

# Can we make energy more sustainable?

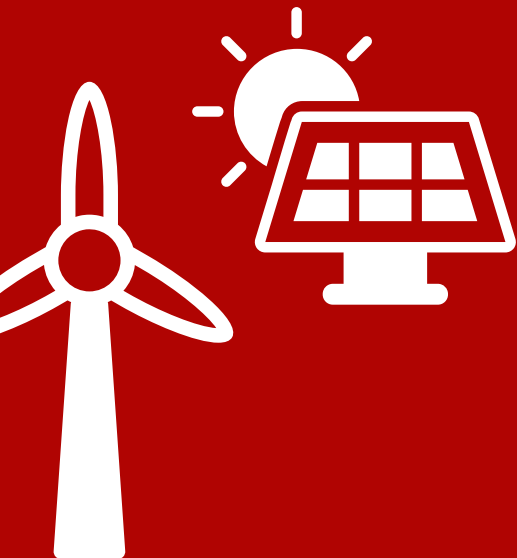
The challenge is **·on**

***e·on***

**2018  
Sustainability Report**

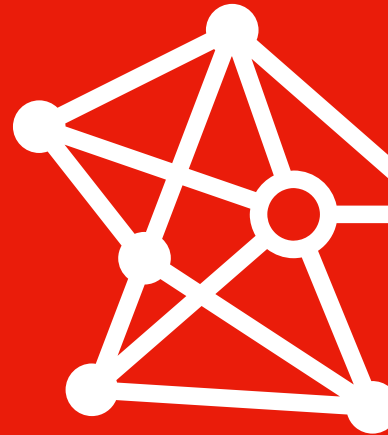
## Decarbonisation

Carbon dioxide emissions need to be reduced substantially to limit the increase in global temperatures to 1.5 degrees Centigrade. The energy system in particular will need to undergo a profound transformation by mid-century: a shift from fossil fuels to renewables, greater energy efficiency, and climate-friendly solutions for heat and transportation.



## Decentralisation

The feed-in of electricity from distributed generation assets, whose output fluctuates continually, is increasing. This creates big challenges for distribution grid operators. The deployment of smart-grid and smart-home technology will be needed to support the energy transition while ensuring supply security.



## Digitalisation

The ongoing decentralisation of the energy system isn't feasible without digitalisation. Network and automated technologies are becoming more prevalent in power grids and in customers' homes and businesses. New digital markets and services are emerging, as are digital solutions that make energy use transparent and help customers find ways to reduce it.



## Democratisation

Passive energy consumers are becoming active market participants. More and more people, companies, and entire cities are producing their own low-carbon power and using smart technology to manage their energy consumption. They want to become more engaged, more energy-autonomous and to actively benefit from the energy transition.



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How do you meet the challenge?  
**"By bringing  
our vision to life."**



**Leonhard  
Birnbaum**  
Chief Sustainability  
Officer, E.ON SE

Energy – from the taming of fire to the latest advances in battery technology – has transformed human society for thousands of years. Over time, energy has become more available to more people, making their lives easier and creating countless new possibilities. These advances were achieved by bold, creative, and indefatigable pioneers. Europe's energy system is currently amid an exciting transformation. Energy is increasingly renewable, sustainable, and democratised: it's being put back into the hands of the many.

We put customers at the heart of our business. By ensuring that they have a reliable energy supply. By providing them with individually tailored energy solutions. And by deepening our understanding of their needs and building lasting relationships with them. And we want all customers – individuals and families, companies and entire cities – to join us on the journey to a new energy world. To overcome its challenges and enjoy its benefits. To pioneer together in making Europe's energy supply secure, sustainable, and climate-friendly. Our vision is to be the energy company that partners with customers to propel the energy transition, power the digital age, and empower people to be more energy-autonomous.



How do you meet the challenge?

**"By conserving energy  
but assuring a  
warm welcome."**



**Jill Lees**  
tado° customer  
in the UK and  
E.ON employee

A heating system that thinks for itself? Sounds futuristic, but it's already happening. The heating in my house is equipped with a smart thermostat made by tado°, which E.ON has offered in Britain since 2017. I use it to remotely control the temperature in my house as well as the hot water heater. I travel a lot on business which means I return home at very different hours and sometimes very late. I want to come home to a warm house. And I don't want to heat the house when I'm gone for a few days or a week. That's where tado° comes in: it turns the heating off when I'm away, but turns it back on in time to make the house nice and warm when I get back. It can also adjust the heat setting to the weather forecast, for example by using less heat on sunny days.

