany) and Anna Radwan<sup>1</sup> (Poland).

During the year under review, the Stakeholder Council convened two meetings, on 18 May and on 16 November. These meetings were attended by the members of the Council, and in part also by senior managers from the areas of Strategic Planning, Investor Relations, Corporate Responsibility, as well as the Chief Executive Officer.

#### Thematic focuses and recommendations of the Council

The overarching theme discussed by the Council during this year related to how RWE can strengthen the trust of the community at large in its activities and its role in the energy transition. The Council gave a comprehensive review of its position on the future image of the company developed internally and of the associated strategic goal of being a credible partner of the energy transition.

In this connection, the Council challenged RWE to reinforce its communicative messages relating to the future vision of the company and present them even more forcefully. It stressed that RWE needed to make clear how the company perceives its role in the energy world of the future in five, ten and 25 years. Focusing on the current situa-

<sup>1</sup> Anna Radwan stepped down from the Council in 2015 at her own request. We are looking to appoint her replacement in 2016.



tion, the Council emphasised that it perceives RWE to be in a field of tension between the stated ambition of being a credible partner in the energy transition and the perception in the public domain, which sees the company defending the status quo of the conventional energy system. The Council recognises that the expectations of the community are different in the individual national markets and acknowledges that this makes it difficult to maintain a consistent positioning. Nevertheless, the Council believes that such a position is possible.

Key factors in the view of the Council are the focuses defined by RWE for its capital expenditure in future and the lines of business the company decides to concentrate on. The Council believes that RWE will only be regarded as credible by the community when its actions in the future are in harmony with the approach being promoted by the company as a partner of the energy transition and by making a contribution to decarbonisation.

In concrete terms, the Council has identified an important line of business for RWE. This involves integrating the individual components of the energy transition, such as renewable energies, new storage technologies, electromobility and intelligent grids in the system as a whole, and linking them up together efficiently. RWE would be able to play this role in its home markets and in other regions as well. RWE would then be empowered to drive the energy transition

forward on a large scale. The Council therefore welcomes the initiative adopted by RWE to dedicate more of its ambitions to these areas of business. This will involve developing new products and services through partnerships with technology companies and also financial investors, and promoting them in the marketplace.

The Council has also identified Corporate Responsibility in other challenges such as protecting customers' data, particularly in the new digital lines of business, as well as ethical issues associated with projects in new regions.

### Outlook

Over the coming year, the Council will focus more intensively on new lines of business as well as on new growth regions, such as the MENAT countries. The Council will work together with the Executive Board to discuss which activities, opportunities and risks are entailed by the company adopting a sustainable trajectory.

On behalf of the RWE Stakeholder Council

Professor Dr Justus Haucap  
Chairman

> [RWE Corporate Responsibility Stakeholder Council](#)



### Stakeholder dialogue by regions

Our stakeholders and their perspectives are nuanced in tune with the diversity of the regions where we have operations. We have a range of different formats for conducting the dialogue and an exchange of ideas with the stakeholder groups at our locations.

#### Germany

The targets, consequences and challenges of the energy transition and climate protection continue to be the most important topics in the communication framework with our stakeholders in Germany. In 2015, the dominant issues were how the energy industry contributes to achieving the national climate change targets and how the structural change in the area of lignite production and conventional energy generation can be managed in a socially and ethically responsible approach. We engaged in an intensive dialogue on this issue with a large number of stakeholders from politics, business, unions and members of the public. For example, we are in a dialogue at the level of elected politicians in local authorities and at political and specialist conferences in the Rhineland lignite mining region. Alongside issues relating to the energy transition and climate protection, the key issues were security of supply, job security and perspectives for the future at the locations. We have also become involved in the innovation region in the Rhineland lignite mining region which is intended to support the structural change. Within this framework, RWE is involved in four out of ten starter projects, for example in setting up a climate protection settlement, in the project Factor X – Resource Efficient Building, and in research into uses for the material lignite (p. 86).

We also discussed the challenges of the energy transition with a view to further expanding and integrating renewable energies. We regularly hold events on this subject and on similar issues, for example

the RWE Talk. In 2015, this was held in Berlin four times and twice in Brussels. Managing Directors and members of the Executive Board at RWE swapped information and ideas in discussions about important current issues with politicians, representatives of other companies, journalists, representatives of unions, and various special-interest groups. The discussions focused on a new design for the electricity market, the future climate protection policy, new opportunities for applications of electrical energy, and innovations for implementing the energy transition.

The Customer Council met twice during the course of 2015. At the first meeting, the members engaged in a debate about the topic of fuel poverty and initiatives carried out by the company to help customers with acute payment problems (p. 56). At the second meeting in September, the discussion centred on problems of acceptance for renewable energies, such as shade levels and the development of noise cause by wind turbines.

The Energy RWE Round Table (Energierundtable) is another dialogue format. In 2015, it was held in Mülheim an der Ruhr and dealt with the topic of electronic electricity meters.

The Neighbourhood Forum (Nachbarschaftsforum) Niederaußem, which RWE set up in the Rhineland lignite mining area, continued on a successful trajectory. The forum offers neighbours, associations and other stakeholders the opportunity to engage in discussion with RWE about issues related to electricity generation and power stations. In 2015, the forum met twice. The agenda focused on topics such as the impacts of cold air flows on agriculture, perspectives on the use of CO<sub>2</sub> as a material, and the climate protection plan in North Rhine-Westphalia.

The environmental compatibility of new offshore wind farms was also an important topic, which we discussed with neighbours at our locations. This forum links up those people affected and special-interest groups, and involves them in the planning process. We inform them about our projects and at the same time find out about everyone's aspirations so we can take them into account.



> [RWE Customer Council \(German\)](#)

> [Neighbourhood Forum Niederaußem \(German\)](#)

#### United Kingdom

In the United Kingdom, debate in 2015 focused mainly on the politicisation of the energy industry and the many regulatory changes made by the new government. Issues relating to security of supply for electricity were also a focus. The British government established a capacity market in order to guarantee security of supply. After 2014, the second capacity auction to ensure security was held in December 2015. RWE successfully took part in this auction. Another issue was related to the future energy mix. Since hard-coal power stations are being taken out of the system, there remains the issue of the proportion of the generation mix that will be taken up by gas, nuclear power and renewable energies in future. The debate in the United Kingdom also addressed the production of gas from unconventional extraction sources using fracking technology, issues which RWE is not involved in. As far as RWE was concerned, the main topic here was in the area for action Market and Customers, and related to the operational problems associated with issuing bills. This has caused a great deal of dissatisfaction in the residential sector (p. 17). The expansion of wind energy is also provoking debate in the United Kingdom because the impact of the technology on the natural environment is regarded as problematic.

#### Netherlands

Discussion with our stakeholders in the Netherlands focused on how we could reduce our CO<sub>2</sub> emissions and which methods will effectively enable the Netherlands to achieve its climate protection goals for the years 2020 and 2050. The Dutch Parliament authorised the government to review possible scenarios for exiting from generation of electricity by burning hard coal and to submit a proposal.

At the same time, issues relating to the supply chain for coal and biomass again formed a subject for discussion in 2015. Our stakeholders believe that the upholding of human rights by our suppliers is extremely relevant in this context. Companies using coal, including RWE, came to an agreement with the government guaranteeing increased transparency. A key module for this agreement is the Bettercoal Initiative (p. 71). We were also intensively involved in discussion about sustainability criteria for biomass (p. 72). Subsidies for biomass with combustion in hard-coal power stations was halted in April 2015. The extent to which this type of plant will be able to attract subsidies in the future now depends on the final subsidy mechanism and on the discussion about the future of hard-coal power stations.

The topic of expansion of renewable energies has also become more important for the stakeholder dialogue in the Netherlands because some residents living nearby have raised critical objections to the construction of wind turbines. For example, some local residents have staged a campaign against a planned wind farm in Meeden. We believe that it is our responsibility there and at other locations to arrive at mutually acceptable solutions for restructuring the energy supply through a process of dialogue and maximum transparency.

**Central and Eastern Europe**

The main topic of debate in the Czech Republic was the issue of security of supply. The focus of various stakeholder dialogues was on gas deliveries. Against the background of differences between Russia and Ukraine, we explained the measures necessary for security of gas supplies to politicians and the ERU energy regulator, who is responsible for setting energy prices each year in the Czech Republic. Our role as the biggest gas storage operator in the country was the central focus. The responsible Minister for Industry and Commerce came to find out the facts on the ground at the beginning of the season when people start to need more heating.

## MATERIALITY ANALYSIS

Management of Corporate Responsibility and reporting is based on the relevant issues that we have determined and evaluated in a Materiality Analysis. This approach also corresponds to the current G4 Guidelines of the Global Reporting Initiative (GRI) which form the basis for this report.

We adopt two perspectives in our analysis so that we are in a position to evaluate which areas for action and issues are particularly important for sustainable governance at RWE. Firstly, we record the expectations of our stakeholders and then we evaluate the issues from the perspective of the company.

The survey of external expectations in 2015 was based on two sources of information:

- We asked representatives of our most important stakeholders about which challenges, areas for action and issues they believed are particularly important for the company from their perspective. We also asked them about what they expect from RWE. This information was obtained by carrying out detailed and structured interviews with 38 representatives of organisations and institutions from civil society in Germany, the United Kingdom, the Netherlands, Poland and the Czech Republic.
- These results are then supplemented with information that we have obtained from other conversations with our stakeholder (p. 29 ff.). The evaluation of this information was agreed in a joint discussion with the CR Officers of the RWE companies and it was incorporated appropriately into the Materiality Analysis.

We carried out the internal evaluation in a group-wide consultation process:

- Initially, we brought together the key issues and assessed their relevance for RWE at the level of experts and line managers in the Group companies.
- A second stage involved the departmental managers of RWE AG and the board members of the Group companies responsible for CR in a validation process.

Areas for action and issues were prioritised in the internal and external survey. This enabled a set of key areas for action and issues to be defined. The Materiality Analysis along with the identified issues and areas for action are used as a platform. We then allocated the material GRI-aspects (p. 5 ff.).

### Presentation of the key issues

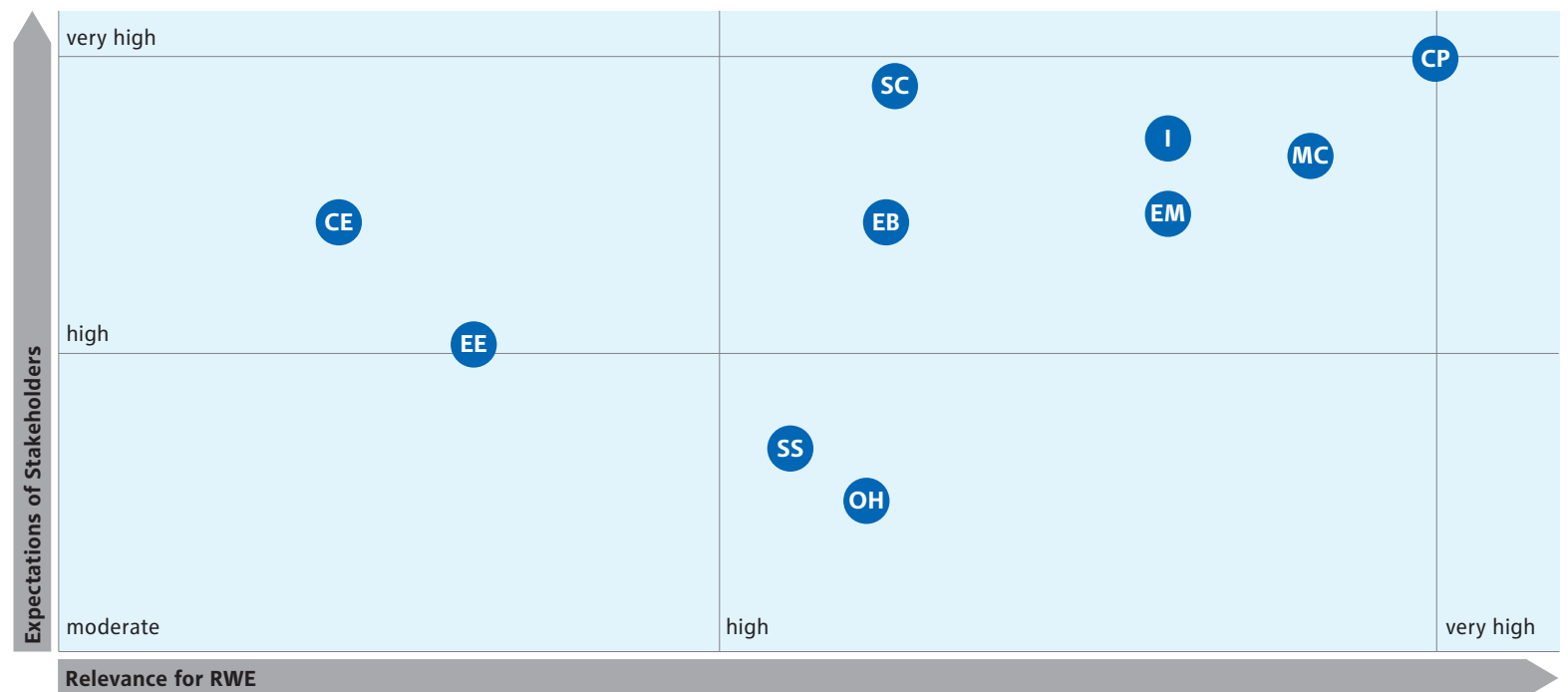
As in earlier reports, the vertical axis of the presentation in the Materiality Analysis represents the expectations of stakeholders. Conversely, our approach in relation to the horizontal axis has returned to the presentation of the perspective from 2013. This maps the relevance of the areas for action in relation to



our business, while in 2014 we plotted the impacts of the RWE Group on the community. Our most relevant areas for action are therefore characterised by the high expectations of our stakeholders in combination with the high level of relevance for the corporate development of RWE.

The following matrix sets out the assessed importance of our areas for action which were each evaluated with the categories “moderate”, “high” and “very high”. The matrix bundles differing perspectives at Group level. The assessments of issues in the regions may therefore differ from the individual Group areas. We attribute above-average importance to all the issues listed in the Materiality Matrix for the sustainable alignment of the RWE Group. The contents

**Materiality Analysis 2015**



- CP Climate Protection
- EE Energy Efficiency
- EB Environmental Protection and Biodiversity
- CE Community Engagement
- MC Market and Customers
- EM Employees
- SC Supply Chain
- OH Occupational Safety and Healthcare Management
- SS Security of Supply
- I Innovation

of this report were defined in accordance with the results of the Materiality Analysis. We provide a more extensive presentation of the three most important areas for action – Climate Protection, Market and Customers, and Innovation – in this report (p. 41, 59 and p. 83).

### Developments in the CR areas for action

#### Climate Protection:

As far as our stakeholders are concerned, climate protection continues to remain the most important challenge for RWE. The majority of stakeholders regard the expansion of renewable energies as the most important instrument for low-carbon generation of electricity. Stakeholders also see a significant need to take action in this area in the future. In turn, RWE continues to consider climate protection as the most important area for action in order to achieve a more sustainable alignment of our actions. The political discussions and decisions on climate protection at global, national and regional level demonstrate the extent to which this topic impacts on the regulatory and social organisational framework of RWE. Investors have also addressed the issue with us in terms of the issue of decarbonisation.

#### Innovation:

This area for action has gained massively in importance in the context of the energy transition. Innovations are becoming increasingly important for us so that we can play a role in structuring changes like integration of renewable energies and digitisation of the energy industry. The expectations of our stakeholders have also risen in this area. This is especially the case in the management of the increasingly digital energy system which they perceive to be an important topic. At the same time, stakeholders are demanding innovative solutions in order to structure the expansion of renewable energies in an affordable way and to make it environmentally compatible. Ulti-

mately, innovations are necessary in order to make conventional electricity generation, which is indispensable for the foreseeable future, more flexible and lower emission.

#### Market and Customers:

Alongside Climate Protection and Innovation, our stakeholders attribute a great deal of importance to this area for action in regard to the sustainable development of RWE. They believe that it is important for us to offer new products and service packages, which will empower our customers to have better control of their energy consumption in a digitised energy world. Simultaneously, our stakeholders perceive new challenges relating to adopting a responsible approach to dealing with customer data, and protection against data being accessed by unauthorised persons. It is also extremely important for RWE as a company to be successful in new markets and to play a role in structuring the supply of energy in a digitised energy world. This needs to be achieved with high standards of data security and protection of customer data.

#### Energy Efficiency:

This area for action relates to energy savings in our company. A high level of efficiency for energy use at our power plants is the most important lever here from an external and internal perspective.

#### Environmental Protection and Biodiversity:

Protecting the environment is very important to our stakeholders. At the same time, we have received feedback from the majority of stakeholders indicating that they consider the approach of RWE towards the handling of emissions, waste and water management to be of a high order. They also perceive it as being organised within the context of an ordered process. Stakeholders see a special need for information on the issue of nuclear waste (p. 52) and they regard this as a

major challenge. We are working intensively on the topic of biodiversity, particularly in the management of opencast mines and in the expansion of wind energy. The expectations of our stakeholders in these areas relate to solutions for protecting biological diversity at existing and new locations.

**Community Engagement:**

Our stakeholders want us to engage proactively at our locations in dialogue with civil society and to take account of their concerns in our corporate policy. At the same time, they want us to provide transparent reporting on our donation and sponsorship activities.

**Employees:**

The pressure on costs resulting from the energy transition continues to exert an impact on our personnel policy and presents us with major challenges in the area for action of Employees. We consider our main task to be the adaptation of our human resource structure to the difficult new framework conditions of the energy economy and at the same time increase diversity within the workforce. Our stakeholders share this perspective. They also expect us to give our employees clearly-defined perspectives and offer them opportunities for personal development. This topic is also a top priority within the company for the development of the business with the objective of reinforcing the motivation and expertise of all the employees so that they are encouraged to implement the energy transition.

**Supply Chain:**

A sustainable structure for the supply chain continues to be an important area for action at RWE. Our stakeholders attribute major responsibility to us in this area and most importantly in the supply

chain for hard coal. We are working intensively together with other European suppliers within the Bettercoal sector initiative in order to achieve an impact in this area (p. 71). Another factor motivating our cooperation is that we can only secure our access to these materials at commercially viable prices if the supply chain has a sustainable structure.

