# **OUR RESPONSIBILITY**

# 2018



Powering. Reliable. Future.

#### **ABOUT THE REPORT**

The report entitled "Our Responsibility 2018" is aimed at analysts and investors, non-governmental organisations (NGOs), customers and suppliers, policymakers and government agencies, as well as our employees 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.

From the business year 2017, companies in Germany geared to the capital market must comply with the amendment to the German Commercial Code (HGB) dated 18 April 2017 (CSR Directive Implementation Act) and publish a Nonfinancial Declaration in the combined review of operations or a separate Group Non-financial Report (NfR) in a separate document. RWE AG is meeting this obligation with the sections of this report marked in blue. These sections were subject to a limited assurance engagement performed by accountancy firm PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft. The audit was implemented taking into account compliance with the requirements of the German Commercial Code (HGB).

This report is published electronically in pdf format. The accountancy firm PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft performed an engagement audit on the disclosures indicated with  $\checkmark$  and provided a limited assurance relating to compliance of the disclosures with the requirements of the Global Reporting Initiative (GRI). The audit only covered the appropriately highlighted sections of the report and not texts or Internet pages referred to.

#### **Approach**

The limited assurance engagement was carried out in accordance with the auditing principles of the International Standard on Assurance Engagements (ISAE) 3000 (revised), see ▶ page 89 for Assurance Report. The CR Report includes an overview of all the important indicators, see ▶ page 91.

The CR Report of RWE AG is published as a GRI Report and conforms with the GRI Standards (2016) of the Global Reporting Initiative in a selection based on a Materiality Analysis of the topics relevant for our business. In addition, we also report on material in-depth topics based on the GRI requirements for the electricity industry, which were formerly applicable as the G4 Electric Utilities Sector Disclosures, and no longer form part of the GRI Standards. The report was prepared in conformity with the GRI Standards: "core option". This GRI report "Our Responsibility 2018" was available for the implementation of the GRI Materiality Disclosures Service. The correct positioning of the "materiality disclosures" (GRI 102-40 to

GRI 102-49) in the report was confirmed by the GRI Report Services Team. The report also serves as our progress report for the Global Compact of the United Nations and provides information on the Sustainable Development Goals (SDG) and targets we make a contribution to, see ▶ page 94.



#### **Dates**

The period under review is fiscal 2018, which began on 1 January and ended on 31 December. In line with the ▶ RWE Annual Report 2018, innogy will be reported through the planned transaction with E.ON as continuing operations under the qualitative disclosures for the RWE Group. RWE will be reported as a stand-alone item in the indicators because innogy is regarded purely as a financial investment. Any deviations from this are clearly stated. Furthermore, a number of indicators from 2017 had to be adjusted retrospectively as a result of the new reporting structure of the RWE Annual Report, which included RWE and the innogy continuing operations retrospectively. We have indicated this as appropriate. The financial and market data were taken from the ►RWE Annual Report 2018. We present financial data denominated in the relevant national currency or have converted these based on the average annual values for 2018 (1 US dollar = € 0.85, 1 UK pound sterling = € 1.13, 100 Czech crowns = € 3.89, 1 Polish zloty = € 0.23). The commercial rounding of certain figures can result in the sums of the rounded figures or percentages deviating from the rounded totals in some cases.



#### 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 08.03.2019. This report continues our policy of annual reporting. The next report will be published in the spring of 2020. When for reasons of simplicity and readability the terms "employees", "shareholders", etc. are used to designate persons in this documentation, this naturally refers to all gender identities throughout.



#### **Forward-looking statements**

This report contains forward-looking statements regarding the future development of the RWE Group and its companies as well as future 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 developments arise, actual performance may deviate from the performance expected at present. We are therefore unable to assume any responsibility whatsever for the accuracy of these statements.



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#### **FOREWORD**

#### Dear Readers,

RWE is a driving force in the transformation of our energy supply. The year 2018 was paradigmatic in this process. There have not been many business years in the 120-year history of our company in which we have made such significant strategy decisions. Our commitment to a secure, affordable and sustainable energy supply is just as important in this context as our responsibility towards society, our employees and our investors.

RWE strategically continued its transformation process through the agreement reached with E.ON in March 2018. Part of the agreement includes a takeover of the renewable energy business from E.ON and innogy. This will make RWE Europe's third largest business for renewable energy and the world's number two in the area of offshore wind power.

At the same time, the transition within RWE has continued. We have modernised and upgraded further power plants and we have shut down others. This has enabled us to reduce our CO<sub>2</sub> emissions for the sixth year in succession. A reduction of greater than 10% was again achieved in 2018. Once again, we intensified our activities relating to occupational health and safety. As a result, we have been able to significantly reduce the number of occupational accidents by comparison with the previous year - even though the number continues to be too high. Diversity in our corporate culture continues to be an important topic for us. Our Executive Mentoring Programme has enabled us to further increase the proportion of female managers in the company.

These are just a few examples of how RWE has fulfilled its responsibility in 2018. You will find more detail on this and on many other aspects of our wide-ranging engagement on the following pages of this sustainability report.

In a number of areas, we anticipate implementation of the agreement with E.ON and refer to RWE including the continuing activities of innogy. In each case, we highlight the changed boundaries in order to facilitate comparison with the previous year.

However, alongside the many examples that demonstrate the transformation at RWE, a number of constants are also evident in our reporting. In common with last year, a number of sections of our Sustainability Report have been highlighted in blue as being our Group Non-financial Report. This is in line with the principle informing the European CSR Directive and the German Implementation Act in relation to providing transparent information about non-financial aspects.

As in previous years, this year's sustainability report simultaneously constitutes our progress report on the UN Global Compact. By signing the Global Compact, we declared our commitment to actively promoting human rights, decent working conditions and environmental protection within our sphere of influence, and taking decisive action against corruption and bribery. The progress report sets out how we at RWE implement the 10 principles of the Global Compact.

And there is another thing that will not change. Every year, we place great emphasis on presenting transparent and evidence-based information. We provide this for our stakeholders - in particular policymakers, investors, customers, employees, local authorities and the general public - outlining how we at RWE live up to our responsibility.

We will be delighted if this leads to an ongoing dialogue.

Cu:A

Yours,

Rolf Martin Schmitz



**GRI Content Index** 

For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the German version of the report.

GRI 101 Foundation (in accordance with the GRI Standards 2016)
GRI 102 General disclosures (in accordance with the GRI Standards 2016)

# GENERAL DISCLOSURES

**Material Topics** 

#### **ORGANISATIONAL PROFILE**

In addition to the information provided below, more information is also available in section 1.1 STRATEGY AND STRUCTURE in the ▶ combined review of operations of the RWE Annual Report 2018, page 18.



#### GRI 102-1 Name of the organisation

**RWE Aktiengesellschaft** 

#### GRI 102-2 Activities, brands, products and services

RWE AG makes a major contribution to the smooth operation of the entire energy system and to security of supply in Europe with its operating segments Lignite & Nuclear, European Power and Supply & Trading.

We manage our subsidiary company innogy SE with its three divisions of Renewable Energies, Grid & Infrastructure and Retail as a fully consolidated financial investment, see ►GRI 102-6, page 8.

For information on the products and services of innogy see the ▶innogy Sustainability Report GRI 102-2, page 10.



Up to now, we have covered all the stages of the value chain in the energy sector through our Group companies (including innogy). In future, RWE will concentrate on electricity generation from conventional and renewable sources, and on energy trading. For more information see ►GRI 102-6, page 8.



#### GRI 102-3 Location of headquarters

Essen, Germany

#### **GRI 102-4 Location of operations**

RWE is an international group which including its subsidiary company innogy is represented at business locations in 28 countries.

The key business operations are distributed across the following countries and regions:

- Germany
- Belgium, Netherlands and Luxembourg
- **United Kingdom**
- Central Eastern and South Eastern Europe (Croatia, Czech Republic, Hungary, Poland, Slovakia, Slovenia)
- Western and Southern Europe (Spain and Italy)
- Singapore
- USA

#### GRI 102-5 Ownership and legal form

At the end of 2018, an estimated 86% of the total of 614.7 million RWE shares (incl. 39 million non-voting preferred shares) were held by institutional investors, while the other shares were held by private individuals (including employees). Institutional investors from Germany owned 25% of RWE (previous year: 29%). In other countries on the European continent, this investor group held 15% (previous year: 14%) of RWE's subscribed capital. In North America, the United

Kingdom and Ireland, it accounted for a combined 43% (previous year: 40%).

RWE AG's single largest shareholder is KEB Holding, which is backed by the City of Dortmund, followed by US asset management company BlackRock. Based on their latest voting right notifications, these companies each held about 6% and 5% respectively of the subscribed capital. The third biggest

Stakes held by asset management companies like BlackRock are classified by Deutsche Börse as free float as long as they do not exceed 25% of the capital stock.

#### **GRI 102-6 Markets served**





We report on our business model and our markets in the review of operations in the ►RWE Annual Report 2018 in section 1.1 STRATEGY AND STRUCTURE, page 8.

Our company is currently in the middle of a transformation process. This will enable it to recalibrate and reposition itself in operational and organisational terms. Up to now, we have covered all stages of the value chain in the energy sector through our Group companies (including innogy). In future, RWE will concentrate on electricity generation from conventional and renewable sources, and on energy trading. The platform for this is the planned transaction with E.ON, which both companies agreed in March 2018 and which is to be implemented in 2019. The transaction provides for E.ON purchasing 76.8% of the shares in innogy which up to now belonged to RWE AG. RWE will take over the business with renewable energy from E.ON and the renewable energy business from innogy. Added to this, E.ON's minority interests in the nuclear power plants Emsland and Gundremmingen operated by RWE, the gas storage business of innogy and its share in the Austrian energy utility Kelag. RWE will also take a 16.7% stake in E.ON.

The RWE Group is currently structured into three operating segments (business units) and innogy, which is managed purely as a financial investment. In this report, RWE concentrates on the core Group together with the operating segments. innogy is only referred to explicitly in special cases. Generally speaking, innogy has similar processes to those applied at RWE and also publishes an independent sustainability report.

#### **Lignite & Nuclear**

This is where we record our German electricity generation from the energy sources of lignite and nuclear energy, as well as lignite mining in the Rhineland. These activities are overseen by our subsidiary company RWE Power AG. This segment also includes our 51% stake in the Hungarian utility Mátra, which generates electricity from lignite and which we sold in March 2018. It also comprises our interests in the Dutch nuclear power plant operator EPZ (30%) and in Germany-based URANIT (50%), which holds a 33% in the uranium enrichment specialist Urenco.

#### **European Power**

Our electricity generation from gas, hard coal, biomass and water is subsumed under this segment. Here, the geographic focus is on Germany, the United Kingdom and the Benelux region. The segment also contains our 70% stake in the Denizli gas-fired power plant in Turkey, some hydroelectric power plants in Germany and Luxembourg and RWE Technology International GmbH, which specialises in project management and engineering services. All of these activities are overseen by RWE Generation SE.

#### **Energy Trading**

This segment encompasses the multifaceted activities of RWE Supply & Trading GmbH. The company acts as the commercial hub for the RWE Group. RWE Supply & Trading is the interface between the RWE Group and the global wholesale markets for energy and energy-related raw materials. It is also the hub for all tradeable goods in physical and/or derivative form, including electricity, gas, Liquified Natural Gas (LNG), coal, biomass, emissions certificates and renewable energy. It increasingly conducts these activities outside Europe, for example in New York, Singapore and Mumbai. Its function is also to ensure economic optimisation of the entire unregulated gas business of the RWE Group, including all activities in the areas of procurement, transport, storage and LNG.

#### innogy

Our financial investment innogy SE is responsible for business involving renewable energy, distribution networks and retail. Its strategy is designed to spur structural change in the energy sector. Following the planned transaction with E.ON, RWE will take over virtually the entire renewable energy business from E.ON and from innogy. During the transition period prior to closing of the transaction, the innogy continuing operations are incorporated in the Group structure as a fourth segment.

Renewables: innogy SE develops, builds and operates facilities for the generation of electricity from renewable energy sources. The main markets for renewable energy are in Australia, Germany, France, the United Kingdom, Ireland, Italy, the Netherlands, Poland, Portugal, Spain and the USA. In terms of energy sources, the focus is on onshore and offshore wind energy, as well as hydroelectric power. Recently, capital expenditure has also been directed towards the

expansion of photovoltaics, and system-supporting technologies such as battery storage have recently been incorporated in the portfolio.

The Grid & Infrastructure Division operates and maintains gas grids. The division is divided into Grid & Infrastructure Germany and Central and South Eastern Europe. Furthermore, the division offers grid services (Grid+) and is expanding its activities in the area of glass-fibre networks (FTTx). innogy manages electricity and gas grids mainly in Germany, Poland, Slovakia, the Czech Republic and Hungary.

The Retail Division is responsible for the sale of electricity and gas, and for providing innovative energy solutions and services (Energy+). The main markets are in Belgium, Germany, Croatia, the Netherlands, Romania (until August 2018), Slovakia, Slovenia, Czech Republic and Hungary.

Company size			
	Unit	2018	20174
Workforce	FTE	15,556	17,154
	Headcount <sup>1</sup>	16,463	17,979
Total number of business locations <sup>2</sup>	Countries	28	24
Revenue (without natural-gas/electricity tax)⁵	€ billion	13,388	13,822
Equity <sup>6</sup>	€ billion	14.3	12.0
Net debt <sup>7</sup>	€ billion	2.28	4.51
Lignite produced (opencast mining in the Rhineland Mining Region)	million mt	86.3	91.3
External electricity sales volume <sup>3, 5</sup>	kWh bn	216.1	227.7
External gas sales volume <sup>5</sup>	kWh bn	67.0	64.1

- 1 Employees and apprentices of the RWE Group not including innogy.
- 2 Number of countries in which fully consolidated companies and joint operations of the RWE Group have their registered office.
- 3 For data on electricity generation see ► Key sustainability indicators, page 91.
- 4 Data for 2017 were to some extent corrected retrospectively and they reflect the new report structure.
- 5 Disclosures for the RWE Group including the innogy continuing operations.
- 6 Figures for the RWE Group (including innogy).
- 7 Figures for the RWE Group excluding innogy.

# Number of residential, industrial, and commercial customers of RWE and innogy

Our subsidiary innogy is able to build on a broad customer base in all its markets. In 2018, the Residential and Commercial Customer segment essentially included a total of 15.5 million electricity customers and 6.2 million gas customers. The size of the customer base in our RWE Energy Trading segment is significantly less. However, even today it generates around 26% of electricity sales and around 46% of gas sales in the segment of very large customers.

External electricity sales volume <sup>3</sup>	Reside and com custo	nmercial	and co	strial rporate omers	Distril	outors	To	tal
billion kWh	2018	2017	2018	2017	2018	2017	2018	2017
Lignite & Nuclear	0.2	0.2	-	_	5.1	12.3	5.3	12.5
European Power	-	-	2.3	2.2	4.5	5.2	6.8	7.4
Energy Trading	-		56.5	36.1	-	_	199.9 <sup>1</sup>	203.91
innogy – continuing operations	-		-	_	4.0	3.8	4.0	3.8
RWE Group <sup>2</sup>	0.2	0.2	58.8	38.3	13.7	21.4	216.1	227.7

<sup>1</sup> Including volume effects arising from the sales of self-generated electricity on the wholesale market. If these sales volumes are greater than the purchases sourced from third-party utilities for retail purposes, the positive balance in sales is taken into account. In 2018, there was a positive balance of 143.4 billion kWh, compared with 167.8 billion kWh in the previous year.

- ${\bf 2} \ \ Including \ lower \ volumes \ recorded \ under \ "Other \ consolidation".$
- 3 Figures for 2017 were adjusted retrospectively in line with the new reporting structure.

External gas sales volume <sup>1</sup>		ential nmercial omers	and co	strial rporate mers	Distril	butors	Tot	tal
billion kWh	2018	2017	2018	2017	2018	2017	2018	2017
Energy Trading	-	-	30.7	27.4	35.4	35.8	66.1	63.2
innogy – continuing operations	-	-	-	-	0.1	0.1	0.1	0.1
European Power	-		-		0.8	0.8	0.8	0.8
RWE Group	-	-	30.7	27.4	36.3	36.7	67.0	64.1

<sup>1</sup> Figures for 2017 were adjusted retrospectively in line with the new report structure.

Further information on the company is also available under ▶Key Sustainability Indicators, page 91.



#### GRI 102-8 Information on employees and other workers

Headcount of employees <sup>1</sup>								
	2018				2017			
	Women	Men	Total	Women	Men	Total		
Germany	1,574	13,077	14,651	1,393	12,743	14,136		
United Kingdom	184	971	1,155	166	953	1,119		
Netherlands/Belgium	52	498	550	52	507	559		
Central Eastern/South Eastern Europe	21	56	77	231	1,905	2,136		
Other countries	9	21	30	8	21	29		
RWE standalone	1,840	14,623	16,463	1,850	16,129	17,979		
Part-time employees			949			836		
Full-time employees			15,514			17,143		
Permanent contract			15,790			17,326		
Fixed-term contract			673			653		

<sup>1</sup> Employee data relate to RWE without innogy.

RWE only contracts a small proportion of permanently employed staff from subcontractors to carry out operational functions. We contract them for service and service packages, and for construction and assembly work.

#### GRI 102-9 Supply chain

Key elements of our value chain are the procurement of hard coal, gas, LNG and biomass, as well as trading in combustion fuels. Raw materials are traded as standardised products with defined quality attributes on international wholesale markets. These markets are the most important source of procurement. The procurement volume of combustion fuels (hard coal, natural gas and biomass) was around € 4.2 billion in 2018 (RWE Group including innogy continuing operations).

When purchasing goods, services and plant components for our business operations, RWE is in direct contact and in contractual relations with service providers or suppliers. In 2018, the procurement volume of the RWE Group without

innogy SE for this item was approximately € 1.7 billion. In order to meet the differing requirements relating to procurement, we have adjusted our processes and ensure compliance with our sustainability requirements in the supply chain.

When procuring services that are delivered at our sites, we treat subcontracted employees in the same way as our own employees. We use the RWE Code of Conduct to ensure compliance with the principles of the UN Global Compact and the statutory regulations. In the case of critical groups of goods, we check this in the course of a pre-qualification, see ► GRI 204, page 38.





For information on material organisational changes see ▶ GRI 102-6, page 8.

#### GRI 102-11 Precautionary Principle or approach



Identifying, assessing and managing risks at the earliest possible stage are the function of the Risk Management Department at RWE AG. This includes our Group-wide reporting and controlling systems. It also encompasses our guidelines on handling risks, and risk analysis within the scope of strategic, planning and controlling processes. The activities of the Risk Committee and Internal Auditing are also fundamental tenets of this work alongside reporting on the basis of the Act on Control and Transparency of Enterprises (KonTraG).

Internal Auditing ensures compliance with the RWE Code of Conduct in the course of the audits carried out. The principles of the Code of Conduct are included in the audit criteria. The Chief Compliance Officer regularly reports on this matter to the Executive Board of RWE AG and to the Audit Committee of the Supervisory Board.

For more information on risk management see the ► RWE Annual Report 2018, page 73.



We invest regularly in environmental protection. We have divided our expenses by areas of activity.

Environmental protection expenses in € million					
	20181	2017			
Air pollution control	185.5	203			
Nature conservation and protection of the landscape	35.4	59			
Water protection	99.1	134			
Waste disposal	273.0	253			
Noise abatement	4.9	9			
Polluted sites. soil contamination	2.2	1			
Climate protection	35.5	988			
Total	635.5	1.647			

<sup>1</sup> Data for 2018 is for the RWE Group without innogy.

#### **GRI 102-12 External initiatives**

#### **UN Global Compact and SDG**



Since January 2004, the RWE Group has been a member of the ▶"Global Compact" (GC) set up by former General Secretary of the United Nations Kofi Annan. By signing up to the ten principles underlying the Global Compact, RWE made a commitment to human rights and labour standards, promoting environmental protection in its business operations, and preventing corruption. We present the contribution we have made to global implementation of the principles of the Global Compact in an annual Progress Report. We also present our contribution to the Sustainable Development Goals (SDG) adopted by the United Nations in September 2015 in the Appendix to this report on ▶ page 94.

#### **Initiative Bettercoal**

Cooperating with other energy companies is absolutely essential in order to be in a position to exert more pressure and meet demands for sustainable production and transport conditions in the supply chain for hard coal. In 2012, we joined forces with other large purchasers of hard coal to launch the Bettercoal Initiative. By the end of 2018, 13 big energy companies were members of Bettercoal. The Dutch ports also joined the initiative as associate members. Bettercoal audits coal production sites throughout the world and makes the results for assessment of its suppliers available to members, see FGRI 204, page 38.







#### **GRI 102-13 Membership of associations**

We are an active member of a large number of different committees and specialist associations as part of our social, environmental and business responsibility. The following memberships are important for RWE AG (in alphabetical order):

- AGWE Employers' Association of Gas, Water and Electricity Utilities (Arbeitgeberverband von Gas-, Wasser- und Elektrizitätsunternehmungen e. V.)
- Bettercoal Ltd.
- BDEW German Association of Energy and Water Industries
   (Bundesverband der Energie- und Wasserwirtschaft e. V.)
- DEBRIV Federal Lignite Association (Bundesverband Braunkohle)
- DICO German Institute for Compliance (Deutsches Institut für Compliance e. V.)
- DIIR German Institute for Internal Auditing (Deutsches Institut für Interne Revision e. V.)
- DIRK German Investor Relations Association (Deutscher Investor Relations Verband e. V.)
- econsense Forum for Sustainable Development of the German Economy (Forum Nachhaltige Entwicklung der Deutschen Wirtschaft e. V.)
- EFET European Federation of Energy Traders
- Energy Netherlands (Energie Nederland)
- Energy UK
- Eurogas

- German Equities Institute (Deutsches Aktieninstitut e. V.)
- German-Russian Forum (Deutsch-Russisches Forum e. V.)
- IEA Greenhouse Gas R&D Programme
- IETA (International Emission Trading Association)
- If.E Innovation Forum for the Energy Transition of IG BCE (Innovationsforum Energiewende If.E der IG BCE)
- Promotion Group for German Industry (Förderkreis der Deutschen Industrie e. V.)
- Sustainable Biomass Program
- VdV Association of the German Integrated Economy (Verband der Deutschen Verbundwirtschaft e. V.)
- VGB PowerTech e. V. international technical association for generation and storage of power and heat
- VRB Association of Raw Materials and Mining (Vereinigung Rohstoffe und Bergbau e. V.)
- World Economic Forum
- World Energy Council (Weltenergierat)

In the course of its membership activities, RWE checks whether the association positions published in press releases or in another form match RWE positions on these issues, e.g. on climate change. Once again, there was no need for the Group to distance itself from specific association positions in 2018.

For memberships of innogy, see ► GRI 102-13 in the innogy Sustainability Report, page 19.



#### **STRATEGY**

GRI 102-14 Statement from senior decision-maker



See ► Foreword, page 5.

GRI 102-15 Key impacts, risks, and opportunities



The CSR Directive Implementation Act (CSR-RUG) came into force on 19 April 2017. It obliges large capital-market oriented companies to draw up and publish a non-financial declaration (NfD) in the Management Report or a separate non-financial Group report (NfR) in a different document. The aim is to provide information that is necessary to understand the business performance, business results, position and impacts of the activity of the company on the environment and society. RWE has therefore decided to use individual blue sections of the CR Report as modules for the separate non-financial Group report and to publish them in the CR Report. The CR Report of RWE AG is drawn up in conformity with the GRI Standards of the Global Reporting Initiative (GRI). In the non-financial report, we have also used the GRI Standards as a framework for the materiality analysis and a description of the concepts. The components of the NfR are also based on the performance indicators relating to CR, which are reflected in the performance-related remuneration of the Management Board. Due to the requirements of the CSR-RUG for reporting on the aspects required in this act, the approach "Comply-or-explain" applies. This means that an explanation and justification must be given unless a concept is pursued.



An analysis of material topics for the RWE Group is carried out in preparation for drawing up the CR Report each year, see > GRI 102-47, page 26. This includes a survey of selected stakeholders. The relevant individual topics identified in this materiality analysis determine the reporting scope of this CR report. The following particularly relevant individual topics were determined as encompassing the

aspects<sup>1</sup> of environmental concerns, employee concerns, social concerns, protecting human rights, anti-corruption and combatting bribery:

#### Environment

 CO<sub>2</sub> emissions at power plants, safe operation of power plants and opencast mines<sup>2</sup>, contribution to achieving political climate goals, quality of recultivation<sup>2</sup>, innovative products and services, NO<sub>X</sub> and mercury emissions, efficiency of power plants and sites, polluted waste from nuclear energy, intermediate storage and final repository<sup>2</sup>

#### Work

Occupational accidents, healthcare promotion and overcoming stress

#### Society

- Protection of infrastructure against cyber-attacks, transparency in political communication, safety and protection of nuclear power plants, new storage technologies, dialogue with critics
- Human rights
  - Observance of human rights in the supply chain<sup>2</sup>
- Anti-corruption
  - Implementation and monitoring compliance of the RWE Code of Conduct

The topic areas identified in this way determine the focuses defined in this report.

innogy prepared a separate materiality analysis on the basis of the specific business model, see ▶ innogy Sustainability Report GRI 102-46, page 34.



<sup>1</sup> For the sake of clarity, the most important topics are presented in accordance with the classification of the German Commercial Code (HGB).

<sup>2</sup> These topics were included as new relevant topics in 2018.

Although they are consequently a constituent element of

financial Group Report. The selection of the sections for the

Non-financial Group Report was carried out in consultation

with the Executive Board and the Supervisory Board, and it

also reflects the assessments of the stakeholders.

our CR Report, they have not been included in the Non-

The business model and alignment of the RWE Group present a range of diverse opportunities. When we established innogy in 2016 in an initial public offering, these only represented the first steps on the roadmap to a new RWE. We are now taking another major step by swapping our financial investment in innogy for a leading operating position in renewable energy. The platform for this is a transaction with E.ON agreed in March 2018, as a result of which the two companies will be realigned. As soon as the swap transaction has been completed, we will drive forward the expansion of renewable energy - with net capital expenditure of around € 1.5 billion each year. Our new role will be as an allrounder in electricity generation who will guarantee secure supply with its flexible portfolio of power plants, while at the same time playing a proactive role in restructuring the energy system to create more climate protection.

The dialogue with the different stakeholders is important to us – starting with government, continuing through associations and employees, and including environmental and consumer organisations. With this end in mind, we are continuously engaging in discussion in the public domain and monitoring the positions of our stakeholders in relation to all issues of sustainability and make use of opportunities to exchange views with them, see ►GRI 102-43, page 22. This is carried out in close consultation with colleagues from the relevant specialist departments and the subsidiaries in the various countries where we operate. The key task is to integrate the fundamental concepts of Corporate Responsibility in all our business processes.





For explanations on material risks and opportunities, see ▶the Annual Report, section 1.13, page 73.

Another focus is on occupational health and safety. This relates to our own employees and to employees of subcontractors commissioned by us. Furthermore, a great deal of attention is focused on the area of compliance, and the sustainability requirements in the supply chain, particularly in the case of hard coal.

Other aspects of sustainability impacts are protection of our plants – safe technical operation and protection against cyber-attacks, transparency of political communication and the areas of biodiversity and recultivation.

In relation to the NfR, the sections Emissions (greenhouse gas emissions) and Compliance (environment) therefore constitute the contribution to environmental concerns, parts of the section on Occupational Health and Safety encompass the aspect of Employee concerns, the section on Procurement deals with a number of areas including the aspect of



#### **ETHICS AND INTEGRITY**

#### GRI 102-16 Values, principles, standards, and norms of behaviour

At RWE, we are well aware of our role in the community and of our responsibility towards customers and business partners, as well as shareholders and employees. We therefore have clearly defined principles which form the framework for our corporate and community engagement. The focus of our actions is on the common values of trust, passion and performance. They ensure a unified, overarching identity in all the companies of the RWE Group. These values are supplemented by the RWE Code of Conduct and the principles for good conduct defined in the Code. The Code also establishes the benchmark for collaboration with contractual partners

and is intended to give a unified foundation for the contractual relationship.

Responsible management and supervision of the company rank among the cornerstones for long-term success. Our benchmark is provided by the German Corporate Governance Code, originally launched in 2002, in the relevant latest version. We comply with most of the recommendations of the code, see further details under ▶ GRI 102-18, page17. This enables us to strengthen the trust placed in us by our investors, customers, employees and the general public.



#### GRI 102-17 Mechanisms for advice and concerns about ethics

Every single employee is encouraged to be proactive in bringing any issues relating to our Code of Conduct and compliance with the code to the attention of their supervisor and/or the responsible compliance officer. The same applies to any indications relating to breaches of the Code of Conduct. Compliance officers are appointed for all divisions and Group companies, and they are always available as points of contact for such matters. In particular, they receive information about issues relating to prevention of corruption. Contact details for compliance officers are available on the Intranet.

It is also possible to contact an independent external ombudsperson by phone or email. This contact is available for employees and also accepts information from third parties outside the company, for example suppliers or other business partners. Notifications relating to any potential breaches are recorded by the Compliance Department. Each case is reviewed by the Group function responsible, and any remedial measures necessary are initiated in the context of a systematic follow-up process.