Before this I used a heat-control app called E.ON Touch. It inspired me to try tado°, which I like so much I've already recommended it to friends. It's easy to set up and use. And you can control it anytime and from anywhere using a smart-phone app. Before E.ON Touch and tado° I reduced the temperature manually when I left and so would come home to a cold house. Both solutions have helped me conserve energy and reduce my heating costs. They're also convenient and have enhanced my home comfort. I recently moved into a new home, and the remodelling plans for it will definitely incorporate more smart solutions.



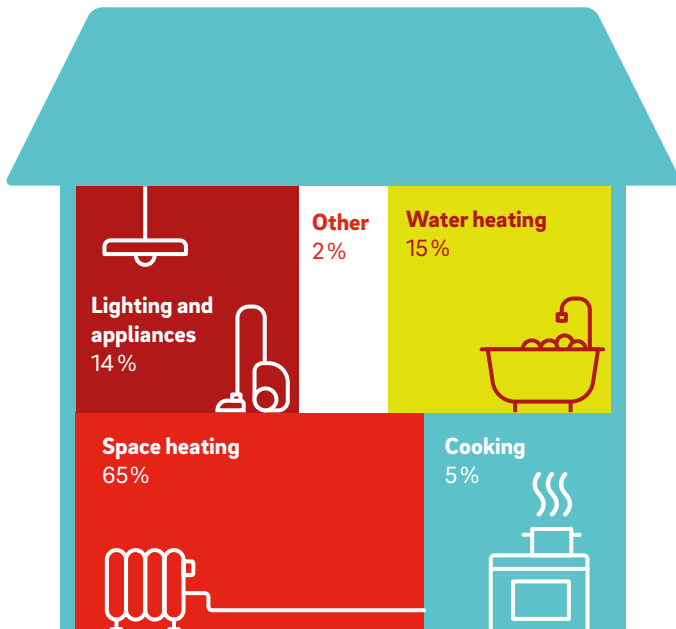
# Energy saving begins at home

Households use a lot of energy. Helping our residential customers use less shrinks their energy bill and their carbon footprint. Our smart-home devices and energy-management systems enhance a home's comfort while reducing its climate impact. We also offer easy-to-use online energy audits and apps that help residential customers better understand their energy consumption and identify ways to reduce it.

## Which sector uses the most energy in the EU?<sup>1</sup>

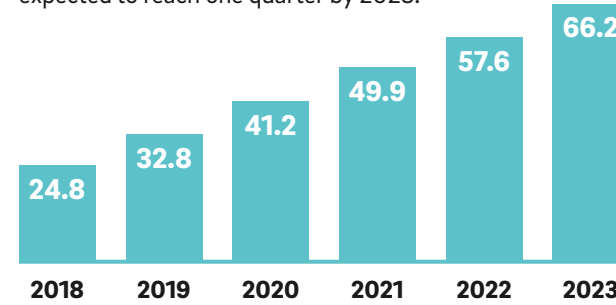


Households consume a quarter of the EU's energy, mainly for heating.<sup>2</sup>



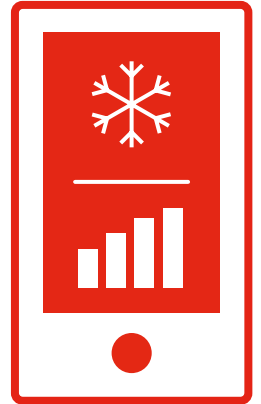
## Smart homes in Europe (in millions)<sup>4</sup>

In 2018 almost one tenth of EU households were smart, meaning they used digital solutions to remotely control heaters, lighting, or other devices. The proportion is expected to reach one quarter by 2023.



**tado° smart thermostats can reduce our customers' heating bill by up to 31%**

That's around €220 a year.