**Occupational Safety and Healthcare Management:**

Occupational safety is an indispensable component of our corporate culture which is manifested in our many reference standards and initiatives (p. 76 ff.). We meet the demands of our stakeholders in this area for action. On an international sector comparison, these requirements are based on a high level of attainment in occupational safety and healthcare management. Our stakeholders have highlighted stress management as a particularly important issue here. Dealing appropriately with stress is also important to us because the company is currently undergoing a process of change which demands a very high level of commitment from our employees.

**Security of Supply:**






In 2015, this area for action continued to have a high level of importance, in particular for our stakeholders in Germany and the Czech Republic. A primary focus of stakeholders is the ongoing development of our distribution grids, and they consider the transition towards intelligent and simultaneously stable grids to be absolutely essential. A platform of adequate availability for power-plant capacity is also regarded as important so that we can cover the supply requirement, for example in the phases when renewable energies generate less electricity due to the weather conditions.










# OVERVIEW OF OUR TEN AREAS FOR ACTION AND OUR CR OBJECTIVES

We have converted our CR Strategy into ten concrete areas for action – in an intensive dialogue with our stakeholders. We have defined concrete, quantifiable targets in each area for action and made them a constituent element in the compensation package for our Executive Board.

Area for action	Target	KPI	Target value	Due <sup>1</sup>	Status at the end of 2015	Target attainment
 <b>Climate Protection</b>	We are committed to significantly reducing the CO <sub>2</sub> intensity of our power plant portfolio.	CO <sub>2</sub> emissions in metric tons (mt) per megawatt hour of electricity generated (mt CO <sub>2</sub> /MWh)	0.62 mt CO <sub>2</sub> /MWh	2020	0.708 mt CO <sub>2</sub> /MWh	● ○ ○
 <b>Energy Efficiency</b>	We are committed to increasing our own energy efficiency.	Increase in energy efficiency in %	RWE power plants <sup>2</sup> : 40.3% <sup>3</sup>	2018	Average efficiency of energy use 40.2%	● ● ○
 <b>Environmental Protection and Biodiversity</b>	We are committed to operating our plants safely and in compliance with licensing regulations at all times.	Compliance with licensing requirements in %	100% compliance	2018	No significant breaches of environmental protection laws and licensing regulations	● ● ●
	We are committed to 100% implementation of our environmental management system to ensure that our plants and grids are operated in 100% compliance with legal requirements at all times.	Group-wide environmental management coverage in %	100% coverage	2018	100% environmental management coverage	● ● ●
 <b>Community Engagement</b>	We are committed to strengthening our regional reputation by making efficient use of resources.	Reputation Index	Reputation Index of at least 59.0 <sup>3</sup>	2018	Reputation Index of 58.4	● ● ○
 <b>Market and Customers</b>	We are committed to maintaining satisfied and hence loyal customers.	Customer Loyalty Index	Customer Loyalty Index of at least 77 <sup>3</sup>	2018	Customer Loyalty Index of 76	● ● ○



Area for action	Target	KPI	Target value	Due <sup>1</sup>	Status at the end of 2015	Target attainment
 <b>Employees</b>	We are committed to ongoing motivation of our managers and employees, and to achieving a necessary reduction in the number of jobs through a responsible and ethical approach.	Demography Index (DEX)	Demography Index of at least 84	2018	Demography Index of 82.5	● ● ○
		Motivation Index	Motivation Index of 72.2	2017	Motivation Index of 72.4	● ● ●
 <b>Supply Chain</b>	We are committed to avoiding reputational risks by ensuring compliance with environmental and social standards in our supply chain.	Securing environmental and social standards in all procurement areas in %	100% of the purchasing volume <sup>3</sup>	2018	Securing standards in supply management 99.4%	● ● ○
 <b>Occupational Safety and Healthcare Management</b>	We are committed to ensuring that all our own and our subcontractors' employees return home just as healthy at the end of the day as they were when they arrived for work.	Number of accidents leading to the loss of one person day per 1 million working hours LTIF4	LTI <sub>F</sub> of max. 1.8 including partner companies (subcontractors) <sup>3,4</sup>	2018	LTI <sub>F</sub> (own staff and partner companies (subcontractors)): 2.2	● ● ○
 <b>Security of Supply</b>	We are committed to supplying our customers with the electricity they need at all times.	Average grid outage durations in min. per year and customer (System Average Interruption Duration Index, SAIDI)	SAIDI < 15 min/ Customer (only Germany) <sup>3</sup>	2018	SAIDI (2014): 13.4 min./ customer (only Germany)	● ● ●
 <b>Innovation</b>	We are committed to ensuring the availability of the best solutions for our purposes in our core processes through innovations.	Degree of coverage and communication of strategically relevant R&D issues in %	At least 98%	2018	Processing and communication of strategically relevant R&D issues, degree of coverage 100%	● ● ●

1 We adjusted our dates for target attainment in 2015 to ensure compatibility with the compensation of the Executive Board.

2 Average efficiency of energy use.

3 We adjusted our target values in 2015 to ensure compatibility with the compensation of the Executive Board.

4 LTI<sub>F</sub>=X/1,000,000 h; including reports known to us from partner companies (subcontractors).

## CLIMATE PROTECTION

Reducing greenhouse gas emissions and minimising the impacts of climate change are important targets for energy policy in Europe. As one of the biggest European energy utilities, we want to make a contribution to this objective.

Since spring 2014 RWE is erecting the onshore wind farm Zuidwester at the IJsselmeer. It is part of the wind farm Noordoostpolder – with 429 MW of installed output being one of the most ambitious onshore projects in Europe.

**0.71**  
mt CO<sub>2</sub>/MWh  
emissions

Reduction  
in the specific  
CO<sub>2</sub> emissions to  
**0.62**  
mt CO<sub>2</sub>/MWh by 2020

CO<sub>2</sub> reduction by  
**4.4**  
million mt  
in 2014

Around  
**3,070**  
MW of wind power  
in operation

More than €  
**6.7**  
billion of capital  
expenditure on  
renewable energies  
over eight years



The reduction of greenhouse gas emissions is an important target in European energy policy and in the individual national energy policies. We also intend to make a contribution to this target, primarily by expanding renewable energies and by reducing the specific CO<sub>2</sub> emissions from our lignite-fired, hard-coal and gas-fired power stations. At the same time, we are offering our customers energy efficiency products and advice which allow them to bring down the amount of electricity and the heat that they consume, and as a result also reduce corresponding CO<sub>2</sub> emissions (p. 61 ff.).

### Challenge

According to the assessment by the Intergovernmental Panel on Climate Change (IPCC), climate change can modify the living conditions of people and the environment across the world. It can also lead to high macroeconomic costs. The resolutions passed by the Paris Climate Conference (COP 21) have jointly committed all the countries to limiting the global temperature increase to significantly below 2 degrees Celsius compared with the preindustrial level. RWE welcomes the climate change treaty. A broadly-based international consensus is the only way of bringing about genuine structural change throughout the world to create a more sustainable economic model.

The ambition of the European Union is to achieve a 40% reduction in the emission of greenhouse gases by 2030 compared with the baseline year of 1990. Germany has already made a commitment to this target for 2020. As a major energy utility and Europe's biggest single emitter of CO<sub>2</sub>, RWE intends to make a substantial contribution and support these targets. For example, our plans for generating electricity from lignite in the Rhineland lignite mining area are in harmony with national and European climate-protection targets. The switch to security standby (p. 44) will enable us to achieve a CO<sub>2</sub> reduction of

around 15% in the Rhineland lignite mining area compared with today by 2020. Depending on the further expansion of renewable energies, an additional fall in the area of conventional energy generation is anticipated. The associated further reduction of full-load hours will combine with the depletion of lignite supplies at the Inden opencast mine, and the consequent decommissioning of the Weisweiler power plant will lead to further CO<sub>2</sub> reductions. Overall, the CO<sub>2</sub> emissions from lignite will therefore be reduced by 40% to 50% compared with the present day by 2030.

During the period running up to 2030, electricity generation from lignite-fired power stations will be even more strongly oriented towards the further expansion of renewable energies and the fluctuating feed-in that results. The focus will then be on flexibility and the provision of backup capacities. In line with this development, the CO<sub>2</sub> emissions will be further reduced. During the phase-out period of the Garzweiler and Hambach opencast mines towards the middle of the century, the volumes of CO<sub>2</sub> will gradually continue to decrease until the extraction of lignite comes to an end.

RWE is participating in the debate going on in the public domain and climate protection is also playing an important role here. Our stakeholders, including environmental organisations, customers and politicians, regard the reduction of CO<sub>2</sub> as the biggest challenge for RWE in order to become more sustainable (p. 37).

### Motivation and targets

RWE supports the German and European climate targets of cutting the emission of greenhouse gases by at least 80% by 2050. The reduction of in-house CO<sub>2</sub> emissions is an absolute priority for us. We have therefore defined a concrete target. By 2020, we want to have

reduced our specific CO<sub>2</sub> emissions from the current level of 0.71 mt for each megawatt hour (MWh) generated to 0.62 mt/MWh. By decreasing the CO<sub>2</sub> intensity of our power plant portfolio, we meet our obligations of social responsibility while at the same time bringing down the financial risks arising from the purchase of CO<sub>2</sub> certifi-

cates. During the year under review, we succeeded in reducing our specific CO<sub>2</sub> emissions by around 5%. In absolute terms, we reduced the CO<sub>2</sub> emissions from our power plants by some 3% from 155.2 million mt in 2014 to 150.8 million mt in 2015.

### Monitoring and performance measurement

We use the CO<sub>2</sub> emissions for each megawatt hour of electricity generated as the KPI in order to measure our target attainment. Advances and successes are used in the assessment of the long-term variable compensation for the Executive Board of RWE AG.

The financial risks associated with emissions trading are reflected in our risk management. We reduce these risks by concluding appropriate hedging transactions. At the same time as we sell a specific amount of electricity in the futures market, we procure the combustion fuel required and purchase any necessary emission certificates.

### Renewal of our power plants

Since 2006, we have replaced more than 20% of our conventional capacities with advanced, highly efficient plants. We have spent a total of more than € 12 billion in the biggest programme of capital expenditure throughout the history of RWE. In May and July of 2015, the two units at the Eemshaven location in the Netherlands started up commercial operation. This is one of the most advanced hard-coal power stations in the world. Apart from these newbuilds, we also modernised existing power plants in 2015, for example the gas turbines in Pembroke and Staythorpe, and unit 9 at the Aberthaw power plant (all in the United Kingdom). The latter was upgraded with low NO<sub>x</sub> burners in the course of overhauls. This has enabled us to improve efficiency in electricity generation, reduce the consumption of resources for each unit of energy generated and therefore also bring down the emissions of greenhouse gases.

### Specific and absolute CO<sub>2</sub> emissions

	Unit	2010	2011	2012	2013 <sup>1</sup>	2014	2015
Specific CO <sub>2</sub> emissions <sup>1</sup>	mt/MWh	0.732	0.787	0.792	0.751	0.745	0.708
Scope 1 emissions <sup>2</sup>	million mt	167.1	163.8	181.7	165.8	156.6	152.3
Scope 2 emissions <sup>3</sup>	million mt	3.1	2.4	1.9	1.5	1.4	1.3
Scope 3 emissions <sup>4</sup>	million mt	135.7	121.0	105.2	105.0	90.8	93.9

1 Calculated on the basis of electricity production, without emissions from biogenic fuels.

2 Scope 1: direct CO<sub>2</sub> emissions from in-house sources (gas transmission & electricity generation).

3 Scope 2: indirect CO<sub>2</sub> emissions from the transmission and distribution of electricity purchased from third parties.

4 Scope 3: indirect CO<sub>2</sub> emissions that do not fall under Scope 1 or Scope 2, produced through the generation of electricity procured from third parties, from the transmission and distribution of electricity in third-party networks, from the production and from the consumption of gas sold to customers.

### Important new conventional power plants since 2013

			Installed capacity in MW	Key capital expenditure in € billion	Proportion of RWE in %	Efficiency in %	Start of commercial operation
D	Hamm	Hard coal	764	2.4	100	46	2013
NL	Eemshaven	Hard coal and biomass <sup>1</sup>	1,554	> 2	100	46	2015
TR	Denizli	Gas	787	0.5	70	57	2013

1 No biomass is currently used at the Eemshaven site. No decision was taken yet in 2015 about the future use of biomass.

### Security standby for lignite-fired power stations

At the beginning of November, the German Federal Cabinet passed a resolution on a draft bill for proposed legislation relating to the limited period of security standby and subsequent shutdown of lignite-fired power stations which had been adopted in the previous July. The Federal Ministry for Economic Affairs and Energy (BMWi) had reached agreement on details regarding this move with RWE and the energy companies MIBRAG and Vatenfall. The legislation envisages that plants with a total of 2.7 GW generating capacity will be gradually phased out of the market from 2016. Each of the plants will then be used to guarantee standby readiness for supply of electricity over a period of four years. The plants will then be finally shut down. Their operators will receive remuneration for maintaining security standby. These measures are primarily intended to ensure that Germany achieves its emission reduction target for 2020. RWE will transfer five lignite-fired power station units of 300 MW each to security standby. These include two units each

at Frimmersdorf (1 October 2017), Niederaußen (1 October 2018), and one unit at Neurath (1 October 2019). As a result, the gross CO<sub>2</sub> emissions will decline by around 12.3 million mt CO<sub>2</sub>.

### Capital expenditure on renewable energies

The expansion of renewable energies is a very important lever for making our electricity generation more climate-friendly. In 2015, we increased our installed output of renewable energies from 3,677 MW to 4,146 MW. The proportion of renewable energies in installed output has therefore risen from 7.5% to 9%. At the same time, we are pursuing the objective of driving forward growth in new regions and with different technologies (p. 46).

### Offshore wind power

Today, RWE already ranks among the five leading offshore wind-farm operators in Europe with around 1,000 MW of installed output. In 2015, two big offshore wind farms run by RWE started operating. In the German section of the North Sea, the Nordsee Ost wind farm was commissioned and fully operational with an output of 295 MW. This renewable facility supplies around 320,000 households with electricity and consequently avoids the emission of 850,000 mt of CO<sub>2</sub> each year. The Gwynt y Môr wind farm located off the Welsh coast was also brought fully on stream. It is the second biggest offshore wind farm in the world with a capacity of 576 MW. RWE has joined forces with Northland Power Inc. and is currently constructing the German Nordsee Ost offshore wind farm project with 332 MW of installed output. Another project is the British Galloper offshore wind farm with 336 MW of installed output. We are planning this wind farm together with our partners UK Green Investment Bank, Siemens Financial Services and Macquarie Capital.

### Important new power plants for generating electricity from renewable energies

			Installed capacity in MW	Key capital expenditure in € billion	Proportion of RWE in %	Full-load hours <sup>1</sup>	Start of commercial operation
D	Nordsee Ost	Offshore wind	295	1	100	3,688	2015
UK	Gwynt y Môr	Offshore wind	576	2.8	50	3,329	2015
D	Königshovener Heights	Onshore wind	67	0.11	51	3,000	2015

<sup>1</sup> Planned full-load hours.

### Onshore wind power

RWE is also driving forward the expansion of onshore wind energy. We started operating the Königshoven Heights wind farm with a total output of 67 MW located in the Rhineland lignite mining area. During the year under review, RWE also erected two additional wind farms in Poland with a total output of 45 MW and brought them on stream. This brings our installed output for onshore wind farms to 2,145 MW. RWE is also building seven wind farms in four European countries. This includes the Dutch Zuidwester project with 90 MW of installed output, which is comprised of twelve of the world's biggest onshore wind turbines with each generating 7.5 MW. The wind farm is scheduled to come on stream in 2017.

### Other renewable energies

Although the focus of activities is in the area of wind energy, RWE also operates plants for generating energy from hydropower, biomass and biogas, as well as solar energy. Following the sale of twelve German power plants, RWE still has 784 MW of installed output for generating electricity from run-of-river plants. The installed output of biogas plants is 16 MW and the output for biomass plants is 253 MW.

In October 2015, RWE opened the biggest photovoltaic park in Hungary. The facility contains 72,480 solar modules with a total output of 16 MW and it was constructed over the ash dump of the power plant in Mátra. RWE is responsible for operating a total of 21 MW of photovoltaic and solar capacity.

## INTERVIEW

## CONTINUOUS EXPANSION OF RENEWABLE ENERGIES



Dr Hans Bunting,  
Chairman of the Executive Board  
of RWE Innogy GmbH

Renewable energies are at the centre of the energy transition. What overall assessment can be reached for 2015 and how will this impact on the strategy for the near future? Our editorial team asked Dr Hans Bunting, the Chairman of the Executive Board of RWE Innogy GmbH, for his view.

**Dr Bunting, are you on track with renewable energies?**

**BÜNTING:** Most certainly! In 2015, the operating result of RWE Innogy increased to more than € 400 million and this represents an increase of more than two-fold. We are one of the biggest providers of off-shore wind energy in Europe with around 1,000 MW of installed output. This also applies to the onshore sector. There we currently have capacity of around 2,000 MW across Europe. And our aim is to continue growing.

**What should be the profile of this growth trajectory?**

**BÜNTING:** We are adopting a four-track approach. Our objectives are to increase our shares in projects and we are open to acquisitions. We want to grow organically in the area of onshore and offshore wind power, develop new markets and expand our portfolio with major photovoltaic projects. The current status is that € one billion have been earmarked for this capital expenditure on these projects from 2015 to 2017.

**What are you planning to do in concrete terms?**

**BÜNTING:** Last year, we looked at a lot of different markets with the focus on onshore wind power while also reviewing the possibilities for photovoltaic systems. This analysis revealed that the Middle East, North Africa and Turkey, alongside Ireland and the USA are extremely promising markets. We are going to examine these options more carefully.

**Why are these regions of particular interest?**

**BÜNTING:** In the MENAT region (Middle East, North Africa and Turkey), there is an optimum relationship between hours of sunshine and major business opportunities as a result of the growing demand for energy. This makes these countries very attractive for photovoltaic systems. Turkey, Ireland and the USA are also particularly favourable for wind energy projects because of the very promising wind locations.

The interview was conducted by  
Dr Matthias Kussin,  
RWE Corporate Responsibility



## ENERGY EFFICIENCY

Energy efficiency is essential for achieving the European climate protection targets. The reduction of CO<sub>2</sub> emissions at our generating plants is the central focus of our efficiency measures. We are modernising our power plants and making use of innovative technologies to achieve this purpose.