Our external ombudsperson takes all notifications and complaints relating to negative environmental, social and human-rights impacts, and regarding working practices. Further expansion of the reporting system is planned for 2019.

**Material Topics** 

#### GOVERNANCE

#### GRI 102-18 Governance structure



The corporate governance of RWE AG as a German jointstock company listed on the stock exchange is primarily determined by the Stock Corporation Act (Aktiengesetz) and also by the regulations of the ▶ German Corporate Governance Code in its latest current version.

Pursuant to the statutory regulations, RWE is subject to the "dual governance system". This is characterised by a strict separation of personnel between the Executive Board as a management body and the Supervisory Board as a monitoring body. The Executive Board and the Supervisory Board work closely together in pursuing the interests of the company.

The Executive Board manages the company with the objective of generating sustainable value added under its own responsibility. The principle of overall responsibility applies to their work, and this means that the members of the Executive Board bear joint responsibility for the entire executive management. They develop the corporate strategy and ensure implementation in consultation with the Supervisory Board.

The Supervisory Board advises the Executive Board on managing the company and monitors its activity. It appoints and dismisses members of the Executive Board, passes resolutions on the compensation system for the members of the Executive Board and defines individual compensation packages for each member. The Supervisory Board is involved in all decisions that are of fundamental importance for RWE.

The RWE Supervisory Board currently has five permanent committees and the Executive Committee: the Mediation Committee pursuant to Article 27 Section 3 Co-determination Act (MitbestG), the Personnel Affairs Committee, the Audit Committee, the Nomination Committee and the Strategy Committee. The committees prepare topics and resolutions in advance of meetings of the Supervisory Board. They sometimes also have decision-making powers delegated to them by the Supervisory Board. The chairs of the committees regularly inform the Supervisory Board about the work of the committees. In addition, shareholder and employee representatives regularly hold separate preliminary meetings before Supervisory Board meetings. Additional detailed

information on the concrete work of the Supervisory Board and its committees is provided in the latest Supervisory Board Report in the ► Annual Report 2018, page 8.



RWE essentially complies with the recommendations of the new version of the ▶ German Corporate Governance Code (DCGK) published on 24 April 2017 and has already complied with them in the past. However, on 21 September 2018, the Executive Board and the Supervisory Board of RWE AG declared in an update of the Declaration of Compliance pursuant to Article 161 Stock Corporation Act (AktG) dated 14 December 2017 a deviation from the recommendations pursuant to Clause 4.2.3 section 2 sentence 8 DCGK, according to which a subsequent amendment to the performance targets or the comparison parameters should be excluded in relation to the compensation for the Executive Board. On 21 September 2018, the Supervisory Board decided to retroactively adjust the target values of company bonuses (as a constituent element of the annual variable remuneration) for the Executive Board in the business year 2018 and for the tranches relating to 2018 and 2019 of the Strategic Performance Plan (SPP). The adjustment is necessary and appropriate under statutory legislation relating to joint-stock companies against the background of the exchange of business activities agreed between RWE and E.ON. The previous target values (adjusted EBIT for the company bonuses; adjusted net income for the SPP) were defined on the basis of the plans for the RWE Group. This has taken account of innogy SE, in which RWE AG has a 76.8% shareholding, as a fully consolidated subsidiary company. The intention is to transfer the majority shareholding in innogy to E.ON in the course of the exchange deal. The reporting parameters necessary for measuring target attainment in relation to the company bonuses and the SPP will therefore no longer be available from business year 2018. Instead, RWE figures will then be used for performance measurement, in which innogy – differing from the International Financial Reporting Standards (IFRS) – is recorded simply as a straight financial shareholding. For more information on this see our current Corporate Governance Report published on the Internet at ▶ www.rwe.com/corporate-governance. For information on the governance structure of innogy see ▶GRI 102-18 in the innogy Sustainability Report, page 22.



#### **GRI 102-19 Delegating authority**

Powers of attorney are granted by the Executive Board in the form of procurations and power to actto the individual departmental and section managers who are empowered

to take decisions independently within their sphere of responsibility, so long as a higher level of authority has not reserved the right to approve certain decisions.

The Executive Board of RWE AG has adopted a portfolio distribution which gives specified members of the Executive Board responsibility for various topics. The current portfolio distribution provides for the following powers of responsibility over economic, environmental and social topics: The Chairman of the Executive Board deals with the group-level responsibilities Corporate Business Development, Corporate Transformation, Group Communications & Energy Policy, Group Strategy, Human Resources, Internal Audit & Compliance, Legal. Since 1 May 2017, the Chief Executive Officer has also held the role of Labour Director. The responsibilities of the Chief Financial Officer include Accounting, Business Services, Controlling & Risk Management, Finance & Credit Risk, Investor Relations, Portfolio Management/Mergers &

Acquisitions, and Tax. The Group Executive Board reports to the Supervisory Board of the company as the highest governance body.

The Group-wide implementation and realisation of Corporate Responsibility is coordinated by the Group Corporate Responsibility Team within the Group Communication & Energy Policy Team. The Head of the Group Communication & Energy Policy Department reports directly to the Chief Executive Officer. Representatives of RWE AG and the key operating companies come together in relation to specific themes as necessary in order to swap experiences and to agree activities jointly.

#### GRI 102-21 Consulting stakeholders on economic, environmental, and social topics

Each shareholder has the right to submit a countermotion with substantiation against the proposals put forward by the Executive Board and/or the Supervisory Board on a specific agenda item at the Annual General Meeting. Shareholders whose shares taken together make up one twentieth of the entire share capital or a proportionate amount of € 500,000 can demand that items are placed on the agenda and announced.

The publication of the business results is accompanied by an investors' and analysts' teleconference. Additionally, managers take part in Group roadshows and participate in conferences. In accordance with the recommendations of the German Corporate Governance Code, the Chairman of the Supervisory Board is regularly available to investors for discussions about matters specifically relating to the Supervisory Board.

#### GRI 102-22 Composition of the highest governance body and its committees

The Supervisory Board is a non-executive supervisory body. It consists of 20 members, ten of which are elected by the Annual General Meeting pursuant to the provisions of the German Stock Corporation Act (Aktiengesetz). Ten of the members are elected by the employees pursuant to the Codetermination Act (Mitbestimmungsgesetz) dated 4 May 1976 (MitbestG). In accordance with the German Stock Corporation Act, the period of office for current members of the Supervisory Board continues until the end of the Annual General Meeting which passes a resolution on the discharge for the actions of the Supervisory Board for the fourth business year after the commencement of the period of office. The periodic new elections for the Supervisory Board are therefore planned for 2021. At the moment, the Supervisory Board of RWE AG includes six women, of which three were elected by the employees. RWE AG therefore complies with the statutory gender quota of 30%.

A presentation of the Executive Board and the Supervisory Board is given in the description of the governance bodies in the **RWE Annual Report 2018, page 196.** It provides an overview of the number of other important positions or obligations held by the individual persons and the type of obligation.

In order to ensure a fit and proper composition of the Supervisory Board, the Supervisory Board passed a resolution on a competence profile. As envisaged in the German Stock Corporation Act and in the German Corporate Governance Code, the aim is to make appointments to the Supervisory Board so as to ensure provision of expert monitoring and consultation. The objective is for at least one member of the Supervisory Board to be able to provide expertise for each aspect of the activity of the Supervisory Board. This means that the necessary knowledge and experience is reflected by the Members of the Supervisory Board as a whole.

Furthermore, the Supervisory Board intends to ensure that it includes members with international experience who come from outside Germany or who have spent a considerable number of years working in other countries.

Members of the Supervisory Board are expected to be familiar with the business areas of the RWE Group, the market landscape, the needs of customers and the strategic direction of the company. They should possess all the skills and know-how necessary for their activity as a member of the Supervisory Board including assessment of reports provided by the Executive Board, weighing up business deci-

sions and evaluating the documents associated with the annual financial statements. Alternatively, they need to be willing to engage in a learning curve to acquire the necessary knowledge and skills. The needs profile also includes special areas of expertise and qualifications that are important for the business activities. This may include e.g. experience from an international activity or management functions in politics and business, know-how in areas of the energy sector, employee co-determination, accounting or auditing, and expertise in the public sector. You will find more information in the **RWE Annual Report 2018**, page 10, and on our **Webpage**.

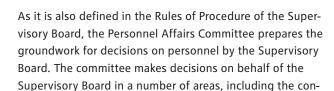


#### GRI 102-23 Chair of the highest governing body

The Chairman of the Supervisory Board, Dr Werner Brandt, is not simultaneously a member of the Executive Board. He has also not been a member of the Executive Board of RWE AG in the past.

#### GRI 102-24 Nominating and selecting the highest governance body

As defined in the Rules of Procedure of the Supervisory Board, the Nomination Committee convenes as necessary and proposes suitable candidates to the Supervisory Board as its nominations for election by the Annual General Meeting. When the committee selects the nomination proposals, it takes into account the international operations of the company, potential conflicts of interest, and diversity. There is also a competence and needs profile for members of the Supervisory Board which is intended to ensure a heterogeneous composition of the Supervisory Board, see ▶ GRI 102-22, page 18.



clusion, amendment and the termination of contracts of employment with the members of the Executive Board. This work does not include the decisions reserved for the Supervisory Board pursuant to Article 87 Section 1 and Section 2 Sentence 1 and Sentence 2 Stock Corporation Act (AktG), although the Personnel Affairs Committee prepares the groundwork for such decisions. Furthermore, the committee regularly gives advice on long-term succession planning for the Executive Board. In this context, the committee takes account of planning for the management of the company and also considers the need for diversity. For purposes of making appointments to the Executive Board, the Supervisory Board has adopted a requirements profile for members of the Executive Board in accordance with the recommendations of the German Corporate Governance Code. This also takes account of the requirements for diversity relating to this governance body.

#### **GRI 102-25 Conflicts of interest**

Transparency is a core element of good corporate governance. It is absolutely indispensable in cases where transactions concluded by the Executive Board may lead to conflicts of interest. The Executive Board and the Supervisory Board also addressed the issue of double mandates in the Group. This may arise if a member of the Executive Board of RWE AG and members of the Supervisory Board of RWE AG are also

represented in the Supervisory Board of innogy SE. Conflicts of interest arising as a result of this were declared and solutions for dealing with the conflicts of interest were agreed in the relevant bodies. As a consequence, Dr Erhard Schipporeit and Ms Monika Krebber, who are represented in the Supervisory Board of RWE AG and in the Supervisory Board of innogy SE, did not receive any preparatory meeting docu-

ments relating to the decisions affecting the sale of shares by RWE AG in innogy SE during the business year 2018, and were excluded from consultative discussions and passing resolutions in relation to this matter in the Supervisory Board of RWE AG. The Member of the Executive Board Dr Markus Krebber also declared a conflict of interest in this matter relating to his membership on the Supervisory Board of innogy SE and he received no documents and did not take part in any consultative discussions and passing resolutions on the Supervisory Board of innogy SE, which related directly or indirectly to this transaction. In the business year

2018, there were no further decisions requiring resolutions to be passed which would have resulted in actual conflicts of interest. Furthermore, no contracts were concluded between members of the Supervisory Board and RWE AG.

**Material Topics** 

The memberships in other governance bodies held by members of the Executive Board and Supervisory Board are disclosed transparently in the presentation of governance bodies in the ▶RWE Annual Report 2018, page 196. RWE AG has no controlling shareholder. Transactions with related parties are included in financial reporting.



#### GRI 102-26 Role of highest governance body in setting purpose, values, and strategies

We have created long-term incentives for sustainable corporate governance in which part of the variable compensation

for the Executive Board has been linked to CR indicators, see ►GRI 102-35, page 21.







See ► GRI 102-31, page 20.

#### GRI 102-30 Effectiveness of the risk management processes

The Executive Board of RWE AG holds the principal responsibility for the risk management system. The board monitors and manages the overall risk of the Group. The responsibility for applying and developing the risk management system is at the level below the Executive Board with Controlling & Risk Management of RWE AG. This department regularly

reports to the Executive Board and the Supervisory Board of RWE AG on the risk position of the Group.

The Internal Audit Department regularly reviews the quality and the functional capability of the risk management system.

#### GRI 102-31 Review of economic, environmental, and social topics

The Executive Board of RWE AG is informed immediately if there are any significant changes to the risk situation. The management and supervisory bodies are informed about the risk situation as part of quarterly reporting.

The entrepreneurial actions of RWE are defined by integrity and compliance with the law. The RWE Code of Conduct sets out the targets and principles for this and forms the basis for the corporate culture. The Compliance Management System focuses in particular on the identification of potential structural risks of corruption. The Compliance Management System for anti-corruption was audited by a professional services firm in accordance with IDW Audit Standard 980.

The efficacy audit was successfully completed at the turn of the year 2013/2014. The Chief Compliance Officer reports at regular intervals to the Executive Board of RWE AG and to the Audit Committee of the Supervisory Board on compliance-relevant issues. This includes in principle all the topic areas of the Code of Conduct and provides consolidated information about this. Every manager with disciplinary responsibility additionally needs to submit an annual report on implementation of the Code of Conduct in his/her area of responsibility. A further review of the Compliance Management System was started by a professional services firm at the end of 2018.

The section of the report highlighted in blue presents the implementation of the Non-financial Group Report required under statutory regulations. It was audited by the Supervisory Board of RWE AG.

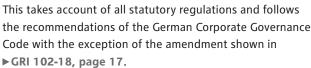
The remaining section of the report was checked and approved by the Executive Board of RWE AG.

#### **GRI 102-35 Remuneration policy**

The performance of individual Executive Board members is taken into account by multiplying the company bonus by a performance factor. The value achieved depends on the following criteria, each of which is weighted by one-third: (1) achievement of the individual targets, (2) collective performance of the Executive Board, and (3) performance in corporate responsibility (CR) and employee motivation. Success in CR depends on the achievement of environmental and social goals and is documented in our sustainability reporting.

Further details on the compensation policy and criteria for the Executive Board, including disclosures on components of the compensation package, are included in the compensation report in the

▶ RWE Annual Report 2018, page 61.







**Material Topics** 

#### STAKEHOLDER ENGAGEMENT

#### GRI 102-40 List of stakeholder groups

Our company regularly engages in communication in different ways with customers, academics, policymakers, representatives of environmental organisations, local government agencies, neighbours around our locations and other citizens.

We also seek contact with players who are otherwise involved in issues relating to the energy industry, as well as the corporate activities of RWE and its impacts on society as a whole.

#### GRI 102-41 Collective bargaining agreements

99.8% of the employees of the RWE Group work in Europe and are represented by the European Works Council. The RWE Social Charter covers 100% of our employees.

Our business partners are required to acknowledge the Code of Conduct and therefore to accept the principles of the United Nations Global Compact, which include the right to collective bargaining agreements.

#### GRI 102-42 Identifying and selecting stakeholders

Our stakeholders include all persons and organisations we have relationships with and engage in dialogue with. We also regard individuals and entities who seek communication with us, or who are interested in our company, as stakeholders. There is no prior selection process. In order to identify the various aspirations and take account of them in our corporate policy, we are in continuous dialogue with our stakeholders and open to their concerns. Expectations that

stakeholders have of RWE are nuanced and defined by their attitude to energy issues and the extent to which those stakeholders are affected by energy, climate and other topics relevant for the company. The different countries show a varying basic attitude to these topics. Their views are informed by a number of factors including the individual national background.

#### GRI 102-43 Approach to stakeholder engagement

Communication with our stakeholders gives us valuable ideas for the orientation of our corporate activities. Since the energy world is going through a process of change, 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 reflect and convey our company decisions and underlying motivation more effectively.

The dialogue takes place at different levels. We engage in discussions about company activities at local level with neighbouring residents and citizen's initiatives, local authorities and regional initiatives. These conversations might relate to, for example, construction measures and approval proceedings. Local residents frequently follow our projects

and activities with a great deal of interest, perhaps because they are looking for positive effects to give upside impact on the local economy. Alternatively, they may be anxious about negative impacts on their own lives, the surrounding area and the environment. We meet these expectations with a transparent information policy, an honest exchange of views and an interest in constructive proposals. At national level, we engage in discussions with our stakeholders in particular on the following issues: our contribution to the energy transition and climate protection, the future of the generation mix and the energy market, current and pending legislative and regulatory procedures, sustainability in international supply relationships and a responsible approach to our customers and the environment.

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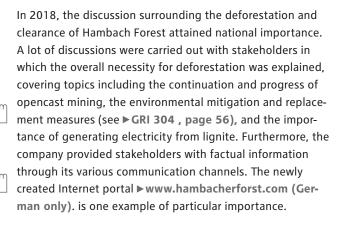
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**Material Topics** 

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In 2018 as in the previous year, the dominant issue in the context of the dialogue with stakeholders continued to be the contributions that the energy industry can make to achieving the national and international climate change targets, and the role that conventional power generation is able to play in the energy transition, and particularly with respect to security of supply. We engaged in an intensive dialogue at all levels on this issue with a large number of representatives from the political sphere, business, unions, civil society and the general public A range of different topics were addressed, for example reform of the European Emissions Trading Scheme, implementation of the Climate Protection Plan 2050 in Germany, renewal of the climate agreement in the Netherlands, the future design of the European electricity market and the Commission on "Growth, Structural Change and Employment". For information on the organisation of the content see ▶ GRI 305, page 59.



After the resolution passed by the Higher Administrative Court (OVG) Münster in an expedited procedure stating that the deforestation should not be continued for the time being, these discussions were used from October 2018 to make the effects of the judgement transparent.

In relation to the need for the clearances in Hambach Forest, the Higher Administrative Court (OVG) Münster handed down a judgement on 5 October 2018, which is explained below, stating that the issue of whether Hambach Forest should have been included as a Flora Fauna Habitat (FFH) in the European nature conservation programme, could not be clarified in the expedited procedure owing to its complexity and it had been referred to the principal proceedings. It cannot be predicted when a final decision with legal force will

be rendered. It should be assumed that a main operational plan on the topic of FFH with legal force may not be available until the end of 2020.

As a result, the deforestation cannot be continued for the time being. However, the other operations including preliminary clearance and lignite extraction can be continued.

One example of dialogue was local and regional forums where there was an exchange of views on issues relating to the energy transition and climate protection in the Rhineland lignite mining area. This interaction was at the level of local authorities and at meetings of elected politicians. Other key issues related to security of supply, job security and perspectives for the future at the locations.

Another area of increasing involvement was the Future Agency Rhineland Mining Region (Zukunftsagentur Rheinisches Revier, formerly Innovation Region Rhenish Mining Area), which supports the structural change in this area. A representative of RWE Power AG is a Member of the Supervisory Board of the Zukunftsagentur Rheinisches Revier GmbH. Furthermore, RWE participates in a large number of different projects and initiatives in the area of opencast mining to shape the region, for example the development company Entwicklungsgesellschaft Indeland GmbH. In 2017, we continued to support commitments in favour of the Indeland development company until the end of the year 2021. In 2018, RWE consented to continue providing financial and specialist support for the Special Purpose Association Zweckverband Tagebaufolge(n)landschaft Garzweiler initially for a period of six years up until 2023 as well as for the surrounding initiative "Umfeldinitative Hambach" which is currently being founded.

We worked together with the Future Agency Rhineland Mining Region to establish the "Future FORUM Paffendorf -We support the Rhineland Mining Region" in a launch event in March 2018. The aim is to bundle and network activities of the local authorities, special-purpose associations and initiatives around structural change. In September 2018, a planning workshop was held in the Future FORUM where local-authority and regional target aspirations were brought together to form a picture of the future. Recommendations for the ongoing process of regional development were then drawn up and given concrete form. In 2018, special issues

As early as 2010, an arbitration board was set up at the district administration of Cologne, now with the district administration of the Rhineland district of Neuss, in order to settle disputes that had resulted in connection with damage to buildings as a result of potential impacts from lignite mining. Private individuals, small businesses and medium-sized enterprises were able to present their cases at this board if they had been unable to reach a settlement with RWE Power AG up to that point. Contrary to going before a court, the procedure in front of the arbitration board is free of charge for the claimant.

The Neighbourhood Forum (Nachbarschaftsforum) Niederaußem, which RWE set up at the power plant there, continued to receive a positive reception. The forum offers neighbours, associations and other local stakeholders the opportunity to engage in discussion with RWE about issues related to lignite production and refinement, and power generation with particular reference to the Niederaußem site. In 2018, the forum met twice. The agenda focused on regional development at the power-plant location, structural change in the region, perspectives on the use of CO<sub>2</sub> as a material, as well as recultivation and reuse of former opencast mining areas in the Rhineland Mining Region.

Furthermore, we are also planning energy discussions with local stakeholders in the area of our opencast mines, in the same way as we started them at Inden in 2017.

In 2018, we additionally held regular power plant discussions at our nuclear power locations. The events are used to inform politicians, representatives from the community and the media about operations at the locations. We also rolled out Transparency Initiatives at all three locations. The objective of these is to create even more transparency in the future for providing information to various regional special-interest groups through dialogue opportunities directed towards different target groups about licensing procedures currently under way. Openness in relation to planning for decommissioning and the process involved is also part of this approach.

We are also in regular dialogue with our suppliers. We hold an annual suppliers conference as a forum for discussion about current market developments and ideas. Around 100 representatives of nearly 80 subcontractors participate in this conference. Every year, RWE including innogy awards orders amounting to more than 720 million euros to companies in the region. In order to strengthen local companies, the regional allocation of orders within the region is preferred if the offers are equivalent in commercial and qualitative terms.

We continue to hold regular events at national and European level, for example our RWE Talks. These are also held jointly with innogy SE. In 2018, they took place in Berlin. Members of the Executive Board and Managing Directors reported in this forum on the latest developments in the energy industry and held discussions with a wide range of different special-interest groups including government, civil society, business and academia. The discussion topics included the role of (natural) gas in the energy transition and the future of electricity generation and the role of coal in this process.

Over the course of 2018, representatives of RWE in the United Kingdom engaged in a dialogue on a variety of issues relating to energy and environmental policy with the regulatory authorities and policymakers. One topic that we discussed with the Federal Ministry for Economic Affairs, Energy and Industrial Strategy (BEIS) and with the regulator Ofgem was the reform of the British capacity market. Another topic of discussion with the BEIS and the British Treasury was the future price of CO<sub>2</sub>. There were also discussions on various other subjects including Brexit, its shape and the potential impacts on the energy industry. A great deal of attention in discussions was also devoted to topics such as national implementation of the EU Directive on Industrial Emissions and the EU Directive on Upper Limits for National Emissions

Likewise, RWE was in regular contact with a large number of regional and national stakeholders in the Netherlands. These included parliamentarians, politicians, NGOs and academics. In particular, we contributed to the discussion about the ongoing climate protection policy to achieve the climate goals for 2030 and 2050. In this context, we participated in conversations about the new national climate and energy agreement, which the new government coalition launched and which is likely to be completed in the spring of 2019.



For information on the stakeholder dialogues of innogy SE see ►GRI 102-43, page 31 and GRI 102-44, page 32 in the innogy Sustainability Report.

#### Results of surveys on customer satisfaction

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 them 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, competitive prices, and a clear customer focus continue to remain our top priorities in this relationship.

We hold two customer events every year. The "Energy Dialogue" is held in Germany and the language is German. The "Energy Talks" take place in the Netherlands/Belgium and they are held in English. The exchange with our customers extends from the strategy of RWE Supply & Trading GmbH, through topics relating to innovation such as "Green Power Purchase Agreements" to market analyses. These events have provided us with a great deal of constructive feedback from our customers. Alongside our commodity solutions, our energy market analyses in particular and the cooperative approach to product development has received a great deal of praise. Furthermore, we have gained concrete proposals for improvement and new ideas from the events. We evaluate these and put them into practice. Both events also provide an outstanding forum in order to exchange views with experts on the energy market and on the framework of energy policy.

innogy SE also regularly measures customer loyalty and customer satisfaction, see ► GRI 102-43, page 31 and GRI 417, page 107 in the innogy Sustainability Report.



**Material Topics** 

#### REPORTING PRACTICE

#### GRI 102-45 Entities included in the consolidated financial statements

See list in the ▶ RWE Annual Report 2018, page 160.

#### GRI 102-46 Defining report content and topic boundaries

Our management of Corporate Responsibility and reporting take into account the relevant issues that we have determined and evaluated in a Materiality Analysis. This approach corresponds to the current GRI Standards of the Global Reporting Initiative (GRI) which form the basis for this report.

So as to determine the material topics for sustainable corporate governance at RWE, we have focused on the topics that are particularly relevant for our external and internal stakeholders. Our approach involved an update of last year's comprehensive Materiality Analysis by conducting interviews with five specialist departments that are likely to make a tangible contribution to our sustainability management.

We used a standardised questionnaire to survey these internal stakeholders and collect information about aspects relating to environmental concerns, employees' concerns, social concerns, protection of human rights, and anti-corruption

and bribery. Prior to disseminating the questionnaire, we laid the groundwork and allocated a total of 17 topics to these five aspects that we had identified from the familiar set of expectations relating to our company that we were aware of and from the GRI Standards and the CR Report from the previous year. Our deliberations covered their individual importance for our business, our stakeholders and the associated impacts. Additional sub-topics were also allocated to all the topics so as to achieve maximally comprehensive coverage of all the relevant issues. The stakeholders were able to supplement these. A distinction was also drawn between topics where the biggest potential change was in the company itself and topics that primarily affected our supply chain or our business relationships, see ►GRI 102-47, page 26.



The individual interviews to survey the assessment of our shareholders were carried out by CR process owners in RWE AG. Feedback we received from our stakeholders focused on the medium to long-term perspectives of RWE.

#### GRI 102-47 List of material topics





The topics below present the results of our Materiality Analysis carried out in 2018, as described in ▶ GRI 102-46, page 26. The topics identified in the Materiality Analysis and presented in the table below determine the scope of this CR Report. We draw a distinction in the presentation of the analysis between the value-chain phases in which the key impacts

of the topic are generated. RWE would also like to exercise a positive influence as far as possible on upstream and downstream activities in our value chain even if these take place outside our company. We are able to directly manage the impacts that are caused within our company.

#### Overview of the material aspects and where their impacts are caused:

Material topics	Corresponding GRI topics	Upstream value generation phase	RWE	Consumption phase/ downstream value generation phase
Environmental Concerns		P		3
Biodiversity				
Quality of recultivation	GRI 304 – Biodiversity			
Interventions in the landscape and nature	GRI 304 – Biodiversity		-	
Origin of the biomass used in power plants	GRI 304 – Biodiversity GRI 308 – Supplier Environmental Assessment	-	•	
Climate Protection				
CO <sub>2</sub> emissions in power plants	GRI 305 – Emissions GRI 417 – Marketing and Labelling			•
Contribution to achieving political climate goals	GRI 201 – Economic Performance GRI 305 – Emissions			•
Emissions				
(apart from greenhouse gases)				
$NO_{\chi}$ , dust and mercury emissions from power plants	GRI 305 – Emissions			
Energy Efficiency				
Efficiency of power plants and systems	GRI 302 – Energy			
Innovative products and services	Energy efficient products and services, research and development GRI 302 – Energy			
Water	divisor filelay			
Lowering of the groundwater table by opencast mining	GRI 303 – Water			
Waste				
Nuclear energy Polluted sites Intermediate storage and final repository	GRI 306 – Effluents and Waste		•	
Decommissioning of nuclear power plants	GRI 306 – Effluents and Waste Shutdowns and de- commissioning of power plants and reinstatement of mining locations		•	
Environmental Management				
Safe operation of power plants and opencast mines	GRI 307 – Environmental Compliance			
Environmental protection targets	GRI 307 – Environmental Compliance			
Employee Concerns				
Occupational Health and Safety				
Occupational accidents	GRI 403 – Occupational Health and Safety	•		
Healthcare promotion and overcoming stress	GRI 403 – Occupational Health and Safety			
Labour Relations	-			
Job cuts and reorganisation	GRI 401 – Employment GRI 402 – Labour/Management Relations GRI 404 – Training and Education			

Appendix

Material topics	Corresponding GRI topics	Upstream value generation phase	RWE	Consumption phase/ downstream value generation phase
Diversity		-		-
Avoidance of discrimination	GRI 405 – Diversity and Equal Opportunity		•	
Promotion of diversity	GRI 405 – Diversity and Equal Opportunity		•	
Social Concerns				
Catastrophe/Emergency Planning				
Security and protection of nuclear power plants	Catastrophe/Emergency planning and response			
Protection of infrastructure against cyber-attacks	Catastrophe/Emergency planning and response		•	
Economic Performance				
Transaction and integration of renewables	GRI 201– Economic Performance		•	
Availability and Reliability				
Flexibilisation of the power plant portfolio	Availability and reliability		•	
New storage technologies	Availability and reliability			
Regional Relationships				
Regional partnerships and cooperations	GRI 203 – Indirect Economic Impacts GRI 413 – Local Communities		•	
Dialogue with critics	GRI 102-44 – Key topics and concerns raised by stakeholders		•	
Relationships with Politics				
Transparency in political communication	GRI 415 – Public Policy		•	
Respect for Human Rights				
Supplier Selection and Assessment				
Respect for human rights in the supply chain	GRI 204 – Procurement GRI 414 – Supplier Social Assessment	•		
Origin of imported hard coal	GRI 204 – Procurement	•		
Anti-corruption and Combatting Brib	pery			
Anti-corruption, combatting bribery	and granting and accepting advantages			
Implementing and monitoring of the Code of Conduct	GRI 205 – Anti-corruption			

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The selection of topics for the NfB was carried out on the basis of the approach presented in ► GRI 102-15, page 14:

Table: Topics for the Non-financial Report	
Statutory Aspects pursuant to Article 289c Section 2 German Commercial Code (HGB)	Topics
Environmental concerns	Emissions, environmental compliance
Employee concerns	Health and safety
Social concerns	The aspect of social concerns is currently not material for RWE in accordance with the materiality provision in the German Commercial Code (HGB).  However, social engagement is part of the fundamental understanding of corporate responsibility at RWE. This why we report in the CR Report on the dialogue with our local stakeholders and on information about resettlement and recultivation in the Rhineland Mining Region. This relates to a voluntary reporting regime.
Anti-corruption and combatting bribery	Anti-corruption
Respect for human rights	Procurement practices

#### **GRI 102-48 Restatements of information**

The segments will now be shown separately in this report. Disclosures in parts of this report are only made for RWE without the discontinued innogy operations. This means

that the figures for the previous year were adjusted. For more information see ►GRI 102-6, page 8.