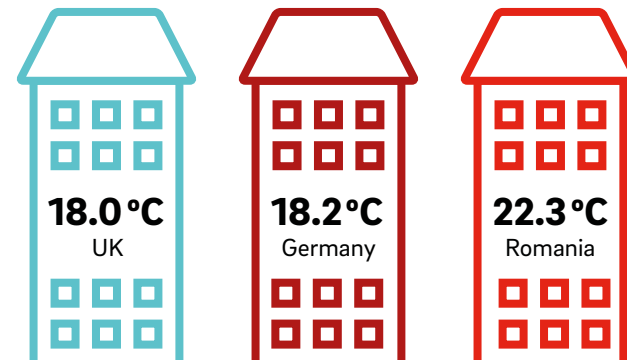


**4.2m**

Number of residential customers who use our online services

## Preferred bedroom temperature<sup>5</sup>

Britons have Europe's coolest bedrooms, Romanians its cosiest.



Amount of certified green power and gas we supplied to our residential customers in 2018:



<sup>1</sup>Final energy consumption, EU-28, 2015, Eurostat. <sup>2</sup>Final energy consumption of households, EU-28, 2016, Eurostat.

<sup>3</sup>Own estimate based on GHG emissions, EU-28, 2016, European Environment Agency. <sup>4</sup>Statista. <sup>5</sup>E.ON and EMNID.

How do you meet the challenge?

**"By reducing traffic to a whisper."**



**Jonas Kamleh**  
Strategist,  
Environment Department,  
City of Malmö

Mobility without emissions or noise. That's one of the ways we intend to make Malmö, Sweden's third-largest city, its most sustainable. In fact, we aim for Malmö to run solely on renewables by 2030. That will take smart solutions for energy supply, transport, infrastructure, and consumption. Like providing people with easy access to places where they can charge their electric vehicle (EV) with surplus renewable energy. EV ownership here is rising faster than the national average. Moreover, half of our city buses are already electric. EVs running on renewable energy – along with more car-sharing, cycling, walking, and public transport – will make Malmö cleaner and quieter. More EVs, though, will need more places to charge. That's where E.ON comes in. E.ON is installing charging stations in parking facilities so people can recharge their EVs on the go.

Malmö has already made huge strides toward becoming a sustainable smart city. People are at the centre of it all, and many have become prosumers. Rooftop solar panels, energy-storage devices, smart meters, charge points in home garages, and biogas plants fuelled by compost from our citizens' kitchens or gardens – they're all a reality around our city and are connected by smart-grid technology. But we know we still have a lot more to do. That's why Malmö is happy to have E.ON as a partner in developing an energy system that will be powered by 100 per cent renewable or recycled energy by 2030. It's a mutually beneficial partnership, one that helps us meet the challenges facing cities today.



# Making cities and transport more sustainable

The world continues to urbanise. And our full range of smart city solutions – low-carbon local energy generation, energy-smart building technology, digitally networked energy infrastructure, and e-mobility – enables cities to grow and develop sustainably. Vehicles that burn fossil fuels emit a lot of carbon. E-vehicles charged with renewable power can make transport cleaner and quieter. We're helping make it possible by installing charging stations around Europe, including in cities.

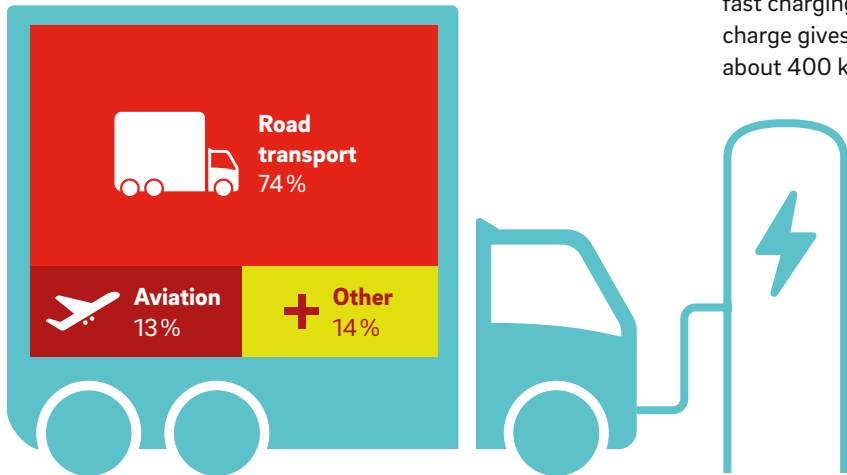
## Which sector uses the most energy in the EU?<sup>1</sup>



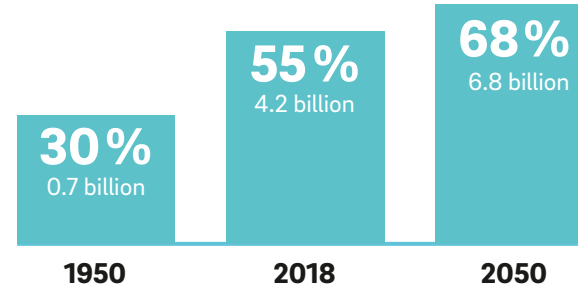
Road transport accounts for nearly three-fourths of all transport, of which over 90% is powered by fossil fuels.<sup>2</sup>

### 20 minutes

How long it takes to charge an electric car at one of our ultra-fast charging stations; a single charge gives the car a range of about 400 kilometres.