RWE is continuously working on improving the efficiency of our power plant portfolio. For example at the Eemshaven location: In 2015 one of the most advanced hard-coal power stations in the world started up commercial operation there.

**40.2%**

efficiency of energy use at our power plants in 2015

New challenges as a result of change in the method of operation for power plants

EU regulations on energy efficiency implemented throughout the Group

**29%**

improvement in energy efficiency with upgraded buildings

**12%**

fuel saving with new vehicles



**Challenge**

The European climate-protection targets can only be achieved with a high level of energy efficiency. Electricity and heat producers are able to make particular contributions to this ambition. We are reducing our CO<sub>2</sub> emissions per unit of electricity or heat generated by using more efficient power plants while at the same time bringing down our consumption of resources.

**Motivation and targets**

We want to drive energy efficiency forward in our power plant portfolio and in other company activities. This makes business and environmental sense. High levels for efficiency of energy use enable us to reduce our combustion fuel costs and cut our CO<sub>2</sub> emissions for each

converted unit of energy. This enables us to bring down our expenditure on CO<sub>2</sub> certificates as well. We have defined our goal as increasing the average efficiency of energy use for our power plant portfolio to at least 40.3% by 2018. Achieving this goal will be more demanding in future because the role of our power plants is undergoing partial change. They are no longer operating round the clock but instead these power plants are adjusting their feed-in to take account of the fluctuating supply of renewable energies.

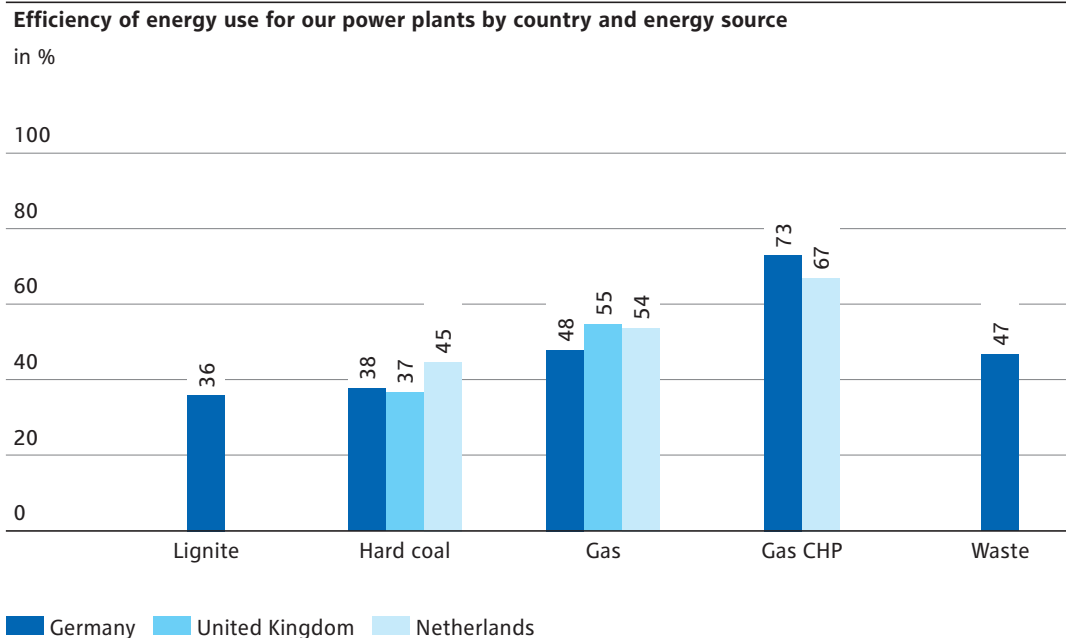
Aside from rationalising the operation of power plants, we are reducing the amount of energy expended on our vehicle fleet, in our real estate portfolio and for other areas of the company, such as open-cast lignite mines and other production facilities. There are also big potential opportunities for saving energy with our customers. This is why we are offering consumers comprehensive energy service packages and consultation for the improvement of their energy efficiency (p. 61 ff.).

**Monitoring and performance measurement**

In the context of our CR management, the average efficiency of energy use for our power plants is the key performance indicator for calculating our energy efficiency. This indicator shows how much primary energy we use for each kilowatt hour (kWh) of electricity produced or heat generated.

**Development in energy efficiency**

We will achieve a higher level of efficiency in the production of electricity mainly by modernising our conventional power plant portfolio. In 2015, one of the most advanced hard-coal power stations in the world with an output of 1,554 MW started up commercial operation at the Eemshaven location in the Netherlands in 2015.



We were able to keep our efficiency almost constant at 40.2% compared with 2014 (40.4%). A negative impact was exerted as a result of lower heat generation, declining use of our gas-fired power stations and increased part-load operation. This change in the method of operation comes as a result of the major expansion of renewable energies, which have priority for feed-in of electricity to the grid. This development is at the expense of efficiencies for conventional power plants, which are increasingly being used in unfavourable operating states. This is because they generate electricity at times when renewable energies are unable to supply power.

In future, we will achieve additional efficiency increases primarily by decommissioning older power plants. When building new power production plants, we will concentrate on the expansion of renewable energies in future. Overall, our newly installed output here in 2015 amounts to 474 MW of renewable energies, other plants with a total capacity of 246.6 MW are currently being constructed.

Furthermore, we are retaining the option of building another lignite-fired power station "Optimised Unit Plus" (BoAplus) located at our Niederaußem site. This will achieve an efficiency of more than 45% and would replace four old power stations with an output of 300 MW each operating at a lower level of efficiency.

If the energy savings made in our real estate portfolio and vehicle fleet are set against the total footprint of our Group, they only make up a small proportion. Nevertheless, these efforts highlight the credibility of our actions and also contribute to raising the awareness of our employees for energy and environmental issues.

A continuous process of modernisation enabled us to increase the energy efficiency in our real estate portfolio during the course of 2015 – by a total of 29% for the refurbished buildings. Measures such as upgrades for roofs and modernisation of heating systems contributed to this improvement.

During the year under review, we replaced 520 older vehicles in our vehicle fleet by 560 new vehicles which caused on average 12% fewer CO<sub>2</sub> emissions per kilometre. We have also included five electric cars in the vehicle fleet which are available to all our employees in Essen and Dortmund.

#### Expanded energy management system

We have expanded certification in conformity with ISO 50001 in the sectors opencast mining, lignite and hard coal/gas to include nuclear energy, hydropower and refinement.

In 2015 all RWE companies with more than 250 employees were audited on energy efficiency by an external service provider. We have therefore promptly complied with the regulations implemented under German legislation and defined in the Energy Efficiency Directive of the European Union. The Eemshaven hard-coal power station located in the Netherlands constitutes an exception. The audit there will only take place in 2016 because commercial operation was only started up in 2015. We have obtained a special licence for this.

The ELMŰ-ÉMÁSZ Group in Hungary was the first energy company to receive a certificate in compliance with ISO 50001 there.

## ENVIRONMENTAL PROTECTION AND BIODIVERSITY

We want to avoid any impacts on the environment that are associated with our business activity or if this is not possible minimise the effects as much as possible. That is why RWE has an effective environmental management system in place. We consistently reduce waste and we are committed to protecting and reinstating ecosystems.

**0**  
major  
environmental  
incidents

Expenditure on  
environmental  
protection amounting  
to €  
**2**  
billion

**88%**  
of all run-of-river  
power stations  
equipped with fish  
ladders

**100%**  
coverage by an  
environmental  
management system

**22,950**  
hectares of recultivated  
land at opencast mines  
in the Rhineland lignite  
mining area

With its approach on recultivation RWE has built up a reputation: Extensive lakes, ponds and wetland biotopes came into being in the former extraction sites of the Rhineland lignite mining area. They provide new habitats to numerous endangered animal and plant species.



### Challenge

The operation of conventional power stations and plants for generating electricity from renewable energies, the production of lignite and the operation of our distribution grids inevitably result in our impacting on natural ecosystems. Pollutants are released during the production of electricity and heat in our power plants or the operation of our opencast mines and they can lead to negative impacts on people and the environment. We are therefore committed to ensuring air pollution control and to conserving natural resources. This applies in particular to the use of water. We compensate the use of land for our opencast mining activities by recultivating the extraction sites. This approach enables us to return usable areas of land to agriculture and for other use while also creating space for nature conservation where we can strategically foster biological diversity.

### Motivation and targets

We want to avoid direct and indirect interventions in ecosystems through our activities. If this is not feasible, our aim is to keep the impact to a minimum. As far as possible, we mitigate unavoidable or irreversible negative consequences with adequate nature conservation measures. This means that we create ecosystems with at least the same functional capability as before the intervention and as a result frequently go beyond the statutory requirements. We carry out a major share of our activities in the area of environmental protection on the basis of the licensing regulations that we have to comply with when we construct and operate our plants. We are therefore continuously driving forward our group-wide coverage of RWE's activities by our environmental management system. Furthermore, we are also committed to steadily promoting and improving the elimination or reduction of environmental impacts. At the same time, we are regularly in dialogue with our stakeholders, in order to strengthen acceptance for our activities (p. 29).

### Monitoring and performance measurement

We are continuously carrying out analyses and evaluations of environmental issues in order to assess their relevance for the RWE Group. The key performance indicator in the area of environmental protection is compliance with the licensing regulations for the installation and operation of our plants and facilities. Our compliance with such systems is ensured with regular on-site checks. The percentage coverage by our environmental management system provides us with a further key performance indicator.

All RWE companies have an obligation to act in compliance with our Group Directive on Environmental Management and set up a dedicated environmental management system in conformity with the requirements of the ISO 14001 international standard. Compliance with this standard is ensured by annual audits. During the course of 2015, group-wide expenditure on environmental protection amounted to € 2 billion.

During the year under review, there were no major incidents at the plants of the RWE Group that resulted in significant impacts relevant to the environment. Compliance with all licensing regulations was consistently ensured. In 2015, 20 notifiable events at notification level 0 were registered for our nuclear power stations. There were 14 notifiable events in the previous year. Our fossil-fired power stations were operated in 2015 without any major disturbances.

### Pollutant emissions and waste

Upgrading our power plant portfolio with modern burner technologies and optimised separation processes enable us to reduce the emissions of pollutants which are released during the production of electricity and heat at our power plants. One example of this is mercury, where the advanced technologies used today for flue-gas

### Development of specific pollutant emissions

	Unit	2010	2011	2012	2013	2014	2015 <sup>1</sup>
Specific NO <sub>x</sub> emissions	g/kWh	0.58	0.60	0.69	0.68	0.60	0.54
Specific SO <sub>2</sub> emissions	g/kWh	0.29	0.31	0.40	0.37	0.33	0.25
Specific particulate emissions	g/kWh	0.019	0.021	0.025	0.022	0.020	0.017

<sup>1</sup> From 2015 incl. power plants not owned by RWE that we can deploy at our discretion on the basis of long-term agreements.

scrubbing remove up to 90% of this pollutant with pure coal combustion. At the Coal Innovation Centre in the Rhineland lignite mining area, we are currently working on improved procedures for the removal of mercury, for example by adding activated coke to flue gas. The results of test trials to date lead to the expectation of further improved separation of mercury. However, further, tests still need to be carried out. There is not currently a standard marketable technology that could be used directly in our plants to reduce mercury transmissions.

However, the Federal Environment Ministry has not identified any adverse readings when measurements have been taken – even in the environment of coal-fired power stations. The level of pollution measured in the ambient air outside, in other words the amount of pollutants which impact on people and nature are in the range between 1 and 2 billionths of a gram (ng) per standard cubic metre of air (ng/Nm<sup>3</sup>). In Bergheim, this figure is actually significantly less at 0.04 ng/Nm<sup>3</sup>. The critical value for outside air is 50 billionths of a gram per Nm<sup>3</sup>. This value describes the concentration of a substance in the air which does not result in any health impairment when a single substance is analysed, if an individual is exposed to this for their entire life.

Avoid, recovery, disposal – this is the principle underlying our waste management. We are continually reducing the amount of waste which cannot be recycled for further downstream application. Accordingly, all residual waste is disposed of in compliance with statutory regulations.

This also applies to residual materials and waste from our nuclear power stations which occur while they are being operated as well as when the power plants are decommissioned. Only a small part of the entire mass of the nuclear plants ever comes into contact with radioactive materials when they are operational. The greatest proportion of this material is then cleaned with the assistance of decontamination measures so that it can be released by the government authorities and then returned to the normal cycle of materials. The remaining residue – only around 3% of the total mass of a nuclear power station – is destined for disposal in a final repository for radioactive waste. This material primarily includes components near the core of the reactor. Until the material is consigned under statutory regulations to a final repository operated by the government, these waste

### Expenditure on environmental protection 2015

in € million

Air pollution control	228
Nature conservation and protection of the landscape	71
Water protection	168
Waste disposal	273
Noise abatement	9.5
Polluted sites, soil contamination	8
Climate protection	1,246
<b>Total</b>	<b>2,002</b>

materials, such as spent fuel rods, are kept at an intermediate storage facility under the supervision of the nuclear regulatory authorities.

#### Water use

A top priority for RWE is ensuring that our use of water exerts minimum impact on natural resources when we supply our thermal power plants with cooling water. We also provide the best protection for aquatic habitats and other ecosystems linked with such habitats against adverse effects. Environmental impacts are prevented by methods such as recycling water, more intensive use of pumped water from opencast mines and using collected rainwater, as well as recovering and re-using process water from operations. Our internal wastewater treatment and continuous monitoring of the process ensure that potential contamination is eliminated. We provide verifiable compliance with the statutory threshold values. This enables us to avoid negative impacts on nature and human health.

#### Protection and promotion of biodiversity

In 2015, we adopted a Biodiversity Policy for the Group. This guideline establishes how RWE intends to protect and promote biodiversity stewardship as the company carries out its business activities. We protect species diversity by strategic measures if natural habitats are destroyed by our activities. These include fish ladders at run-of-river power stations and the use of technical measures to protect marine species at offshore wind farms. The same approach continues as we reinstate substitute habitats or facilitate the repopulation of existing habitats. We also contribute to the promotion of biodiversity through the recultivation of mining areas.

A green bridge was constructed over the German A 61 highway at a cost of € 4 million. The structure is part of the species protection concept for the Hambach opencast mine and helps to provide an integrated network of habitats outside the mining excavation area. The main reason for erecting the green bridge was as a crossing aid for the bats from Hambach Forest. It provides a route for these particularly shy animals to cross the motorway in the protected landscapes and nature conservation areas of the Erftal Valley. Bats make use of ultrasound waves for purposes of orientation and they need trees and bushes growing more closely together than is the case in a motorway corridor so that they can utilise this echolocation system effectively. The bridge helps the animals to negotiate the space without any danger. Naturally, other wild animals also benefit from the bridge.

Our cooperation with the International Union for Conservation of Nature (IUCN) was based on the topic of biodiversity management in the context of recultivation of opencast mining extraction areas and this was successfully completed in the summer of 2015. The final report compiled by the IUCN describes exemplary approaches by our biodiversity management and also puts forward proposals for improvement.

During the course of 2015, we continued our activities for the protection of birds in Hungary. In the Bükk National Park, almost 9,000 electricity masts were insulated and some of them were replaced by underground cables. The project was financed by capital expenditure of € 4.2 million. Alongside sponsorship provided by the Environmental Fund, ÉMÁSZ also made a contribution of € 0.86 million.

[> RWE Biodiversity Policy](#)

[> IUCN final report](#)



## COMMUNITY ENGAGEMENT

Our role is to be the credible partner at our locations and at national level. We are therefore committed to taking action in many different ways for the benefit of the community. This ranges from providing support for low-income households, through our in-house education initiatives on the topics of energy and technology, to promotion of volunteering engagement by our employees.



Reputation Index  
of  
**58.4**  
points

RWE Foundation for  
Energy and the  
Community sponsors  
projects with €  
**1.7**  
million

Teaching about energy  
in 148 schools with  
**7,233**  
school children

**23.9%**  
of employees volunteer  
with RWE Companius

Donations amounting  
to €  
**3.5**  
million handed over

By RWE Companius RWE is supporting employees in helping others since 2007. In many voluntary projects they also take care of those people who had to flee their home countries.





### Challenge

We carry out key functions for energy supply and the employment market with our products and services, our capital expenditure, and also as an employer. Our mission is to ensure a secure supply of electricity and gas at all times. Part of that mission is also to provide jobs. The activities we pursue are dependent on trust and acceptance at international, national, regional and local level, particularly in the districts surrounding our sites. RWE seeks dialogue in order to create trust. We communicate with groups impacted by the activities of our company or groups carrying out activities influencing our business operations. We want to know about their positions and respond to their concerns in an appropriate way (p. 29).

### Motivation and targets

The challenges of the energy transition can only be solved at the level of society as a whole. We are the credible partner for this challenge and we want to enhance trust in our company within our regional and local environment, as well as within society overall. That is why we promote social developments through initiatives in social, environmental and cultural spheres, with volunteering engagement by RWE employees, by neighbourhood support and through financial assistance. We want to continue strengthening our acceptance in this way and create a profile that is distinct from our competitors.

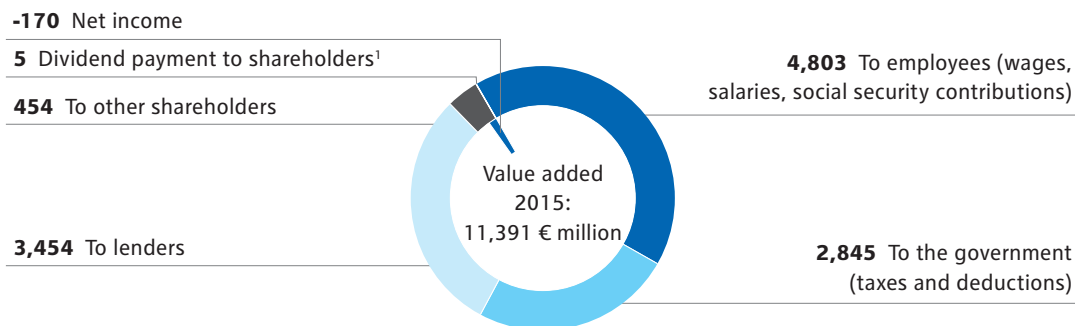
### Monitoring and performance measurement

We want to use the resources available effectively and in conformity with our compliance objectives. We have defined the rules for the allocation of resources in our Guideline on Donations and Sponsorship which applies throughout the Group. A standardised annual survey is used to measure the results of our engagement in order to determine the Reputation Index. We apply the results to check the effectiveness of our measures. In 2015, we achieved a score of 58.4 but this still remains below our target score of at least 59.0 points. Our objective is to have achieved this target by 2018.