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No material changes, see ► GRI 102-47, page 26.

#### **GRI 102-50 Reporting period**

Business year 2018: 1 January 2018 - 31 December 2018

#### GRI 102-51 Date of most recent report

March 2018

#### GRI 102-52 Reporting cycle

Annually

**Material Topics** 

#### GRI 102-53 Contact point for questions regarding the report

RWE Aktiengesellschaft Dr Jens Wiggershaus Corporate Responsibility Huyssenallee 2 45128 Essen

Phone +49 201 12-15593 E-mail responsibility@rwe.com

#### GRI 102-54 Claims of reporting in accordance with the GRI Standards

This report has been prepared in accordance with the GRI Standards: Core option.

#### GRI 102-55 GRI Content index

This report also presents the GRI Content Index. It was prepared on the basis of our established reporting and our findings from the dialogue with stakeholders. We prepared the report in accordance with the GRI Standards (2016) in order to facilitate a comparison of our performance with that of other companies. We also report on far-reaching material topics based on the GRI requirements for the electricity

industry which were formerly valid as the "G4 Electric Utilities Sector Disclosure" but are no longer part of the GRI Standards. The values were not available to us with the necessary differentiation for a number of the disclosures derived from the GRI. We have provided a justification in each case and used disclosures which came closest to the requirements.

#### GRI 102-56 External assurance

The disclosures marked with the  $\overline{\mathbf{V}}$  were subject to a limited assurance engagement performed by accountancy firm PricewaterhouseCoopers GmbH Wirtschaftsprüfungs-gesellschaft. The audit was implemented taking into account the Interna-

tional Standard on Assurance Engagements (ISAE) 3000 (Revised). For the Independent Practitioner's Assurance Engagement Report see ▶page 89.



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# **MATERIAL TOPICS**

**Material Topics** 

#### **ECONOMIC TOPICS**

#### GRI 201 ECONOMIC PERFORMANCE (IN ACCORDANCE WITH GRI STANDARDS 2016)

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges <

Our market environment and the demands of society at large are changing with the transition of energy systems in Europe. In Germany, the development of the electricity market is largely dependent on the expansion and rising feed-ins of renewable energy. These reduce the utilisation of conventional power plants, in particular of gas-fired power plants but increasingly also hard coal-fired power plants. Renewable energy and the development of prices for hard coal and gas, the recent significantly increased prices for CO<sub>2</sub> certificates together with the general economic development are exerting a significant influence on the wholesale prices that electricity producers are able to achieve in the market. Our revenues are therefore determined by the utilisation and the wholesale prices for electricity and CO<sub>2</sub> without us being able to exert any direct influence on these parameters. The consequence is that the developments described exert a strong impact on our earnings derived from electricity generation, even if the hike in wholesale prices brought some relief. At the same time, the trend towards increasing electrification will cause an impact on our business over the medium to long term. The growing requirement for electricity emanating from additional applications for electricity, for example in the sectors of transport and heating, will counteract falling consumption of electricity resulting from increasingly efficient use of power.

Existing business models and processes in the energy industry are increasingly losing their profitability and are no longer fit for purpose. They need to be modified by new ideas and in some cases even replaced, see ▶ Research and Development, page 47.

Our intention is to strengthen our competitive position and convince our customers over the long term with innovative, attractive and affordable products, efficiency enhancements in our power plants, strategic deployment of power plants and adjustments to our power plant portfolio.

The speed of the transition is continually accelerating. The markets we are operating in demand that we undergo a continual process of transformation and development in order to be successful. If we are to meet these requirements in the future, it is important to confront the challenges over the long term with creative, motivated and competent employees.

#### Organisation and management

RWE has adopted a number of measures so that we are able to remain competitive as one of the biggest European energy utilities operating in the marketplace. Our strategy was therefore adjusted. It is based on three pillars: optimisation of the power plant business, utilisation of the potential of the core business, and securing the energy supply for the energy transition. The unambiguous target of POWERING. RELIABLE.FUTURE. indicates that as a supplier of reliable energy provision, we offer secure and affordable energy for economies, companies and most importantly people.

In 2016, RWE created the platform for a new corporate structure with the initial public offering for innogy SE. The new structure has enabled RWE to strengthen its financial position and this will improve our performance and make us more competitive. The planned realignment of the lines of business with E.ON will enable RWE to concentrate on generating electricity from conventional and renewable energy sources, and trading in future. The new E.ON will create a company with a clear focus on smart electricity grids and customer solutions.

RWE will continue to optimise its own power plant portfolio in a consolidating market. We are therefore going to make use of options for the additional construction of de-centralised generation plants such as power plants for customers. However, the focus is also on other generation, and in particular storage and flexibility solutions which open up new opportunities for making profits especially in regulated business and are intended to provide opportunities for increasing the use of electricity. Furthermore, RWE Technology International GmbH (RWE TI) is expanding the international offering of independent services as a project management and engineering company of RWE in the areas of mining, thermal power plants, renewable energy and infrastructure.

The art of mastering the transition quickly is now a key competitive advantage. RWE is supporting the required and necessary internal processes of change with various transformation programmes. These are coordinated and driven forward by the Corporate Transformation Department, which reports directly to the Chief Executive Officer.



**Material Topics** 

#### Measures and performance measurement ✓

In 2018, we shut down further power plants or transferred them to legally-mandated security standby in order to adapt our power plant portfolio to the market conditions, see ▶ Shutdown of Power Plants, page 48. The NEO improvement programme already initiated in previous years has resulted in additional efficiency enhancements and cost reductions with conventional generation. In order to implement more efficient work processes and shorter decisionmaking pathways in lignite mining, the Alpha Project launched in 2016 and involving reorganisation of opencast mining was completed in 2018.

Alongside the complete restructuring of the Group and our R&D activities, the motivator of innovations is also driving forward new conceptual and operational approaches within the organisation of RWE. In 2018, measures supporting cultural change included continuation of the following projects:

- The New Way of Working (NWoW) programme represents a new mindset and approach to carrying out work, see ▶ GRI 401, page 71. The project is enabling us to strengthen the orientation of our employees on performance and customers, and involve them more closely in decision-making processes. At the same time, we are ensuring more efficient cooperation within the entire
- Deliver Breakthrough Performance (DBP) is used to roll out Group-wide projects and develop a uniform understanding of change and leadership.
- In 2018, a Group-wide staff survey was carried out with around 15,000 employees in order to involve them proactively in the development of RWE. The intention of the staff survey was to help identify the strengths of the company so that they could be expanded and optimisation fields determined.
- Peer Group @ RWE is an "exercise area" for executive employees that allows them to develop management expertise through joined-up peer-to-peer consultation and advice based on case studies. This creates an informal, strong and convincing network throughout RWE.

A large proportion of the value added generated by us flows back into the regions where we are operating, for example in the form of tax, deductions or salaries. We thereby make a contribution to regional development. Our value-added statement provides a transparent presentation of how profits are distributed, see ▶ GRI 201-1, page 34. We also make donations and promote sponsorship activities in the regions, and foster volunteering employee engagement through the Companius project Aktiv vor Ort - Active on Site, see ► GRI 203-2, page 37.







Distribution of value added by the Group in € million	Total 2018	Total 2017 <sup>3</sup>
Total	7,482	10,013
to employees (wages, salaries, social security contributions)	4,854	4,704
to the government (taxes and deductions) <sup>1</sup>	244	464
to lenders	881	1,608
to other shareholders	738	415
Net income	335	1,900
Dividend payment to RWE shareholders <sup>2</sup>	430	922

<sup>1</sup> Only the taxes paid are included, not tax expense.

<sup>3</sup> Vales for 2017 were adjusted.

Regional engagement by the RWE Group in € million	Total 2018	Total 2017 <sup>1</sup>
Donations	0.9	1.22
Sponsorship	0.8	1.16
Volunteering	1.2	1.4

<sup>1</sup> Reference-date values from 2017 adjusted after plausibility checking and follow-up of individual entries. Data for RWE without innogy.

#### GRI 201-2 Financial implications and other risks and opportunities due to climate change



Once again, climate protection was one of the key political issues in 2018 and it is also crucial for RWE. Key factors in our business are the ongoing expansion of renewable energy and increasing requirements for our fossil-fuel power plants. Alongside reduced profits and necessary modifications in our power plant portfolio, we perceive entrepreneurial opportunities for us in the area of climate protection, and we intend to exploit them. Our conventional power plant portfolio will guarantee security for the electricity supply with advanced and flexible power plants that compensate for the fluctuating feed-in of renewable energy. In addition, we are also reviewing a lot of other options for guaranteeing security of supply when the proportion of renewable energy is growing, e.g. storage or various Power-to-X technologies. Our subsidiary innogy is building on the trends of digitalisation, decentralisation and decarbonisation and is therefore playing a role in shaping the future energy world. In the course of business activities in the divisions Renewable Energy and Grid & Infrastructure, innogy develops and sells climate-friendly products and services. Next to dedicated trading operations, our trading subsidiary RWE Supply & Trading GmbH offers appropriate services for major industrial customers. In addition to pure energy supplies, the company

also makes specialist commercial service offerings, such as optimisation and enhanced flexibility for portfolios and plants. Apart from the services outlined above, RWE Supply & Trading GmbH also markets the electricity produced at these power plants. RWE Generation SE together with RWE Technology International GmbH develops highly efficient power plants for combined heat and power at international locations and operates them to provide energy supplies for customers. In other projects, RWE Technology International GmbH is upgrading the existing power plants Amer and Eemshaven (both in the Netherlands) to co-combustion of biomass and development of grid stabilisation plants on behalf of RWE Generation SE.

#### Impacts associated with risk or opportunity

We support ambitious political goals for climate protection, for expanding renewable energy and for improvement of energy efficiency at European level and at the level of the member states, see ▶ GRI 305, page 59. At the same time, we are addressing the enormous challenges that these objectives present for us in terms of competitiveness, innovative power and financial strength.



<sup>2</sup> Dividend proposal of RWE AG for the business year 2018 subject to the adoption of the resolution by the Annual General Meeting to be held on 3 May 2019.

In mid-2017, the recommendations made by the Financial Stability Board of the Task Force on Climate-related Financial Disclosures (TCFD) deployed by the G20 published recommendations for the type and scope of future reporting on climate risks, particularly those resulting from the emission of greenhouse gases. These recommendations are partly already reflected in reporting standards and ratings we participate in. In future, the issue will relate to cross-sector implementation of the recommendation in reports. RWE has also been engaging with the TCFD recommendations and carried out a gap analysis of the reporting processes currently in existence in 2018. We will continue implementation of the potential for improvement identified in 2019.

# Financial implications of the risk or opportunity before action is taken

We have already carried out a large range of measures to make our processes even more efficient, our organisation even more effective and our corporate culture more performance-oriented and flexible, see FGRI 201, page 32. Financial risks associated, for example, with general climate protection policy and emissions trading in particular are reflected in our risk management. We reduce these risks in the case of emissions trading by concluding appropriate hedging transactions. When a specified amount of electricity is sold on the futures market, the risk is hedged among other things by purchasing appropriate amounts of combustion fuels and the necessary emissions certificates.

The Executive Board engages with the financial risks and opportunities associated with climate change in the control processes. This also includes the review of other risk mitigation options, for example through portfolio adjustments. However, the quantified results are not disclosed for competitive reasons.

#### GRI 201-4 Financial assistance received from government

RWE does not receive any financial grants or subsidies from the government for its operating business. Furthermore, we finance all capital expenditure from our own resources. On the other hand, we receive financial assistance from government agencies for projects in research and development (R&D) activities. The EU Transparency Register is one of the sources providing information on R&D projects with EU subsidies.

We also receive agricultural subsidies from the EU for the use of agricultural operational areas. These subsidies are for interim agricultural use in the course of reinstating former opencast mining sites and they last for a limited period of time. In 2018, these amounted to around € 330,000.

The state does not hold any shares in RWE.

**Material Topics** 

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

As an economic player, RWE exerts a significant influence on the economy and society. We want to be a highly credible partner for the energy transition and our aim is to enhance trust in our company both within our regional and local environment, and in society as a whole. RWE makes an important contribution to the regional economy through the secure and cost-effective supply of electricity and gas at all times. The provision of jobs and allocation of orders to local companies constitute additional important contributions. We promote social developments through initiatives in social, environmental and cultural spheres, with support for volunteering engagement by RWE employees and through financial assistance.

The energy transition is associated with shifts in energy generation that will lead to the shutdown of plants. We are participating in shaping the structural change so that the transformation can be organised in such a way as to be maximally smooth-running for the affected regions, our employees and for us.

#### Organisation, management and performance measurement

#### Allocation of resources in compliance with rules

We want to use the resources available to us effectively and in conformity with our compliance objectives. We have defined rules for the allocation of resources in our Guideline on Donations and Sponsorship which applies throughout the Group. Promotional gifts and resources that are relevant according to our guidelines are documented in each case in a register. These include gifts and resources provided to holders of public office, donations and sponsorship measures, and consultancy and intermediary contracts for the RWE Group without innogy SE and for innogy SE. For information on donations and sponsorship see ▶ GRI 201-1, page 34.



#### Promotion of volunteering engagement by our employees

See ► GRI 203-2, page 37.

#### Promotion of education on energy and engineering issues

"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 in this context. "3MalE - Education with Energy" bundles the education packages of all RWE and innogy companies in Germany. The initiative is intended to help young people research, discover and experience energy. For figures on 3MalE see ►GRI 413-1, page 81.



RWE wants to use the new energy blog at ▶www.en-former. com to provide interested stakeholders with as much information as possible on current issues in the energy industry.

#### innogy Foundation for Energy and Community playing a role as a corporate citizen

Since 1 September 2016, the RWE Foundation has been operating in a new form as the innogy Foundation for Energy and Community (innogy Stiftung für Energie und Gesellschaft gGmbH). The innogy Foundation supports projects, collaborations and campaigns that focus on the energy transition in the context of region, digitalisation and education. The foundation regularly provides information transparently in its annual reports about projects, successes and finance.

#### Partnership with non-profit AfB for inclusive employment

RWE has been actively supporting a partnership with AfB gGmbH for several years. AfB is a non-profit company that creates jobs for people with disabilities by reconditioning used computers. AfB collects the devices from all RWE locations and takes them to the nearest AfB branch. The devices are processed there and then sold to individuals, businesses and public agencies. On-site sales at RWE locations allow used devices to be sold for private use to our employees. AfB creates skilled jobs for people with disabilities and conserves natural resources through the recovery and reuse of used IT equipment.

#### Supporting structural change in areas with opencast mining

A contribution to a broad spectrum of jobs and training places in other companies can be made in areas around former opencast-mining sites by the development of building land and industrial zones. Research institutions and leisure amenities can also be expanded. These developments will contribute to safeguarding the future in the region over the long term. Our objective is to remain a dependable partner for local people and communities, even after opencast mining leaves an urban area after its planned development. We are therefore collaborating with the region to shape the structural change by supporting initiatives which drive forward

economic and structural development in the regions. These include the Future Agency Rhineland Mining Region (formerly Innovation-Region Rhenish Mining Area (IRR)) and joint ventures between local authorities, such as the Indeland Development Company, the Special Purpose Association Zweckverband Tagebaufolge(n)landschaft Garzweiler and the Terra Nova Special-purpose Association. Our contribution ranges from providing specialist and financial assistance, through cooperation on master plans and individual projects, to research into sectors of the future.

For example, RWE is involved in projects to safeguard the Weisweiler energy and industrial site and its immediate surroundings. These measures include expansion of the "IGP Eschweiler" industrial zone and the development of the "Grachtweg" joint local-authority industrial zone. In 2018, we developed businesses from the sectors food production, logistics, information technology and medicine/ cosmetics in these two areas alone. They are currently planning to create several hundred new jobs there. The intention is to continue along this trajectory during subsequent years. For this purpose, we participate in the master planning spearheaded by the Future Agency Rhineland Mining Region (Zukunftsagentur Rheinisches Revier) of the neighbouring local authorities for downstream industrial use of the land used for the Weisweiler lignite-fired power plant after the Inden opencast mine is no longer viable.

Together with municipalities and administrative districts, RWE has already made available a total of several million square metres of industrial land in the Rhineland Mining Area over recent years. Following subsequent capital expenditure, new jobs have been created here. In 2018, RWE reached several agreements with a number of the towns in the mining district. Examples include the agreement with the communities of Grevenbroich and Jüchen and Duisburger Hafen AG to develop a joint local authority industrial zone on recultivated land from Garzweiler opencast mine with an area of initially approximately 42 hectares (ha) in connection with the development of a container terminal to promote integrated freight transport – combination of goods traffic on road and rail – on an area of approximately 8 ha.

An important part of structural change in the region is resource-efficient construction. RWE is playing a proactive role in shaping this. In 2018, RWE joined together with Indeland Development Company to drive forward the Factor X Project. A number of pioneering projects for resource-efficient buildings are currently being realised in Inden with the construction zones "Seeviertel" (Lake Quarter) in Inden and the "Neue Höfen Dürwiß" in the local-authority area of Eschweiler. The "Am Lützeler Hof" development zone in Inden was an additional project in 2018. This development will soon be continued in Bedburg with a resource-conservation settlement in which Factor X houses in greater density will also be prefabricated.

#### GRI 203-1 Infrastructure investments and services supported



As an operator of energy infrastructures, we help to ameliorate fuel poverty in the countries where we are operating. We carry out appropriate activities in the regions where

innogy has operations with residential customers. Details for the United Kingdom can be found under ► GRI 203-1 in the innogy Sustainability Report, page 42.



#### GRI 203-2 Significant indirect economic impact

We promote volunteering by our employees and implement our social responsibility under the umbrella of the Group-wide Corporate Volunteering Programme known as Companius (including RWE "Aktiv-vor-Ort" – Active on Site). Targeted formats help us allocate employees to a volunteering role appropriate for them. In 2018, more than 1,500 employees throughout the Group dedicated their time to providing assistance on more than 780 Companius projects (including

RWE "Aktiv vor Ort" – Active on Site projects). The amount contributed to these projects totalled some € 1.2 million during the period under review.

For information on promoting education and on Companius projects in the area of providing aid for refugees see ►GRI 413-1, page 81.



## GRI 204 PROCUREMENT PRACTICES (IN ACCORDANCE WITH GRI STANDARDS 2016)

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## Challenges <a>V</a>

By complying with local framework conditions, national and transnational regulations, and international standards, we align our supply chain towards processing business transactions in a fit and proper, ethical and safe approach.

We source a substantial proportion of goods, plant components and services from business partners who – like us – are based in the European Union. These businesses therefore operate within the robust legal framework that is in place in the EU. We have implemented management systems and control systems in order to ensure compliance with legislation and safeguarding of standards on environmental, employee and social concerns, human rights and the prevention of corruption. However, we cannot ultimately guarantee that all potentially negative impacts can be completely excluded in the upstream value chain.

A key factor relates to compliance with our regulations on occupation health and safety especially when we commission third parties to carry out aspects of the maintenance work on our plants or to handle hazardous substances.

Care also needs to be exercised when procuring fuels and derivatives in trading markets. When transactions are carried out on trading markets, issues such as money laundering or financing terrorism need to be excluded. The conditions for extraction of the hard coal imported for our power plants are a top priority alongside their impacts on the local population. The sustainability of the biomass we use is also a concern.

National and international standards are becoming increasingly concrete in relation to the expectations for sustainable supply chain management. The risk of human rights violations in globalised supply chains tends to be low for companies which essentially have their business operations in countries with a reliable statutory and regulatory framework. National action plans are in place internationally for business and human rights or such plans are being prepared. Their aim is to implement the UN Guiding Principles on Business and Human Rights supported by the United Nations. In December 2016, an appropriate action plan was adopted in Germany by the Federal Cabinet and it is currently being implemented. The Modern Slavery Act in the United Kingdom requires us

to do everything possible to prevent modern slavery occurring. We are committed to upholding human rights throughout RWE.

Together with our products, we are part of additional complex supply chains. Our customers also demand corresponding standards in their supplier relationships and pass them on to us. This process gradually develops sustainable supply chains which are supported by sector-specific or sector-overarching assessments by external institutions. Successful participation in assessments like this has meanwhile become a prerequisite for obtaining orders in an array of different sectors.

We have implemented management and controlling systems to meet these challenges. They ensure maximum compliance with statutory legislation and safeguard the standards that we expect from our suppliers. Nevertheless, the challenges we have described mean we are ultimately unable to fully guarantee that all the potential negative impacts are completely excluded by our efforts. We are therefore continuously working on improvements and cooperating with other companies and organisations in order to address the challenges.

## Organisation and management <a></a>

Procurement processes include fuels, services and goods. In order to provide a better overview, the workflow is presented in terms of services/goods, which are procured by the central purchasing department, and combustion fuels, which are procured on the wholesale market.

## Code of Conduct as a constituent element of all contractual relationships of the central Purchasing **Department**

The production of goods and the provision of services in our supply chains should take place under comparable conditions to those prevailing in our own company. We expect partners in a business relationship with RWE to accept the principles of our Code of Conduct as a basis for cooperation. This is implemented by incorporating the principles for behaviour included in the RWE Code of Conduct into the contractual relationships. Our principles for behaviour address issues including human rights, labour standards, the environment, anti-corruption, and money laundering.

The procurement conditions are managed centrally by Group Procurement. innogy has its own Procurement Department which operates in accordance with comparable standards (for further information see > GRI 414 innogy Sustainability Report 2018, page 102). Group Procurement is assigned organisationally to RWE Power AG and reports to its Chief Financial Officer. The platform for procurement activities is provided by our Group Procurement Guideline. This defines uniform principles applicable throughout the Group for carrying out procurement.

The compliance rules and principles must be complied with for all procurement transactions alongside the RWE Code of Conduct. The supplier or service provider is obliged to adhere to these regulations. We review business relationships with business partners if it becomes known in the public domain that they have breached the principles of the UN Global Compact. We then take appropriate measures that we consider necessary and put them into action. For example, when deploying employees from subcontractors it is important to observe the aspects of labour law pertaining in the individual country of deployment. A risk assessment for specific product groups is used as a basis for the regulations to be observed by suppliers and they are explicitly agreed in separate contractual clauses.

Supplier management is a key building block within the strategic procurement process for Group-wide procurement. One of the objectives of supplier management is to safeguard and improve the supplier service and to identify and manage supplier risks. If there are any problems in relation to the business relationship, we involve our suppliers and work together with them to generate improvements. For example, we have implemented an escalation process for incidents in the area of occupational safety in order to develop suppliers. Suppliers can also be quarantined if there is a repeat and depending on the severity of the incidents.

#### Review of trading partners on the wholesale markets

Key elements of our value chain are the procurement of hard coal, gas, LNG and biomass, as well as trading in combustion fuels. Raw materials are traded as standardised products with defined quality attributes on international wholesale markets. These markets are the most important source of procurement. Raw materials traded in these markets often change ownership several times after they have been first offered for sale by the producers. Generally, it is only possible for us to identify the immediate upstream owner, while

the precise geographical origin of the raw material is not known when a transaction is concluded. There are therefore only direct supplier relationships to a limited extent between RWE and the producers. This means we are only able to exert indirect influence on the production conditions.

Before we enter into any business relationships in the wholesale market, we review all potential trading partners. The review takes place in a standardised and multistage process that takes account of the RWE Code of Conduct. We use international databases and information systems in order to see whether there is any potential misconduct. All our trading partners are checked in this way. Since 2014, we have also had access to the information garnered in the Bettercoal Initiative for the procurement of hard coal.

#### Promotion of standards in the hard-coal supply chain

In order to support sector-wide development of standards, RWE already joined forces with other large purchasers of hard coal to launch the Bettercoal Initiative in 2012. The objective of Bettercoal is continuous improvement of the conditions under which hard coal is produced and transported. To this end, Bettercoal developed a globally recognised standard for production of hard coal and uses it as a basis for audits. The high aspirations of Bettercoal do not simply relate not only to environmental standards but also to social standards. They are also expressed in the principles established in the Bettercoal Code. The aim of Bettercoal is to bring about significant improvements and create standards in all the important production countries through cooperation with local producers.

#### Standards in the procurement of certified biomass

Alongside fossil energy sources, RWE will again be refocusing on biomass as a combustion fuel in future. One such fuel relates to wood pellets for use in dedicated biomass power plants. RWE also uses biomass for co-firing plants as a substitute fuel for hard coal. Environmental and socially ethical extraction and production methods also have to be guaranteed in this area in order to establish biomass as a sustainable alternative to fossil fuels. Appropriate rules and regulations are enshrined in the relevant national legislation and these must be complied with. In the Netherlands, these requirements have been defined in law since January 2018. As a complement to this, RWE has further agreed additional requirements with environmental organisations. Uniform rules and regulations may follow throughout the EU in future.

The Sustainable Biomass Program (SBP) as an industrial standard promotes compliance with sustainability criteria along the entire supply chain for the wood pellets imported by us. Since its establishment, RWE has been involved in SBP initiative. All the biomass supplied by our trading company RWE Supply & Trading has SBP certificates or comparable certificates such as GGL, FSC or PEFC. They prove that the pellets meet national sustainability standards in Europe. We are also Chain-of-Custody certified and pass on certificates that are provided by the Forest Stewardship Council (FSC) and by the Programme for the Endorsement of Forest Certification (PEFC).

#### Procurement of uranium

Analogous to the additional procurement procedures, RWE also makes the same demands on business partners for responsible business practices equivalent to its own standards when procuring uranium. These requirements have been defined in the RWE Code of Conduct. Part of this code relates to the principles of conduct which address a number of issues including the topics of human rights, labour standards, the environment, anti-corruption and money laundering. Respect for these principles of conduct is - in common with the principles of the UN Global Compact – a constituent element of each new contract which RWE concludes with suppliers.

RWE has purchased uranium within the framework of longterm supply contracts with established international supply and trading companies for uranium. These companies produce the material in different regions of the world or source it as intermediate traders. Since the operation of our nuclear power plants is time-limited, uranium was last procured several years ago and no further procurement looks likely to be necessary.

## Measures and performance measurement Code of Conduct as a constituent element of all contractual relations

More than 7,000 suppliers are registered in our supplier portfolio for procurement in the framework of business and plant operation. Some 280 of these suppliers are strategically relevant. We use an initial appraisal of potential suppliers based on a self-assessment to gather information on matters including environmental protection, occupational safety and compliance. We are in regular and close communication with strategically relevant suppliers.

Our Code of Conduct and hence the principles of the UN Global Compact are explicit constituent elements of individual contracts in direct business relationships.

All the business partners accredited for our trade were reviewed for compliance with our Code of Conduct before engaging in business relationships. In line with the Code, the individual trading processes are based on standard contracts usual in the market.

During the year under review, Group Procurement not including innogy purchased goods, services and plant components with a volume of around € 1.7 billion (2017: € 1,9 billion). In 2018, the procurement volume for fuels was some € 4.2 billion (2017: € 6.8 billion; in contrast to 2017, the procurement volume for the fuels in 2018 does not, however, include the fuels of the discontinued innogy operation). We regularly monitor the proportion of the purchase volume in which the requirements of our Code of Conduct are a constituent element of the contractual relationship. During the year under review, the corresponding level of coverage of RWE Group Purchasing without innogy met its target of 100%.

### Promotion of standards in the hard-coal supply chain

Bettercoal uses a central database to provide its member companies with information about coal producers who are committed to Bettercoal. This database includes information from key potential supplier countries for Europe. A self-assessment by the coal producers is complemented by regular Bettercoal audits carried out on-site by independent experts. In 2018, RWE was also involved in the audits as an observer and thus played a role in monitoring the quality of the audits.

This enables Bettercoal to guarantee a binding continuous improvement process, which defines the potentials for improvement identified in the audits. Implementation is tracked by assessors. The names of the producers which stated their readiness to participate in the Bettercoal improvement process are published on the Bettercoal website.