In 2018 more than half the world's population lived in urban areas.<sup>3</sup>



# 250

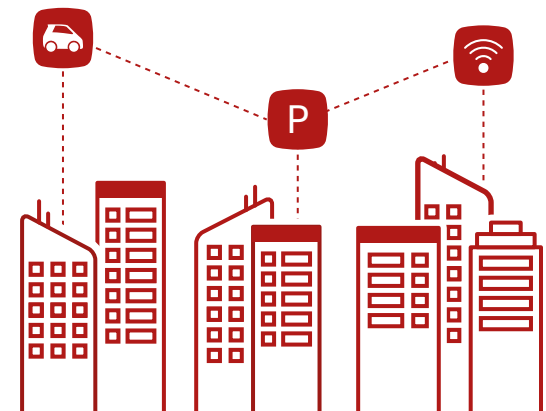
Number of district heating and cooling networks E.ON operates in cities around Europe.

## Planned CO<sub>2</sub> reductions<sup>4</sup>



## 15 days Time savings in smart cities

Intelligent traffic management and other smart city solutions will save residents a lot of time: researchers estimate up to 15 days a year.<sup>5</sup>



<sup>1</sup>Final energy consumption, EU-28, 2015, Eurostat. <sup>2</sup>Final energy consumption by transport mode, EU-28, 2016, Eurostat. <sup>3</sup>Urban population, UN DESA/population division. <sup>4</sup>Carbon Neutral Cities Alliance. <sup>5</sup>Juniper Research.

How do you meet the challenge?

**"By using hot steam to keep things cool."**



Espen Eichhöfer/Ostkreuz



**Siegfried  
Moritz**

CFO, KG Deutsche  
Gasrußwerke GmbH & Co

What sounds counterintuitive will soon be reality in Dortmund, Germany. My company, Deutsche Gasrusswerke, produces carbon black there for the tire industry. This is a heavy industrial process that generates a lot of waste heat, much of which, for decades, we couldn't use. Unfortunately, that meant the steam's energy potential went to waste. This year we partnered with E.ON and Dortmund, which wants to revitalise its industrial district, to do something about it. For that we needed a new neighbour: a company that could use our waste heat and was willing to build a facility on an open plot of land next to our plant. Happily, we found Coldstore, a deep-freeze logistics specialist that stores frozen food for other companies.

To make it all work, E.ON designed an energy-recovery system that will transform our waste heat into cooling that will be piped to Coldstore's freezer warehouse. It's a win-win solution. Selling energy gives us an additional source of revenue, while Coldstore will have access to a cheap supply of recycled energy. The earth's climate benefits as well, because we're reusing energy instead of generating it. That will prevent the emission of a lot of carbon. In future, innovative solutions like this will become increasingly common. They bring together companies with complementary needs and help make tomorrow's energy supply sustainable.