### Action on fuel poverty

We help to ameliorate fuel poverty in the countries where we are operating – particularly where the government and civil society do not provide enough support. Fuel poverty is defined as households which have to spend more than 10% of their net income on energy needs. There are various differences here between the needs and offerings in the individual countries.

#### Distribution of value added in 2015 (in € million)



<sup>1</sup> Dividend proposal for the business year 2015 of RWE AG, subject to a resolution being passed by the Annual General Meeting on 20 April 2016. Dividend of € 0 per common share, dividend of € 0.13 per preference share.

RWE has been cooperating with the Trussell Trust in a number of communities across the United Kingdom. This is a charity working to alleviate poverty and the two organisations have launched the Fuel Bank Initiative to help vulnerable families which are unable to afford to purchase electricity and gas. The initiative provides vouchers worth about € 68 (£ 49) each that can be used to purchase energy allocations. The vouchers are issued through the organisation Trussell Trust Food Banks, which distribute food packages to vulnerable people.

The Health Through Warmth Programme enables us to support vulnerable people with long-term illnesses who need help to install heating and carry out insulation measures, or to repair existing systems and appliances, which they cannot afford to fully fund them-

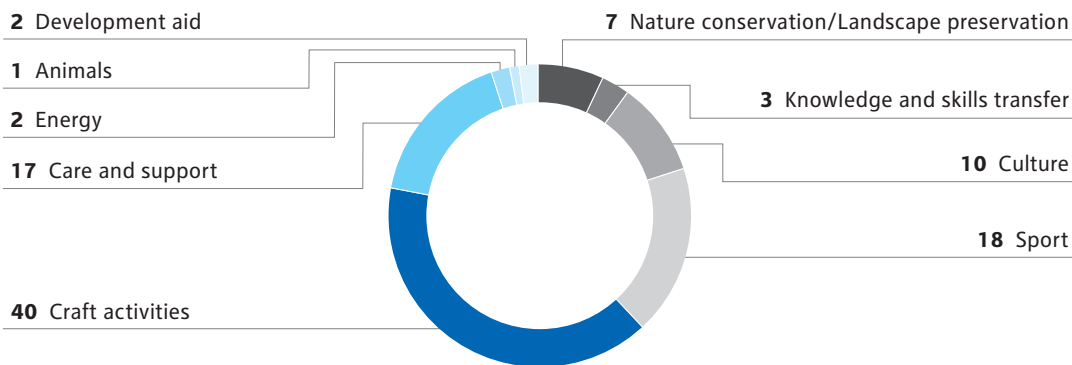
selves. RWE also helps people affected by cancer who cannot pay their energy bills through its partnership with the non-profit organisation Macmillan Cancer Support in the United Kingdom.

In Hungary, we work together with aid organisations and local authorities in order to help vulnerable customers by providing advisory services on energy consumption and pre-paid electricity meters so that they have the capability to control their own costs. We also offer lignite to residents living in the vicinity of the Mátra power plant for use as a heating fuel at a reduced price.

The Croatian Government has issued a Directive on Energy Poverty. On 1 October 2015, around 60,000 vulnerable households in Croatia started receiving monthly vouchers to help cover their bills for electricity consumption. As one of the major electricity suppliers in the Croatian market, RWE has given its support to this solution.

**Distribution of projects for RWE Companius according to thematic topic in 2015**

in %



**Corporate volunteering**

We promote volunteering by our employees under the umbrella of the group-wide Corporate Volunteering Programme known as RWE Companius. Targeted formats help us to allocate employees to a volunteering role appropriate to their requirements. The Expertise Exchange gives the local community access to the know-how of our employees, including on topics such as public relations work and performance audits. In cooperation with the Caritas Association for the Diocese of Essen, we qualify and make arrangements for employees to act as support mentors for older people. The RWE Companius format “Kopfverleih” or “Expert Advisor Group” is our way of enabling colleagues to provide advice for non-governmental organisations. This year the Expert Advisor Group was integrated in an internal strategy meeting for the first time. Around 75 employees from 15 international RWE companies provided comprehensive advice for

organisations keen to benefit from this assistance. We also integrate Companius projects into commercial training in order to expand the expertise of apprentices at RWE. In 2015, a total of more than 2,031 employees dedicated their time to providing assistance on 1,344 projects. The amount contributed to these projects totalled € 2 million during the period under review.

Charitable projects in Hungary included giving Christmas presents and donating 1,000 hot meals to vulnerable people there. We also carried out several blood donation campaigns and contributed to the Smiling Hospital Project. RWE also provided support for a non-denominational aid organisation with donations and a 14 kW photovoltaic plant so that it could generate its own electricity.

#### Aid for refugees

In cooperation with its long-standing community partners, RWE Companius Volunteering develops projects in the area of aid for refugees. Employees of the entire Group, from apprentices to the executive management make a commitment to team projects and individual projects for refugees. In this year alone, 239 employees provided assistance for refugees. They provided support by collecting aid supplies, worked as language teachers or renovated refugee homes. Refugees in Hungary were helped through the provision of blankets and opportunities to charge their mobile phones. RWE employees from different companies in Germany took part in a project where they worked together with refugees and local people to establish a Talent Workshop. RWE Companius promotes volunteering engagement.

Furthermore, RWE provided refugees with apartments located in former villages in the Rhineland lignite mining area which had been vacated when the people in the villages were resettled. Land in the surrounding areas of some power plant sites was also made availa-

ble, for example in Niederaußem, Essen-Karnap, Weisweiler and Ibbenbüren. These premises and sites are made available free of charge. Only the provision and disposal of the facilities is compensated on the basis of cost.

#### RWE Education Initiative 3maE

“Education with Energy” is the slogan we are using to generate enthusiasm among young people for energy and technological issues. We discuss the energy supply of the future with them under this focus. “3maE - Education with Energy” bundles the education packages of all RWE companies in Germany. This initiative is intended to help young people research, discover and experience energy. During the year under review, we significantly expanded these packages for children, teenagers, students and teachers. School competitions, trips, preparation of teaching materials and packages in social media are some of the activities making a contribution to communicating knowledge about topics related to energy in an informative approach. Another example is a digital game which helps young people to learn about generating and using renewable energy. In 2015, 492 experiment kits were loaned to 62 schools and 62 nurseries. 85 RWE employees were sent into schools as energy ambassadors. Around 600 school classes, with more than 1,700 school children, and a large number of students paid a visit to the company’s operational locations.

#### Education initiative in Poland

In 2013, the RWE Foundation in Poland and the Copernicus Science Centre (CNK) launched their own educational programme - the RWE Power Box. The initiative is based on an innovative approach in which teachers apply modern teaching methods based on experiments when they work together with school children. The focus is on important topics relating to energy generation, storage and use. The system also gives teachers in schools the opportunity to engage in discus-

sions on natural phenomena and sustainable development. The programme is intended for teachers and children attending elementary schools and lower grades at secondary schools.

In 2015, the third edition of the workshop in the RWE Power Box Programme was held in Warsaw, Szczecin, Lublin, Elbląg, Poznań, Wrocław, Gdańsk, Kraków and Katowice.

The 1st edition of the RWE Power Box Programme was used at 60 elementary schools in Warsaw. 40 educational institutions located in Malbork and the Suwałki regions participated in the 2nd edition. A total of more than 100 RWE Power Box sets were handed over to schools. Ten thousand school children participated in the two editions of the programme. The programme is also being continued in 2016.

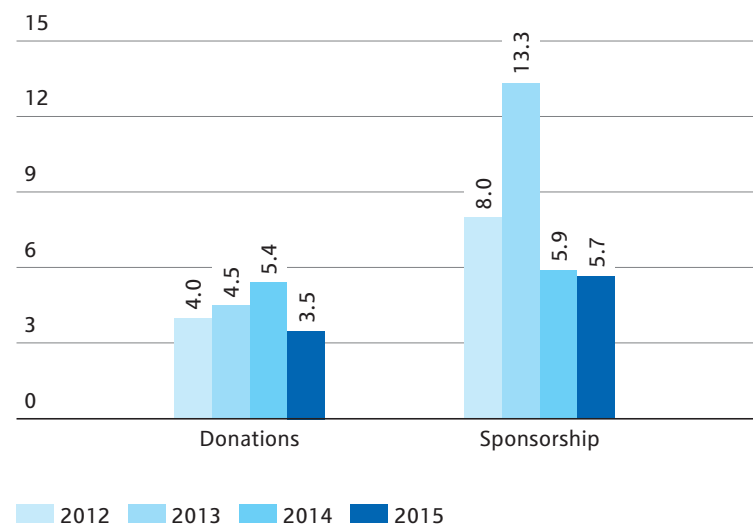
#### RWE Foundation for Energy and Community

Since the realignment of the foundation in July 2014, the RWE Foundation for Energy and Community has consistently worked to redefine its profile from primarily a funding institution to a player in the community and a think tank. The RWE Foundation has been able to significantly expand its scope to provide financial assistance because it is now operating as a non-perpetual trust. In addition to the foundation's income, the endowed assets of € 60 million can now also be used to fund projects. In 2015, the outgoings for sponsoring projects and donations amounted to a total of around € 1.7 million. The "Energy Avant-garde Anhalt: in the Real Laboratory of the Post-fossil Future" is a particularly appropriate example of the new direction. The sponsoring organisation Energy Avant-garde Anhalt (Energie-avantgarde Anhalt e. V.) was set up with around 20 representatives

from foundations, municipal utilities, administrative districts, the Federal Environment Agency and also private individuals. Over the course of the year, additional members are expected to join up. The Energy Avant-garde Anhalt has joined forces with partners from the region and a supraregional consortium to establish and trial a regional energy system which will be increasingly based on renewable energy sources, a decentralised approach and prosumer roles. The Real Laboratory enables the organisation to create an interactive and flexible project structure which gets regional players and national institutions from the public and private sectors around one table.

#### Donations and sponsorship

in € million



## MARKET AND CUSTOMERS

Electricity producers and customers have a strong partner in RWE. We are continuously improving our performance in order to ensure that this situation continues. The use of innovative technologies and applications is enabling us to make the lives of our customers easier, to help them save energy and to play a role in structuring a new energy market which has undergone a fundamental transition.

Customer Loyalty  
Index in Germany at  
**76**  
points

More than  
**16.4**  
million electricity  
customers

More than  
**7**  
million gas  
customers

More than  
**60,000**  
energy consultation  
sessions mediated in  
Germany in 2015

Charging grid network  
for electric vehicles  
with more than  
**100**  
municipal utility  
partners

Making life easier and more comfortable: That's what RWE SmartHome is assisting with. Heating and electronic devices can easily be controlled wirelessly. Data protection is guaranteed.



More than 23.4 million customers trust us to supply them with electricity, gas and heat at any time. We also support them with future-proof products and services. These include electricity and heat storage facilities for domestic households, solutions for saving energy, but also service packages for management of their photovoltaic plants and wind-power systems. In parallel to this, we are also continuously expanding the array of advice we offer, particularly in the area of energy efficiency.

### Challenge

Energy generation has become more dynamic. Apart from energy utilities, an increasing number of ordinary citizens, mid-sized companies and cooperative ventures are generating electricity and feeding the power into the public grid. The market has also changed in the consumer retail business. Here we are also in competition with Inter-

net-based providers who do not have their own generating capacities. This presents us with new challenges. If we are going to retain existing customers and acquire new ones, we have to provide electricity, gas and heat at fair prices. We also need to convince customers about intelligent solutions for efficient and sustainable energy management. Achieving this goal requires us to understand the modified requirements of our customers even better and offer new bespoke products and services which have been tailored to their requirements. This is why innovation has been given an even higher profile in the strategic focus of our company (p. 37). Future strategy will increasingly be about not simply responding to the needs of customers but also about anticipating their aspirations in advance.

### Motivation and targets

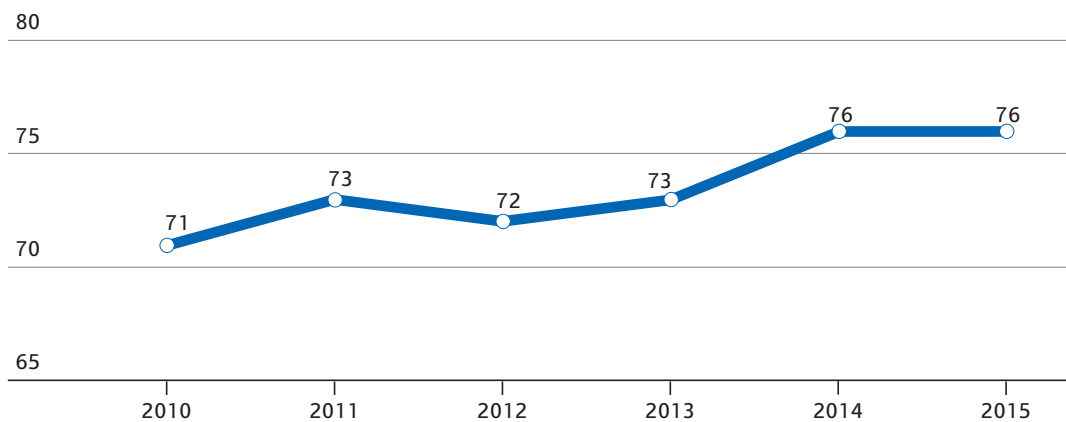
We want our customers to remain loyal, to be interested in new products and to recommend our company to other people. Our stated objective is to be accepted by our customers as a service provider and supplier, and also as a partner who can work with them to create individual solutions.

Our usual high level of product quality, fast and streamlined processes and competitive prices continue to remain our top priorities in this relationship.

### Monitoring and performance measurement

The Customer Loyalty Index provides our method for measuring success. Since 2009, we have been determining this rating uniformly for all retail businesses in Germany and we have also been using the rating in a similar form for other countries. This indicator is based on surveys conducted among our residential and commercial customers. These surveys ask customers whether they want to remain as customers of the relevant RWE company in the future, whether customers

Customer Loyalty Index<sup>1</sup>



<sup>1</sup> Based on residential electricity customers in Germany.

would recommend RWE to other consumers and whether customers can also imagine sourcing other such products from RWE. Loyalty is rated as low for scores of 70 or less, moderate for scores of 70 to 79 and high for scores above 80. During the year under review, we achieved a rating of 76 for the Customer Loyalty Index in Germany and this means we retain the score gained in the previous year. We want to continue to improve and achieve a score of at least 77 in the coming years up to 2018 in spite of the increasing competition.

### International customer loyalty and satisfaction

The score for the Customer Loyalty Index for Essent in the Netherlands was 77, slightly higher than in 2014 (76). The loyalty of our customers in the Czech Republic remained stable and it is currently at an index score of 71. The switch rates came down here over the course of 2015. Our score for the Customer Loyalty Index in Poland was 80 in 2015.

Apart from customer loyalty, we also survey customer satisfaction. The Customer Satisfaction Index for retail electricity customers of RWE Germany was 77 in 2015. Customer satisfaction in the Netherlands with a score of 85 was marginally higher than in 2014, while it is 63 in the United Kingdom. Customer satisfaction in Belgium improved to 86 by comparison with 2014. In the Czech Republic, the segment average was around 65. The customer satisfaction for our business and residential customers in Hungary was rather higher in 2015 than in 2014. In Poland, customer satisfaction achieved a score of 79.

### Intelligent home control with SmartHome

RWE SmartHome is a wireless-based home control system offering a value-for-money and uncomplicated entry into the Internet of Things. RWE SmartHome can network building technology and currently about 30 household appliances into a smart home. Over the course of 2015, the system was also continuously developed and supplemented by new components. Data from the Netatmo weather station enables fans, roller shutters and electrical appliances to be controlled automatically. The Energy Control read-out unit is another new component which enables conventional electricity meters to be integrated in the RWE SmartHome. This allows electricity consumption to be tracked by smart phone and controlled in this way.

### Awards for customer service

Award	RWE company	Type of study	Awarded by
Second place in the category of customer service (score of 1)	RWE Vertrieb, Germany	Study of gas providers 2015	German Institute for Service Quality (Deutsches Institut für Servicequalität, DISQ)
Second place for electricity, second place for gas	RWE Vertrieb, Germany	Web study Energy supply companies 2015	Process Management Consulting GmbH
Rating: Top Performer	RWE Vertrieb, Germany	Sector analysis	imug Beratungsgesellschaft mbH
Best value for money (energy supplier)	Eprimo, Germany	Ranking	YouGov
Best website in the energy sector	Essent, Netherlands	Regular study of consumer experience when looking for a new energy supplier	Website benchmarker WUA!
Best business partner in the energy sector	Essent, Netherlands	Survey carried out among readers of the magazine Management Team who are responsible for purchasing energy as part of their job	
Customer Friendly Company	RWE Poland	Investigation of customer service	Management Observatory Foundation

Data security and data protection are a top priority for RWE in this process. The security concept of RWE SmartHome ranges from encoded communication between the appliances, through the RWE IT back-end, to the safe online shop. Data security was confirmed by independent institutions, such as the Association for Electrical, Electronic and IT Technologies (VDE), the independent testing organisation for IT safety AV-Test, and the TÜViT technical inspectorate.

#### Flat rate for green electricity

RWE Vertrieb is offering the first flat rate for green electricity in Germany. This has been undergoing a field test in Hannover since the beginning of September 2015. This rate is made up of various flat-

rate charges and is incremental on the basis of consumption. Customers are allocated a flat-rate amount for the next twelve months on the basis of consumption in the previous year. If a customer consumes more electricity, it is not necessary to pay a supplement but the account is regraded to a higher increment for the following year. On the other hand, thrifty households are rewarded with a bonus.

#### Individual energy services for residential customers

We are helping our customers to identify potential energy savings and make the most of them. Examples of these offers include energy concepts, provision of advice on reducing energy use and building analyses. Anybody interested can also find out on the Internet about issues such as building insulation, promotion measures for energy-based refurbishment and particularly efficient household appliances. We use our network of professional energy advisors to provide advice for residential customers in Germany.