Bettercoal pursues a country-based approach. Focus countries are currently Colombia, South Africa and Russia. In 2018, additional working groups were set up for Colombia and Russia. One of the aims is to support preparations for the audits and the implementation of potentials for improvement identified at the producers. Bettercoal pursues the goal in the individual supply countries of including the majority of producers in the improvement process.

Hard coal by supply countries		
Proportion in %	2018	2017
Germany	23.1	16.2
United Kingdom	1.0	5.5
Colombia	2.2	8.6
Poland	0.0	0.4
Russia	42.4	44.2
South Africa	6.1	7.5
USA	23.5	13.8
Other	1.7	3.8

#### **Procurement of certified biomass**

RWE has collaborated with other energy utilities, pellet suppliers and certification organisations in working out a practical test of the Dutch Sustainability Protocol for Biomass initiated by the Dutch Government.

On 31 December 2017, the Ministry of Economics and Climate published the final test protocol for sustainable solid biomass. This protocol can be used in order to demonstrate sustainability in the context of SDE + support.

In 2018, all the biomass traded by our trading house RWE Supply & Trading GmbH was provided with Sustainable Biomass Programme certificates or comparable certificates such as GGL, FSC or PEFC. Up to now, the United Kingdom and Denmark have recognised the standard of the SBP certification system as conforming with national sustainability criteria.

#### **Declarations on the UK Modern Slavery Act**

Our Group companies RWE Supply & Trading GmbH and RWE Generation SE also operate in the United Kingdom. They therefore regularly publish a Declaration of Compliance relating to the UK Modern Slavery Act on their national Internet pages.

## GRI 204-1 Proportion of spending on local suppliers

In order to promote competition, all capital expenditure projects and procurement procedures are offered in tender documents with appropriately neutral formulations and placed internationally in the market. If local suppliers are competitive due to their local proximity or for other reasons

they are commissioned. In 2018, the proportion of local suppliers in the order volume was approximately 27%. The cost-benefit analysis undergone by our suppliers focuses particularly on criteria of sustainability and occupational safety, and energy efficiency and environmental standards.

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance GRI Standards 2016)

## Challenges <a>V</a>

Compliance with the law and legislation is a duty and is part of the corporate culture at RWE. Any breaches of the law mean that the company can suffer major and severe reputational damage as well as causing serious disadvantages for communities, countries and companies. The topic of anticorruption is a top priority for us in this context. This is because apart from the risk of reputational impairments for the company, corruption can restrict economic growth, reduce equal opportunities and contribute to an increase in poverty. RWE therefore bases all its activities and business decisions on established internal rules for compliance. The company does not tolerate any corruption or other breaches of the regulations. Compliance requirements are also factored in when making decisions about entering into business relationships with suppliers or business partners and in the allocation of donations and sponsorship.

The energy industry is a sector defined by regulatory decisions, continuous change and projects with high order volumes. This also impacts to a greater or lesser extent on the value chain of RWE. The risks of corruption described above can therefore not be excluded in our supply chain. RWE AG has implemented comprehensive systems for avoidance of corruption within the framework of Compliance Management in order to ensure the best possible compliance with statutory legislation. At this point, we will describe the organisation and measures of the RWE Compliance Management System without innogy. innogy has its own comparable in-house system and reports on this system in the innogy Sustainability Report.

#### Organisation and management

Prevention of corruption is a particularly important topic for the Compliance Management System. We want to avoid corruption completely in all our processes and we are committed to raising the awareness of our employees and managers throughout the company.

Management of the Compliance Management System to prevent corruption at RWE AG, RWE Generation SE, RWE Power AG, RWE Nuclear GmbH and RWE Supply & Trading GmbH is carried out by the Chief Compliance Officer of RWE AG. Compliance officers inside Germany and in other countries ensure uniform implementation of compliance principles for prevention of corruption at these companies. innogy SE also has a Compliance Management System and has its own Chief Compliance Officer.

The RWE Code of Conduct forms the platform for our interpretation of compliance. The Code prohibits any form of corruption and is binding on all our employees. The Code of Conduct is given concrete form by other Group guidelines. Organisational regulations such as the double-checking (four eyes) principle, separation of functions, authorisation concept and licensing regulations provide support for compliance with the guidelines. The appropriateness of the underlying internal controlling system is regularly reviewed by the Internal Audit Department.

The Chief Compliance Officer of RWE AG regularly reports to the Executive Board and the Audit Committee of RWE AG on issues relevant to compliance.

#### Measures and performance measurement ✓

The CEO writes personally to each manager with a request

to report on the implementation of the Code of Conduct in their area of responsibility. This management survey is carried out once a year in order to create transparency in relation to compliance with the Code of Conduct and provide an overview of compliance awareness at RWE. Communication measures during the course of the year such as training sessions, publications on the Intranet and notices support compliance awareness among employees.

At RWE and innogy, we regard adherence to the compliance requirements as very important. Various indicators are used for carrying out measurements at RWE and innogy. The feedback rate for the management survey at RWE (without innogy) provides an indicator for compliance awareness. We strive to generate a feedback rate of 100% and this was achieved in 2018 and 2017.

The identification and assessment of compliance risks took place in a two-stage process. This process was launched in 2012 with the central determination of the risk profiles for the Group companies. A second step focused on working out detailed corruption risk scenarios. These were discussed and developed within the framework of risk workshops in the individual Group companies. The compliance officers carried out this detailed analysis across the Group and in 2016 the results generated from the Group perspective were aggregated centrally before the spin-off of innogy was completed.

In 2018, an update and expansion were implemented for the risk scenarios in the sphere of corruption and the areas of foreign trade/export control and money laundering. Risk assessments were carried out for the RWE companies on the basis of these updated and expanded risk scenarios.

We do not explicitly report on the established risks, since these values are subject to specific confidentiality constraints. They are confidential as it is business-relevant information.

## GRI 205-2 Communication and training about anti-corruption policies and procedures



Internal media within the Group inform our employees about behaviour that conforms with compliance guidelines and also highlight potential risks if compliance is breached. Our employees also receive compliance training each year on a web-based training programme with a changing focus topic. Participation in this programme is obligatory for all employees. Employees without any PC access receive instruction from their supervisors. In addition, the employees also take part in attendance training sessions that are organised by

the Compliance Department. These are calibrated according to the risk of corruption associated with the relevant activity. The Executive Board is also integrated in this training concept. The rollout of the new training concept for the RWE companies was commenced in 2018.

We do not explicitly report any quantitative data since these values are subject to specific confidentiality constraints. They are confidential as it is business-relevant information.

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## Challenges <a> </a>

Secure supply with electricity at all times is one of the most important enablers for the smooth-running operation of our economy. Power plants make a key contribution to this. Conventional power plants are indispensable even with further expansion of renewable energy. This is because the main growth of renewable energy will take place through wind and photovoltaics, but these energy sources are not always available. Conventional power plants are necessary to provide compensation when renewable feed-ins fluctuate due to weather conditions or time of day. The expansion and integration of renewable energy and decentralised generating units into the overall system is placing increasing demands on the performance of conventional power plants and the distribution grids. The long-term development of the requirement for conventional generation and secure power-plant output depends on a number of factors including demand-response development, expansion of renewable energy, and expansion of grids, storage facilities and load management.

Our power plants supply electricity and heat to meet the demand of consumers. At the same time, they help to compensate for the fluctuations of renewables and provide the physical equilibrium at all times between feed-in and consumption necessary for a stable electricity supply.

#### Organisation and management <

RWE strives to provide high availability for its power plants particularly at times when their output is urgently required. The availability is controlled by the responsible divisions. The executive boards of RWE Generation SE, RWE Power AG and RWE AG are regularly informed about the availabilities, and planned and unplanned shutdowns.

Our aim is to contribute to ensuring that the volatile feed-in from solar and wind power plants can be smoothly integrated in the energy system. Consequently, we have one of the most flexible and most powerful power plant portfolios in Europe. If – despite all our efforts – a blackout should occur in the electricity grid or in parts of this grid, we also have power generating capacities that are in a position to support reinstatement of the grid systems without the need for any external supply of electricity. These primarily include pumped-storage power plants. Furthermore, a trial has demonstrated that lignite-fired power plants from the secured island operation supplied from opencast mines have once again been able to supply power to the electricity grid.

Reserves are available if capacity bottlenecks occur in Germany. One of them is the legally-mandated security standby in Germany to which RWE will contribute a total of five lignite-fired units with an output of around 1,500 MW.

RWE offers all types of balance outputs from its power plant portfolio in order to equalise any instability within an equilibrium and this contributes to a stable electricity supply.

Alongside stable feed-in of an adequate amount of generating capacity, a powerful electricity grid is necessary to guarantee security of supply. The integration of renewable energy requires expansion of the transmission grid in a north-south direction, as well as newly dimensioned distribution grids and more dynamic load control in order to integrate decentralised renewable generating units. The aim of our subsidiary innogy is to continue keeping grid outage times at a low level in spite of increased technical requirements. The average number of minutes per year and customer for which grid outages occur (SAIDI Index) serves as a key performance indicator in the area of security of supply, see ▶ Availability and Reliability in the innogy Sustainability Report, page 45.



#### Measures and performance measurement ✓

In 2018, RWE was once again able to rely on a broadly-based generation portfolio. This provided a robust mainstay in the German electricity system for covering electricity demand and provision of secure generating capacity. Our thermal power plants made an important contribution to compensating for the fluctuating feed-in from wind and photovoltaic systems (PV) by provision of the necessary system services.

The entire capacity of Rhenish lignite-fired power plants can be reduced to less than half its output (by around 5,000 MW) or, by the same token, fired up to full capacity within the space of half an hour. This means that our lignite-fired power plants are now comparable with combined-cycle gas turbine (CCGT) power plants operated with natural gas. In special situations, the capacity of the lignite-fired power plants in the Rhineland Mining Area can be reduced to 20% of the nominal output. It is therefore obvious that lignite is able to provide the necessary capacity to meet requirements of time and need.

On 1 October 2017, we transferred units P and Q of the lignite-fired power plant Frimmersdorf to legally mandated security standby and on 1 October 2018 the two units E and F of the lignite-fired power plant Niederaußem. This reserve now comprises around 2 GW of power plant output across Germany to which RWE has so far contributed 4 units with around 1.2 GW.

In 2017, RWE had already realised a battery storage project with lithium-ion technology at the Herdecke site, which became operational at the beginning of 2018. The battery storage with three times 2,600 kVA is initially being used for the provision of primary balancing energy. RWE participated in the Quirinus research project sponsored by the EU and the state of North Rhine-Westphalia aimed at integrating renewable energy into the existing distribution grid. The objective is to secure coordinated feed-in of renewable energy into the distribution grid level supported by "Demand Side Management" of large consumers. In 2018, a virtual power plant was installed as part of this research project in the Rhineland Mining Area on a test site near the Inden opencast mine together with partners. It is made up of a traditional cogeneration power plant, a flywheel generator, which converts electrical energy into mechanical energy and vice versa. There is also an active pump gallery of the opencast mine and therefore a consumer that draws a high electricity requirement from the grid. The elements are connected by advanced control technology and they are used to simulate the unstable electricity grid of the future as it is increasingly defined by volatile feed-in.

For information on our capacities and our generation see also the ▶Appendix, page 91 and the RWE Annual Report 2018, page 43. RWE also publishes comprehensive and timely data online about electricity generation in its power plant portfolio at ▶www.rwetransparent.com and at ▶www.eex-transparency.com.





GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## Challenges <a> </a>

The reduction of existing obstacles and the exploitation of additional potential for efficiency and flexibility on the demand side in the energy market is a topic that is the subject of increasingly intensive debate at European and national level. They are becoming the success factor in the energy transition. These flexibilities need to be intelligently networked and controlled. An enabler for this is identifying consumers in the market who are prepared to adjust their consumption behaviour, for example by proactively switching off, throttling back or switching on their production machines. We are able to give our customers technical support for this control. The appropriate demand for electricity is taken out of the market in bottleneck situations or as necessary made available to the electricity market in the form of an additional generation offering. When prices are high on the balancing energy market, it may be worthwhile for our customers to market their flexibilities. We therefore help to optimise the electricity costs and performance requirement of the customer. The market for flexibility is a key subject area for RWE. There is potential for growth here, particularly with industrial customers.

## Organisation, management and performance measurement ✓

#### Marketing of flexibilities

RWE Supply & Trading GmbH has a broad product range which can leverage potential flexibilities with industrial and commercial customers in the context of the energy transition. For example, it offers our industrial customers and distributors price-signal supported load management. This means that a time shift in consumption loads to more favourable market-price phases enables costs for sourcing electricity to be reduced. The model is ideal in particular

for companies using equipment and systems with flexible time and power capability in their production processes where the requirement for electricity can be shifted within a day or a week.

Our Flex2Market Model – another example – is ideal for companies which have production flexibilities or emergency power units such as those that are gaining greater importance in computer centres, and which would like to make optimum use of these opportunities. For this purpose, we control and market these flexibilities on the Intra-Day Market or as standard energy in the secondary and minute reserve market. We are also teaming up with our customers to develop holistic concepts for leveraging flexibility potentials, which provide an optimum commercial link-up with the use of production flexibilities, generating plants and (battery) storage facilities.

RWE Supply & Trading GmbH also offers an electronic trading platform and automatic trading mechanisms. These are intended for industrial customers and distributors who want to procure part of their energy requirement on the exchange with precise requirements for the day or hour. Furthermore, as a service for our customers, our trading subsidiary takes over direct marketing of power generation from renewable energy that is subsidised under the Renewable Energies Act (EEG).

innogy SE also offers its customers energy-efficient products and services. For these see ▶GRI 302 in the innogy Sustainability Report, page 56. Furthermore, innogy also offers service packages for the management of photovoltaic systems and wind turbines. For more information on this see ▶GRI 305-5 in the innogy Sustainability Report, page 71.





GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

RWE is continuously driving forward innovations so that the Group is able to contribute to shaping the energy system of the future. We want to be involved in shaping a more climatefriendly electricity supply in the course of the transformation. Our objective is also to assist in continuing to meet the need for energy reliably, without any outages and at affordable prices. Our ambition can be realised through 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. If there is a lack of innovative capability, there is a risk that it may no longer be possible to secure the profitability of the company to the same extent in the future.

#### Organisation, management and performance measurement

#### Continuous research and development

We are working in different research and development programmes, primarily on technology and plant concepts that are directed towards advanced and sustainable application. Here we draw on the competences of our employees and on the expertise offered by our partners at universities, research institutions and in industry. A top priority in this area is also promoting the ideas of our employees to achieve this ambition. Our research and development projects are engaged in a wide range of research fields and we are continually registering new patents. In 2018, 600 employees worked full-time or part-time on more than 360 R&D projects and filed applications for patents on 134 inventions.

RWE also invests in a Group-wide network of experts who analyse existing fields of technology on a continuous basis, and identify and evaluate new developments.



For details on research and innovation at innogy SE see the ▶innogy Sustainability Report, page 51.

#### Increasing flexibility and efficiency at conventional plants

**Material Topics** 

In order to further increase the flexibility of our power plants, we are running a number of research projects to test new materials and procedures for identification and forecasting of material behaviour under changing loads. This will enable us to facilitate even more frequent and faster load changes, more frequent and faster start-ups and shutdowns, and a lower minimum load than today. In this context, integrated heat storage facilities also appear to be extremely interesting in coal-fired power stations. They offer very promising potential for increasing flexibility and for temporal uncoupling of renewable electricity generation and feed-in. Against this background, we are engaging with electricity storage in high-temperature heat-storage power plants. To this end, we are drawing up a concept study and developing the basic engineering for carrying out a pilot project on the storage of renewable electricity in a high-temperature heat storage facility, which will be integrated in an existing hard coal-fired power station operated by RWE.

Furthermore, we see emission reduction and protection of resources as an ongoing challenge directed towards making our plants even more climate friendly. Examples of this are approaches for efficiency enhancement and advanced development of flue-gas desulphurisation, origination of measures for reducing mercury and nitrogen oxide emissions, and the advancement of techniques for capture and use of CO<sub>2</sub>. At our Innovation Centre in Niederaußem, we piloted for example one of the most efficient CO<sub>2</sub> scrubbers in the world for around 8,500 operating hours in 2018. This system uses a detergent to extract carbon dioxide from the flue gas of the power plant and it can be used to increase food quality. Furthermore, we cooperate with numerous national and international partners in the development of opportunities for using CO<sub>2</sub>. For example, we are setting up a pilot system at the innovation centre in Niederaußem over the next three years within the framework of the EU project ALIGN-CCUS for manufacturing less emission-intensive fuels from CO<sub>2</sub> and hydrogen generated by electrolysis. Other pilot plants are designed to use new technical procedures in the manufacture of basic chemicals for the chemicals industry from the same starting materials in the projects MefCO<sub>2</sub>, OCEAN and LOTER.CO<sub>2</sub>M.

## Facilitating use of lignite as a material

Lignite is Germany's most abundant domestic natural resource by volume and it can be used for the production of energy sources and basic chemicals. Lignite is ideal for so-called material use because it contains carbon and hydrogen. This means it can be used in the production of basic materials for the manufacture of plastics, paints, adhesives, fuels and numerous other chemical products. This technology also paves the way for the material use of waste and biomass, and therefore increasingly forms the entry point into the carbon-based circular economy. Projects are currently being prepared to investigate applications of this nature for multiple

raw materials in gasification systems. In particular, we are committed to the "Initiative Carbon Chains IK2" in this context. The Fraunhofer Gesellschaft is the lead for this initiative which bundles together the activities by all the German lignite mining areas affected by structural change. In cooperation with regional universities and companies, domestic carbon sources and the production of products containing carbon are being investigated and pilot plants are driving forward technological development. The first conceptual operations have already started this year.

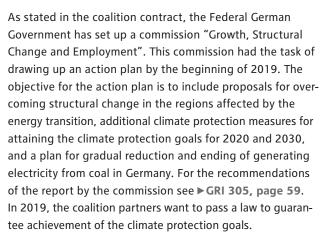
Practical implementation will start from 2019.

# SHUTDOWN AND DECOMMISSIONING OF POWER PLANTS AND REINSTATEMENT OF OPENCAST MINES

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI-Standards 2016)

#### Challenges

By 31 December 2022, the last nuclear power plants will have been shut down in Germany. Instruments have been introduced and measures have been put in place to meet CO₂ targets at national level. These will impact on our thermal, non-nuclear power plant portfolio. The decision on legally-mandated security standby has already been taken in Germany. By October 2019, 2.7 GW of lignite-fired power plants in Germany will be transferred to this reserve. In each case, the final shutdown will take place four years later. For details see ► Availability and Reliability, page 44 and GRI 305, page 59.



An appropriate level of provisions is set aside for the shutdown and decommissioning of the nuclear power stations and for recultivation of opencast mines, as well as for measures in the water industry. The parties in the new Dutch Government have also stated in their coalition contract that generation of electricity from coal should come to an end in the Netherlands by 2030. However, the implementation has not yet been defined. The United Kingdom has also defined an exit from coal-fired power generation by 2025 but the tool has not yet been agreed here either.

## Organisation and management <a> </a>

Power plants can be shut down on the one hand for economic or technical reasons. Preparations for decisions on shutdown are managed by the generation divisions. On the other hand, power plants are shut down as a result of statutory or other regulations. Whatever the reason, the relevant country-specific regulations are taken into account and the process is supported by the responsible supervisory authorities.

Hence, the intended shutdown of a power plant in Germany must be notified to the responsible regulatory authority, the Federal Network Agency and the transmission grid operator responsible for the system with a lead time of at least one year. The system relevance of the notification must be reviewed by the grid operator and approved by the Federal Network Agency. Whether the affected power plant is to be shut down permanently or only temporarily, for example during the summer months, is not relevant.





#### **Nuclear energy**

The remaining lifetime of the German nuclear power plants is defined in the Nuclear Power Act (Atomgesetz, AtG). This means for RWE nuclear power plants that they will be decommissioned gradually by year-end 2022. The individual power plants impacted are Gundremmingen Unit C (as at 31 December 2021) and the Emsland nuclear power plant (as at 31 December 2022).

In 2017, new legislation was introduced in Germany regulating responsibility for disposal of nuclear waste. After payment of a sum amounting to a total of € 24.1 billion by the operators of nuclear power plants into a state-managed disposal fund, the state will take responsibility for the processing and financing of intermediate storage and a final repository to hold radioactive waste. The companies will continue to be responsible for shutdown and decommissioning the power plants and the proper packaging of radioactive waste. RWE is forming provisions to meet these obligations. They are very conservative on an international comparison and take into account a high level of precaution against the risks of cost increases. Additions to the provisions are made while the plants are being operated. The provisions encompass the costs of all stages after operations have finished including shutdown, disposal of the fuel rods and disposal of the radioactive waste from operation through to final decommissioning. Companies are required to provide transparency on costs. The Act on Transparency of Costs relating to Shutdown and Decommissioning of Nuclear Power Plants and Packaging of Radioactive Wastes defines how companies have to report these costs. In this context, a report was presented to the German Federal Parliament (Bundestag) for the first time in 2018 as the "Report by the Federal German Government pursuant to Article 7 of the Act on Transparency of Costs relating to Shutdown and Decommissioning of Nuclear Power Plants and Packaging of Radioactive Wastes (Transparency Act)" on the application of provisions for the business year 2017.

#### Lignite

RWE has developed a concrete timetable in response to the requirements defined for us in relation to reducing  $CO_2$  emissions specifically with regard to lignite. This timetable takes account of a step-wise reduction in emissions in harmony with the energy transition and a long-term and socially acceptable structural change. Even without the impacts anticipated from the recommendations by the Commission for Growth, Structural Change and Employment published at the beginning of 2019, this timetable already envisages a reduction in  $CO_2$  emissions of 15% by 2020, up to 50% by around 2030 and 100% by the middle of the century.

As part of the introduction of legally-mandated security standby in Germany, the transfer of eight lignite-fired units to this reserve was contractually agreed. This relates to the RWE power-plant units Frimmersdorf P and Q (transferred on 1 October 2017), Niederaußem E and F (transferred on 1 October 2018) and Neurath C (will be transferred on 1 October 2019). After each power plant has spent four years in the reserve, these units will be finally shut down. The power plants on security standby are no longer permitted to operate actively in the market. However, they are reserved for the scenario that electricity production including all regular security measures (such as redispatch, control energy, interruptible loads, grid reserve and capacity reserve) would be unable to meet the demand.

The provisions in lignite mining to enable reinstatement of use for the land occupied for production are a rolling system in key areas. Recultivation projects and measures relating to water management are largely already carried out while operations continue so that provisions are constantly being used for this purpose. At the same time, new provisions are formed each year to take account of the ongoing decommissioning. The tasks being adopted from lignite extraction cover a timeframe that extends in part significantly beyond the discontinuation of lignite mining itself. However, they are without question finite.

## Measures and performance measurement ✓ Nuclear energy

The shutdown and decommissioning operations at the Biblis site were continued in 2018. Some changes were made including adjustments to residual operation, the removal of some systems no longer required, various decommissioning measures and the installation of infrastructure primarily for processing materials resulting from decommissioning. In an estimated 16 years, it will have proceeded such that the remaining sections of the buildings will no longer come under the scope of the regulatory regime of the Atomic Energy Act. In 2018, the temporary storage facility was completed at the Biblis site for storage of low and intermediate radioactive waste until final storage in a federal repository. The facility will then be operated by the German state's own intermediate storage company BGZ Gesellschaft für Zwischenlagerung mbH from 2020.

In 2018, applications pursuant to Article 7 Section 3 of the Atomic Energy Act were made for decommissioning of the plant components for Units A and B excluded from the first licence to the responsible licensing authority, Hessen Ministry for Environment, Climate Protection, Agriculture and Consumer Protection (HMUKLV). When the anticipated licence is granted in 2019, all the licences necessary pursuant to Article 7 Section 3 of the Atomic Energy Act will be available for decommissioning of the Biblis nuclear power plant.

The Gundremmingen B Unit was shut down on 31 December 2017 and the application for the first decommissioning licence has already been submitted. We anticipate that this licence will be granted in the first quarter of 2019. In the meantime, the preparatory measures for decommissioning were carried out here.

The decommissioning work at the Mülheim Kärlich nuclear power station continued in 2018. The control centre building was demolished and a start was made on the cooling tower. Dismantling the large components is particularly important in the timetable for decommissioning nuclear power plants. Orders were therefore awarded for dismantling the steam generators and steam converters to specialist industrial companies for the sites at Mülheim-Kärlich, Lingen (KWL) and Biblis, and work started in 2018. The work for decommissioning the reactor pressure vessel and installations at the above sites has currently been put out to tender.

We continued to keep stakeholders informed about the individual steps in the ongoing process at all the sites throughout 2018. Furthermore, information about the repatriation of the reprocessing waste from England to the fuel-cell intermediate storage facility in Biblis was provided in 2018 and preparations were made for the transfer of the site storage facilities to the German government's own storage company Gesell-schaft für Zwischenlagerung mbH (BGZ) on 1 January 2019.

The reallocation of responsibility for disposal of nuclear facilities adopted by the Federal Government involved the transfer of responsibilities for intermediate storage and a final repository for radioactive waste to the state, utilisation of provisions held by the nuclear energy companies and setting up a new fund to finance the disposal of nuclear material. The fund was established with a total of € 24.1 billion. On 3 July 2017, RWE paid in its share of € 6.8 billion. This was made up of a baseline amount including interest and a risk supplement amounting to some 35.5%.

### Lignite

On 1 October 2017, the first four out of five units were transferred to legally-mandated security standby with Frimmersdorf P and Q and on 1 October 2018 with Niederaußem E and F. This means that the two units no longer participate in the electricity market and are only available if called up by the grid operator to meet demand in bottleneck situations. The last two units at the Frimmersdorf site will then finally be shut down on 30 September 2021 after the four-year standby period as reserve and on 30 September 2022 the units E and F in Niederaußem will finally be shut down. Against this background, a planning consultation has already

been launched for the Frimmersdorf power plant site. This involves the town of Grevenbroich and the Rhine District of Neuss. The consultation is addressing the future opportunities for usage of the areas. Ultimately, it will involve developing sustainable and structurally effective post-utilisation facilities for the power-plant location. RWE has reviewed various development options at the Tilbury site in the United Kingdom. While the decision has already been made not to develop a new gas-fired power plant at the site, the feasibility analyses for open gas turbines and battery options are still being considered.

In 2017, independent experts were already looking at the completeness and appropriateness of the mining-related provisions set aside on 31 December 2016 for lignite activities in the Rhineland lignite mining area. The Arnsberg district council as the responsible supervisory authority made the three expert reports public in September 2017. The mining-related provisions are reported in the ▶RWE Annual Report 2018, page 54.



## **ENVIRONMENTAL TOPICS**

## **GRI 302 ENERGY (IN ACCORDANCE WITH GRI STANDARDS 2016)**

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## Challenges <

Energy is a valuable resource. Inefficient energy consumption leads to unnecessary burdens for the climate, environment and communities throughout the world. It results in avoidable additional costs for the company. Additional to complying with statutory legislation and licensing regulations we implement cost-efficient measures for environmental protection and energy efficiency. They are based on a conscious and responsible approach to the environment and the use of energy in our office buildings, vehicle fleets, opencast mining facilities, power plants and refinement operations. For example, the replacement of non-controllable pumps with energy-efficient controllable new pumps is frequently only cost-effective if they are defective.

This is because higher levels of energy efficiency will make an important contribution to achieving the European climate protection targets. As producers of electricity and heat, we are able to make a particular contribution to this by making our power plants more efficient. This allows us to reduce CO₂ emissions per unit of electricity or heat produced. At the same time, we are reducing the consumption of resources, the fuel costs and the expenses involved in CO₂ certificates. An increase in efficiency is also a key topic for the distribution grid. For details see ▶innogy Sustainability Report, Availability and Reliability, page 45. We supply innovative products and services with a high level of efficiency so that our customers can also adopt a responsible approach to energy. For details of innogy products see the ▶innogy Sustainability Report GRI 302-5, page 56.





The European Energy Efficiency Directive (EED) has been enshrined in national law within our key markets in the EU. This legislation requires all large companies to carry out an energy audit or to introduce and operate an Energy Management System in conformity with ISO 50001 or an Environmental Management System in conformity with EMAS.

# Organisation, management and performance measurement ✓



Our energy management is part of the integrated management system, see ▶ GRI 307, page 68.



For information on the offerings to our customers see

Energy-efficient products and services, page 46.

## Group-wide coverage with energy-efficient audits or management systems

We implemented the Energy Efficiency Directive throughout the Group by the required deadline in 2016, with energy audits or a certified energy management system and included energy management in control processes. In 2007, RWE Generation SE and RWE Power AG had already established an Environmental Management System in conformity with ISO 14001 with the aim of bringing about a sustainable improvement in energy efficiency and environmental protection, and reducing the use and consumption of energy at the German operational facilities. In 2013, the Energy Management System was integrated in conformity with ISO 50001. The two systems have so far been successfully recertified. This process was last carried out in 2016. The level of coverage by certified Energy Management Systems was 79% for the RWE Group (without innogy) in 2018.