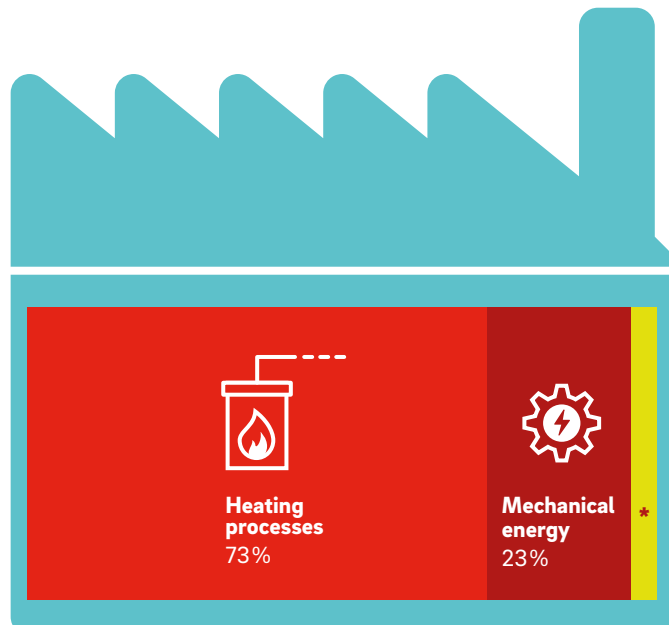
# Helping decarbonise European industry

Although industry has reduced its greenhouse gas emissions in recent years through efficiency gains and other improvements, it still accounts for about 25% of the EU's total emissions. Our integrated solutions for embedded cogeneration enable industrial enterprises to generate their own low-carbon power and heat. We also design individually tailored energy-efficiency plans that reduce the energy that customers use for lighting, air-conditioning, and industrial processes.

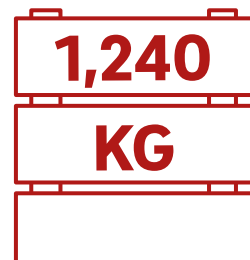
## Which sector uses the most energy in the EU?<sup>1</sup>



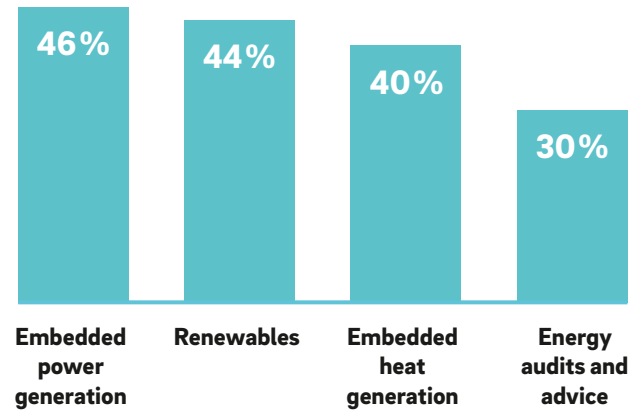
Industry uses around 25 per cent of the EU's energy, in Germany mainly for heating processes.<sup>2</sup>



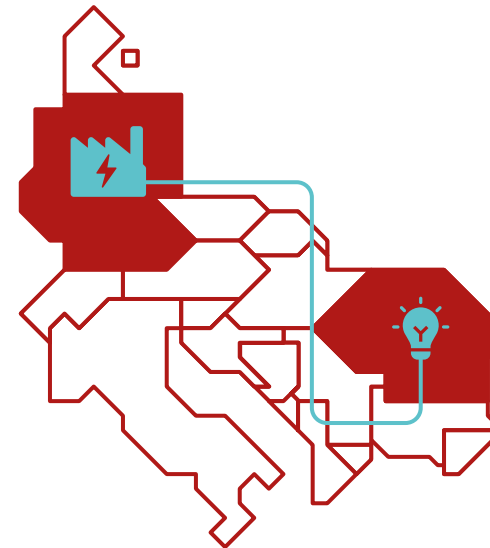
Frozen French fries that would have to be produced to emit as much greenhouse gas as one EU citizen did on average in 2016:<sup>3</sup>



## Energy topics that interest big German companies

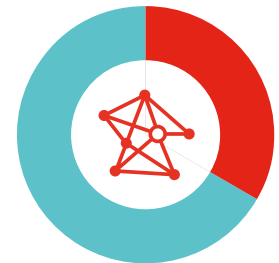


Carbon savings delivered in 2018 by our large-scale cogeneration solutions for business customers in Germany.



**All of Romania could be supplied with the power produced by German industrial and commercial companies.**

In 2014 they generated over 60 TWh, and Romania consumed less than 50 TWh.<sup>4,5</sup>



**About one third of Germany's renewables capacity is connected to E.ON networks.**

\*Other 4%

<sup>1</sup>Final energy consumption, EU-28, 2015, Eurostat. <sup>2</sup>Final energy consumption by application area, German industry 2015, BMWi. <sup>3</sup>Own estimate based on GHG emissions, EU-28, 2016, European Environment Agency. <sup>4</sup>German Federal Network Agency. <sup>5</sup>Enerdata.