> [www.energiwelt.de](http://www.energiwelt.de) (German)

Our customers in Hungary have access to two energy advice centres and we also provide information on the Internet about options for saving energy. We also offer energy audits for households under the enHome brand. enHome has been able to position itself as market leader in retail business and construction of photovoltaic systems for residential households in Hungary.

Similarly, we give assistance to our customers in the Czech Republic by helping them to reduce their energy consumption. Customers are able to use the website [setrimenergii.cz](http://setrimenergii.cz) ("I save energy") to analyse the different consumers in their household and compare the saving measures with other customers.

## RWE solar weeks

During the first half of the year, RWE strategically promoted entry into photovoltaics and storage of solar electricity within the framework of its Solar Weeks (Solarwochen). It cooperated with local professional installers to offer solar packages. Customers provided photos of their house and received advice free of charge. RWE clarified any data relevant for the house and electricity consumption, and then provided a bespoke offer for the installation of a photovoltaic system.





### Individual energy services for commercial customers

We offer our commercial customers an energy controlling system in Germany. This allows them to strategically increase their energy efficiency. The process encompasses recording the relevant data relating to the consumption of electricity, heat energy and water, and evaluation by presentation of the potential savings and concrete recommendations for action.

In order to increase energy efficiency and reduce energy costs in companies, RWE also offers planning, finance, construction and operation of advanced combined heat and power energy plants for energy consumers in Germany with high requirements for heat and electricity. We support the operators of plants for electricity generation using renewable energies with cost-optimised feed-in of the electricity they generate to the public grid.

Commercial customers in Hungary have access to our EnergiaNet online portal for optimising their energy consumption.

RWE carried out a study in cooperation with the Association of Czech Small and Mid-sized Enterprises (SME). The result demonstrated that although a large number of companies measure their energy consumption they do not pursue active energy management. RWE has strategic offers of advice geared towards optimising the energy consumption of small and mid-sized companies.

### Joint-ventures and packages in the area of electromobility

In the area of electromobility, we are focusing on the establishment and sale of charging infrastructure and mobility services, and on net-working existing technologies in the everyday world. RWE operates many thousands of charging stations and it is one of the leading European providers and operators of charging infrastructure. More than 100 municipal utility partners have joined forces with RWE to provide the biggest public charging network in Germany.

As a technology supplier, RWE has acquired major partners and customers, including discounter ALDI Süd which offers its customers charging facilities without any payment at around 50 locations. The energy is generated at the individual sites by photovoltaic systems located on the roofs of the supermarkets at each branch.

A package has also been developed to enable customers of RWE to charge their car electric at home. This comprises a photovoltaic system with energy management and solar power storage.

The ELMŰ-ÉMÁSZ Group in Hungary operates the country's most comprehensive eMobility charging infrastructure grid. In 2015, the system was bolstered by another DC fast-charge device at Budapest Airport.

## INTERVIEW

## DATA PROTECTION AND DATA SECURITY



Florian Haacke,  
Head of Group Security RWE AG



Uwe Bargmann, Head of Group Data  
Protection RWE AG

The interview was conducted by  
Franziska Klapper,  
RWE Corporate Responsibility

Data are extremely important for the transition in the European energy sector as well as for the megatrend of digitisation. How does RWE guarantee the security of data? Our Editorial Team talked to Florian Haacke, Head of Group Security RWE AG, and Uwe Bargmann, Head of Group Data Protection RWE AG.

Many RWE products are based on networking appliances and the analysis of consumption data. How are security and data protection guaranteed here?

BARGMANN: The requirements for protecting information have changed significantly. This presents new challenges not just for RWE. That is why all new products are checked for legal, technical and organisational compliance. In order to protect the private sphere of the customer, we use comprehensible data protection declarations, effective consents and technologies for anonymisation, pseudonymisation and encryption.

It seems that the competition for customers is likely to be won by the particular energy provider who takes the smartest approach to using data. How is RWE making use of customers' data?

HAACKE: The winning provider will generate the greatest value added for its customers. Group Security and Group Data Protection join together with the specialist departments to identify the relevant data. Our aim is to create transparency for the processing of customers' data. The trust of the customer becomes a differentiating competitive factor particularly in the case of retail business.

How are the issues of data protection and IT security dealt with in the Big Data lighthouse project?

BARGMANN: Group Data Protection has been supporting the project right from the beginning. Personal information is often not necessary at all. A good example of this is provided by the SmartHome applications of RWE. We regularly check our protection measures for technical status and connection data. We also adopt a critical approach to our processes and in some cases go beyond the industry standard.

Outsourcing and cloud computing are leading to a distribution of our data to different places with access opportunities for different service providers. What requirements do you have to take account of here?

HAACKE: As one of the first DAX groups, we have developed a Cloud Security Policy for ourselves and our partner companies. In many cases, we also have to consider the transmission of personal data to non-EU countries. Service providers for service and support often have their registered office in countries with an inadequate level of data protection. This means that an appropriate level of data protection has to be achieved by means of technical and organisational measures. A method of risk assessment was worked out to achieve this.

## EMPLOYEES

RWE needs to adapt to the new framework conditions in the energy economy. Organisational changes are inevitable in this process. We intend to structure the cultural change responsibly and in close communication with our employees. If we are to create a working environment which will enable us to remain an attractive employer, we are dependent on the key elements of flexibility and diversity.



Motivation Index at  
**72.4**  
points

Demography Index at  
**82.5**  
points

**2,339**  
apprenticeship places  
at 50 sites

Number of employees  
remained virtually  
constant

**15.2%**  
proportion of women  
in management  
positions<sup>1</sup>

The new standards for RWE's future working practices are being defined in the programme New Way of Working (NWoW). About 17,000 employees are currently being trained in the new working methods.

<sup>1</sup> Comprises the top four management levels



### Challenge

The RWE Group continues to be confronted by the biggest challenges in the history of the company. And our human resource policy is no exception. Restructuring operations and organisational realignments are unavoidable as far as we are concerned. New areas of business have been built up, while the number of employees is stagnating or declining with others. The number of employees in our workforce (expressed in full-time jobs or full-time equivalents, FTE) remained virtually constant with 59,784 at the end of 2014 compared to 59,762 at the end of 2015.

### Motivation and targets

We are organising necessary restructuring measures, reallocations of human resources and a reduction in the overall number of jobs in a socially responsible and ethical approach. The process involves ongoing conversations with employee representatives throughout the Group and with union representatives. We are structuring our work culture together with our employees in order to remain competitive and attractive. In this process, we believe it is important for us to maintain the engagement and motivation of our employees at all times even though the framework conditions have become tougher.

### Monitoring and performance measurement

We have defined the Motivation Index as a benchmark for measuring the engagement and motivation of our employees. This is recorded in a staff survey carried out across the entire Group. This index is integrated as a performance indicator in the calculation of the variable compensation paid to the Executive Board of RWE. During the year under review 2015, the index had a value of 72.4 points. We have therefore already reached our target value of 72.2 for 2017.

We also use the Demography Index as the second indicator in the area for action Employees. This indicator provides a method of assessing the age structure of the employees in the company. In 2015, the Demography Index was 82.5 points. As the value of the index approaches 100, the age structure within the Group becomes more balanced. By 2018, we intend to achieve a score of at least 84 points.

### Group-wide job market

Change in employment driven by the energy transition entails a far-reaching restructuring of the workforce. In April 2015, our central SWITCH Job Platform was therefore launched as a dedicated business unit with group-wide focus. SWITCH offers an overview of vacant jobs within the Group, supports recruitment to posts from the vacancy notice to the appointment, helps employees to recalibrate their career, achieve further qualifications and mediates new jobs for them as necessary. SWITCH is also building up its own employee base which can be booked for projects in other areas over a limited period of time.

### Cultural change in the company

The growing business pressure being exerted on the RWE Group and the changes occurring in the energy market present us with challenges which necessitate a cultural change at our company. We have therefore initiated an array of different programmes in order to make this a reality.

Our objective is to establish new mindsets and new ways of working within the Group. The programme New Way of Working (NWoW) has been designed to achieve this. We are defining new standards for our working practices, promoting the skills of our employees and developing a common working culture in the three areas of leadership and alignment, universal process management, and operational excellence. We are also analysing functions, processes and methods of

working in different areas of the Group and initiating any changes required, for example we are improving internal cooperation and implementing a more robust feedback culture. Our intention is to use these and other measures to enhance customer satisfaction and improve the financial result.

At the moment, around 200 NWoW experts are currently working on a total of 20 projects for rolling out the concept more extensively in the Group. Alongside 70 employees at Group Headquarters, 130 local experts are working in the companies. Some 17,000 colleagues are now being trained in new working practices.

#### Appeal as an employer and training

We will only be able to continue mastering the future challenges presented in the energy business by having professional and dedicated employees and managers. Our aim is therefore to continue recruiting

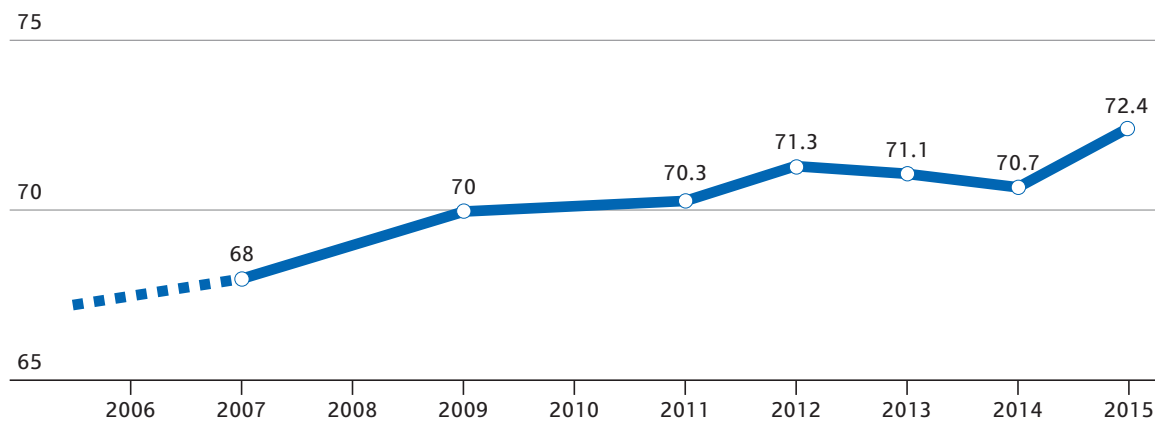
talented young people to work at RWE. We use a range of different tools to make contact with them including our Online Career Portal and our Applicant Academy where we advise graduates, school children and people with career experience. The aim is to help them make a start on the career ladder in the world of work or change jobs. We focus our on-site activities on selected universities in Germany and abroad, as well as offering personal interviews. We also provide around 2,400 young people with a high-quality apprenticeship training in 30 different training vocations encompassing industrial, technical and commercial fields. In addition, we also offer twin-track degree courses incorporating practical and in-service training modules within the course structure. We continue to carry out training that extends beyond our own specific needs and this gives a large number of young people an opportunity to enter the job market.

We have been using the initiative: "I can do this" (Ich pack' das) for a long time to provide support for teenagers and young adults who have not yet been able to gain an apprenticeship place although they have successfully completed education at school. Since the programme was launched, more than 1,000 participants have benefited from the one-year entry-level foundation qualification. 80% of them have gone on to obtain an apprenticeship place afterwards.

#### Diversity and equal opportunity

Diversity represents an opportunity for cultural change in our company and it improves our routine work every day. Taking advantage of this opportunity involves us in promoting the careers of women, integrating people with disabilities, fostering intercultural exchange within the Group and getting the work-life balance right between career and family.

#### Development of the Motivation index<sup>1</sup>



<sup>1</sup> Changing rhythm: Companies have been determining the Motivation Index since 2011 every three years. Group values as moving averages.

We established the Inclusive Culture Focus Group in our subsidiary companies with the aim of promoting diversity among our employees. The objective is also to design measures through discussions, which will be able to continue strengthening integrative corporate culture throughout the Group. Participants include men and women from different origins, religion and sexual orientation, and any individuals with and without disabilities.

#### **Increasing the proportion of women**

Our original aim was to increase the overall proportion of women in management positions to 22% by 2018. However, this has become too ambitious a goal in view of the sustained restructuring measures. We have therefore redefined the target as 17%. By the end of 2015, the proportion of women in management positions throughout the

Group was 15.2% (2014: 14.3%). In order to comply with the new statutory regulation in Germany, we have defined targets for the proportion of women in Supervisory Boards and management bodies for RWE AG and all our subsidiary companies affected by the legislation. As far as RWE AG is concerned, this means achieving a percentage of women on the Supervisory Board amounting to a minimum of 30% by 2017. In future, at least one position on the Executive Board of RWE AG should be occupied by a woman. Our ambition is to achieve a proportion of women amounting to 25% at the first management level below the Executive Board and a proportion of 30% at the second level below the Executive Board. Three women are currently members of the 20-strong Supervisory Board of RWE AG and two of these are elected by the employees. During the year under review, the Executive Board did not have a woman representative.

## SUPPLY CHAIN

As globalisation of markets continues apace, national borders also lose their relevance for trade in energy sources. However, internationally binding standards for environmental protection, human rights and occupational safety have hardly been established. Companies like RWE are therefore being challenged by their stakeholders to exert influence on suppliers through their procurement policy.



**€6.8**

billion for standard goods, services and power-station components

**99.4%**

of the purchasing volume is subject to sustainability requirements

Sustainable Biomass Partnership publishes standard in March  
**2015**

Combustion fuels procured for  
**€8.2**  
billion

**12**  
self and site assessments available through Bettercoal

In order to guarantee environmental and socially sustainable methods of cultivation and production of biomass, RWE is using the new industrial standard of the Sustainable Biomass Partnership (SBP).



### Challenge

RWE purchases a large proportion of its combustion fuels in global wholesale markets. This also applies to many goods and services. Our stakeholders expect us to purchase these products from companies which observe compliance with human rights, offer workers reasonable working conditions and operate effective environmental protection.

### Motivation and targets

In cooperation with our suppliers, we intend to go beyond the statutory requirements relating to compliance and promotion of international environmental and social standards for procurement. All suppliers of RWE should understand and take account of the relevant international environmental and social standards, and other detailed requirements as necessary. We therefore include information about how our suppliers comply with sustainability requirements in our pur-

chasing decision. The ten principles of the UN Global Compact, our Code of Conduct and other detailed guidelines form the basis for these requirements.

### Monitoring and performance measurement

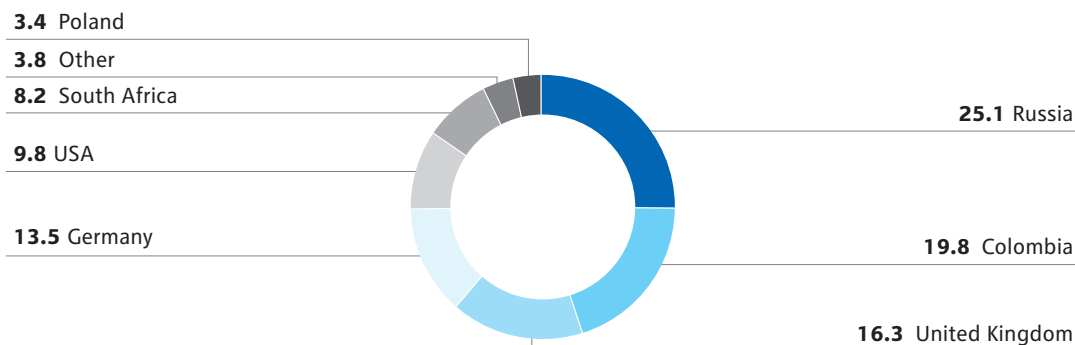
We use the proportion of the purchase volume subject to the requirements of our Code of Conduct as a constituent element of the contractual relationship in the form of the key performance indicator (KPI) and indicator for target attainment in the area for action of Supply Chain. This proportion should be at least 98% of our purchasing volume. Our target here is complete coverage of our purchasing volume. During the year under review, the degree of coverage was 99.4%.

### Sourcing energy commodities and trading

Key elements of our value chain are the procurement of hard coal and natural gas, as well as trading in combustion fuels (p. 7). Raw materials are traded as standardised products with defined quality attributes on international virtual wholesale markets. These markets are the most important source of procurement. Trading is carried out along standardised processes with the involvement of a large number of market players. Before we take physical ownership of the raw materials, they have often changed ownership several times in the virtual market after they were first offered for sale by the producers. Generally, it is only possible for us to identify the immediate upstream owner, but the precise geographical origin of the raw material is not known. There are therefore only direct supplier relationships to a limited extent between RWE and the producers. This means we have virtually no opportunities to exert any direct pressure on production conditions.

#### Hard coal by supply countries 2015

in %





### Review of trading partners

We review all potential trading partners for energy commodities before we enter into any business relationships with them. Our Counterparty Risk Assessment (CPRA) provides helpful assistance in carrying out this review. We undertake a standardised, multistage process to check international databases and information systems to see whether any misconduct is known in relation to the ten principles of the UN Global Compact or our Code of Conduct. Since 2014, we have been taking account of the information garnered in the Bettercoal Initiative. The number of our accredited trading partners fluctuates and is generally between 1,500 and 2,500. The purchasing volume procured through wholesale markets amounted to around € 8.2 billion in 2015.

### Requirements for procurement of hard coal

Our goal is to ensure sourcing of hard coal in the necessary amounts and to the required quality while at the same time monitoring environmental and social standards in our supply chain. In 2015, we imported around 57% of our hard coal from countries which are not members of the OECD. When Germany ceases production of hard coal after 2018, the country will be completely dependent on the import of this combustion fuel.

### Bettercoal Initiative

Acting alone as an individual company, RWE can only exert a very limited impact on compliance with standards in occupational safety, employment relations and environmental protection in the supply chain for hard coal. Cooperating with other energy companies is absolutely essential in order to be in a position to exert more pressure and achieve sustainable production conditions. In 2012, we

joined forces with other large purchasers of hard coal to launch the Bettercoal initiative. By the end of 2015, twelve of the biggest European energy companies were already members of Bettercoal. The Dutch ports also joined the initiative as associate members.