#### Increasing the efficiency of conventional power plants

One of the ways we will achieve a higher level of efficiency in the production of electricity is by modernising our conventional power plant portfolio. Furthermore, we will achieve efficiency increases by shutting down older plants, see

> Shutdown and decommissioning of power plants and reinstatement of mining areas, page 48. In addition, there is the option of further use of potential sourced from combined heat and power in our plants and the use of heat derived from electricity to cover own requirements.



Already since 2008, we have been monitoring the overall efficiency of energy use from our conventional plants. On the consumer side of the plant, this includes the primary energy use for power generation and the purchase of electricity from outside sources for own use by the plants. Conversely, the production side balances this with generated electricity, and steam and heat products for our customers. As a result, continuous monitoring using our advanced operating management systems enables us to implement rapid countermeasures as necessary as well as maximally high utilisation of the primary energy sources used in all operating statuses of the plants. Furthermore, data analysis yields valuable findings for research and development requirements. This continual improvement is being reviewed annually by our external certifier in energy and environmental management audits.

## Average generation efficiency of thermal power plants by fuel and region

At 41.6%, we succeeded in slightly improving the average efficiency of our power plants compared with 2017 (41.5%). Current market conditions can exert a positive and negative influence here on the mode of operation and hence the efficiency of the power plant portfolio. A renewed increase in the use of gas-fired power plants exerted a positive impact

during the year under review, while the lower electricity generation tangible in all generating technologies compared with the previous year also exerted a negative impact.

#### **Energy losses during distribution**

Distribution grids are operated by our subsidiary company innogy SE, see ▶innogy Sustainability Report, Availability and Reliability, page 45.



Energy consumption within the organisation			
	Unit	2018	2017
Primary energy consumption <sup>1</sup>	million GJ	1,177	1,345
Energy consumption of the sites	TWh	8.8	9.4
Energy consumption of the grids	TWh	0.04	7.7

<sup>1</sup> Fossil fuels used, not including biomass. Figure for 2017 was corrected retrospectively for RWE without innogy.

Efficiency of energy use of thermal power plants <sup>1</sup>			
in%	2018	2017	
Germany			
Lignite	37.0	36.9	
Hard coal	38.2	38.3	
Gas	62.5	61.7	
Waste	46.4	46.2	
United Kingdom			
Hard coal	31.8	39.7	
Gas	55.9	55.6	
Netherlands			
Hard coal	45.4	45.4	
Gas	62.5	61.9	

<sup>1</sup> Power plants in Hungary and Turkey are not included.

## **GRI 303 WATER (IN ACCORDANCE WITH GRI STANDARDS 2016)**

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## **Challenges ✓**

Water is essential for life and it is not an unlimited resource. In regions with restricted or endangered water supply, manufacturing companies are exposed to the risk of production failures. Furthermore, their water consumption may pose a risk to the supply situation for the environment and indeed the local population. Nevertheless, wherever water is available in abundance, the impacts of production may impair the condition of water bodies and sources. And this therefore exerts negative impacts on the environment and society. As an industrial operation with a requirement for water at our plants we believe that we have an obligation to take a responsible approach to water. Our operations affect water consumption and the use of water when it is withdrawn from the rivers and surface waters. Naturally, there are also impacts when we discharge wastewater into these waters. It goes without saying that we comply fully with the statutory regulations for these activities.

In areas subject to flooding, heavy rainfall and similar events can put the smooth-running operation of our plants at risk. We therefore take appropriate measures in order to avoid or minimise risks to electricity supply and potential costs.

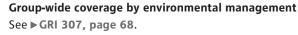
## Organisation, management and performance measurement ✓

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. Keeping our opencast facilities dry by withdrawal of groundwater is an operational necessity and therefore unavoidable. We attempt to make these interventions in a maximally environmentally friendly way.

## Anchoring environmental protection in business processes









Compliance with licensing regulations See ►GRI 307, page 68.

#### Minimising risks associated with water

The Executive Board has appointed specialist coordinators for protection of rivers and surface waters. A record is kept of the interfaces between RWE activities and water that exert or can exert an impact on rivers and surface waters. The type of impact on the water is also determined. We monitor cooling water intensively as a precautionary measure in order to identify significant populations of legionella bacteria at an early stage and as necessary take countermeasures using approved biocides. We record environmental impacts for rivers, surface waters and groundwater on the basis of existing licences, limits and expert reports, and the operating results of the previous year. The relevance of the results is evaluated by the internal specialist departments and a group of experts taken from government agencies, associations and external specialists. Their evaluation is then presented transparently by analysis of the environmental impacts in relation to the potential level of damage and frequency or probability of occurrence. We assess measures already introduced for minimising risks and accident avoidance on this basis. If this action is not adequate, other measures are developed and introduced.

For example, the Ministry of Environment, Agriculture, Nature and Consumer Protection of the state of North Rhine-West-phalia manages the monitoring of compliance with targets defined in the lignite plan for Garzweiler in a monitoring working group. The targets relate to water management and the environment, and assessing the impacts of the Garzweiler opencast lignite mine. This includes conserving groundwater resources, safeguarding the water supply, and preserving the wetlands and surface waters.

#### Protection of rivers and surface waters

We want to contribute to preserving water as a habitat and to maintaining the biotopes dependent on it. Our objective is to avoid negative consequences arising from our interventions in surface waters and ecosystems or – where this is not viable – to minimise such impacts as far as possible. We mitigate unavoidable negative consequences to the maximum extent feasible. We also provide the best possible protection against adverse impacts for aquatic habitats and other ecosystems linked with such habitats. This objective is assisted by discharging water into the groundwater and into rivers and surface waters in a structured process while complying with the statutory limits defined by the authorities during

discharge. Furthermore, we avoid environmental impacts owing to the use of methods such as recirculation in the power plants, intensification of usage for pumped water from opencast mines, the use of collected rainwater and the reuse of process water.

#### **Protection against flooding**

All operating plants are protected against flooding in conformity with statutory regulations. Heavy rainfall in opencast mines can be managed without major damage since water retention systems have been designed to cope with corresponding levels of precipitation.

#### GRI 303-1 Water withdrawal by source



Water withdrawal by source			
in million m³	2018	2017³	
Water			
Cooling water consumption net <sup>1</sup>	232.4	259,3	
Water consumption net <sup>2</sup>	235.1	262.4	
Water withdrawal			
Groundwater	518.5	603.5	
Surface water	1,175.1	1,607.4	
Seawater/brackish water	2,943.3	3,190.9	
Drinking water	2.8	3.1	
Other sources <sup>4</sup>	25.7	29.2	
Total water withdrawal	4,665.3	5,434,1	

 $<sup>1\</sup> Figure\ includes\ was tewater\ in\ public\ drains/third-party\ and\ evaporation/losses.$ 

<sup>2</sup> Figure includes net drinking water and cooling-water consumption.

<sup>3</sup> Figures for 2017 for RWE including innogy, from 2018 the figures are given for RWE without innogy.

<sup>4</sup> Including rainwater, wastewater and service water. Figure for 2017 was adjusted retrospectively to match a new definition.

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## Challenges <

The protection of species through the preservation of habitats is one of the biggest global challenges of the present day. The negative impacts entailed by the extinction of species on humans and nature are immense. This rapid and radical loss of species by displacement and destruction of the habitats they require for existence is caused and accelerated not least by industrial companies. Our activities also result in direct and indirect interventions in ecosystems. Wherever feasible, we therefore avoid or minimise these impacts. As far as possible, we take appropriate nature conservation measures to mitigate unavoidable or irreversible negative consequences. This affects our opencast mines, the maintenance of our transmission lines, and the construction and operation of plants for generating renewable energy. Consequently, we promote species through selective measures primarily within the framework of our recultivation activities. Recultivation can therefore frequently achieve positive effects in relation to biodiversity.



For more information on biodiversity in the divisions of Renewable Energies and Grid & Infrastructure see ▶innogy Sustainability Report, page 52.

## Organisation, management and performance measurement <

#### **Protecting biodiversity**

Compliance with regulations governing biodiversity is a prerequisite for meeting the licensing regulations covering our business. The regulations governing biodiversity are defined for our opencast mines in a number of sources including the special operational plans for species protection approved by the mining authorities. We meet these regulations using internal controlling systems and exceed the requirements with more extensive measures. Since 2015, RWE has had a Biodiversity Policy. This guideline establishes the approach of RWE to the protection and promotion of biodiversity as the company carries out its business activities. Biodiversity is also an area covered by environmental management, see ►GRI 307, page 68. Our measures are very diverse within this framework. We protect species diversity strategically if natural habitats are disturbed by our activities. The same approach continues as we reinstate substitution habitats or facilitate the population of existing habitats. The specific protection measures are individually designed to match the requirements for the affected species and types of habitat

and to deal with the types of intervention. A concrete survey of the species is carried out using specialist mapping in advance of each intervention or an evidence-based potential analysis is implemented. Concrete species protection measures are then derived from this data. At the same time, an ecological evaluation of the habitats based on special evaluation methods is carried out before and after the intervention. On the one hand, this work yields a mitigation requirement based on landscape and environmental parameters and on the other hand functionally appropriate measures are developed. We also promote biodiversity in the course of reinstating opencast mines by designing, promoting and maintaining special and diverse habitats. In this connection, a biodiversity strategy was drawn up in 2018 for the areas in the Rhenish Lignite Mining Region. Future measures for promoting diversity of species will be implemented even more selectively for the fields of agriculture, forestry and rivers and lakes on the basis of this strategy in recultivation and for ecological areas outside recultivation. The impact of measures is scientifically investigated and their design is optimised as necessary or their application is expanded if they are successful.

Likewise, we contribute to preserving diversity by installing fish ladders at our run-of-river power plants and use technical measures to protect the aquatic animal world at offshore wind farms. When procuring our biomass, we ensure that it comes from sustainable sources, see ▶ GRI 204, Page 38.



#### **Reinstating habitats**

We compensate the use of land for our opencast mining by recultivating the extraction sites. This approach enables us to return rehabilitated areas of land to agriculture and other uses while also creating space for nature conservation where we can strategically foster biological diversity. The objective of recultivation is to reinstate the development potential of the landscape while taking account of the typical conditions of the surrounding environment and if possible improve them. Development of forest and creating agricultural land are key building blocks for this. However, structuring new habitats for nature conservation and protecting species are also an important component of recultivation. RWE has established a reputation with its approach on recultivation: A diverse landscape made up of forest, extensive lakes, ponds, wetland biotopes, meadows and flower strips, as well as special biotopes exceptionally rich in species came into being at the



former extraction sites in the Rhineland lignite mining areas. They offer new habitats to numerous endangered animal and plant species. For information on the effects of recultivation on local communities see > GRI 413, page 81.

The quality of reinstatement of opencast mines is continually being enhanced. A total area of around 22,700 ha has been recultivated in the Rhineland mining area. Around 8,400 ha of this have been returned to woodlands, forests and green corridors, around 12,500 ha are being used for agricultural purposes, and around 650 ha were reinstated for water management. Recultivation in the Rhineland lignite mining area also encompasses highly diverse and speciesrich habitats. Special biotopes make a particularly important contribution here. They are deliberately established on account of their extreme and rare site conditions and they can be regarded as "hot spots" of species diversity. They include habitats with extremely low-nutrient, dry or moist living conditions. The recultivation research office carries out regular investigations on important issues. Scientific investigations on recultivation included special biotopes and bats in 2016, rivers and lakes, and field birds in 2017, and insects and pioneering species in the River Inde water meadows in 2018. As a result of many years of research into recultivation, around 3,000 animal species and around 1,500 plant species have been identified over the entire recultivation process. Many of these recorded species are very rare and

classified as "endangered" or "under threat from extinction" according to the Red Lists in North Rhine-Westphalia.

Examples for recultivation areas in the Rhineland Mining Area where animal and plant species under threat find a new home are the River Inde water meadows, the Kasterer See lake and the Elsbach Valley. These areas are also popular recreational amenities.

One example of our species protection activities is provided by the region around the Hambach opencast mining area. Comprehensive measures are implemented here on former agricultural land or in managed forest covering an area of around 1,500 ha with the aim of safeguarding the stock of species living in the old-growth forest located in the area about to be developed for opencast mining. The objective of the recultivation after the completion of lignite opencast mining is to preserve areas of forest and to manage them in accordance with a natural approach.

The corollary is recultivation defined primarily by reforestation on the Sophienhöhe hill. This has already been in existence for many decades after opencast mining finished at the Hambach mine by around 1,500 ha of forest, which has been reforested by planting around 10 million trees. Overall, a greater forest area has been recultivated than was present in the land taken over for mining operations.

GRI 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas



Nature conservation areas are designated on the basis of the German Federal Nature Conservation Act (BNatSchG) and they are the responsibility of various authorities. In the administrative district of Cologne, these areas are managed by the district government as a higher nature conservation authority provided that the areas have not already been designated as the responsibility of the regional districts or municipal city authorities. RWE Power AG and RWE Generation SE are owners or leaseholders of parcels of land throughout Germany. The actual number of these parcels of land and designated conservation areas around our locations is undergoing continuous change. For example, conservation areas are currently located alongside the operating area of our Hambach opencast mine. They cover an area

of some 1,620 hectares. These are distributed over approximately 66 ha of nature conservation area, approximately 1,554 ha of landscape protection area and some 0.56 ha of protected landscape elements. The largest contiguous land area is the recultivated Sophienhöhe Forest covering an area of 1,500 ha. This is located on the overburden dump of the Hambach opencast mine.

Continuous surveying for all our parcels of land would take up a disproportionately high input of resources. Furthermore, it is by no means certain that the digital data required from the authorities for such an updating process would be sufficiently up to date to provide an accurate determination.

The operation of nuclear and conventional power plants and plants for generating electricity and for the production of lignite inevitably result in our impacting on natural ecosystems. Harmful substances are released during the generation of electricity and heat at our power plants or the operation of our opencast mines, and they could lead to negative impacts on the environment and biodiversity. We are therefore committed to maintaining the purity of air and water

and to conserving natural ecosystems. We compensate the use of land for our opencast mining activities by recultivating the extraction sites (see ▶ GRI 304, page 56). The expansion of the grid and the building and operation of plants for generating renewable energy also exert impacts on biodiversity. For more information on this see ▶ innogy Sustainability Report GRI 304, page 52.





#### Biodiversity of habitats protected or restored

In 2016, five landscape protection areas located in the Rhine-Erft district were designated under the legislation. They cover the recultivated areas of the former Bergheim, Fortuna and Frimmersdorf opencast mines. These areas were protected in order to preserve, develop and reinstate the efficiency and function of the balance of nature, and to conserve biotopes and habitats for certain species of wild animals and plants. They were placed under protection owing to their diversity, characteristic features and beauty, as well as the special significance of the cultural history of the landscape and its particular significance as a recreational amenity. This conservation success is also due to the quality of our recultivation.

The new conservation zones cover an area of around 3,398 ha. The age of the designated areas of opencast mine means that we are not aware of any listings as conservation zones originating from before the period of opencast mining activities. The renaturalised post-mining landscape of today is in fact structurally more diverse than was the case before its

use as a mining site. Alongside the quality of our recultivation, this diversity also contributed to the designation of conservation areas.

Ecological comparative analyses provide evidence that biocoenoses in recultivation have at least an equivalent diversity of species to those in high-value reference habitats located in other areas of North Rhine-Westphalia. The numbers of species in recultivation are frequently above the numbers before opencast mining took place. This applies in particular to mining districts in overwhelmingly agricultural areas. One reason for this large diversity of species is the very diverse habitats and microstructures that are created in the course of agricultural and forestry recultivation, as well as in the comparatively low level of fertiliser at the new sites. The biodiversity footprint for recultivation shows that designing a new land-scape also provides big opportunities to upgrade the ecological characteristics that extend far beyond the scope of "proper reinstatement of use".

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance GRI Standards 2016)

## **Challenges ✓**

#### **Greenhouse gas emissions**

The electricity and heat generation from the power plant portfolio of RWE is defined by a number of parameters including the use of the fuels lignite, hard coal, gas, uranium and biomass. To some extent, bioenergy has a better greenhouse-gas footprint than fossil-based energy. We intend to achieve complete climate neutrality for these emissions over the long term in order to achieve a sustainable alignment of our business model and as a contribution to limiting the consequences of climate change. Our corresponding corporate decisions in this area are significantly influenced and defined by the regulatory and legislative framework.

In December 2015, virtually all the countries in the world joined together in the Paris Climate Agreement (COP 21) to make a commitment to limiting the global rise in temperature to significantly below 2 degrees celsius compared with the pre-industrial level, and to work towards a limitation of less than 1.5 degrees celsius. The countries made national reduction commitments to achieve this aim. The objective of the European Union is to reduce the emission of greenhouse gases by at least 40% by 2030 compared with the baseline year of 1990. The European Emissions Trading Scheme (EU-ETS) provides a central controlling instrument for this purpose. The system defines an upper limit for emissions for individual sectors of the economy - such as the energy industry and energy-intensive industries - that falls each year. The reform of the ETS came into force as a directive in the first half of 2018. The amount of CO<sub>2</sub> certificates issued is scheduled to fall by 2.2% each year from 2021 to 2030. Other measures are supposed to contribute to reducing the current certificate surpluses in the market. In parallel with ETS reform, the EU Commission also resolved to share the burden between the member states in order to achieve the greenhouse gas reduction target for 2030 in the sectors outside emissions trading known as the Effort Sharing Decision. Overall, greenhouse gas emissions in the non-ETS sectors are projected to fall by 30% by 2030 compared with 2005. Germany is supposed to reduce its emissions in the non-ETS sectors by 38%.

The Netherlands wants to achieve a 49% reduction compared with 1990 in their greenhouse gas emissions by 2030. Details of this are to be defined in a new national climate and energy agreement in spring 2019. The emission reduction in the UK envisages a fall of 37% by 2020 and 57% by 2030, in each case by comparison with 1990.

Similarly by comparison with 1990s, Germany would like to achieve a reduction of at least 40% in its greenhouse gas emissions by as early as 2020. The aim is to have a reduction in these emissions of at least 55% by 2030. Alongside the national target, sector-specific reduction targets were also defined for 2030 in the Climate Protection Plan 2050 in Germany. This includes targets for the energy sector. Achievement of these targets presents particular challenges for electricity generation. This is because the exit from nuclear energy also has to be completed by the end of 2022, which had not been decided when the target was defined.

Additional countries in which we also operate have likewise partly defined their own targets – Turkey, for example, has made a voluntary commitment under the Paris Climate Agreement.

Investors include the topic of climate protection in their company assessment. In their procurement processes, our customers too are increasingly taking into account the sustainability aspect and the carbon intensity of the electricity we generate. NGOs and initiatives are continuously stepping up their efforts to promote short-term shutdown of older coal-fired power plants in order to achieve climate targets, both against the background of greenhouse-gas emissions and against that of other emissions. We are pursuing a strategy geared to the long term which is oriented towards the currently applicable legal framework conditions and those anticipated in the future.

Central importance for innogy relates less to direct CO<sub>2</sub> emissions and more to the upstream and downstream value chain.

### Other emissions

Apart from the emission of greenhouse gases, the electricity and heat generation from the power plant portfolio of RWE also releases other emissions into the air and water bodies. Compliance with limits defined under licensing regulations is necessary for sustainable alignment of our business model. Our corporate decisions are therefore strongly defined by the regulatory and legislative framework that undergoes continuous development.

Emissions produced during electricity and heat production in conventional production units include sulphur dioxide (SO<sub>2</sub>), mercury (Hg), nitrogen oxides (NO<sub>X</sub>) and dust. Dust and fine-dust emissions are also produced in the course of



Noise emissions are also of key importance for innogy SE. For more information on this area see ▶innogy Sustainability Report GRI 305, page 64.

#### Organisation and management

RWE strives to reduce the greenhouse gas emissions produced in the course of electricity production in harmony with the existing and developing European and national climate protection targets and in accordance with the defining regulatory framework, the European Emissions Trading Scheme and the legally-mandated security standby in Germany. In this connection, decisions on shutting down power plants also need to be taken into account alongside the increased use of biomass in the Netherlands.

We have defined the target in the existing portfolio as reducing our CO<sub>2</sub> emissions from electricity generation in Germany, the Netherlands and the UK by 55 – 65 million metric tons of CO<sub>2</sub> by 2030 in comparison with 2015. Alongside the shutdown of power plants, we will achieve this also by continually increasing the proportion of biomass co-combustion in the Dutch hard coal-fired power stations. The expansion of renewable energy will reduce the operational hours and hence the CO<sub>2</sub> emissions here and in our other power plants. Additionally, we are looking to reduce CO<sub>2</sub> emissions produced as a result of generating electricity from lignite. On the basis of the lignite roadmap that has been pursued up to now, the emissions from lignite will have been reduced by approximately 15% by 2020 compared with 2015 as a result of transferring power plants to security standby. Emissions will continue to fall up to 2030 owing to the decline in the number of operational hours in the wake of expanding renewable energy, efficiency enhancements, additional modernisation of our power plant portfolio and by discontinuation of the Inden opencast mine and the associated shutdown of the Weisweiler lignite-fired power plant. The resultant fall in emissions by 2030 will then be a total of up to 50%. According to the current lignite roadmap, electricity generation from lignite and therefore the associated emissions will have ceased entirely by the middle of the century. A decision still has to be made on how this roadmap can be adjusted in detail on the basis of the statutory implementation of the recommendations of the Commission "Growth, Structural Change and Employment".

Our European fossil-fuel power plants are subject to the European Emissions Trading Scheme (EU-ETS). Reporting on CO<sub>2</sub> emissions from these power plants is made to the national emissions trading offices and these in turn report to the responsible EU authorities. Rights and obligations of the emitters are regulated in detail at the level of the member states so that additional corporate regulatory standards are rendered obsolete. The European Emissions Trading Directive is one of the regulations applicable for this area at European level. The relevant national regulations based on this directive are applicable in Germany, the Netherlands and the UK, which are now being amended by national lawmakers following the current ETS reform.

The CO<sub>2</sub> data relevant for reporting are calculated in the opencast mines, at the relevant power-plant locations, and when fuel is purchased. They are then collated centrally in the course of reporting. The Group Management is integrated in the course of reporting for the audit of the annual financial statements.

The emissions generated by RWE are determined in operational terms by the use of our power plants in association with development in the energy markets. The prices for fuels and CO<sub>2</sub> certificates determine the costs at which power plants are able to offer the electricity they produce on the wholesale market. The demand for electricity determines when and which power plants are used. More expensive power plants are correspondingly only deployed when there is high demand in the electricity market and they emit correspondingly lower levels of greenhouse gases and other pollutants owing to the lower number of operating hours. In 2018, the generation margins meant that lignite-fired power plants were used for the most operating hours ahead of gasfired and hard-coal power plants and after nuclear power plants. The additional expansion of renewable energy, which has priority feed-in in Germany, for example, means that the operational hours and the associated emissions for all other power plants are continuously declining.

Climate protection and climate-protection measures constitute key elements of our corporate strategy. In this connection, the coordination of decision-making and preparing the groundwork are in the hands of Group Strategy, which integrates all the relevant divisions and reports to the Executive Board of RWE AG.

We also use appropriate risk management to safeguard the financial risks associated with emissions trading. Risks are reduced by concluding appropriate hedging transactions.

## Establishing environmental protection in business processes

The responsible approach to natural resources and promotion of the use of environmental technologies is one of the principles governing conduct at RWE and this principle is enshrined in the RWE Code of Conduct. In 2018, the provisions of the RWE Code of Conduct were applicable for the entire RWE Group without innogy SE. See also ▶ GRI 307 Environmental Compliance. innogy has its own identical Code of Conduct.



Group-wide coverage for environmental management See ►GRI 307, page 68.



Compliance with licensing regulations See ►GRI 307, page 68.

## Measures and performance measurement ✓

Emissions over the medium and long term at RWE can be influenced by the ongoing development of the power plant portfolio. This relates to modernisation and efficiency enhancement for the existing power plants and the replacement or shutdown of existing power plants, just as much as a change in fuel, for example hard coal to biomass. Since 2012, measures such as decommissioning of coal-fired power plants or a reduction in the capacity utilization of coal-fired power plants have facilitated a significant reduction in CO₂ emissions of 34%. Additional planned measures are presented under ▶ Organisation and management (GRI 305).



#### Reduction of financial risks

Financial risks associated with emissions trading are reflected in our risk management. We reduce these risks by concluding appropriate hedging transactions. Furthermore, we sell most of the electricity from our power plants in forward transactions and hedge the prices for the fuels and emission allowances required.

Most of the emissions are hedged by the purchase of European Emission Allowances (EUAs) on different exchanges. Furthermore, we only use a very small amount of certified Emission Reduction Units (CER), which originate from our own CER projects or are purchased on different exchanges. In 2018, we emitted 116.9 million metric tons of CO<sub>2</sub> from our EU plants. This was covered by an estimated 115.6 EUAs, in addition to 1.3 million certificates allocated free of charge.

#### Reduction of our own CO<sub>2</sub> emissions

We use  $CO_2$  emissions from plants subject to the European Emissions Trading Scheme (EU ETS) as an indicator for greenhouse gas emissions. We report on emissions from our gas-fired power plant in Turkey together with the EU-ETS emissions in the total  $CO_2$  output for the RWE Group.

Due to the restriction on lignite mining to the lignite stocks available in the licensed opencast mines, the associated CO<sub>2</sub> emissions are limited to the operation of our lignite-fired power plants. The State Government of North Rhine-West-phalia took the key decision about future lignite mining at the Garzweiler II opencast mine in July 2016 and reduced the lignite stocks of Garzweiler II licensed under planning legislation by approximately one third. In terms of planning law, this decision still has to be implemented by a lignite planning amendment procedure.

In Germany – our most important generation market – an accelerated exit from coal-fired electricity generation is emerging. In January 2019, after a long period of deliberation, the Commission "Growth, Structural Change and Employment" set up by the German Federal Government submitted a concept on the country's climate goals in the energy sector. The concept addressed the issue of how the country can achieve the goals without incurring structural breakdowns, social hardship or putting security of supply at risk. The commission included representatives from industry, unions, academia, associations, citizens initiatives and environmental organisations, and it recommended that Germany discontinues coal-fired electricity generation by 2038 at the latest. However, the commission stated that a review should be carried out in 2032 to ascertain whether this objective was attainable and whether the final date might even be brought forward to 2035.

Furthermore, the commission defined milestones for the exit from coal. The portfolio of lignite-fired and hard coal-fired power plants needs to be reduced to 15 GW generating output respectively by the end of 2022 through shutdowns or modifications. Compared with the end of 2017, this corresponds to a reduction of at least 12.5 GW, of which nearly 5 GW comes from lignite and 7.7 GW from hard coal. The figures include shutdowns that have already taken place or have been announced. They also include lignite-fired units that had not yet been transferred to standby operation at the end of 2017. In 2030, only lignite-fired power plants with total output of 9 GW and hard coal-fired power plants with total output of 8 GW should be left in the market (not including reserves). Furthermore, the commission advises that emis-

The commission also proposes that in the years 2023, 2026 and 2029, the German Federal Government should carry out a review of the measures implemented up to those points. The factors analysed by this review should include the impacts on security of supply, the level of the electricity price, climate protection and structural development in the affected regions, and if necessary countervailing measures ought to be instituted. Furthermore, there is a recommendation for policymakers to implement the shutdown roadmap in consultation with the operators and grant them appropriate compensation payments. The commission also believes that it is desirable for Hambach Forest to be preserved. In relation to the resettlements in the opencast-mining regions, the states are requested to enter into a dialogue with the affected stakeholders in order to avoid social and economic hardship. It is important to take measures to prevent compulsory redundancies and unreasonable social and economic disadvantages, for example by providing government funding for mitigation.

The proposals by the commission have encountered overwhelming consent from policymakers and stakeholder groups. Positive emphasis was placed on finding a broadlybased consensus in order to create planning certainty for companies, employees and regions. Analysts are therefore assuming that the German Federal Government will implement the key items contained in the concept put forward by the commission. This would have serious consequences for our Rhineland lignite business. As part of the security standby, RWE has already prematurely removed four powerplant units from the grid and a further unit will follow at the end of September 2019. This renders additional shutdowns all the more difficult and they will create burdens that far exceed the revenues lost from electricity. For example, we would straightaway have to cut significant numbers of jobs and set up social compensation programmes for those employees affected. If opencast mines had to close down earlier than the scheduled time, new recultivation concepts would have to be drawn up and the mining provisions would have to be increased owing to the earlier utilisation. Additional costs would be incurred in order to preserve the Hambach Forest, if this is even technically possible. Furthermore, substantial capital expenditure is necessary in order to convert opencast mines and power plants to a new operating concept. We are only able to reliably assess the overall burden we will be subject to once the German Federal Government has submitted concrete plans and has engaged in discussions with us. As far as we are concerned, the fact that the commission has recognised the necessity of reasonable compensation payments for power-plant operators is a positive sign, as is the fact that they explicitly included incorporation of the consequential costs for opencast mining operations.

Measures for optimising the power plant portfolio comprise both modernisation and efficiency enhancement for the existing power plants and the replacement or shutdown of existing power plants, just as much as a change in combustion fuel, for example coal to biomass in the Netherlands. We carry out systematic reviews and adopt the available options for optimisation of the power plant portfolio. In the past, we have significantly increased the efficiency of our power plants and expanded the proportion of gas-fired generation. Since 2013, we succeeded in removing around 70% of the installed capacity of electricity generation from hard coal out of the grid or converting the capacity to biomass combustion. In 2018, these measures were continued and additional activities to reduce  $CO_2$  emissions are planned for 2019.

Since spring of 2017, work has been carried out to facilitate the use of 80% biomass as a fuel in future instead of coal at our Dutch Amer 9 power plant. In 2018, conversion of the power plant to biomass combustion continued. This will reduce the CO<sub>2</sub> emissions from the power plant to the level of a modern combined-cycle gas turbine (CCGT) power plant. The necessary retrofitting measures are currently underway at the Eemshaven power plant to allow 15% biomass combustion from 2019. RWE is thereby already making an important contribution to the sustainability of the energy system in the Netherlands. In order to avoid shutdown of the plants in the course of the planned exit from coal in the Netherlands, we are currently reviewing complete conversion of the power-plant units to biomass by 2025 (Amer) and 2030 (Eemshaven).

In relation to lignite-fired power plants, the Frimmersdorf P & Q units were transferred to legally-mandated security standby on 1 October 2017 and the two power-plant units

Other options for taking action on reducing greenhouse gas emissions are provided by carbon capture and use or storage. Alongside affordability, a prerequisite for rolling out projects involving carbon capture and storage (CCS) would be an appropriate legal framework and creation of acceptance for this technology in the public domain. However, the existing statutory framework conditions and the lack of acceptance mean that implementation of CCS projects in Germany is currently not possible. Nevertheless, RWE is continuing to carry out research into the necessary technologies. We are using our CO<sub>2</sub> scrubber in the Coal Innovation Centre at the Niederaußem power plant to work on making CO<sub>2</sub> separation for generating electricity from fossil fuels and for other industrial processes more efficient. innogy is driving forward climate-friendly electricity generation with the expansion of renewable energy.

#### **Reduction of other emissions**

Primary emission reduction measures such as optimisation of firing technology and secondary emission reduction measures such as dust removal and desulphurisation mean that emissions of mercury, sulphur dioxide ( $SO_2$ ), nitrogen oxide ( $NO_X$ ) and dust emissions comply with the statutory limits for these substances in our plants in all operating states. During the reporting period, no incidents relating to protection against air pollutants, events relevant for spills or limit breaches occurred at our sites that would have led to consequences under administrative law during the reporting period.

As the year progressed, additional capital expenditure was deployed in order to reduce  $NO_X$  emissions from the Aberthaw power plant in the United Kingdom. The power plant is now able to make use of a broader range of coal qualities. In combination with capital expenditure in a low  $NO_X$  burner technology in 2015, the  $NO_X$  emissions will be reduced by half. The power plant will thereby meet the requirements of the Industrial Emissions Directive (IED) after the Transitional National Plan (TNP) runs out.

In the course of our research activities we are working on further reduction of pollutant emissions that occur during the production of electricity and generation of heat at our power plants. This is achieved by a number of measures including installation of modern firing technologies for NO<sub>x</sub> reduction and optimised separation processes, for example for mercury, in our power plant portfolio. At the Coal Innovation Centre in the Rhineland lignite mining area, we are currently working on advanced procedures for capturing mercury by adding furnace coke to the flue gas. In 2017, a pilot plant was set up for this purpose at unit K of the Niederaußem power plant. It was tested in a pilot operation over a period of several months. The results from the pilot plant are extremely promising. They are due to be verified for continuous operation at a large-scale demonstration plant that is planned to go into operation at the beginning of 2019. The building and the facility technology at the pilot plant have been completed and most of the electronic and control systems have been installed. The startup of individual components has been implemented and completion and commissioning are planned as the next stage.

Since the 1980s, we have been using flue-gas desulphurisation systems to capture  $SO_2$  from the flue gas. This process involves the  $SO_2$  being scrubbed out with the assistance of a limestone solution. We have been continuously developing this and we are using the process on an industrial scale.

In August 2017, the EU Commission enacted the findings on the best available technologies for large combustion plants with a four-year transition period for existing plants. We will strive to achieve compliance with EU regulations at the upper end of the emission bandwidths defined.

#### Reduction of air pollutants: dust and noise

Legislation requires opencast mines to be structured and operated so that harmful environmental impacts are avoided if this is possible with the current level of technology. If environmental impacts are unavoidable, they should be kept to a minimum using the latest technology available. We are able to fully comply with these obligations. These environmental impacts connected with the operation of opencast mines are primarily dust and noise pollution. We adopt suitable measures to reduce these emissions that take into account the operational conditions and local circumstances in a case by case approach. Noise emissions are reduced by the use of low-noise machinery, equipment and installations, encapsulating drive units, the use of noise-optimised rollers, setting up protective ramparts and walls, or putting in place planting schemes across sound propagation pathways. In addition, the works necessary during the night-time period are

restricted to the absolute minimum for normal operations, e.g. by minimising the use of earth excavators and transport times for large items of equipment. When procuring new auxiliary equipment, a top priority is ensuring compliance with the sound power level defined in the German Machine Noise Prevention Regulations (32nd BImSchV). We take a number of measures to reduce dust emissions (dust precipitation) including treatment of open surfaces to prevent the removal of dust. The action here includes covering with materials that will not be blown away, spraying large areas with water and other methods of binding dust to the sur-

face. Measures were also developed that exert a targeted impact on the creation and dissemination of fine dust. These include cleaning facilities for the lignite conveyor belts and sprinklers on bunker equipment and coal excavators. The individual methods are always carried out in consultation with the supervisory authorities. Furthermore, operations monitoring stations at opencast mines are available 24/7 for any citizens who may have issues, so that short-term remedies can also be implemented if there is an incident of acute noise pollution.

#### GRI 305-1 Direct (Scope 1) GHG emissions



Emissions balance						
in million metric tons of CO <sub>2</sub>	CO <sub>2</sub> em	nissions		cation of tificates		age of tificates
	2018	2017	2018	2017	2018	2017
Lignite & Nuclear	79.4	88.5	0.7	0.7	78.7	87.8
European Power¹ of which:	38.6	43.3	0.6	0.6	36.9	41.3
Germany <sup>2</sup>	13.0	14.1	0.6	0.6	12.4	13.5
Netherlands/Belgium	12.1	13.8	-	-	12.1	13.8
United Kingdom	12.4	14.0	-	-	12.4	14.0
Continuing innogy operations	-	_	-	_	-	-
RWE Group	118.0	131.8	1.3	1.3	115.6	129.1

- 1 Including the CO<sub>2</sub> emissions of our gas-fired power plant in Denizli, Turkey, which in 2018 amounted to 1.1 million metric tons (previous year: 1.4 million metric tons). Since Turkey does not participate in the European Emissions Trading Scheme, we do not need any emissions allowances for these quantities.
- 2 Including figures for generating capacities of plants which are not owned by RWE but that we can deploy at our discretion on the basis of long-term contracts. In 2018, these power plants emitted 2.0 million metric tons of CO<sub>2</sub> (previous year: 3.1 million metric tons).

in million metric tons	2018	2017
CO <sub>2</sub> emissions in compliance with EU ETS <sup>1</sup>	116.9	130.43
CO <sub>2</sub> emissions Scope 1 (in compliance with GHG Protocol) <sup>2, 4</sup>	120.4	135.6

- 1 Figures for CO<sub>2</sub> emissions in compliance with EU ETS include emissions from RWE less CO<sub>2</sub> emissions from the Turkish power plant in Denizli, which amounted to 1.1 million metric tons in 2018 (previous year: 1.4 million metric tons). Since Turkey does not participate in the European Emissions Trading Scheme, we do not need any emissions allowances for these quantities.
- 2 EU ETS quantities plus emissions from power plants which are not subject to EU ETS.
- 3 Data for 2017 were adjusted to the new reporting structure.
- 4 The figures for CO<sub>2</sub> emissions Scope 1 (in compliance with the GHG Protocol) also include the emissions from innogy.

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### GRI 305-2 Energy indirect (Scope 2) GHG emissions

in million metric tons	20182	2017
CO <sub>2</sub> emissions Scope 2 <sup>1</sup>	5.0 <sup>3</sup>	1.0

- 1 Scope 2: indirect CO₂ emissions from the transmission and distribution of electricity purchased from third parties outside the Group in our own grids. Rise in the figure for 2018 compared with 2017 through increased electricity procured by innogy from third parties outside the Group.
- 2 Data for 2018 were calculated on the basis of the new reporting structure.
- 3 Calculation on the basis of countries with principal share (Germany, United Kingdom, Netherlands, Hungary).

#### GRI 305-3 Other indirect (Scope 3) GHG emissions

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in million metric tons	2018²	2017
CO <sub>2</sub> emissions Scope 3 <sup>1</sup>	188.7	84.0

- 1 Scope 3: indirect CO<sub>2</sub> emissions that do not fall under Scope 1 and Scope 2: They are produced through the generation of electricity procured from third parties outside the Group, the production and transmission of the fuels used and the consumption of gas that we have sold to our customers. Rise in the value for 2018 compared with 2017 through increased electricity procured by innogy from third parties outside the Group.
- 2 Data for 2018 were calculated on the basis of the new reporting structure.

#### GRI 305-4 GHG emissions intensity



in t/MWh	2018	20171
Specific CO <sub>2</sub> emissions EU ETS	0.670	0.658
Specific CO <sub>2</sub> emissions Scope 1	0.684	0.677

<sup>1</sup> Data for 2017 were adjusted retrospectively to the new reporting structure.

#### **GRI 305-5 Reduction of GHG emissions**





See ▶ reduction of our own CO<sub>2</sub> emissions in GRI 305, page 61.

#### GRI 305-6 Emissions of ozone-depleting substances (ODS)

Negligible amounts of ozone-depleting substances, which primarily relate to chlorinated hydrocarbons, are used in core processes at RWE so that there is no separate recording process for them.

#### GRI 305-7 Nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>) and other significant air emissions

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Absolute emissions	Unit	2018	20171
NO <sub>x</sub> emissions	thousand mt	71.4	82.8
SO <sub>2</sub> emissions	thousand mt	28.1	38.3
Dust emissions	mt	2,063	2,370

<sup>1</sup> Figures for 2017 were adjusted retrospectively to the new reporting structure.

Specific emissions		
in g/kWh	2018	20171
NO <sub>x</sub> emissions	0.41	0.41
SO <sub>2</sub> emissions	0.16	0.19
Dust emissions	0.01	0.01

<sup>1</sup> Figures for 2017 were adjusted retrospectively to the new reporting structure.

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## Challenges <

As an energy generator we do not simply consume raw materials. Waste management is also part of a responsible approach to resources. This enables us to comply with the licensing regulations. Wastewater and waste are avoided as far as possible. Unavoidable waste is disposed of properly in accordance with the statutory regulations. We ensure that all safety regulations are complied with and relevant precautions are taken.

## Organisation, management and performance measurement ✓

#### Ensuring sustainable waste disposal

Comprehensive waste management ensures that the waste generated is transferred in accordance with the regulations for reuse, recycling or disposal. This applies in particular to special waste which must be treated and disposed of in compliance with the high statutory requirements. The environmental management system described under ► GRI 307, page 68 also regulates waste so that comparable standards are implemented here.

The requirements defined in waste legislation have to be taken into account for the disposal of the waste generated in the course of our operations. Owing to the varying composition of waste and the resulting potential for hazard, waste is classified into two categories: hazardous and non-hazardous waste. Furthermore, a distinction is made in between recovery and removal of waste in the course of disposal. Waste subsequently undergoes further appropriate treatment along these lines. For example, special disposal pathways and procedures are applicable for hazardous waste such as solvents, alkalis or acids. Verification of disposal has to be provided for the responsible authorities. This waste record-keeping for hazardous waste is carried out using the statutory electronic waste management system (eANV) in accordance with the German certification regulation.

During the project phase, the new-build and the maintenance of plants, an internal system evaluates the potential harm caused by waste disposal and appropriate protective measures are provided. Disposal information systems are used for organising disposal services. These information systems guarantee compliance with all the applicable statutory and contractual conditions in the disposal of the waste generated.

Power plant residues are produced at our lignite-fired power plants in the form of ash and FGD gypsum. The ash is largely eliminated in residue deposits of RWE Power AG defined in accordance with approved plans. Most of the gypsum produced from the flue-gas desulphurisation (FGD) system is recovered. Ash and gypsum from the hard coal-fired power plants is mainly forwarded for material recovery. A small amount is disposed of.

We treat residual materials and waste from our nuclear power plants which occur while they are being operated as well as when the power plants are decommissioned. Treatment and disposal are carried out in accordance with the statutory regulations, see ▶ Shutdown and decommissioning of power plants and reinstatement of opencast mines, page 48. 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 materials cycle. The remaining residue as radioactive waste only around 1% of the total mass of a nuclear power plant is destined for disposal in a final repository. This material primarily includes components near the core of the reactor. Until the material has been consigned under statutory regulations to a final repository operated by the government, these waste materials and spent fuel rods will in future be kept at an intermediate storage facility under the responsibility of the German Federal Government.

#### **Avoid waste**

The principle of avoidance, recovery and disposal provides the platform for our waste management. Our top priority is avoidance of waste. This conserves resources and protects our employees and the environment. All organisational units are therefore continually reviewing the possibility of avoidance for the waste that is produced within their area of responsibility. This already happens in the course of the planning and procurement process.

We continuously reduce the quantity of waste as much as possible. One of the ways we do this is by optimising our plants. Nevertheless, a distinction is drawn for the waste actually incurred between reuse, recycling and other uses of waste, for example recovery of energy. Disposal is only permissible if recovery is not technically feasible or is not commensurate with commercial requirements.



#### **Process wastewater**

Our internal wastewater treatment facilities and their regular monitoring ensure the prevention of potential contaminants. The prescribed limits are monitored by government agencies and so far there have been no breaches with regulatory implications. This process enables us to avoid negative impacts for the natural environment and health.

#### GRI 306-1 Water discharge by quality and destination

The pollutant concentrations for wastewater discharged from operational facilities are limited by the licensing authorities with specification of monitoring values. These values are defined in the relevant permits under water legislation. Monitoring of these values is carried out by in-house monitoring

systems and in the course of regular in-house and independent monitoring surveys carried out by government agencies. Compliance with the permissible monitoring values ensures that the wastewater discharges are not in contravention of the water management targets for surface waters.

#### GRI 306-2 Waste by type and disposal method



Power plant residues from our coal-fired power plants dominate the generation of waste. The ash from hard coal-fired power plants is reused in applications such as road and track construction. Almost 100% of the ash from the lignite-fired power plants is eliminated in power-plant residue deposits of RWE Power AG defined in accordance with approved

plans. The process of flue-gas desulphurisation of our coalfired power plants generates gypsum. Most of this gypsum is passed on for recovery. Furthermore, other waste is produced in the course of our operations. This waste is forwarded for reuse, recycling, recovery or disposal.

Waste <sup>1</sup>	Unit	2018	2017
Ash	thousand mt	6,344	7,746
Ash recovery	thousand mt	1,054	1,299
Gypsum	thousand mt	1,517	2,052
Gypsum recovery	thousand mt	1,057	1,347
Radioactive operational waste from nuclear power plants	mt	225.2	273.4
Spent fuel rods	mt	180.7	274.2

<sup>1</sup> Figures in 2017 for RWE including innogy, from 2018 the values are shown for RWE without innogy.

#### **GRI 306-3 Significant spills**

During the reporting period, no serious events involving spills of harmful substances were recorded in the regular internal survey for RWE.

**Appendix** 

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

## Challenges <a>V</a>

The operation of nuclear and conventional power plants and plants for generating electricity and for the production of lignite inevitably result in our impacting on natural ecosystems and having effects on the environment. Substances are released during the generation of electricity and heat at our power plants or the operation of our opencast mines, and they could lead to negative impacts on the environment. In the regions where we are operating, strict environmental legislation and licensing regulations define the framework for our operating activities there. We have to ensure compliance with legislation and avoid the risk of serious negative impacts on ecosystems. Concrete environmental challenges in the fields of ▶energy (GRI 302, page 52), emissions (GRI 305, page 59), water (GRI 303, page 54), biodiversity (GRI 304, page 56), and waste (GRI 306, page 66) are presented under the individual topics. We describe environmental challenges in the supply chain under ▶ procurement (GRI 204, page 38).



### Organisation and management <a>V</a>

Alongside acting in accordance with the law, rules and procedures, we describe our aspiration for environmental protection in our principles for good conduct defined in the RWE Code of Conduct along the following lines: We are committed to a responsible approach to natural resources and we promote the use of environmentally friendly technologies. Since 2018, the provisions of the RWE Code of Conduct have been applicable for the entire RWE Group without innogy. innogy has its own identical Code of Conduct.

The Group Guideline on Environmental Management regulates the requirements for a Group-wide management system based on ISO 14001 in order to meet these aspirations. The Chief Environmental Officer of RWE AG bears responsibility in relation to these aims. The RWE companies appoint Environmental process owners in the executive management and corresponding environmental management officers, and review, assess and improve the appropriate Environmental Management Systems on a regular basis. The Chief Compliance Officer of RWE AG bundles the compliance areas defined at RWE – alongside environmental protections these include competition and anti-trust law, corporate and capital-market law, employment law, health and safety, and data protection - and coordinates and consolidates them. As part of integrated compliance reporting, the Chief Compliance

Officer reports to the Executive Board and the Audit Committee of RWE AG. innogy has established its own equivalent **Environmental Management System and reports separately** on this in the innogy Sustainability Report.

We assess our environmental performance on a regular basis and use these results to initiate systematic improvements.

A process of continuous training for employees, internal audits and certification enables us to identify and evaluate existing risks systematically, and roll out appropriate measures. Comprehensive statutory regulations are already in place for environmental protection in the countries where we are active. Our activities here partly extend beyond the obligations arising from legislation or licences for the operation of opencast mines and power plants.

An integrated management system was introduced for RWE Generation SE and RWE Power AG in order to manage our key activities with environmental relevance. Alongside compliance, this encompasses the areas of energy, water, biodiversity, emissions, and wastewater and waste. The structural requirements for the management of occupational health and safety, the environment and energy are largely similar. We therefore deal with them together in an integrated management system for reasons of synergy.

## **Establishing environmental protection in business**

In the course of Group-wide environmental protection management, the relevant emission data are surveyed and calculated at the individual sites, before being collected and processed in a central department for licences and environmental protection. Integrated compliance reporting to the Executive Board and the Audit Committee of RWE AG provides the framework for the Chief Compliance Officer of RWE to report serious environmentally relevant events.

## Measures and performance measurement ✓

Regular audits in the non-certified companies safeguard compliance with the requirement to set up and maintain an Environmental Management System. In this connection, we also strengthen the environmental awareness of our employees through training courses other information formats, and in direct dialogue.

## Group-wide coverage for environmental management

In its Group-wide guideline, RWE AG makes a commitment to ensure that all the Group companies (without innogy) that are wholly owned by RWE AG or holdings in which a controlling interest is held to set up, implement, maintain and improve an Environmental Management System in accordance with the international standard DIN EN ISO 14001:2015 taking account of country-specific and statutory regulations.

The level of coverage by our Environmental Management System provides us with a performance indicator. It is comprised of the proportion of the employees covered by the environmental management system and the level of implementation. In 2018, the level of coverage for environmental management amounted to 100%. 89% of the environmental management systems in the Group was externally certified. We aim to achieve 100% coverage, either through external certification or auditing. During the reporting year, no serious environmentally relevant events were identified in an internal survey for RWE (without innogy). At innogy, the level of coverage for environmental management was 92%. 49% of the environmental management systems were externally certified.

#### GRI 307-1 Non-compliance with environmental laws and regulations



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During the reporting year, no significant monetary and non-monetary sanctions were reported for the environmental area in an internal survey for RWE (without innogy).

### GRI 308 SUPPLIER ENVIRONMENTAL ASSESSMENT (IN ACCORDANCE WITH GRI STANDARDS 2016)

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)



For information on the general Management Approach on procurement see ►GRI 204, page 38.

Depending on the tendered requirement, environmentally relevant criteria are interrogated from the suppliers in the course

of prequalification. Relevant criteria are also used in the tender process and benefit analysis in order to assess the offers of our suppliers.

### GRI 308-1 New suppliers that were screen using environmental criteria

The principles of the United Nations Global Compact are a constituent element of contractual relationships for all new and existing direct suppliers. Additionally, the suitability of suppliers is evaluated on the basis of hazard potential as part of prequalification during the procurement process. A separate work instruction and a checklist are used by the

purchasing department for commissioning disposal services in order to establish the suitability of the supplier. In such cases, compliance with the defined criteria can be reviewed in supplier appraisals and used for future tender processes in the framework of the internal appraisal system.

#### GRI 308-2 Negative environmental impacts in the supply chain and actions taken

We can report on the number of suppliers for goods, services and plant components who were audited for ecological aspects. The audits carried out in the context of Bettercoal can also be reported, see ▶ GRI 204, page 38. An overview of the producers audited is provided on the ▶ Bettercoal website. We regularly carry out audits of all suppliers to

ensure conformity with potential compliance risks. Procurement has to deal with an exceptional situation when procurement is carried out in the wholesale markets. An appraisal is not possible here due to an absence of direct supplier relationships.



## **SOCIAL TOPICS**

## **GRI 401 EMPLOYMENT (IN ACCORDANCE WITH GRI STANDARDS 2016)**

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

We are working together with our employees to master the challenges of the energy transition. The growing business pressure being exerted on the RWE Group and the changes occurring in the energy market have also made a cultural change necessary at our company. If we failed to take action here, we would put our future performance at risk. The realignment of our company has not yet been completed. It requires increased flexibility from our employees and opens up the possibility of new functions. We have therefore launched an array of different programmes so that they are in a position to achieve the best possible outcome. We are joining forces with our employees to structure our working culture. This is intended to ensure that we remain competitive and attractive.

## Organisation, management and performance measurement

#### Socially acceptable and responsible restructuring

Our iSWITCH GmbH has already been established in the RWE Group. This platform promotes and supports many colleagues in relaunching their careers within the framework of an internal Group-wide job market. Secondments of employees from the iForce enable us to cover temporary personnel bottlenecks. This unit was established so that internal resources could be used instead of external agency staff on a temporary basis. iSWITCH also offers targeted career development and helps staff to achieve further qualifications. It also assists them in taking advantage of short-term (project) activities and accompanying staff on work experience in different segments (divisions) of the Group. The framework conditions are defined in a collective bargaining agreement. The offer from iSWITCH is open to colleagues at RWE companies and innogy SE. For more information see ▶innogy Sustainability Report, GRI 401, page 80.

Several tools are available to measure the success of the internal job market including the number of internal and external applicants for each job. Additionally, we also record the throughput times within iSWITCH GmbH, alongside the financial result and utilisation of capacity. In order to further improve the offering, a survey was carried out of the registered candidates and applicants. On the basis of these

results, a large number of measures were implemented in relation to many aspects of the handling and management of applications.

**Material Topics** 

#### Establishment of new mindset and working practices

Our objective is to establish new mindsets and new ways of working within the RWE Group. The programme "New Way of Working" (NWoW) has been designed to achieve this. We are defining new standards for our working practices and promoting the skills of our employees. A common working culture is also being developed in the three areas of Operating Excellence, Universal Process Management and Leadership and Alignment. Our intention is to use these and other measures to enhance employee satisfaction, customer satisfaction and improve the financial results.

The NWoW programme has meanwhile been expanded to 16 operational projects in RWE AG, RWE Generation SE, RWE Power AG and RWE Supply & Trading GmbH. Currently 60 experts and 6,000 employees are working within the NWoW context. Other projects are currently in the pipeline.

In addition to these 16 projects, other initiatives are running in the area of Management & Alignment with the aim of expanding the skills of managers. As executive managers act as role models for the RWE management profile, they also lay the foundation stone for successful introduction of NWoW at the individual locations.

We measure the success of our NWoW projects particularly by analysing leadership quality and employee and customer satisfaction.

## Defining objectives through the Code of Conduct and **RWE Social Charter**

Our Code of Conduct and the RWE Social Charter were jointly adopted by the European Works Council and the Executive Board in 2010. They define standards for the relationship of governance with employees and for the conduct between the employees themselves. The RWE Code of Conduct and the innogy code of Conduct apply to all our employees. The RWE Social Charter is valid for all employees of the RWE Group.



RWE Group without innogy <sup>1</sup>	Unit	2018	2017
Fluctuation rate	%	5.5	5.4
External hirings	FTE	825	413

<sup>1</sup> Data for 2017 were shown retrospectively for RWE without innogy.

We do not provide further differentiation in the case of data on fluctuation rate and external hirings because the benefit is not commensurate with the expenditure involved. We regularly report on the age structure and the breakdown of employees by gender.

#### GRI 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees

The principle of equal opportunities applies at RWE. This means that all employees are treated equally – irrespective of whether they are full-time, part-time or fixed-term. However, there may be deviations for employees on fixed-term

contracts, particularly in the case of those working on a short-term basis, if for example certain statutory deadlines or reference dates cannot be complied with.

### GRI 402 LABOUR/MANAGEMENT RELATIONS (IN ACCORDANCE WITH GRI STANDARDS 2016)

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### **Challenges**

We intend to make any necessary restructuring and staff relocations socially acceptable and in a responsible manner. Our aim is to be perceived as an equal partner in order to avoid dissatisfaction among our employees and to counteract increased turnover. We are therefore continually in discussions with the employee representative bodies in the Group and with the unions. In Germany, the Works Constitution Act (Betriebsverfassungsgesetz, BetrVG) covers the situation at RWE. We base our actions on this legislation.

## Organisation, management and performance measurement

## Cooperation beyond the statutory regulations in an atmosphere of trust

The Works Constitution Act (Betriebsverfassungsgesetz, BetrVG) regulates the comprehensive information, consultation and co-determination rights of the Works Council. It

states that the Executive Management and the Works Council should cooperate together in an atmosphere of trust. RWE has gone beyond these statutory regulations and in 2010 defined its commitment to open and trusting cooperation in the RWE Social Charta adopted by the European Works Council and the Executive Board. This charter sets out opportunities for participation in processes of change for employee and union representative bodies. Apart from the Group Works Council and the European Works Council, there are other forms of employee representation across the Group, at company level and at operational level. Specific interest groups, such as spokesperson committees, representative bodies for people with disabilities, and youth and apprentice representations are also included.



### GRI 402-1 Minimum notice periods regarding operational changes

We comply with all information disclosure obligations and include employee representatives at an early stage.

#### GRI 403 OCCUPATIONAL HEALTH AND SAFETY (IN ACCORDANCE WITH GRI STANDARDS 2016)

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges <a> </a>

As an industrial company, occupational safety and maintaining health are particularly important among the topics that are of concern to our employees. Our workforce and the employees of our subcontractors often carry out their assignments at workplaces that are subject to 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. These areas of application are subject to particular accident risks and health hazards for our employees and the employees of subcontractors. So as to protect them, we are committed to sustainable development of occupational health and safety. The further robust development of a respectful management culture in an atmosphere of trust is absolutely essential for strengthening our culture of occupational health and safety - we have recognised that the topics of management and personnel development need to be more tightly dovetailed and are currently working at improving these interfaces.

Good occupational health and safety generates high levels of quality and demonstrates a good business policy. Sustainable prevention also exerts a positive impact on the motivation of employees, the quality of their work, the image of the company and the satisfaction of employees. This is another reason why we strive to comply with high standards and continually carry out improvements in this area.

#### Organisation and management

Our objective is for every employee to be healthy and to remain so. We are committed to using all the available opportunities to aid the recovery of sick employees as quickly as possible. This applies equally to occupational safety, in other words to the avoidance of accidents and to the promotion and retention of health.

The organisation and safeguarding of uniform, harmonised standards for occupational health and safety at RWE are defined in a Group Guideline on the basis of the relevant legal regulations. The guideline includes fundamental provisions for defining occupational health and safety policy and for basic and procedural organisation. Drawing up RWE workplace safety standards and advance definition of targets in occupational health and safety provide the platform for this. Group programmes directed towards establishing a culture of occupational health and safety will continue to undergo

refinement. The Group Guideline regulates uniform Groupwide terms and overarching provisions for occupational health and safety. Furthermore, management and coordination are laid down for occupational health and safety.

#### Organisation of healthcare management

The functions of healthcare management are situated with the Company Medical Centre and the Department of Health & Safety. The Company Medical Centre bundles the organisation of all the medical and emergency medical resources alongside the social counselling service. The services for the RWE Group without innogy SE are provided on the basis of service contracts.

The Health & Safety Department develops and initiates health prevention packages in cooperation with the Company Medical Centre in the context of Occupational Health Management. The management personnel within the Company Medical Centre are separate from the Chief Company Medical Officer. The Chief Company Medical Officer carries out the functions and responsibilities in accordance with the relevant regulations. The Chief Company Medical Officer is responsible for additional functions, in particular the strategic alignment and management of the entire area. Detailed organisation of healthcare management has been defined within the framework of the Workplace Safety Management System. Since the employees of the Company Medical Centre are part of the organisation of RWE Power AG and have contracts of employment with this company, healthcare management is part of the integrated management system of RWE Power AG.