The first inspection of a coal mine by independent auditors was carried out in Columbia in 2014. On the basis of the results, an improvement process was agreed with clear targets and deadlines. At the end of 2015, another inspection took place and confirmed the implementation of the agreed measures. Bettercoal uses a central database to provide its member companies with the results of the audits or the outcomes of self-assessments by the mines. The names of the mines which have undergone a self-assessment or an on-site audit are regularly listed on the Bettercoal website – provided that the mines agree to publication. At the end of 2015, 12 mines had been recorded in this way. They cover the key potential supplier countries for Europe. In the summer of 2015, Bettercoal published its first annual report.

[> Bettercoal](#)

### Implementation of commitment

At the end of 2014, the Dutch utility companies, including RWE subsidiary company Essent, and the Dutch government signed a declaration of commitment for improvements in the international production and procurement of hard coal. An initial progress report was published at the end of 2015. It presents the progress that energy utilities and government institutions made during the year under review. One of the core elements is the Bettercoal initiative. The report and further steps to be taken for the year 2016 were discussed in a stakeholder dialogue.



### Requirements for the procurement of biomass

In order to be able to establish biomass as a sustainable alternative to fossil fuels, environmental and socially ethical conditions must be guaranteed for the methods of cultivation and production. Certificates are used for this in order to guarantee compliance with sustainability aspects along the entire supply chain for the wood pellets imported by us. Up until the end of 2015, we applied the Green Gold Label (GGL) for certification. In future, we will use the new industrial standard of the Sustainable Biomass Partnership (SBP) for this purpose. The reference standard was published in March 2015. Up to now, the United Kingdom and Denmark have acknowledged the SBP Standard as being compliant with the national sustainability criteria. During the first half of 2016, this should also be confirmed in the Netherlands in the course of an official proceeding by the authorities there. Over the coming months, the standard will be continuously improved and this process will have been published by the end of 2016.



[> Sustainable Biomass Partnership](#)

### Sourcing goods, services and plants

Our uniform Group reference standard is the tool we use to monitor the purchase of goods, services and plant components for the operation, maintenance and new-build of our plants. Direct business relationships we have with individual suppliers and service providers mean that we can include our Code of Conduct as an addendum and constituent element of each contract. This enables us to communicate a clearly defined specification of our expectations for our suppliers and service providers.

An initial appraisal of potential suppliers based on a self-assessment helps us to gather additional information on the issues of environmental protection, occupational safety and compliance. During the year under review, 285 suppliers were assessed on the issue of environmental protection and 3,362 on occupational safety. Regular reviews are carried out for all suppliers to verify conformity with potential compliance risks and we also carry out reconciliations with the Black List maintained by the World Bank and with the sanctions lists drawn up by the EU. When any problems occur in the course of a business relationship, we address the matter with our suppliers and work together with them to achieve improvements jointly.

Around 11,900 suppliers are registered in our supplier portfolio, 330 of them are of particular strategic importance. We are in regular, close contact with these specific suppliers. The purchasing volume for goods, services and for plant components was € 6.8 billion in 2015.

## INTERVIEW

## RWE AS A SUPPLIER



Jochen Lediger,  
Senior Procurement Manager of  
Wacker Chemie AG

Wacker Chemie requires registration by EcoVadis for their important suppliers, including RWE. EcoVadis offers Wacker Chemie and other industrial concerns a method of scoring that can be applied to the supplier base in relation to sustainability. What are the consequences if a supplier cannot or does not want to provide verification? Our Editorial Team talked to Jochen Lediger, Senior Procurement Manager of Wacker Chemie AG.

### What is the importance of sustainability for Wacker?

LEDIGER: Wacker Chemie AG has made sustainability a top priority for corporate governance for a long time. Participation of Wacker in two global initiatives provides the platform: Responsible Care® of the chemical industry and the Global Compact of the United Nations. In 2015, Wacker joined the company initiative "Together for Sustainability" in order to strengthen the issue of sustainability in its global supply chain. The objective of this initiative is to evaluate suppliers in accordance with sustainability criteria in an audit or a self-assessment and to work together on the potential for possible improvements. Participation in the programme is voluntary for suppliers but there are advantages for both sides.

### Why is a sustainable supply chain relevant for Wacker?

LEDIGER: Overall, we believe it is important for the evaluation of our suppliers to exert a beneficial effect on the entire value chain in the chemicals industry. Naturally, we expect risks to be minimised for the company because we will be in a better position to achieve an even

better evaluation of suppliers. We expect transparency in the industry for sustainability aspects across the different stages of the value chain, which will ultimately contribute to an improvement in the community. Our commitment and our interest is directed towards using this engagement to exert a positive impact on the social, environmental and economic aspects of the communities we are associated with.

### Was good performance at EcoVadis one of the key factors for the selection of RWE as an energy supplier?

LEDIGER: RWE has been an important supplier to Wacker Chemie AG for various products in the electricity market in Germany over a very long period of time. Our internal supplier evaluation will therefore be regularly used to compare RWE with other suppliers. RWE complied with another criterion in this supplier evaluation by participating in the company initiative Together for Sustainability and in particular its willingness to complete the EcoVadis questionnaire. Naturally, a good performance rating is also a key factor for us.

## INTERVIEW

What sustainability aspects relating to energy generation are assessed by Ecovadis?

LEDIGER: The questionnaire from EcoVadis covers all the key aspects for evaluation of a company on the basis of sustainability criteria. Each individual questionnaire is nuanced for different groups of suppliers, depending on their size and the focus of the particular company. The focuses for energy suppliers are on the aspects of environment/climate, management processes and governance.

Will you also be considering delistings for poor performance ratings in future or will you be working towards achieving more sustainable behaviour from suppliers?

LEDIGER: In future, this appraisal will be included in our supplier evaluation. We have established a process for all our key suppliers in our procurement of raw materials. This highlights potential for improvements and permits joint tracking together with the supplier. These possibilities for potential improvement also include sustainability aspects. Of course, it is important to us that we work together with strong partners who like us represent the core values in compliance with the Global Compact and Responsible Care®. Suppliers also need to implement the values within their companies and make them a living reality. Our view of RWE is that the company is on a good trajectory.

The interview was conducted by  
Dr Marita Hilgenstock,  
RWE Corporate Responsibility

## OCCUPATIONAL SAFETY AND HEALTHCARE MANAGEMENT

The safety, the health and the work ability of our employees and the employees of our partner companies are extremely important at RWE. This objective involves us in continuously improving our workplace safety management in cooperation with our partner companies, as well as carrying out measures for healthcare promotion.

In the Safety Team experts of RWE and partner companies are working together for the improvement of occupational safety. Through the concept the accident rate of subcontractors could be reduced again by one third during the second year of the project.

Current LTI<sub>F</sub> is  
**2.2**

**4**  
fatal occupational accidents

Reduction of the accident rate by an average of  
**15%**  
each year during the past ten years

Around  
**22,600**  
responses to the Work Ability Index (WAI) in Germany

Group-wide health ratio at  
**95.1%**



### Challenge

Our employees and the employees of our partner companies often carry out their assignments at workplaces with special requirements for occupational health and safety. In particular, these include activities in the area of opencast mining, in technical areas at our power plants, and at transmission lines or wind turbines. As an employer, we take our responsibilities very seriously and minimise the risks of accidents and health hazards. Alongside retaining the physical health of our employees, we also have a duty to look after the mental

health of our staff. We believe that this is a particularly important task in times of change within the company, which are also accompanied by uncertainties.

### Motivation and targets

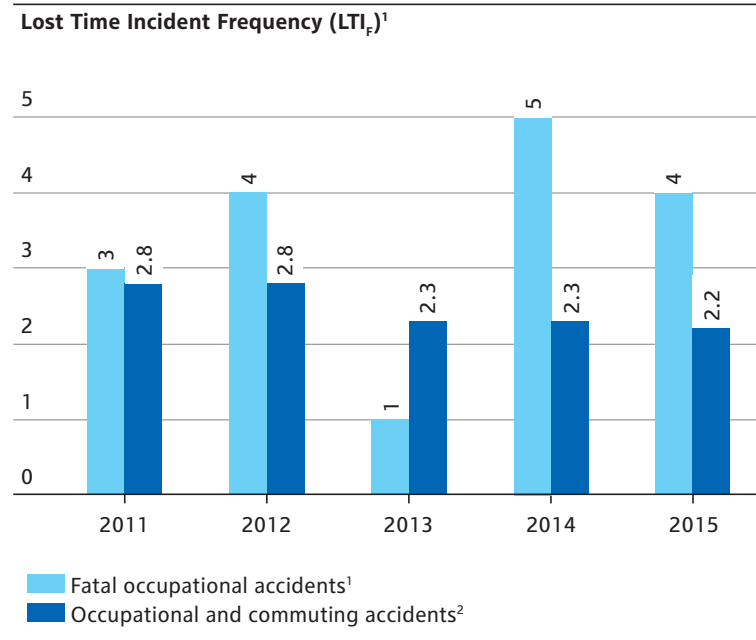
Our aim is to achieve a uniformly high level of occupational health and safety by developing standards. This ambition is fostered by carrying out needs-based prevention campaigns focusing on accident prevention. Our objective is to promote the health of our workforce, as well as preventing all accidents and work-related health hazards relating to our employees and colleagues working with partner companies.

### Monitoring and performance management

The key performance indicator we use for occupational safety is the number of accidents with the loss of at least one day of work for every one million hours worked (Lost Time Incident Frequency, LTI<sub>F</sub>). In the reporting year 2015, we succeeded in maintaining the number of occupational accidents at a uniformly good level and achieved an LTI<sub>F</sub> of 2.2. We intend to reduce this level to 1.8 by 2018.

A Health and Safety Index (H&S Index) was determined in the staff survey for the first time in 2015. It reflects the cultural development in the field of safety at RWE. In the long term, the H&S Index will be used to document progress in the development of the health and safety culture over the years in relation to team orientation and coaching. In 2015, the Health and Safety Index (H & S Index) was 71.5.

We also measure the progress in healthcare management on the basis of annual indicators such as the health ratio or the Work Ability Index (WAI). In 2015, the health ratio was 95.1% (2014: 95.4%) in the RWE Group.



<sup>1</sup> Including reports known to us submitted by employees of partner companies (subcontractors).

<sup>2</sup> Lost Time Incident Frequency (number of accidents with at least one day of absence from work for each 1 million hours worked); occupational accidents from 2012 including reports known to us from partner companies (subcontractors).

We very much regret to have to report that four fatal occupational accidents occurred in 2015. The causes of these accidents are being investigated by international accident analysis teams. On the basis of the results of the analyses carried out by our specialist experts, we are taking action together with our partner companies to adopt suitable measures for preventing similar accidents of this nature in the future.

#### Anchoring at management level

In 2015, Health and Safety Culture Development was launched in the RWE Group. This project analyses and develops the issues of health and occupational safety for the first time within the framework of cultural development. The aim of the project is to increase the health ratio sustainably and reduce the LTI<sub>F</sub> rate. This was implemented by starting three processes in parallel:

- Managers come together with employees in order to discuss the issues of health and occupational safety in concrete terms and in a joint forum. The prime aim is to bring down the level of absences linked to motivation, reduce mental stress and physical burdens, and prevent accidents from happening in the first place.
- Furthermore, relationships in the workplace and autonomous responsibility of employees are discussed together with line managers. Moreover, the employees are given the opportunity of integrating the issue of health into employee discussions, during inspections and at meetings.
- As a third measure, best practices from individual companies are recorded and transferred to other companies.

The project was launched in January 2015. In the meantime, more than 800 managers have been trained in 35 workshops and approximately 300 experts in ten workshops. The Group is providing the

appropriate funds for implementing the project and pursuing the goal of developing the health and safety culture in a sustainable approach.

#### Occupational safety with partner companies

The concept of the Safety Team is implemented within the framework of workplace safety management throughout the RWE Group. Experts from RWE and partner companies work together in teams to improve workplace safety in all areas of the companies involved. The Safety Team proved to be successful especially in the pilot sector of Süwag in 2015. The accident rate of partner companies had already been reduced by 50% during the first year of the project and it fell again by one third during the second year. Based on this success the Safety Teams is now increasingly to be installed group-wide.

#### Excellent occupational safety

In 2015, an RWE company was awarded the German Workplace Safety Prize for the second time in succession. RWE's subsidiary company Süwag and its Safety Team were awarded the prize in the category of Organisational Solutions at large companies. The workplace safety prize is awarded every two years and is presented at the world's biggest specialist forum for workplace safety and occupational safety in Düsseldorf.

In the Czech Republic, RWE received the highest award as a Health Promoting Company from the Institute for Public Health. A seven-point programme allows every employee to monitor their own health. The package includes mobile diagnostic instruments located directly at workplaces and benefits with service providers in the healthcare sector.

### Expansion of Operational Healthcare Management

Since June 2015, international management and coordination in the area of health has been carried out in the Centre of Expertise Health. The centre bundles the issues of occupational medicine, healthcare management, social counselling service and emergency medicine.

An important focus is provided by raising the awareness of effective handling of stress and career workload. We have developed a modular package on the issue of resilience as part of the training package offered by Operational Healthcare Management (OHM). We use a

number of measures including the Work Ability Index (WAI) to record employees' performance and ability to carry out their work. This is based on the subjective assessments by the employees in our workforce and it records the extent to which they are in a position to carry out their work satisfactorily at the present time and in the future.

At the end of 2015, 70% of the employees in our German companies were recorded in the index (2014: 70%). By the end of 2015, a total of 22,600 questionnaires had been completed for the index.



## SECURITY OF SUPPLY

One of our central functions is to provide an uninterrupted and affordable supply of electricity, gas and heat to our customers. RWE produces and procures the necessary raw materials for producing energy, and constructs and operates renewable and conventional plants for generation of electricity. It also deploys innovative solutions for the modernisation and maintenance of our distribution grids.

RWE is one of the major distribution system operators in Germany. Already now the RWE grids are taking up large amounts of electricity from renewable energies and are distributing it in the urban and industrial consumption centres.

**13.4**

minutes fault-based non-availability of the electricity grid in Germany in 2014

One of the biggest operators of distribution grids in Germany with **331,000** km

Gas distribution grid of **48,000** in Germany and 63,875 km in the Czech Republic

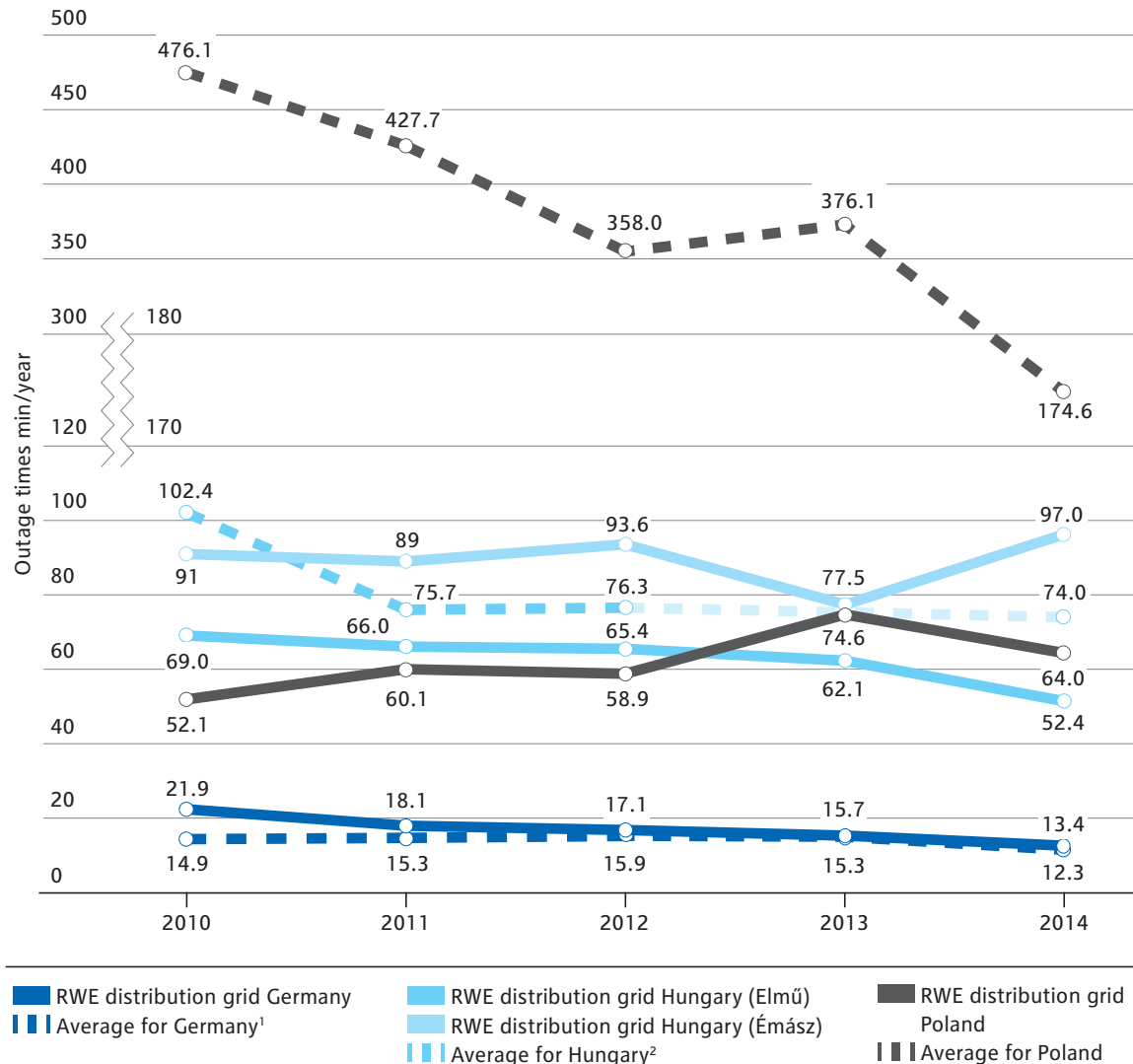
**0.6**

minutes fault-based non-availability of the gas grid in Germany in 2014

Award for the projects AmpaCity, Grid4EU, Smart Country and Power to Gas



**Comparison of grid outages per year and customer in minutes**



<sup>1</sup> Source: German Federal Network Agency (2014)

<sup>2</sup> Source: Council of European Energy Regulators (2014)

**Challenge**

The expansion and integration of renewable energies and decentralised generating units present continuously increasing demands for the performance of distribution grids and conventional power plants. Securing the supply of energy under these conditions is a challenge that we are having to deal with in Germany and in our other markets.

**Motivation and targets**

We want to guarantee our customers a secure and affordable supply of electricity and gas continuously and at all times. In order to achieve this goal, we have defined our target as restricting power outages in Germany to a maximum of 15 minutes per customer each year. The dependable availability of our power plants and secure supply with fuels for combustion are crucial factors as far as we are concerned. We also want to guarantee security of supply for the generation and distribution of energy as the further expansion of renewable energies continues. In 2015, we connected another 7,000 renewable energy plants to our distribution grid. A total of 315,000 plants are feeding into our grids.

**Monitoring and performance assessment**

We use the number of minutes of power outages that occur for each customer and year as the key performance indicator in the area of security of supply (System Average Interruption Index, SAIDI). In 2014, we succeeded in continuing to provide a largely uninterrupted supply of electricity and gas for our customers. Fault-based non-availability for the electricity distribution grid in Germany amounted to an average of 13.4 minutes for each customer in 2014. This value for non-availability had still been 15.7 minutes in 2013. The average non-availability for the gas supply resulting from faults in Germany was 0.59 minutes for each customer and year in 2014, compared with

\* The data for the year 2015 were not available when this report went to press.

0.46 minutes in 2013. The energy sources necessary for secure operation of our power plants were available continuously throughout 2015.

#### Initiatives and projects

Conventional power plants are still necessary to provide secure and reliable electricity supply in spite of the further expansion of renewable energies. The fluctuating availability of wind and solar plants means that gaps in supply could regularly occur without these sources of electricity. The conventional RWE power plants therefore make a significant contribution to security of supply. Over the past several years, we have invested in the flexibility of our lignite-fired power stations so that we are even better able to respond to the fluctuations. The focus of this capital expenditure was on digitisation of control technology in order to increase the load change rate and to reduce the minimum load point. We have increased quick-start capability in our gas-fired power stations. As an example, the combined-cycle gas turbine (CCGT) power station in Lingen (Germany) only requires 45 minutes to reach 540 MW from a cold start. This is defining new benchmarks.

Our power plants are available to the transmission system operators (TSO) for so-called redispatch measures in order to minimise the loads placed on the grid as a result of electricity supplied to customers. In future, the security standby of lignite-fired power stations will be available to provide a backup of last resort for a limited period of time (p. 41 ff.).

Adequate power plant capacities are available at any time to cover the exceptionally rare case of a blackout. These have their own supply for starting up and they are on standby to restore the grid.

Weather-dependent and seasonal electricity production from renewable plants takes place primarily in rural settings. It requires newly sized energy distribution grids and a more dynamic load management. Today, our distribution grids already accept large amounts of electricity generated from wind and solar energy, and biogas, and distribute this in municipal and industrial centres of high demand. Since the expansion of renewable energies is on an upward trajectory, we will tailor our electricity and natural-gas grids even more to the local feed-ins from the grid subscribers.

#### Proactive Distribution Grid

The demonstration project for the Proactive Distribution Grid operated by RWE and Westnetz GmbH describes the changing role of a distribution grid operator towards more organisational capability. The project involves developing and testing technical solutions which enable the operator to deal with grid bottlenecks by calling on flexibility in the market. This method is significantly more cost effective compared with a conventional grid structure. An important element of the project is developing rules for coordination between grid and market, and their prototypical implementation. A communication and service platform is being worked out as the technological base in order to facilitate more efficient load management by permitting provision of new system services from the distribution grid. Against the background of the generally local feed-in from renewable energies and other small systems into the distribution grids, measures like this provide a potential solution for operating grids with high penetration of renewable energies without having to engage in a comprehensive expansion of the grid.

### Power to Gas

Storage systems are gaining increasing importance in order to compensate for natural fluctuations caused by the steadily increasing proportion of renewable energies used to generate electricity. We need to develop new technologies so that we are able to store large quantities of surplus electricity over longer periods of time as necessary. In 2015, RWE started also up operation of a power-to-gas plant for this purpose in Ibbenbüren, North Rhine-Westphalia. The advanced plant is the centrepiece of a system solution used for the first time, which links up local supply of electricity, natural gas and district heating to a storage chain. The plant converts surplus electricity generated from renewable energies into hydrogen. This can subsequently be stored as natural gas. The energy stored in this way can then be used for conversion to heat or for energy generation at any subsequent point in time. The advantage offered by this type of electricity storage is being able to use the energy infrastructure that is already available today with powerful grids and very large storage capacities. The plant in Ibbenbüren is the most efficient power-to-gas plant in Germany with an efficiency of energy use amounting to 86%. The plant received an award from KlimaExpo.NRW saluting it as an engine of progress for environmental protection.

### Grid-supportive battery storage systems

RWE launched the trial operation of a pilot plant for a grid-supportive battery storage system in 2015. The use of storage systems like this is particularly effective where grids have not yet been specifically designed for their new functions, for example in the case of large quantities of local feed-in of electricity from photovoltaic plants or wind power. These storage systems can take excess energy out of the grid. During phases of low feed-in, electricity can be withdrawn from storage to cover the local requirement. The application case

situated in Wetringen, Münsterland, is particularly effective and economical, since it avoids what would otherwise be a need to create a grid today until a large-scale restriction of the grid is implemented. The mobility of the storage can be used in order to solve temporary grid problems in other regions on the basis of this application case.

### Awards for intelligent grids

In 2015, KlimaExpo.NRW conferred an award on the RWE AmpaCity model project which uses a superconductor to enable transmission of electric current virtually without any resistance at all. This technology could render innercity transformer substations superfluous in the future. RWE Germany also received the German Innovation Prize for Climate and the Environment 2015 (IKU) for its AmpaCity model project in the category of "Environmentally Friendly Technology".

#### > AmpaCity

The RWE Grid4EU project also received an award. This involves optimising the technology of existing medium-voltage grids such that they respond more dynamically and flexibly to the fluctuating feed-in of electricity from renewable energies. In 2015, the Grid4EU project gained the Award of Excellence from the International Smart Grid Action Network (ISGAN).

#### > Grid4EU

RWE Germany was also granted the Green Tec Award 2015 for its Smart Country model project. This is one of the most important environmental and business prizes for the "Energy" category in Europe. Smart Country delivers knowledge and solutions demonstrating how the challenges confronting electricity supply in rural areas can be overcome, as well as using intelligent solutions and new technical components for this purpose.



## INNOVATION

RWE is continuously driving forward innovations so that the Group is in a position to play a role in structuring the energy system of the future. We also promote the ideas of our employees to achieve this ambition. RWE development teams are working in our Innovation Hub to develop new business models and bring them to market readiness within a short space of time. We are engaged in a large number of research areas through around 200 projects that we are running in the area of research and development. We are also continually registering new patents.

**200**

R&D projects along the  
entire value chain

**100%**

coverage of  
strategically relevant  
R&D issues

**4**

lighthouse projects at  
Innovation@RWE

More than  
**300**

patent applications in  
7 years, of which 50  
in 2015

**200**

test households in the  
EnergieKoplopers  
project

Buoys can measure movements of wind and waves in the offshore wind farms distinctly more cost-effectively than fixed masts. Since a test trial with the EOLOS buoy provided good results, RWE continues the testing.



### Challenge

We will not be able to master the challenges for energy supply in the future with the products and technologies that are currently available. Achieving an appropriate energy system demands more climate-friendly, intelligent and efficient solutions. The challenge is to develop these solutions rapidly and then launch them quickly in the marketplace. Our level of achievement in this endeavour and the quality of our solutions will have a decisive impact on the success of our company.

### Motivation and targets

We want to play a role in structuring the transformation to a more climate-friendly electricity supply and to continue to meet the need for energy reliably, without any outages and at affordable prices. The only effective approach to realising our ambition is generating a continuous stream of innovations that address the challenges of our core business and are directed towards achieving the best possible solutions for the energy system of the future. Solutions like this are the only way of ensuring that we will be in a position to offer our customers precisely the products and services they need.

### Monitoring and performance measurement

Our central department of research and development (R&D) is responsible for establishing a uniform process from planning to internal reporting that applies to all the relevant RWE companies. We use the extent of coverage in relation to strategically relevant R&D issues in % as the KPI and indicator for target attainment. During the year under review, this amounted to 100%. RWE therefore occupies a leading position for R&D in the Innovation Index of the European School of Management and Technology (ESMT) by comparison with other energy utilities – particularly as a result of complete coverage for the analysed areas of research and the number of patent applications.

The instruments used at RWE R&D also include Technology Foresight. This involves RWE identifying technology at an early stage by drawing on a group-wide network of experts who analyse existing fields of technology on a continuous basis, and identify and evaluate new ones. The knowledge gained as a result of this process is supplemented by analysis of social trends with the aim of identifying options for new and advanced developments. R&D also presents the results of this process to other departments within the group, such as Policy, Strategy and Innovation in order to be able to derive maximum benefit for the company from the research carried out.

### Laboratory for future ideas

In 2014, RWE established the RWE Innovation Hub in order to take up a leading position in the decentralised energy world of tomorrow. Almost 100 experts from different departments within the Group are working here on the development of new business ideas and bringing the best of them to market readiness. Four focus issues that are particularly important for the future of RWE define the activities of the Innovation Hub:

- Opportunities generated from the digital revolution,
- Intelligent networked solutions for residential and commercial customers,
- Energy concepts for Europe's urban centres,
- New products and services through the use of data.

The first products from these categories are already being used by customers on a test basis. Wireless power charging technology is one such example. A leading company from system gastronomy uses this technology to offer its customers charging facilities for mobile devices at no cost. Use in home environments is being tested together with a furniture manufacturer through installation of the

technology in furniture. The RWE Innovation Team is also working on the new and secure Lemonbeat digital wireless protocol standard. This protocol enables appropriately equipped electrical devices or complex machines to communicate with each other. Lemonbeat has clear advantages compared with established protocols. For example,

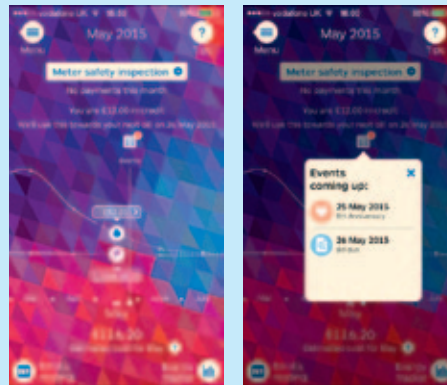
unlike Bluetooth it can penetrate thick walls and communicate over large distances. The wireless protocol is projected to be established as an international standard.

RWE is looking for strategic partners at global Hot Spots for digital innovations in order to accelerate the pace of development for innovative products and solutions. In Berlin, we are cooperating with the German Tech Entrepreneurship Centre (GTEC) with the objective of gaining access to the Berlin start-up scene. RWE Innovation Teams are working in Berlin, in Silicon Valley in California, and in Tel Aviv in Israel.

## Apps from RWE

Digital information has become an integral component of everyday life for most residential customers. RWE has launched a series of apps in the marketplace for these customers:

- npower App NP: empowers customers to have an overview of previous and current bills, payments and meter readings.
- e-kWh: provides assistance in Germany when drivers are looking for charging stations to power their electric cars and enables payment to be made through a contract account, PayPal or credit card.
- EnergyManager: informs Dutch customers with smart meters about their monthly electricity and gas consumption, offers comparisons with the previous year and with model households and presents an insight into the supply of electricity using solar panels.
- Közvilágítási hibabejelentő, an app of the ELMŰ-ÉMÁSZ Group: enables faults in Hungary's street lighting system to be reported. This simplifies and improves work on repairs.



## Projects for electromobility

RWE aims to progress electromobility on the back of networked technologies and to benefit from the sale of charging infrastructure and mobility services. We are taking part in subsidised projects in order to work out new opportunities with our partners. For example, the eMERGE project is a joint venture with Daimler AG, Fraunhofer FOKUS, PTV AG, Berlin Technical University, RWTH Aachen University and the University of Siegen geared towards optimising the overall system of electromobility, encompassing the vehicle, energy, water, traffic and the user. We have also been cooperating with technical inspectorate TÜV Rheinland Industrie Service GmbH, Vattenfall Europe Innovation GmbH, TOTAL Deutschland GmbH, Berlin Technical University, Daimler AG and the German Aerospace Centre (DLR) to develop another project for developing, integrating and demonstrating the Combined AC/DC Charging System (CCS Berlin). This combined charging procedure using direct and alternating current has a standardised plug-in system, and it has been tested at seven fast charging stations in Berlin. We received government subsidies amounting to around € 1 million for eMERGE and some € 550,000 for CCS Berlin.

### Innovations for coal

RWE still intends to exploit opportunities to optimise potential with the generation of electricity from coal and also develop new applications, for example in order to make use of lignite as a material. This is the mission of our Coal Innovation Centre in Niederaußem (Germany). We are using a test rig there to trial catalytic converters for producing naphtha, waxes, fuels, methanol, and methane from lignite-based synthesis gas. Alongside the fluidised-bed drier for moist lignite, the test rig also represents a key component for use of the material on a laboratory scale and provides important data for the manufacture of customer-specific products from lignite. Over the long term, lignite could thereby make an important contribution to securing the supply of industrial raw materials. We are also carrying out research into a number of techniques for the reduction of emissions with our pilot plants for CO<sub>2</sub> scrubbing and flue-gas desulphurisation (REAplus). The integrated operation of these pilot plants at one site in this way represents a world first.

### Energy management for flexibility

Essent has joined forces with other companies and the Dutch local authority of Heerhugowaard to launch the EnergieKoplopers project. Some 200 households are taking part in this project. The core is centred on an energy management system which communicates with intelligent appliances, for example heat pumps, electric boilers, fuel cells or solar modules. The system permits maximum flexibility and demand-oriented energy supply and use at local level. Local network operators can sell the flexibility created by the system to reduce peak loads, and the households receive remuneration in return.

### Intelligent street lighting

Intelligent street lighting was developed in the Smart City initiative by the ELMŰ-ÉMÁSZ Group and several joint-venture partners, and put into operation in Budapest. This system involved IT tools and energy solutions such as Wifi, monitoring cameras, charging options for electric cars and an emergency button integrated in street lamps. These intelligent street lighting systems with new technologies are now being tested in various cities in Hungary.

### IT Innovation Award for RWE Generation

The IT Innovation Award conferred by the "Handelsblatt" Conference on "Strategic IT Management" for a project run by RWE Generation in January 2016 demonstrates that RWE innovations are already being progressed successfully today at each value-added stage. Technicians are able to use a tablet to enter data on location in opencast mines and call up operating procedures, manuals and safety instructions. The concept highlights the possibilities presented by digitisation for empowering major efficiency enhancements and more flexibility in the routine world of everyday work of technicians working in electricity generation. The project is initially being rolled out internally and will then also be marketed to other mine operators and energy generators.

### Autonomous gas pressure regulatory station

Gas pressure regulator and measurement stations (GDRM) ensure that customers receive their natural gas supplies at the right pressure and in the desired amount. RWE has now installed the first autonomous GDRM station in the Czech town of Nehvizdy and this system significantly reduces the operating expenses. It is connected to a wind turbine, a photovoltaic plant and a large battery. A radio mast provides the capability for remote control of the station.



### Measuring buoys for weather data

Since March 2015, RWE Innogy has been using meteorological buoys manufactured by EOLOS in a research project being carried out off the Dutch coast. The buoys transmit weather data, which is essential for the development, construction and operation of offshore wind farms, from the open sea to the wind-farm operators onshore. The research project is investigating whether the buoys can deliver precise and reliable measurement data that is comparable to that produced with the fixed masts that have been used to date. This would enable them to be operated more cost-effectively and with greater environmental compatibility.

## INTERVIEW

## RWE INNOVATION HUB



Dr Inken Braunschmidt,  
Head of the RWE Innovation Hub

RWE has merged a number of different innovation activities in the RWE Innovation Hub. This is intended to strengthen the development of new products and new business models. How does this concept work? Our Editorial Team talked to Dr Inken Braunschmidt, Head of the RWE Innovation Hub.

The future of the energy system is uncertain, the conventional business with electricity generation is not going well. What role can the RWE Innovation Hub play?

BRAUNSCHMIDT: We are looking at new business models for the future energy system. Renewable energies, grids and supply will play an even more important role in the future. Our aim is to drive forward the development in these areas through our innovations – most importantly in retail business with consumers. The RWE Innovation Hub is intended to contribute to identifying new market opportunities and making use of these.

Where can you identify these innovations?

BRAUNSCHMIDT: Speed is of the utmost importance in relation to innovations. We are therefore doing a lot of our work in networks and with partners in innovation ecosystems. We have established a presence in Silicon Valley in California, in Tel Aviv in Israel and in Berlin. We are identifying new digital solutions in these locations. The transfer of ideas to operating business is the key factor in this process. This can only succeed if colleagues from different divisions at RWE cooperate on developing these areas of interest. 90 colleagues are working in the RWE Innovation Hub.

How do you distinguish the concept from previous innovation activities?

BRAUNSCHMIDT: RWE has always been an innovative company. We are developing new solutions and at the same time implementing them on a large scale. Just think for a moment about climate protection technologies in lignite originating from our Coal Innovation Centre. By the same token, a new approach is being adopted in our work on so-called disruptive innovations which compete with our existing business areas and may even displace them.

Have you defined focuses? Or is it okay to have a little chaos in this process?

BRAUNSCHMIDT: It is important that there is scope for thinking outside the box, designing new ideas and rejecting them. At the same time, we are focusing our efforts and we have defined key areas of importance. One such area is called Urban Concepts. We are developing business models here which arise from the trend towards increasingly large metropolises and urban areas. More than 60% of the global population will already be living in such “megacities” by the year 2030. We want to develop solutions for these conurbations. These solutions will be in the area of energy but they will also be associated with logistics, security, communication and mobility.

The interview was conducted by  
Franziska Klapper,  
RWE Corporate Responsibility



# ABOUT THIS REPORT

## Report profile

This report entitled “Our Responsibility. Report 2015” is aimed at analysts and investors, non-governmental organisations (NGOs), and our workforce, customers and suppliers, policymakers and government agencies and the people living in the regions where we do business. It describes the most important social, environmental and economic challenges facing our core business, the conflicting aims that can arise, and the Corporate Responsibility (CR) strategy we have developed in response.