#### **Organisation of Health & Safety**

The management of occupational safety and Company Health Management (CHM) is carried out by Health & Safety. The Health & Safety Department (H&S) is situated at RWE Power AG and also operates on the basis of a Service Level Agreement for RWE AG, RWE Generation SE and RWE Supply & Trading GmbH. The department is also responsible for H&S reporting in the RWE Group and in this function reports regularly to the Executive Board of RWE AG. A regulated organisational structure ensures that the decentralised occupational safety departments throughout the company are included in H&S reporting. innogy has a dedicated H&S Department that operates on the basis of comparable standards. Reporting here is in the innogy Sustainability Report.

#### Continuous improvement of occupational safety

The occupational safety management systems cover the relevant management and business functions including the definition of targets, structures and processes, rules and tools relevant to occupational health and safety. The objective is to make the best possible contribution to achieving the corporate goals. The relevant processes for Health and Safety are systematically analysed and continuously improved using the Plan Do Check Act cycle. The integrated approach is applied for relevant activities that extend across management systems. These include management reviews, audits, analyses and event notifications.

## Measures and performance measurement Continuous improvement of occupational safety

The measures described here relate to RWE without innogy. innogy carries out its own comparable measures under its own responsibility. Since 2017, a uniform classification of all events and accidents relating to RWE's own employees has been implemented along an accident pyramid with the intention of ensuring development and alignment with international Health & Safety (H&S) standards. In parallel, an assessment of potential has been carried out using a risk matrix. We want to use long-term establishment of a probabilistic approach to assist our employees in achieving better identification and assessment of safety risks. To this end, we particularly promote independent responsibility in employees and raise their awareness of the issues so that they are better able to assess the safety risks.

We focus systematically on investigating events and accidents with a high potential for risk. For this purpose, we deploy an independent, interdisciplinary analysis team in order to determine causes and derive suitable measures. In addition, we also support the subcontractors working for us with analysis and implementation of measures.

Our objective is to treat the employees of our subcontractors in the same way at all times as RWE's own employees. We therefore take account of the number of subcontractor accidents in the LTIF rate. Over the course of the past ten

years, RWE has established and expanded a reliable system of Workplace Safety Subcontractor Management (WSSM). Apart from reducing the accidents and work-related stresses for our subcontractors, the focus is on joint development of an H&S culture. In order to achieve this, we support our subcontractors from the tender stage to carrying out the work, as well as in the final phase of continuous improvement. In 2018, we carried out H&S workshops, highlighted specific safety performance and intensified cooperation between the H&S experts at RWE and subcontractors.

In 2017, the Health & Safety Departments of RWE and innogy already developed the "Safety Academy" game. This involves small teams working together and answering questions interactively about Health and Safety. Situations from routine work every day are also trained in action fields. This interactive game was awarded a prevention/promotion prize in each case by the Employers' Liability Insurance Association for the Energy, Textile, Media and Electronics Sectors (BG ETEM) and the Employers' Liability Insurance Association for Raw Materials and the Chemicals Industry. The game has meanwhile become an established and accepted teaching tool in the administrative sector. In 2018, the campaign "Thinking about Risks" was also launched for recording and evaluating events and accidents.

#### Continuous improvement of health

The Company Medical Centre is continuously analysing health data available inside and outside the company, identifying the need for action and deriving concrete measures for the adjustment and completion of its service portfolio and for prevention and healthcare promotion campaigns.

In 2018, the focus was on the metabolic syndrome, which is regarded as the key risk factor for arterial diseases, in particular coronary heart disease (characterised by a number of factors including obesity, high blood pressure and lipometabolic disorder). Additionally, all doctors were trained in 2018 for the focus campaign on diagnosis and therapy for sleeping disorders planned for 2019 and the necessary workflows were set up for this.

Moreover, the Company Medical Centre runs an annual flu injection programme for all employees. As necessary, this can include individual vaccination advice, setting up a vaccination plan and may include any additional vaccinations necessary on an individual basis. Starting in October and continuing into the first quarter of the following year, all employees can have a flu vaccination. Since the vaccination provides the most effective protection against infection with the influenza

We use the Work Ability Index (WAI) as one of our tools to obtain more in-depth information on the performance of our employees and provide them with effective support. This tool is based on self-assessments by our employees and gives an insight into the extent to which they see themselves as able to carry out their work currently and in the future. By the close of 2018, feedback had been provided a total of some 27,000 times by the employees who took part in the survey.

The Health and Safety Culture tour was continued in 2018. The tour originates from the "Development of Health and Safety Culture (DOHSC)" project that came to an end in 2017. This empowers managers to discuss issues relating to occupational health and safety together with their team.

The aim of Company Health Management (CHM) is to present our employees with a wide range of offers and needs-based measures to promote their health. Thematic focuses are made up of mental, physical and social health. The sphere of mental health offers a burgeoning area of action owing to the intensified concentration of work and increased psychological burdens. Against this background, offerings related to stress competence, resilience and mind-

fulness are being expanded. These programmes are intended to promote the skills of our employees, mastering crises and providing staff with an opportunity for personal development by drawing on their own competences as a platform for development. Furthermore, a training concept involving blended learning was developed which communicated content for occupational health and safety as a management function.

#### **Health indicator**

A key indicator of health in the workforce is the health-related absenteeism rate. This reflects the periods of absence due to sickness including absence as a result of accidents and due to rest cures. It is calculated as a function of the scheduled working hours for all employees. The health-related absenteeism rate of the RWE Group without innogy was 6.5% in 2018.

In selected areas, the health-protection indicators relevant to controlling were summarised in a basic indicators portfolio. This portfolio provides the business with an overview of the health scenario in the company. It is broken down into cause and effect indicators. The cause indicators such as development of employee capacities, average age, increased performance rate and Work Ability Index, and other indicators present potential causes for the health quota. The effect indicators show the actual periods of absence.

### GRI 403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities



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>). This indicator includes colleagues at subcontractors. In the reporting year 2018, RWE succeeded in achieving an improvement in the number of occupational accidents compared with the previous year and achieved an LTI<sub>F</sub> of 1.9 (2017: 2.29). The LTI<sub>F</sub> for RWE without innogy was 2.2 (2017: 2.49). Our goal is to bring about a sustainable increase in the health quota and reduce the LTI<sub>F</sub> rate. As a result, RWE's health management is currently also an important focus in raising awareness of stress and occupational exposure. We intend to achieve an LTI<sub>F</sub> of 1.8 at RWE without innogy by 2019.

Reporting in accordance with this controlling model is carried out on the basis of operational controlling of occupational health and safety in the operating segments. We do not therefore report by regions but analogous to operational line controlling. The special hazard and stress requirements are therefore taken account of within the segments and international comparability is ensured. Data on the type of injuries, the injury rate, the absentee rate (Lost Day Rate, LDR) and work-related fatalities are surveyed in anonymised form for reasons associated with data protection regulations. These data cannot therefore be reported by gender. Reporting on occupational diseases and the absentee rate is also not possible for the same reason.

Unfortunately, we had to report a total of two fatal occupational accidents in the business year 2018. In March 2018, an RWE employee suffered a fatal accident at the Inden opencast mine. While carrying out electrical work on a switchgear system, he was electrocuted and suffered injuries that resulted in his death. Another fatal accident occurred at the Neurath power plant in October 2018. An employee of a sub-

contractor was working there and fell down 17 metres into a container filled with a lime suspension while carrying out maintenance work. He died at the site of the accident. Analysis teams were immediately deployed in both cases to clarify

the causes of the accidents and appropriate measures were derived. Lessons Learned as a result of these investigations are being implemented in operational workflows throughout the Group as appropriate.

Accidents and days of absence in 2018 by division						
	Number of Occupational accidents <sup>1</sup>	Number of Commuting accidents <sup>2</sup>				
RWE Generation SE and RWE Power AG <sup>3</sup>	93	52				
RWE Supply & Trading GmbH	2	1				
RWE AG (other)	0	2				
innogy Grid & Infrastructure Division	144	118				
innogy Renewable Energies Division		3				
innogy Retail Division	38	10				
innogy other (Gastro, interdisciplinary functions, etc.)	6	9				
RWE Group	294	195				

- 1 Including employees from subcontractors.
- 2 Only own employees.
- 3 Up to 2017, integrated reporting was provided on the generation business.

#### GRI 403-3 Workers with high incidence or high risk of diseases related to their occupation

Activities of our employees and our subcontractor employees are often associated with particularly high requirements for occupational health and safety – most particularly in the area of our power plants and opencast mining facilities, and in the case of innogy SE at transmission lines or wind turbines. We believe that all hazards can be avoided by taking preventive action and implementing appropriate protective and safety measures. We organise training sessions and workshops in our regions in order to focus attention on Health and Safety.

#### GRI 404 TRAINING AND EDUCATION (IN ACCORDANCE WITH GRI STANDARDS 2016)

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### **Challenges**

Our company is only as strong as the knowledge and skills of our employees. Lack of training and education would lead to an impairment of the performance of the RWE Group. We will only be able to continue mastering the future challenges presented by 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, promoting our employees, supporting them in their individual development, and furthering their careers on the basis of their individual strengths. We believe that it is important to be perceived as an attractive employer. We continue to give our employees advanced training so that they are always familiar with the latest technical developments.

## Organisation, management and performance management

#### Recruitment of new employees

We are an important economic factor in the regions where we have operations in the energy sector. So as to ensure that we continue to reinforce this perception of an attractive employer in potential employees, we are proactive in engaging with them. We inform them about the activities and the opportunities for employment and a career at RWE. This process includes a range of different tools including our Career Portal to provide information to schoolchildren, students, graduates and prospective employees with career experience. The aim is to help them make a start on the career ladder in the world of work or give them advice on changing

jobs at RWE, and to get in contact with them. The site additionally provides them with useful information about RWE as an employer, gives them assistance with making applications and other helpful advice. We focus our on-site activities on selected universities and fairs in Germany and abroad, as well as offering an intensive exchange of views through personal interviews.

Women continue to be less inclined than men to take up a technical career. We are therefore especially committed to motivating young women to explore technical careers at an early stage. One example is our engagement with the nationwide Girls' Days, which have involved more than 100 participants in 2018. These events enabled school girls to find out about careers in the technical area.

#### **Promotion of training**

The RWE Group has a long track record of vocational training. In Germany, we focus primarily on the dual vocational training system. This involves theoretical instruction being given at vocational colleges alongside on-the-job training in the company. Overall, we offer training in nine cities for a total of 18 apprenticeship vocations in craft, engineering and commercial occupations, and other areas where we enable young people to undergo a high-quality vocational training. We offer training that extends beyond our own specific needs. In addition to carrying out training on its own behalf, RWE also supports external companies through activities for collaborative training ventures, for example by making training capacities available in our training workshops or by carrying out training for small companies.

Every year, more than 200 young people start their training in the RWE Group. This means that they are part of more than 600 apprentices in the Group (without innogy). 95% of these trainees work at companies in Germany. If you compare the number of German apprentices with the full-time jobs in Germany, the apprentice ratio of the RWE Group without innogy was 4.2% in 2018. We offered 39 places in our entry-level qualification "I can do it!" ("Ich pack' das!") in 2018. Here we help young people who have not yet found a training place and give them the knowledge to enable them to achieve the necessary level to embark on basic training. We have been providing this one-year programme for the past 16 years and up to now we have helped almost 1,200 participants. The placement rate into basic training, jobs and advanced measures is the key performance indicator for high-quality engagement by our trainers in the company. This was 80% in 2018.

#### Career training and development

We offer a range of training sessions and courses for developing personal skills. At the same time, we promote the acquisition of knowledge and skills which lead to further personal development within the Group. We help managers to enable their employees to take advantage of opportunities on a daily basis – opportunities to try out new things, implement projects and collaborate with different people so that they can learn from each other. We aim to structure personal and ongoing challenges strategically as careers unfold in order to promote the development potential of our employees. RWE is committed to a culture of lifelong learning and to facilitating the best possible development of the skills of our employees.

#### GRI 404-2 Programmes for upgrading employee skills and transition assistance programmes

Our employees have access to a broad spectrum of development opportunities and advanced qualification. These range from IT skills and project management, through specialist topics such as technical training courses, occupational safety and compliance, to management training sessions. The HR

portal of RWE offers attendance training courses, blended learning, web-based learning, videos and much more. Certificates are issued for training courses in specific areas. In 2018, approximately 28,000 training courses were booked through the HR portal for RWE without innogy.

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

Deep-seated changes like demographic change, skills shortages, migration, changes in values and the individualisation of life concepts mean that our society is becoming more and more diverse. Our objective is to use the diversity of our workforce at RWE as an opportunity for cultural transformation, to recruit talents and to convince our employees about our merits every day. An open and respectful culture appreciates diversity and this is therefore advantageous for our company and for our employees.

We are a company operating on the international stage where employees from different cultural backgrounds work together. Our stakeholder groups and customers have an international profile. This is why good cooperation and intercultural communication are important for the success of our company.

As a technological company, increasing the proportion of women in the company continues to be a challenge. Furthermore, the demographic change is also an important issue for us because society is getting older and this entails new challenges in the world of work and for our company.

#### Organisation, management and performance measurement

#### Establishment of diversity management in the organisation

Our commitment to diversity in the company culture is enshrined in our Social Charter. We make it clear in the charter that we reject any form of discrimination and we require a working environment free of prejudice. Our diversity management plays a key role here.

We interpret diversity management as a long-term management function in order to deploy the right competences at the correct place in the company. The different personalities and capabilities of each individual are a central focus and they are regarded as an opportunity to learn from each other. This gives every employee the opportunity to fully exploit their potential, irrespective of their age, their gender, their origin, but also independently of their beliefs, disability and their sexual orientation.

We engage with age structures and age-appropriate employment in the company, analyse the requirements of different

generations and cooperation in mixed-age working teams. We also offer strategic packages for knowledge transfer and workshops.

**Material Topics** 

RWE addresses the challenges presented by changes in the world of work. These result from changed behaviour and mindsets of employees and from the advance of digitalisation. We provide support for this road route by making workplaces more flexible in terms of time (partly through parttime opportunities) and location (e.g. home office). At the same time, we are digitalising workplaces and structuring our facilities to meet current needs. In future, we will continue to assess whether ongoing digitalisation of processes is a sensible option.

RWE is committed to providing refugees with vocational qualifications. Since 2015, we have given a total of 270 people a wide range of different opportunities for gaining a foothold in the world of work. The focus for our approach is provided by internships (148), work experience sessions (36), entry-level qualifications (36), training places (22), temporary appointments (24) and a twin-track degree course with in-service training (4). For further information on commitment to refugees see ▶GRI 413-1, page 81.



RWE held its Diversity Week at a total of five locations in Germany and abroad. It has demonstrated just how diverse the workforce already is today. The week also highlights how the activities in the various subsidiary companies contribute to promoting a culture of inclusivity. This year, we organised an RWE Diversity Community Event for the first time in order to create an informal network and hence bring colleagues together from all areas of the Group who are driving diversity forward.

We are committed to topics related to gender and disability in the workplace and we engage in a continuous exchange of knowledge in the ENEI network, one of the biggest diversity networks in the English-speaking world. The active members include other corporations, ministries and NGOs. The exchange is carried out through workshops, online training sessions and discussion groups.

RWE also engages proactively in the networks Woman Career Index and it is a founding member of the Charter of Diversity.

#### Equal remuneration for women and men

Men and women at RWE are paid the same for equivalent activities. The compensation is based on the typical activities allocated to the remuneration groups. Gender is not mentioned at all in our compensation guidelines and is irrelevant for remuneration. The amount of pay is therefore dependent on qualifications, the activity being carried out and the experience of the employees.

The employee representatives ensure that equal treatment is maintained in the sphere of pay as in all other areas. The assignment to a tariff or salary group is linked to the job profile and is not dependent on gender.

In 2017, the Act to Promote Transparency of Pay Structures (Entgelttransparenzgesetz) came into force in Germany. The objective of the act is to implement the requirement of equal pay for women and men for equal or equivalent work. Against this background, pay regulations and structures are to be made more transparent for employees. Important building blocks of the law are an individual entitlement to information for employees and the reporting obligations for equality and equal pay. RWE implements all the statutory regulations and answers all enquiries from employees within the defined framework.

#### Appointing more women to management positions

We provide women with strategic support for entering our company structure and climbing up the career ladder. Our objective is to increase the greater proportion of women in management positions. For this purpose, we have successfully continued our Executive Mentoring Programme for women and our training directed towards preparation for taking up membership on supervisory boards together with the Fidar network (Women in Supervisory Boards).

The Women's Network at the RWE Group including innogy SE brings approximately 500 women at 14 locations together. Group-wide communication on the latest challenges in the energy industry is promoted at annual conferences and working groups, and motivation is provided to enable women to develop their individual career paths. We will continue to support them with more initiatives, for example the MINT Women initiative. This initiative brings together women in our company who have taken scientific and engineering degrees and strengthens the profile of women in professions where they continue to be underrepresented. Furthermore, it offers them a knowledge exchange platform and supports them with career development and through networking activities. Around 160 women from different hierarchical levels within the Group have taken part in the initiative. We have also launched a Mentoring Programme for women in MINT professions and the RWE Female Leader Initiative, which promotes networking for women managers within the RWE Group.

**Material Topics** 

The proportion of women in management positions was around 15% for the RWE Group without innogy SE at the end of 2018. It was 20% for innogy SE. The percentage was 29% for the first management level below the Executive Board of RWE AG. The percentage was 19% at the second management level below the Executive Board of RWE AG.

At the Supervisory Board meeting held on 23 June 2017, the Supervisory Board passed a resolution defining goals for the compliance period to 30 June 2022 in the form of target quotas. These amount to 0% for women in the Executive Board. A target quota of 30% was defined for the first management level. The target quota of 20% women in the second management level takes account of the current appointment situation and the difficult conditions in the employment market.

The number of women on the 20-strong Supervisory Board of RWE AG is currently six, of which three are drawn from the employee side, see ▶GRI 102-22, page 18. This means that the statutory regulations have been implemented. During the year under review, no women were present on the Executive Board of RWE AG.



#### **Promotion of inclusiveness**

In March 2014, the Executive Board of RWE AG adopted the RWE Inclusiveness Action Plan for the German Group companies and resolved to roll it out. RWE uses this plan specifically to promote the inclusion of people with disabilities in all the company's activities. The agreed targets will continue to be implemented in the companies of the RWE Group without innogy SE. Their sustainable impact is demonstrated in the constant employment rate for people with disabilities, in the package of internship places for young people with disabilities and the sustainable, barrier-free establishment of workplaces for people whose ability to take part in the workplace is compromised. Our community and social responsibility towards people with disabilities is defined across Europe through the Social Charter and the Charter of Diversity. This commitment will continue to be implemented in a practical way by campaigns to raise awareness and strategic measures in human resource development, training, employment and health measures and appropriate workplace design and a barrier-free approach. Employee

representatives also play a role in structuring and monitoring the implementation of inclusion here. The ratio of employees with disabilities at RWE in Germany was 9.4% in 2018 (2017: the correct value is 6.3%, rather than 1.4% published in the report in 2017). This means that we have complied with the statutory quota of 5.0%.

#### Combining work and private life

Combining work and private life is a top priority at RWE and the company promotes getting the work-life balance right within the framework of the individual national circumstances and the specific opportunities available in the Group companies. Framework conditions like mobile working and flexible working hours including management positions, and up to 24 months of unpaid special leave all contribute to making it easier to combine career and family. The Thielkasse health scheme is a joint venture by RWE AG and innogy SE that offers employees additional benefits to help them combine

career and health, alongside combining career and children or caring duties. For combining "Career and Children" there are additional packages for (prospective) parents including the Lumiland daycare nurseries located close to the company's premises. Employees are now also able to make use of nursery places in Essen, Dortmund and Cologne. Parent and child offices are also available, and a central mediation centre for childminders, nannies, emergency mothers and au pairs is also available – even in situations when private childcare is suddenly not available at short notice.

The spectrum of Career and Care services includes services for the care of relatives. For example, employees can get advice from an online portal about subjects like patient instructions and long-term care insurance, or they can also obtain expert advice at on-site events. We also provide support for our employees in selecting care services or organising support in the home.

GRI 405-1 Diversity of governance bodies and employees

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Proportion of gender in the RWE Group without innogy <sup>2</sup>						
in%	2018	2017				
Proportion of women in the company	11.2	10.3				
Proportion of men in the company	88.8	89.7				
Proportion of women in management positions <sup>1</sup>	15.3	15.0				

<sup>1</sup> Encompasses the first four management levels. Encompasses RWE AG, RWE Generation SE, RWE Power AG and RWE Supply & Trading GmbH.

 $<sup>\,2\,</sup>$  Figures for 2017 were presented retrospectively for RWE without innogy.

Age structure of the RWE Group without innogy <sup>1</sup>						
in%	2018	2017				
Proportion <20 years	1.4	1.2				
Proportion 20-24 years	4.6	4.4				
Proportion 25-29 years	6.3	5.5				
Proportion 30-34 years	7.7	6.9				
Proportion 35-39 years	8.3	7.4				
Proportion 40-44 years	7.7	8.2				
Proportion 45-49 years	11.2	13.9				
Proportion 50-54 years	21.5	23.3				
Proportion 55-59 years	22.7	21.3				
Proportion ≥ 60 years	8.6	7.9				

<sup>1</sup> Figures for 2017 were presented retrospectively for RWE without innogy.

A survey of data on minorities is subject to the individual national regulatory standards. Differentiation is therefore only possible on the basis of gender and age. For disclosures on the composition of the Executive Board and the Supervisory Board see

▶ RWE Annual Report 2018, page 196 and the ▶ RWE website. The career profiles of the Members of the Executive Board and the Supervisory Board can also be found here.



#### GRI 405-2 Ratio of basic salary and remuneration of women to men

RWE pays women the same salary as men when they are in equivalent positions. We observe the principle that employees at RWE receive remuneration on the basis of the activity carried out, independently of gender. The employee representatives also ensure that the principle of equal treatment is observed.

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### **Challenges**

Wherever we have operations, our actions exert an impact on local communities. Our power plants and opencast mines offer jobs and therefore support the structure of the individual regions. In some places, this has already been happening for a long time. We temporarily take over very large areas of land for our opencast mines. This is associated with serious changes in the profile of the landscape. In some cases, these operations may necessitate resettlements of individual villages or parts of local settlements. Furthermore, employee, supplier and customer traffic associated with our plants also exerts an impact on the neighbourhood.

### Organisation, management and performance measurement

We want to operate in a socially ethical way at our operating locations and be perceived in a positive light. With this in mind, we enter into dialogue with neighbouring residents and other groups which are impacted by our business operations or whose activities exert an impact on the business activities of RWE. Wherever we have operations, we want to cooperate with the local communities where we are working.

## Dialogue with neighbouring residents and other stakeholders affected

We engage in a lot of different stakeholder dialogues to communicate information and to involve neighbouring residents and other groups who are affected by our business activities. This is primarily related to our opencast mines and our power plants. For more information on integrating our stakeholders see ▶ GRI 102-43, page 22 and ▶ GRI 102-44, page 23.



Public interest in paying visits to opencast mines and power plants increased once again in 2018. During the past year, around 55,000 visitors took part in tours through the facilities and recultivation areas of RWE Power. Over the past ten years, RWE has welcomed around 600,000 visitors. Providing visitors with a transparent and factual picture of its operations is a top priority for RWE.

Furthermore, we maintain contact with neighbours as part of our donation and sponsoring activities. We focus on promoting youth work in regional associations and supporting local heritage and customs.

#### GRI 413-1 Operations with local community engagement, impact assessments, and development programmes

At all our major locations, we exchange views with the people living in the region. We regularly analyse the needs of communities and the impacts on the environment within the framework of the licensing procedure in Environmental and Social Impact Assessments. A detailed disclosure of the results is not practicable owing to the large number of licensing procedures.

Companius cooperates with its long-standing collaboration partners to develop volunteering projects in order to deliver aid to refugees. Employees throughout the entire RWE Group, from apprentices to the executive management, take part in team and individual projects to help displaced people. So far, a total of 239 members of staff have given a helping hand.

Our aim with the programme "3malE" Education with Energy, is to motivate young people for topics related to energy and engineering. We also discuss the energy supply of the future with them. In 2018, 825 experiment kits were loaned to 119 schools and two nurseries, 18,000 teaching packs were sent to teachers, and 24 members of staff went into schools as energy ambassadors.

The operation of opencast mines is unavoidably associated with interventions in the landscape and with the resettlement of local communities. RWE is very much aware of the impacts of these interventions for the region.

#### Structuring resettlement with a consensus

When people are being resettled, the important issues associated with this topic are not simply about fair compensation for their material assets. Intangible assets like tradition, community and a sense of belonging also play a key role. So that these needs can be met as far as possible, RWE has been committed for decades to the offer of community resettlement with the aim of finding solutions that are ethical and socially compatible. The people being resettled are involved on many levels in the process from the planning stage to implementation. They receive comprehensive support through the relevant government agencies, local authorities, and most importantly from our company. Their requirements also play a central role within the framework of the required licensing procedure. They are involved in selecting the location of the resettlement site and they play a key role in designing the new village. This ensures that the majority of the people being resettled are always involved in the resettlement of the community. Vibrant new settlements can be created in accordance with the ideas of the citizens. They can be provided with appropriate infrastructure where community life can be continued with familiar social structures and similar cultural life. Socially acceptable resettlement cannot be achieved without this input.

Since the 1940s, more than 40,000 residents have been resettled in a socially acceptable way. So far, 35 new and vibrant localities have been created as a result in this process. In 2018, around 160 properties were acquired in four localities alongside additional agricultural and other parcels of land.

#### Structuring new landscapes

Extraction of lignite by opencast mining inevitably leads to a temporary impact on the landscape. However, a key attribute for lignite opencast mining in the Rhineland is that simultaneous and sustainable reinstatement of the original use is a constituent element of the operating processes. Recultivation is therefore part of opencast operations throughout the entire lifecycle. It takes account of the environmental requirements and the leisure and recreational needs of the local community. Today, forested areas more than 80 years old can be found in recultivated former opencast mining districts, for example in Ville. Moreover, water meadows have been created along with areas of fertile agricultural land. For more information on reinstatement of opencast mines see ►GRI 304, page 56.



#### CATASTROPHE/EMERGENCY PLANNING AND RESPONSE

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

As the biggest power producer in Germany, RWE provides electricity as a product. If power were not available, a modern industrial and service society would not be conceivable in its present form. We are therefore a constituent element of the basic services known as critical infrastructure. According to the government's definition, this includes "organisations, institutions and facilities with important consequences for the governmental apparatus. If an electricity outage occurs or supply bottlenecks impact negatively over an extended period of time, public security would be subject to substantial disruption or dramatic consequences would be entailed." We are aware of our macroeconomic responsibility to society

as a whole. Security management is therefore a central management function at RWE. A major incident, involving for example a cyber-attack on electricity grids or power plants, can lead to complete supply outages, with extremely negative impacts on public life, and pose a threat to health and life in power plants and the surrounding area. Such an incident can also constitute a threat to the economic future of the company as a going concern. This means that it is necessary to adopt appropriate planning measures and implement relevant training programmes in order to cater for a broad spectrum of potential incidents – including incidents with a low probability of occurrence but entailing substantial impacts. Prevention of incidents like this is the primary goal.

#### Organisation and management

As an operator of critical infrastructure, reporting pathways to the government agencies involved are defined in legislation. We work together with government agencies to make preparations for the scenarios entailed in an emergency. Exercises simulating emergencies are carried out at local level and these generally take place in cooperation with the authorities operating on the ground there, for example the police and fire service.

In accordance with the Nuclear Safety Officer and Reporting Ordinance (AtSMV), the operators of nuclear facilities in the Federal Republic of Germany must report any notifiable events occurring to the relevant responsible state supervisory authorities. The aim and purpose of the official reporting procedure is to monitor the security status of these plants and to make improvements using the knowledge obtained from the reported events in the framework of the supervisory procedure.

However, the commitment of the Group extends beyond these statutory requirements. RWE is a member of the German Cyber Security Council (Cyber-Sicherheitsrat Deutschland e.V.), the Alliance for Cyber Security (Allianz für Cybersicherheit) of the Federal Ministry for Security in Information Technology (BSI) and UP KRITIS of the BSI. The latter is the initiative for cooperation between business and the state to protect critical infrastructures in Germany.

Group Security reports directly to the Executive Board of RWE AG. As part of its management function (governance), RWE defines Group-wide regulations for security. Business Continuity Management (BCM) and crisis management are a constituent element of this model. An integrated approach also entails establishment of management for information security and IT security governance within Group Security.

Processes critical for our business are identified in Business Impact Analyses and appropriate measures are taken. BCM plans are developed on the basis of these analyses. They minimise the impacts of outages at these facilities and provide effective reinstatement. The effectiveness of these plans is reviewed on a regular basis.

#### Measures and performance measurement

Integrated crisis organisation has been established for meeting the challenge of crisis situations. The organisation comprises central and local crisis staffs that introduce countermeasures depending on the individual incident. These crisis staffs are supported by crisis management plans. In addition, crisis exercises are carried out regularly to deal with different scenarios.

In 2018, our group-wide Cyber Security Awareness campaign "Human Firewall" was continued. A focus of the campaign was the phishing module with various waves. Employees receive an apparent introductory email in accordance with the usual approach adopted by attackers with prepared attachments. The click rates on these attachments were measured in order to monitor the effectiveness of the campaign.