The report is published in pdf format. This report was audited throughout by the accountancy firm PricewaterhouseCoopers (PwC) in conformity with ISAE 3000 (p. 91). The subject of the report essentially focused on the criteria “Inclusion of stakeholders”, “Sustainability context”, “Materiality” and “Completeness” of the GRI G4. The CR Report includes an overview of all the important indicators (p. 4). We provide detailed indicators for the years 2006 to 2015 interactively with the indicator tool and as an Excel download.

## Approach

We developed our CR Strategy on the basis of the challenges posed by our business and taking account of the general conditions and challenges prevailing in individual regions. The report is introduced with a portrait of the RWE Group and a detailed description of the greatest challenges along our value chain and the challenges in the regions where we are operating. The structure of the report is based on the Ten Areas for Action of the CR Strategy. We use a Materiality Analysis to assess the relevance of individual Areas for Action in order to evaluate the opportunities of the RWE Group for exerting influence and gauge the expectations of stakeholders for our company. The report also serves as our progress report for the Global Compact of the United Nations (p. 97).

### Basic principles

The report is based on our CR Strategy and was developed out of findings from our ongoing dialogue with stakeholders. The relevant data are presented in line with the latest guidelines of the Global Reporting Initiative (GRI) to allow our readers to compare our performance with that of other companies. We explain how we have implemented these guidelines and the requirements of G4 Electric Utilities Sector Disclosures in the GRI G4 Content Index (p. 94). The report was drawn up taking account of the option “In accordance” core.

### Data

The period under review is fiscal 2015, which began on 1 January and ended on 31 December. The data provided in this report relate to all affiliated companies of the RWE Group which are included in the consolidated financial statements. Any deviations from this are clearly stated. The financial data were taken from the RWE Annual Report 2015. We present financial data denominated in the relevant national currency and have converted these based on the average annual values for 2015 (1 US dollar = € 0.91, 1 UK pound sterling = € 1.38, 100 Czech crowns = € 3.67, 100 Hungarian forints = € 0.32, 1 Polish zloty = € 0.24).

### For reference

This report is published in German and English. The Executive Board of RWE AG has approved the report for publication. The editorial deadline was on 29 February 2016. This report continues our policy of annual reporting. The next report will be published in the spring of 2017. The term “employee” refers to male and female employees. [> Archive CR Reports](#)

### Forward-looking statements

This report contains forward-looking statements regarding the future development of the RWE Group and its companies as well as economic and political developments. These statements are assessments that we have made based on information available at the time this report was drawn up. In the event that the underlying assumptions do not materialise or additional risks arise, actual performance may deviate from the performance expected at present. We are therefore unable to assume any responsibility whatsoever for the accuracy of these statements.



## Independent Practitioner's Limited Assurance Report

### To RWE AG, Essen

We have been engaged to perform a limited assurance engagement on the sustainability information marked with  in the Corporate Responsibility Report (hereafter the "CR- Report") of RWE AG, Essen (hereafter the "Company") for the period January 1, 2015 to December 31, 2015.<sup>1</sup>

### Management's Responsibility

Company's Management is responsible for the preparation and presentation of the CR- Report in accordance with the criteria as set out in the G4 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI) (hereafter the "GRI-Criteria") and for the selection of the information to be assessed.

This responsibility includes the selection and application of appropriate methods to prepare the CR- Report as well as the use of assumptions and estimates for individual sustainability disclosures which are reasonable in the circumstances. Furthermore, the responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the CR-Report, which is free of material misstatements due to intentional or unintentional errors.

### Audit Firm's Independence and Quality Control

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

The audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the joint opinion of the Wirtschaftsprüferkammer (Chamber of German Public Auditors; WPK) and the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms ("Gemeinsamen Stellungnahme der WPK und des IDW: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis": "VO 1/2006") – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Practitioner's Responsibility

Our responsibility is to express an opinion on the sustainability information marked with  in the CR-Report based on our work performed.

<sup>1</sup> Our engagement applies to the German version of the CR-Report. This text is a translation of the Independent Practitioner's Limited Assurance Report issued in German language – the German text is authoritative.

Within the scope of our engagement we did not perform an audit on external sources of information or expert opinions, referred to in the CR-Report.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" published by IAASB. This Standard requires that we plan and perform the assurance engagement to obtain limited assurance whether any matters have come to our attention that cause us to believe that the sustainability information marked with  in the CR-Report has not been prepared, in all material respects, in accordance with the GRI-Criteria.

In a limited assurance engagement the evidence-gathering procedures are more limited than for a reasonable assurance engagement and therefore significantly less assurance is obtained than in a reasonable assurance engagement. The procedures selected depend on the practitioner's judgement. This includes the assessment of the risks of material misstatements of the sustainability information marked with  in the CR-Report with regard to the GRI-Criteria.

Within the scope of our work we performed amongst others the following procedures:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the CR-Report regarding the preparation process, the underlying internal control system and selected sustainability information
- Analytical procedures on selected sustainability information of the CR-Report
- Comparison of selected sustainability information with corresponding data in the consolidated financial statements and in the group management report
- Assessment of the presentation of selected sustainability information in the Report regarding the sustainability performance

### Conclusion

Based on our limited assurance engagement, nothing has come to our attention that causes us to believe that the sustainability information marked with  in the CR-Report of the Company for the period January 1, 2015 to December 31, 2015 has not been prepared, in all material respects, in accordance with the GRI-Criteria.

### Emphasis of Matter – Recommendations

Without qualifying our conclusion above, we make the following recommendations:

- Further focusing, developing and formalizing internal control systems at corporate level and at the level of individual sites and automatization of critical interfaces
- Establishment of a process to update continuously all handbooks and process descriptions that are relevant for any CR-data
- Increase linkage between financial and non-financial information for controlling and reporting purposes.

### Restriction on Use and Distribution

We issue this report on the basis of the engagement agreed with RWE AG. The audit has been performed for purposes of RWE AG and is solely intended to inform RWE AG about the results of the assurance engagement. The report is not intended for any third parties to base any (financial) decision thereon. We do not assume any responsibility towards third parties.

Frankfurt, March 16, 2016

**PricewaterhouseCoopers**  
**Aktiengesellschaft**  
**Wirtschaftsprüfungsgesellschaft**

sgn. Michael Conrad  
Wirtschaftsprüfer  
(German Public Auditor)

sgn. ppa. Juliane v. Clausbruch

## GRI G4 Content Index - Summary

“Our responsibility. Report 2015” was prepared in compliance with the requirements of the Global Reporting Initiative (GRI) taking account of the option “In accordance” core. The G4 Guidelines valid since May 2013 have been applied. The “G4 Sector Disclosure” for Electric Utilities was also applied.

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AR = Annual Report 2015      \* = Status: partially reported  
 Online Index = detailed GRI Index      \*\* = not reported

A > [detailed GRI Index](#) including additional information and explanations in case of only partial reporting or no reporting is available on the Internet. This detailed index was submitted for the GRI Materiality Disclosures Service, and GRI confirmed the correctness of the locations of the G4 materiality disclosures (G4-17 – G4-27).



## UN Global Compact Progress Report 2015

RWE supports the United Nations Global Compact and wants to make a contribution with the worldwide implementation of its ten principles. These have been adopted word for word in the RWE Code of Conduct. The following chart identifies the guidelines, programmes and management systems which we have also introduced with our sphere of influence. The table also highlights the measures that have been taken during the period under review and the specific results obtained.

Principle	Systems	Measures	Results
<b>Principle 1:</b> Support of human rights	Social Charter and minimum standards for restructuring operations carried out for the European companies in the RWE Group, covering 99.8% of the workforce.  ILO core standards are defined for the Social Charter Supplier management (p. 69ff.)	Restructuring with social compensation by working together with employee representatives and unions (p. 66) Assessment and audit of suppliers (p. 70 ff.)  Co-founder of Bettercoal, auditing of coal mines, application of information for "Counterparty Risk Assessment" (p. 71)	Compliance with principles 1 – 5 assured through national legislation in Europe, cooperation with the unions, and RWE's own principles which apply to all employees of the company  Pay and social benefits above the national average 12 self and site assessments available through Bettercoal (S. 69 ff.)
<b>Principle 2:</b> Elimination of human rights violations			
<b>Principle 3:</b> Ensuring freedom of association			
<b>Principle 4:</b> Abolition of all forms of forced labour			
<b>Principle 5:</b> Abolition of child labour			
<b>Principle 6:</b> Elimination of discrimination	Diversity management (S. 67 f.) Group-wide women's network	Establishment of the "Inclusive Culture Focus Group" (p. 68)	Percentage of women in management positions increased to 15.2% (p. 68)  Percentage of people with severe disabilities with 6.2% in Germany virtually constant
<b>Principle 7:</b> Precautionary environmental protection	Environmental management (p. 50 ff.) Strategy for reducing the CO <sub>2</sub> emission factor (p. 41 ff.) Financial risks of CO <sub>2</sub> emissions are presented in risk management (p. 43)	Climate protection, energy efficiency and environmental protection and biodiversity as part of the CR Programme (p. 39) Cooperation with IUCN concluded (p. 53) Adoption of a group-wide Biodiversity Guideline (p. 53) Annual audit for setting up environmental management systems in conformity with ISO 14001 (p. 51)	Reduction in specific emissions of the air pollutants NO <sub>x</sub> by more than 8% and SO <sub>2</sub> by more than 20% (p. 52)

Principle	Systems	Measures	Results
<b>Principle 8:</b> Initiatives to promote greater environmental responsibility		<p>Consultancy and services for intelligent use of energy with residential and commercial customers (p. 62 f.)</p> <p>Initiative for energy education 3maE (p. 57)</p> <p>RWE Foundation for Energy and Society (p. 58)</p>	<p>More than 60,000 energy consultancy sessions in Germany (p. 59)</p> <p>Offerings for controlling energy for commercial customers (p. 63)</p> <p>Energy education packages for children and teenagers (p. 57)</p>
<b>Principle 9:</b> Development and diffusion of environmental friendly technologies	<p>Strategy to reduce the CO<sub>2</sub> emission factor (p. 41 ff.)</p> <p>Financial risks of CO<sub>2</sub> emissions are presented in risk management (p. 43)</p> <p>Innovation management (p. 83 ff.)</p> <p>Innovation Hub (p. 84 f.)</p>	<p>Expansion of renewables-based energies (p. 44 f.)</p> <p>New business ideas in four focus themes of the Innovation Hub (p. 84 f.)</p> <p>Participation in sponsored projects for networking existing technologies for electromobility (p. 86)</p> <p>Research on using lignite as a material (p. 86)</p>	<p>Modernisation of the power plant portfolio (p. 44)</p> <p>Expansion of installed output of renewable energies by 469 MW (p. 44)</p> <p>Range of intelligent energy products such as RWE SmartHome or Energy Control (p. 61)</p> <p>Provider and operator of 4,900 charging points in Europe</p>
<b>Principle 10:</b> Anti-corruption measures	<p>RWE Code of Conduct and Group guidelines for prevention of corruption and organisation regulations (p. 26)</p> <p>Audited Compliance Management System for anti-corruption in accordance with the IDW Audit Standard promulgated by the Institute of German Public Auditors (p. 27)</p>	<p>Drawing up detailed corruption risk scenarios with other consolidated companies (p. 27)</p> <p>Training of the workforce with an Intranet-based training programme and on-site training (p. 26 f.)</p>	<p>Holding risk workshops in individual Group companies (p. 27)</p> <p>Compliance training sessions for around 2,800 employees in Germany and around 500 employees in other regions where RWE operates, in on-site events (p. 27)</p>

## Explanations of the indicators

The following table provides explanations of our indicators. They are sorted according to the sequence in the indicator tool.

Indicator category	Explanations
Electricity generation	<p>Including electricity procured from power plants not owned by RWE that we can deploy at our discretion on the basis of long-term agreements. In the business year 2015, this electricity generation amounted to 11.1 billion kWh (previous year: 15.9 billion kWh) in the Conventional Electricity Generation Division, of which 7.7 billion kWh was generated from hard coal.</p> <p>Partly adjusted values for 2013 due to first-time application of IFRS 11 (see Annual Report 2014, p. 41).</p>
Power plant capacities	<p>Including capacities of power plants not owned by RWE that we can deploy at our discretion on the basis of long-term agreements. On 31 December, 2015, this electricity generating capacity amounted to 4,629 MW (previous year: 4,607 MW), of which 2,173 MW were based on hard coal (previous year: 2,151 MW).</p> <p>Partly adjusted values for 2013 due to first-time application of IFRS 11 (see Annual Report 2014, p. 41).</p>
CO <sub>2</sub> emissions	<p>Including power plants not owned by RWE that we can deploy at our discretion on the basis of long-term agreements. In the year under review, these plants produced 6.9 million mt of CO<sub>2</sub> (previous year: 13.1 million mt). 2014 adjusted in accordance with the Annual Report 2015.</p> <p>Calculated on the basis of electricity production, not including emissions from biogenic fuels.</p> <p><b>Scope 1:</b> direct CO<sub>2</sub> emissions from in-house sources (gas transmission, electricity generation) including power plants not owned by RWE that we can deploy at our discretion on the basis of long-term agreements.</p> <p><b>Scope 2:</b> indirect CO<sub>2</sub> emissions from the transmission and distribution of electricity purchased from third parties.</p> <p><b>Scope 3:</b> indirect CO<sub>2</sub> emissions that do not fall under Scope 1 and Scope 2, produced through the generation of electricity procured from third parties, the transmission and distribution of electricity in third-party grids, from the production of used fuel, as well as from the consumption of gas sold to customers.</p> <p>Partly adjusted values for 2013 due to first-time application of IFRS 11 (see Annual Report 2014, p. 41).</p>
Pollutant emissions	Not including gas-fired plants for blast furnaces.
Fuels	<p>Fiscal 2007, adjusted since "Our Responsibility. Report 2007".</p> <p>Fossil fuels used, without biomass.</p>
Waste	Owing to a change in the regulatory rules, the use of ash to fill disused opencast mines has no longer counted as recycling since 2010
Water	Difference between water withdrawals for power plants and returns to rivers and other surface waters; excluding power plants with seawater cooling.
Reportable nuclear incidents at our nuclear power stations (INES)	INES: International Nuclear Event Scale.

Indicator category	Explanations
Workforce	FTE = Full-Time Equivalent: converted to full-time positions. 2009 excluding Essent; In 2015, encompasses the top four management levels. Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) (see Annual Report 2014, p. 41).
Occupational Health and Safety	Lost Time Incident Frequency (number of accidents leading to the loss of at least one person day per million working hours); occupational accidents from 2012 onwards including employees of contractors. Including employees of contractors.
Staff costs	Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) (see Annual Report 2014, p. 41).
Customers	Not including non-controlling interests
External electricity and gas sales volume	Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) (see Annual Report 2014, p. 41).
Financial indicators	Foundation of RWE Innogy in February 2008 Countries rated with a score of at least 60 points on a scale of 0 to 100 in the Corruption Perceptions Index by the anti-corruption organisation Transparency International, with 100 corresponding to the lowest risk of corruption. Since 2008, EBITDA has also included operating income from investments. Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) and due to first-time application of IFRS 11 (see Annual Report 2014, p. 41).
Value Management	Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) and due to first-time application of IFRS 11 (see Annual Report 2014, p. 41).
Chash flow/capital expenditure/ depreciation and amortisation	Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) and due to first-time application of IFRS 11 (see Annual Report 2014, p. 41).
Asset/capital structure	Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) and due to first-time application of IFRS 11 (see Annual Report 2014, p. 41).
Dividend/Payout	Dividend proposal for the fiscal year 2015 of RWE AG, subject to approval by the Annual General Meeting on 20 April 2016: Dividend of € 0 per common share, dividend of € 0.13 per preference share.
Value added	2006 excluding discontinued operations (American Water), 2007 adjusted in accordance with the Annual Report 2008, Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) and due to first-time application of IFRS 11 (see Annual Report 2014, p. 41). Only the taxes actually paid are included, not tax expenditure, 2006 excluding discontinued operations (American Water), 2007 adjusted in accordance with the Annual Report 2008, Partly adjusted values for 2013 on account of discontinued operations (RWE DEA) and due to first-time application of IFRS 11 (see Annual Report 2014, p. 41). 2008 adjusted in accordance with the Annual Report 2009, 2007 adjusted in accordance with the Annual Report 2008, 2006 excluding discontinued operations (American Water), 2015 proposed dividend.

## CONTACT AND IMPRINT

### Published by

RWE Aktiengesellschaft  
Opernplatz 1  
45128 Essen  
Germany  
Phone +49 201 12-00  
Email [responsibility@rwe.com](mailto:responsibility@rwe.com)

### Editorial office

RWE Aktiengesellschaft  
Group Corporate Responsibility

Dr Matthias Kussin  
Phone +49 201 12-15302  
Email [matthias.kussin@rwe.com](mailto:matthias.kussin@rwe.com)

Franziska Klapper  
Phone +49 201 12-17417  
Email [franziska.klapper@rwe.com](mailto:franziska.klapper@rwe.com)

Stefanie Dudley  
Phone +49 201 12-15594  
Email [stefanie.dudley@rwe.com](mailto:stefanie.dudley@rwe.com)

Dr Thomas Gremme  
Phone +49 201 12-15634  
Email [thomas.gremme@rwe.com](mailto:thomas.gremme@rwe.com)

Dr Marita Hilgenstock  
Phone +49 201 12-15251  
Email [marita.hilgenstock@rwe.com](mailto:marita.hilgenstock@rwe.com)

Ines Hasenbusch  
Phone +49 201 12-17459  
Email [ines.hasenbusch@rwe.com](mailto:ines.hasenbusch@rwe.com)

### Responsible

Professor Dr Henning Rentz  
Phone +49 201 12-15818  
Email [henning.rentz@rwe.com](mailto:henning.rentz@rwe.com)

**Concept, texts, layout in cooperation with**  
akzente kommunikation und beratung GmbH  
Munich  
[www.akzente.de](http://www.akzente.de)

**Translation by** Tristam Carrington-Windo

**Creation of the data tool in cooperation with**  
NEW.EGO GmbH  
Munich  
[www.newego.de](http://www.newego.de)

### Editorial Deadline

29 February 2016



# STAY IN DIALOGUE

[responsibility@rwe.com](mailto:responsibility@rwe.com)

#### **RWE Aktiengesellschaft**

Opernplatz 1  
45128 Essen  
Germany

T +49 201 12-00  
| [www.rwe.com](http://www.rwe.com)