Another focus was the protests at the Hambach opencast mine and Hambach Forest, some of which were violent. Alongside increasing preventive safety measures (e.g. surveillance), emergency and crisis-management plans were also modified in order to protect people, facilities and processes.

The notifiable events occurring at the sites of our nuclear power plants were also reported to the relevant supervisory authority in 2018 in accordance with the regulations of the Nuclear Safety Officer and Reporting Ordinance (AtSMV). The general public was also informed about all notifiable events through press releases. Out of a total of seven nuclear power plants operating in Germany in the year 2018, two nuclear power plants are operated by RWE Power AG (Emsland and Gundremmingen-C). A total of ten events at these two nuclear power plants were reported to the responsible supervisory authority. In 2018, a total of five reportable events occurred at the nuclear power plants no longer in operation. All the events were classified under the reporting category N (Normal), none were allocated to the reporting category E (Express).

Furthermore, all notifiable events were classified in the International Nuclear Event Scale (INES). Classification in accordance with INES is intended to provide the general public with immediate and uniform information about the safety and technical status of events. All fifteen events relevant for RWE were classified as 0 on the INES scale (none or only very low importance for technical safety).

#### GRI 414 SUPPLIER SOCIAL ASSESSMENT (IN ACCORDANCE WITH GRI STANDARDS 2016)

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)



See for general ► Management Approach on procurement GRI 204, page 38.

Depending on the requirement put out to tender, suppliers are also interrogated on criteria such as compliance with statutory regulations and RWE's internal rules for minimum wage within the scope of pre-qualification. Relevant criteria

are applied when we assess the offers submitted by our suppliers during the course of the tender process and the cost-benefit analysis. The regulations governing the contractual relationship with individual suppliers are explicitly agreed in separate contractual clauses on the basis of a risk assessment for specific product groups.

#### GRI 414-1 New suppliers that were screened using social criteria

We interpret impacts on society in many different ways. To this end, we have developed a range of different measures in order to ensure that our suppliers act in conformity with social and ethical principles, and in accordance with the law.



We are only able to report on human rights in the context of audits carried out by Bettercoal, see ▶GRI 204, page 38. An overview of the producers audited by Bettercoal is provided on the ▶Bettercoal Website. We regularly audit all our suppliers for conformity with potential compliance risks. An exceptional situation arises when procurement is carried out in the wholesale markets. Here an appraisal is not possible due to an absence of direct supplier relationships. Since

there are no direct supplier relationships, RWE has adopted a variety of different measures in order to ensure that our suppliers act in accordance with the Code of Conduct, the national legal system and internationally recognised principles for compliance with social and ethical principles. Wherever possible, the standards are implemented through our contractual agreements and our compliance procedures embedded in the initial processes.

Approximately 1,400 suppliers were evaluated for occupational safety where procurement procedures involved hazard potential in the pre-qualification procedure to assess their suitability, see ► GRI 204, page 38.



#### GRI 414-2 Negative social impacts in the supply chain and actions taken

The RWE Purchasing Department does not maintain any business relationships with suppliers if there is information in the public domain indicating that they breach the principles underlying the Global Compact. RWE is committed to implementation of the Global Compact.

Information "in the public domain" relates to all generally accessible sources from which information can be obtained. Press reports containing merely the suspicion of a breach are not sufficient in this case. Rather, we rely on legally admissible or officially confirmed facts. Furthermore, we use published negative lists (World Bank Listing of Ineligible Firms and Non-Responsible Vendors) drawn up by the World Bank based in Washington/USA. When suppliers are in contention for being included on the list of RWE's suppliers, the background check is carried out by the relevant purchaser

before any orders are awarded. In the case of existing suppliers, the review is performed centrally in the vendor accounts section.

We work together with external organisations in order to improve standards in our supply chain as far as possible. One example of this is the Bettercoal audit process for coal suppliers. They were audited e. g. in relation to working practices, social impacts of coal mining and cooperation with suppliers to develop continuous improvement plans. An overview of the producers audited by Bettercoal is available on the Bettercoal website. We regularly check all suppliers for conformity with potential compliance risks.

**Material Topics** 

About the Report

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

A secure supply of electricity at all times is part of public service. As part of this obligation, the operation of power plants is subject to a large number of statutory and downstream regulations in the EU, at national and partly also at regional level. Political decisions leading to changes in existing regulations or implementation of new regulations therefore exert a major influence on our business activity. Additionally, developments at international level outside the EU also exert an indirect influence, for example at international level.

#### Organisation and management <a> </a>

RWE bases its actions on the applicable legal framework conditions and ensures compliance with the existing regulatory standards. It is equally important that we explain our actions here and inform others about the impact of existing and planned legal and sublegal regulations. A top priority here is objective fact-based presentation. We also participate in dialogue at the political and community levels, both in direct personal contact and through the media and the Internet (social media channels). Communication with our stakeholders provides us with helpful ideas for aligning our entrepreneurial activities. Particularly at the present time when the company is undergoing change, it is important to discuss expectations and assessments for the future of the energy supply with as many external stakeholders as possible so as to reflect the diversity of different positions. At the same time, dialogue gives us the opportunity to provide better communication of corporate decisions and the underlying motives. This approach means that we also believe part of our role is to act as advisors for a successful energy transition which achieves a balance between climate protection, competitiveness and certainty of supply. We believe we have an obligation to provide answers for our stakeholders and we want to be a credible partner in the discussion on an equal level. This enables us to meet the expectations of transparency placed on us by society, see ▶ GRI 102-43, page 22 and GRI 102-44, page 23.



Our conduct in relation to policymakers is clearly regulated in the Code of Conduct, see ▶ GRI 102-16, page 16. We state there that dialogue with representatives of government institutions and political parties is indispensable as far as we are concerned. However, we want to avoid giving the appearance of exerting undue influence in these contexts.

We have therefore made a commitment to strict neutrality in relation to political parties and we do not make any donations to political parties, or organisations and foundations which are closely related to political parties. Employees have the opportunity to report breaches of the Code of Conduct through various channels, see ▶ GRI 102-17, page 16.



#### Measures and performance measurement ✓

The Group Communications & Public Affairs Department at RWE AG coordinates our contacts. The Department Head reports directly to the Chief Executive Officer. RWE maintains two liaison offices in Brussels and Berlin as points of contact. Since 2010, we have been entered in the Transparency Register of the European Union. We publish a number of disclosures there including the costs for our liaison office in Brussels which amounted to € 2 million during the period under review. We would welcome establishment of a Transparency Register in Berlin based on the Brussels model. On request, we already disclose voluntarily information about our budget, the number of employees and other information.

In 2018, we had direct contact with politicians, for example through discussion formats in Berlin and Brussels. Topicrelated "Power plant Talks" were held at the sites of nuclear power plants and a dialogue has been established with local-authority politicians in the Rhineland Mining Area. Furthermore, we communicate indirectly through the associations we belong to, for example the German Association of Energy and Water Industries (BDEW). See also ▶ GRI 102-13, page 13.



In 2018, the main themes in discussions with politicians related to the energy transition and general climate protection policy. The Winter Package from the EU Commission was a particular focus in the EU. The focus in Germany was on the Climate Protection Plan 2050 and the future of coal and on national implementation of the tightening of the EU emissions regulations for power stations (BREF LCP). In the Netherlands, we engaged with a number of topics in discussions with government including renegotiation of a national energy agreement, exit from coal and the minimum price for CO<sub>2</sub>, and the role of co-incineration of biomass as a contribution to the Dutch CO<sub>2</sub> reduction strategy, see ▶GRI 102-43, page 22 and GRI 102-44, page 23.



**Material Topics** 

new European emissions regulations (BREF LCP) and on national climate protection policy.

#### **GRI 415-1 Political contributions**



RWE has made a commitment to neutrality in relation to political parties and we do not make any donations to politi-

cal parties, or organisations or foundations which are closely related to political parties.

#### GRI 417 MARKETING AND LABELLING (IN ACCORDANCE WITH GRI STANDARDS 2016)

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

We provide customers with a secure and reliable supply of electricity, gas and heat at all times. It is only possible to reach an informed decision about a product if it is transparently labelled. There are different statutory regulations on labelling in the countries where we supply customers. Particularly detailed regulations on the labelling of electricity are on the statute book in Germany.

#### Organisation, management and performance measurement

#### Transparent product labelling

We want to provide all our customers with comprehensive and transparent information about the energy mix of the individual product and the associated environmental impacts. As part of various marketing activities, innogy SE is committed to a high level of customer satisfaction, see ▶GRI 417 in the innogy Sustainability Report, page 107.



#### GRI 417-1 Requirements for product and service information and labelling

Electricity labelling is an instrument for increasing market transparency in the electricity market. All electricity bills issued by the RWE Group including innogy SE throughout Europe include information on the energy mix, CO<sub>2</sub> emis-

sions and radioactive waste in accordance with the statutory regulations. Furthermore, the data are also published on the Internet pages of RWE Supply & Trading GmbH, for innogy SE corporate customers and for innogy SE residential customers.

#### GRI 419 SOCIOECONOMIC COMPLIANCE (IN ACCORDANCE WITH GRI STANDARDS 2016)

GRI 103 Management approach (including 103-1, 103-2, 103-3) (in accordance with GRI Standards 2016)

#### Challenges

Integrity, honesty, acting in accordance with the law and respect for our fellow human beings and the environment form the basis of our entrepreneurial activity. We are subject to laws, regulations and comparable rules and procedures. These conditions and the RWE Code of Conduct form the framework for carrying out our operations. Any breaches may entail significant consequences for the financial result and reputation of RWE. Individual employees may also be personally liable. A top priority for our employees and subcontractors is that their conduct and actions should be in accordance with the law and ethical principles. We have defined these principles for conduct with binding effect in the RWE Code of Conduct.

#### Organisation, management and performance measurement

The principles of general compliance and the Compliance Management System are defined by the Chief Compliance Officer of RWE AG for RWE AG, RWE Generation SE, RWE Power AG, RWE Nuclear GmbH and RWE Supply & Trading GmbH. An independent Chief Compliance Officer has been appointed for innogy SE. This officer is responsible for the Compliance Management System at innogy SE, see the ▶innogy Sustainability Report GRI 205, page 43.



The Chief Compliance Officer of RWE AG is supported in complying with his functions and responsibilities at the level of RWE AG by Compliance Managers and at the local level by the Compliance Officers of the individual RWE companies.



The focus of activity for the content is on prevention of corruption, see ► GRI 205, page 42. Alongside this function, measures for export control compliance and prevention of money laundering are developed further and implemented.

The compliance function at RWE AG has taken on a coordinating and consolidating role for other compliance areas defined for RWE such as competition and antitrust law, company and capital market law, employment law and environmental protection, occupational health and safety, and data protection. The Chief Compliance Officer of RWE AG bundles these compliance areas within integrated compliance reporting to the Executive Board and the Audit Committee of RWE AG. However, responsibility for operational content always remains with the functions bearing individual responsibility for areas such as legal affairs, employment law and Group data protection. The legal departments of RWE AG, RWE Generation SE, RWE Power AG and RWE Supply & Trading GmbH provide legal advice on issues relating to company law in conjunction with investment management and joint ventures, in the context of M&A transactions and project finance. The Legal Department is also responsible for dealing with basic issues relating to energy law, legal issues and procedures in regard to merger monitoring, competition and trademark law. The department also provides support for procurement, property management and the IT Department. All the internal experts in employment law

from the affiliated national companies of the RWE Group are in turn bundled within the employment law function. They are responsible for all matters relating to personal and collective legislation. The employment law experts also organise the engagement of external consultants for all the companies in relation to issues of employment law and any associated matters.

#### Anti-competitive behaviour

It is important for our company to be perceived as trustworthy and transparent. We earn this trust through fair conduct. RWE also keeps within the law and complies with legislation in competitive situations. Our efforts are directed towards ensuring that all our business activities are in accordance with the conditions of fair competition at all times. We also observe regulatory and anti-trust requirements for unbundling. Our operations are based on these rules. In this way, we therefore meet our responsibility as a major player in the economy.

In order to prevent anti-trust, anti-competitive behaviour, we raise the awareness of all employees and management including Members of the Executive Board to this issue. Attendance events, online training sessions and individual needs-specific specialist presentations are held within the Group on the requirements relating to conformity with behaviour in accordance with competition legislation.

GRI 419-1 Non-compliance with laws and regulations in the social and economic area

Our Group-wide survey on fines due to incidents of corruption revealed that no sanctions had been incurred in this area.

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**APPENDIX** 

### **ASSURANCE REPORT**

Independent Practitioner's Report on a Limited Assurance Engagement on Non-financial Reporting and Sustainability Information<sup>1</sup>

About the Report

To RWE AG, Essen

We have performed a limited assurance engagement on the sustainability disclosures denoted with ✓ (hereinafter the "Sustainability Information") and the separate non-financial group report pursuant to § (Article) 315b Abs. (paragraph) 3 HGB ("Handelsgesetzbuch": "German Commercial Code") (hereinafter the "Non-financial Report") contained in sections with blue font of the Corporate Responsibility Report "Unsere Verantwortung 2018" of RWE AG, Essen, (hereinafter the "Company") for the period from 1 January 2018 to 31 December 2018 (hereinafter the "Sustainability Report").

#### **Responsibilities of the Executive Directors**

The executive directors of the Company are responsible for the preparation of the Sustainability Information in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter the "GRI-Criteria") and the Non-financial Report in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB and for the selection of the Sustainability Information to be evaluated.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of sustainability reporting and non-financial reporting as well as making assumptions and estimates related to individual non-financial disclosures which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of a Sustainability Report that is free from material misstatement whether due to fraud or error.

#### Independence and Quality Control of the Audit Firm

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

Our 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 Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis – IDW QS 1) – 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 a limited assurance conclusion on the Sustainability Information denoted with and the Non-financial Report contained in sections with blue font of the Sustainability Report based on the assurance engagement we have performed.

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

<sup>1</sup> PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the Corporate Responsibility Report and issued an independent practitioner`s report in German language, which is authoritative. The following text is a translation of the independent practitioner`s report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that

- the Sustainability Information denoted with ✓ in the Company's Sustainability Report for the period from 1 January 2018 to 31 December 2018 has not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.
- the Non-financial Report contained in sections with blue font of the Company's Sustainability Report for the period from 1 January 2018 to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement, and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the Sustainability Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Sustainability Report
- Identification of the likely risks of material misstatement of the Sustainability Report
- Analytical evaluation of selected disclosures in the Sustainability Report

■ Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the group management report

**Material Topics** 

- Evaluation of the presentation of the information
- Inspection on sample basis of relevant documentation and other pieces of evidence

#### **Assurance Conclusion**

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that

- the Sustainability Information denoted with ✓ in the Company's Sustainability Report for the period from 1 January 2018 to 31 December 2018 has not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria,
- the Non-financial Report contained in sections with blue font of the Company's Sustainability Report for the period from 1 January 2018 to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB

#### **Intended Use of the Assurance Report**

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

Essen, 11 March 2019

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft

Michael Conrad public auditor

ppa. Juliane v. Clausbruch

### **KEY SUSTAINABILITY INDICATORS**

**V** 

#### **Economic performance indicators**

#### **Installed capacity**

Power generating capacity	1							
in MW	Gas	Lignite	Hard coal	Nuclear energy	Renewable energy	Pumped water, Other	Total 2018	Total 2017
Lignite & Nuclear	400	10,255		2,770	7	27	13,459	14,297
European Power	13,686	_	7,210		331	2,679	23,906	24,727
Of which:								
Germany <sup>2</sup>	3,767	_	3,6753		55	2,375	9,872	10,125
United Kingdom	6,676	_	1,560		55	304	8,595	8,541
Netherlands/Belgium	2,456	_	1,975	_	221	_	4,652	5,274
Turkey	787		_		_		787	787
Continuing innogy operations	235	_	10	_	3,955	137	4,337	4,245
RWE Group	14,321	10,255	7,220	2,770	4,293	2,8444	41,7034	43,269

<sup>1</sup> as at: 31.12.2018

#### Power generation by primary energy source

Power generation	Lig	nite	Hard	coal	G	as		lear ergy	Renev		Pum water,	ped Other	То	tal
in billion kWh	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Lignite & Nuclear	67.2	74.2	_	-	-	_	21.8	30.3	-	_	0.2	0.7	89.2	105.2
European Power	-	_	27.4	29.3	47.2	52.9	-	_	1.1	1.1	2.3	2.4	78.0	85.7
Of which:														
Germany <sup>1</sup>	-	-	13.0	13.3	5.5	7.4	-	_	0.7	0.7	2.3	2.4	21.5	23.8
United Kingdom	-	_	0.5	2.6	33.2	32.4	-	_	0.4	0.4	-	_	34.1	35.4
Netherlands/Belgium	_	_	13.9	13.4	5.5	9.3	-	_	-	_	-	_	19.4	22.7
Continuing innogy operations	-	-	-	-	-	_	-	_	8.8	9.3	-	_	8.8	9.3
RWE Group	67.2	74.2	27.4	29.3	47.2	52.9	21.8	30.3	9.9	10.4	2.5	3.1	176.0	200.2

<sup>1</sup> Including electricity purchases from power plants which are not owned by RWE but that we can deploy at our discretion on the basis of long-term contracts. In 2018, this electricity amounted to 5.0 billion kWh (previous year: 6.3 billion kWh), of which 2.3 billion kWh (previous year: 3.5 billion kWh) was generated by hard coal-fired power plants.

<sup>2</sup> Including generating capacities which are not owned by RWE but that we can deploy at our discretion on the basis of long-term contracts. At the end of 2018, these plants taken together generated a net output of 2,986 MW, including hard coal-fired power plants with a total output of 783 MW.

<sup>3</sup> The hard coal-fired power plant Bergkamen (720 MW) is still including in the figure; we sold our 51% share in the plant on 1 January 2019.

<sup>4</sup> Including low generating capacities at RWE Supply & Trading.

Corporate Governance	Unit	2018	2017
R&D costs <sup>1</sup>	€ million	116	182
Proportion of women in the company <sup>2</sup>	%	11.2	10.3
Proportion of women in management positions <sup>3</sup>	%	15.3	15.0
Share of the RWE Group's revenue earned in countries with a high risk of corruption <sup>4</sup>	%	12.2	10.5



- 1 In accordance with the ▶ RWE Annual Report page 24.
- 2 Data for the RWE Group without innogy, Data for 2017 were adjusted retrospectively.
- 3 Encompasses the top four management levels; from 2018, only RWE AG, RWE Generation, RWE Power AG, RWE Supply & Trading GmbH.
- 4 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.

#### Environmental performance Indicators<sup>1</sup>

Environmental Performance Indicators <sup>1</sup>	Unit	2018	2017
Specific NO <sub>x</sub> emissions	g/kWh	0.41	0.417
Specific SO <sub>2</sub> emissions	g/kWh	0.16	0.197
Specific dust emissions	g/kWh	0.01	0.017
Ash <sup>s</sup>	thousand mt	6,344	7,746
Gypsum <sup>8</sup>	thousand mt	1,517	2,052
Primary energy consumption <sup>9</sup>	million GJ	1,177	1,3457
Water consumption <sup>2</sup>	m³/MWh	1.53	1.447
CO <sub>2</sub> emissions EU ETS <sup>3</sup>	million mt	116.9	130.47
CO <sub>2</sub> emissions Scope 1 <sup>4</sup>	million mt	120.4	135.6
CO <sub>2</sub> emissions Scope 2 <sup>5</sup>	million mt	5.07, 10	1.0
CO₂ emissions Scope 3 <sup>6</sup>	million mt	188.7	84.0
Specific CO <sub>2</sub> emissions EU ETS	mt/MWh	0.670	0.6587
Specific CO <sub>2</sub> emissions Scope 1	mt/MWh	0.684	0.6777
Share of the Group's power generation accounted for by renewable energy	%	5.6	5.6

- 1 All plants were included where RWE is the operator of the plant.
- 2 Difference between the water consumption of the plants and returns to rivers and other surface waters; up to 2015, excluding power plants with seawater cooling, including cooling-tower losses.
- 3 Plants which fall under the scope of the European Emissions Trading Scheme (EU ETS) including figures for generating capacities which are not owned by RWE that we can deploy at our discretion on the basis of long-term agreements. In 2018, these plants emitted 2.0 million metric tons of CO<sub>2</sub> (previous year: 3.1 million metric tons).
- 4 Scope 1: EU ETS amounts plus the emissions from plants which do not fall under the scope of EU ETS. The values for CO<sub>2</sub> emissions Scope 1 (in accordance with GHG Protocol) also include the emissions from innogy.
- 5 Scope 2: indirect CO<sub>2</sub> emissions from the transmission and distribution of electricity purchased from third parties in our own grids. Increase in the value for 2018 compared with 2017 as a result of increased amounts of electricity purchased by innogy from third parties outside the Group.
- 6 Scope 3: indirect CO<sub>2</sub> emissions that do not fall under Scope 1 and Scope 2, produced through the generation of electricity, produced through the generation of electricity procured from third parties, the production and distribution of used combustion fuels, as well as the consumption of gas sold to customers. Increase in the value for 2018 compared with 2017 as a result of increased amounts of electricity purchased by innogy from third parties outside the Group. The data for 2018 were calculated on the basis of the new reporting structure.
- 7 Figures for 2017 were adjusted to the new reporting structure.
- 8 Figures for 2017 for RWE including innogy, from 2018 the figures will be shown for RWE without innogy.
- 9 Fossil fuels used without biomass. Figure for 2017 was corrected retrospectively for RWE without innogy.
- 10 Calculation on the basis of the countries with principal share (Germany, United Kingdom, Netherlands, Hungary).

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#### Social performance indicators

Social performance indicators	Unit	2018	20171
Workforce <sup>2</sup>	FTE	15,556	17,154
Fluctuation rate	%	5.5	5.4
Training days per employee (Germany)		3.5	3.7
Health ratio	%	93.5	93.5
Work-related and commuting accidents	LTI <sub>F</sub> <sup>3</sup>	1.9	2.295
Work-related and commuting accidents without innogy	LTI <sub>F</sub> <sup>3</sup>	2.2	2.49
Fatal work-related accidents <sup>4</sup>		2	3

<sup>1</sup> Data for 2017 were shown retrospectively for RWE without innogy.

<sup>2</sup> Employees and apprentices of the RWE Group without innogy. Data for 2017 adjusted retrospectively.

<sup>3</sup> Lost Time Incident Frequency (sum of all accidents resulting in at least one day of absence for every 1 million hours worked); Data from 2012 including reports known to us from third-party companies (subcontractors).

 $<sup>{\</sup>bf 4}\,$  Incl. Employees of innogy and partner companies (subcontractors).

<sup>5</sup> Data including innogy.

### PROGRESS REPORT ON THE GLOBAL COMPACT 2018

About the Report

RWE supports the United Nations Global Compact and wants to make a contribution to 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 (systems) which we have also introduced to support the implementation of the ten principles within our sphere of influence. The table also highlights the measures that have been taken during the period under review and the specific results obtained (achievements). The implementation of the ten principles also assists us in making the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 a reality. The table presents the most relevant SDGs for us out of all the 17 goals:

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The table shows the individual objectives to which we make a contribution:

Principle	Systems	Measures	Results	Contribution to SDGs	
Principle 1: Support for human rights	ILO core standards are defined in the Social	Assessment and audit of suppliers (pp. 39)	Compliance with principles 1–5 assured through	5.5: Ensuring full and effective participation	
Principle 2: Elimination of human rights violations	Charter  RWE Code of Conduct (p. 16)	Co-founder and member of the "Bettercoal" initia- tive, independent audit- ing of coal mines, appli-	national legislation in Europe, cooperation with the unions, and RWE's own principles which apply to	of women and their equal opportunities to take up manage- ment roles at all levels	
<b>Principle 3:</b> Ensuring freedom of association	Minimum standards in restructuring measures for	cation of information for standardised and multi-	all employees of the com- pany	of decision-making in political, business and public life;	
Principle 4: Abolition of all forms of forced labour	the European companies of the RWE Group sta ter Supplier Management me	stage process for "Coun- terparty Risk Assess- ment" of potential	Pay and social benefits above the relevant national average	8.5: By 2030, achieving productive full employment and	
Principle 5: Abolition of child labour		,	5: Abolition of	suppliers (p. 39)	2 extensive self-assess- ments and the results of 6 on-site audits available through Bettercoal
			On-site participation of RWE as an observer in the independent Bettercoal auditing process (p. 40)	people with disabili- ties, and the same pay for equivalent work	
Principle 6: Elimination of discrimination	Diversity Management (p. 78) Women's network at RWE and innogy (p. 79)	Diversity Week presented diversity and activities to promote an inclusive culture (p. 78)	Percentage of women in management positions was around 15% for RWE AG without innogy (p. 79)		
and innogy (p. 7	and innegy (p. 19)	RWE Diversity Community Event (p. 78)	Percentage of people with severe disabilities was		
		Initiative MINT women (p. 79)	9.4% for RWE employees in Germany (p. 80)		
		RWE Female Leader Initiative (p. 79)	39 places in preparation for training with a place- ment rate of 80% (p. 77)		
		Entry-level qualification "I can do it!" ("Ich pack' das!") in preparation for training (p. 77)			

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Principle	Systems	Measures	Results	Contribution to SDGs	
<b>Principle 7:</b> Precautionary environmental protection	Environmental management (pp. 68) Energy management	Annual audit for setting up environmental management systems in conformity with ISO 14001	Level of coverage for environmental manage- ment related to the Group: 100%, of which 89% exter-	7.1: By 2030, achieve general access to affordable, reliable and modern energy	
	(p. 52)	(p. 69)	nally certified (p. 69)	services;	
	Strategy to reduce the CO <sub>2</sub> emissions (p. 49, 60)	Recording the interfaces of activities with water	Level of coverage with cer- tified energy management	7.3: By 2030, double the rate of increase	
	Financial risks associated with emissions trading are presented in risk manage-	bodies and determining the impacts (p. 54)	systems for the RWE Group (without innogy): 79% (p. 52)	for energy efficiency worldwide;	
	ment (p. 35, 61)	Since 2015, RWE has a Biodiversity Policy (p. 56)	Reduction of CO <sub>2</sub> emissions by 34% since 2012	9.4: By 2030, modernise infrastructure and upgrade indus-	
	Biodiversity strategy for land in the Rhineland lignite mining area (p. 56)		(p. 61)	tries in order to make them sustainable with	
	The responsible approach to natural resources and promotion of the use of environmentally friendly technologies are defined	Initiative for Education with Energy 3malE (researching, discovering	Around 3,000 animal species and 1,500 plant species verified over the entire recultivation programme (p. 57)  These include more than 200 animal and more than 180 species of fungus and plant, which are listed as "at risk" or are classified as "under threat from" according to the Red List of the State of North Rhine-Westphalia	more efficient use of resources and increased use of clean and environmentally compatible technologies and industrial processes, with all countries taking measures in accordance with their individual capacities;  13.1: Strengthen the resilience and the adaptability in	
	in the RWE Code of Conduct (p. 68)				
	Surveying environmen- tally relevant criteria in supplier management as				
	part of pre-qualification (p. 70)				
<b>Principle 8:</b> Initiatives to promote greater environmental responsibility			Offerings for use of flexi- bilities through the Flex2 Market Model (p. 46)	respect of climate- related risks and natu- ral catastrophes in all	
		and experiencing energy) (p. 36, 81)	825 experiment kits were lent to 119 schools and 2 nurseries (p. 81)	the states.  15.5: Take prompt and significant measures in order to reduce deterioration of natural habitats, to bring the loss of biological diversity to an end and to protect	
		Energy blog www.en-for- mer.com on current top- ics in the energy industry			
		Distribution of fact-based knowledge on social media			
Principle 9: Development and dissemination of environmental technologies	Strategy to reduce CO <sub>2</sub> emissions (p. 49, 60)	Research on using lignite as a material (p. 48)	Modernisation of the power plant portfolio	species under threat by 2020 and to pre- vent their extinction.	
	Financial risks associated with emissions trading are presented in risk management (p. 35, 61)	Research on increasing the flexibility and effi- ciency of conventional plants (p. 47)	(p. 34, 52, 60)  Conversion of existing power plants to biomass co-combustion in the Neth-		
	Research and develop- ment (p. 47)	Research on storage technologies and power- to-X technologies (p. 34)	erlands (p. 34)		

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Principle	Systems	Measures	Results	Contribution to SDGs
ruption measures C	RWE Code of Conduct and Group Guidelines for pre- vention of corruption and organisational regulations (p. 42)	Updating and expansion of corruption risk scenarios and risk assessments of RWE companies (p. 43)	Feedback rate for the management survey is 100% (p. 42)	16.5: Significantly reduce corruption and bribery in all its forms
	Compliance Management System for anti-corruption (p. 42)	Management survey for implementation of the Code of Conduct (p. 42)		
		Training of the workforce with a web-based train- ing programme and on- site training (p. 43)		
		Employees and third parties outside the company such as suppliers or business partners have the opportunity to contact an independent external ombudsperson by phone or email in relation to negative environmental, social and human-rights issues, as well as on working practices (p. 16)		

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