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# Dear Reader,



**Dr. Johannes Teyssen,**  
Chairman of the Management Board and CEO

in 2018 we took a big step. As Germany's first energy company dedicated entirely to the new energy world, we want to focus even more on the most important players in this world: customers. To do so, we decided and announced a far-reaching asset swap with RWE. We intend to transfer substantially all of our renewables business to RWE. In return, we'll receive assets that will greatly enlarge our customer solutions and energy networks businesses. We can then do even more to meet customers' expectations and to make the energy world smarter, cleaner, and more sustainable. In short, to deliver Energy for Tomorrow.

## **Climate protection and sustainable development**

We are aware of our important role in climate protection and we act on it. In November 2018 we and 16 other energy companies signed a joint declaration reaffirming our commitment to proactively and collectively combat climate change through our business activities. The declaration also advocates a progressive carbon price floor in the power sector to provide clear and predictable long-term carbon price signals, which would do much to spur investment in low-emission technology.

Since their adoption in 2015, we've recognised the importance of the United Nations' Sustainable Development Goals (SDGs) and fully support them. Our sustainability strategy is aligned to the SDGs, and we intend to set new sustainability targets that demonstrate our contribution to the achievement of the goals. For example, we set a target of making all E.ON facilities and offices carbon-neutral by 2030. In June 2018 my Management Board colleagues and I underscored this support by issuing a self-commitment to the SDGs.

## **Core businesses that promote sustainability**

Our wide range of innovative solutions enables customers of all kinds – residential, small and medium-sized enterprises, industrial and commercial, and public entities – to use energy more efficiently, produce their own green energy, and convert to e-mobility. And we're continually adding to our capabilities and developing new energy-smart products and services. For example, in 2018 we

formed a cooperative arrangement with Microsoft to develop a new solution with which residential customers can control all their smart-home devices from single interface. We entered into a partnership with Berkeley Homes, one of Britain's leading property developers, to conduct an extensive trial that will yield valuable insights into the latest smart-home technologies. In Sweden we developed a technology called ectogrid™ that optimises the thermal energy flows between buildings, thereby dramatically reducing the need to produce energy for heating and cooling. In Germany we won an EU-wide tender to supply a research and industrial park at Tegel Airport in Berlin with environmentally friendly heating and cooling. We also opened the first of 180 ultra-fast charging stations along motorways in seven European countries. When completed in 2020, this network will make long-distance travel with electric vehicles viable.

We work continually to make our energy networks, which play a crucial role in enabling the energy transition, smarter and even more reliable. One example is our increasing use of artificial intelligence to conduct preventive grid maintenance, which reduces unplanned outages. We're conducting three demonstration projects as part of InterFlex, an EU programme to explore smart-grid technologies that resolve grid constraints and facilitate the growth of renewables. Our InterFlex project in Sweden received an international smart-grid award in 2018. In Germany we offer an online tool that shows communities their local renewables output and energy consumption in real time, enabling community decision-makers to take targeted action to promote the energy transformation and to monitor progress.

In 2018 our renewables business again added more onshore and offshore wind farms. For example, we completed Arkona, a deepwater wind farm located in the Baltic Sea that we built together with Norwegian energy company Equinor, in record time. Arkona began delivering green power to the grid in September 2018. As mentioned earlier, we intend to transfer substantially all of our renewables business to RWE.

### Responsibility for our people

We take our employees' well-being very seriously. In 2018 we again carried out numerous measures to ensure their health and safety. Some of these measures started at the top: we defined four personal health and safety targets for our 100 most senior executives and introduced a new one-day safety workshop for senior managers at our operating units. Despite our ongoing efforts, we unfortunately suffered setbacks: five people died in accidents while working for us. We regret every accident deeply and work hard to foster

a caring culture. In September we made safety the first topic on the agenda at our group executive conference. We, as leaders, play an important role. We are the role models for our employees and have to prepare them for every possible situation. We will continue to do our best and are not satisfied unless every employee arrives home safely.

As part of a systematic reorganisation programme, we transferred functions and decision-making authority from corporate headquarters to our operating units to better enable them to address the needs of their particular market. We also revised many of our guidelines and policies. Our new Code of Conduct, which took effect on 1 January 2018, is considerably shorter and more straightforward than the previous one. It focuses on our guiding principle, "Doing the right thing." We also updated our systems and policies to comply with all of the requirements of Europe's General Data Protection Regulation, which took effect in May 2018.

In this report we give you detailed information about the steps we took in 2018 to enter the new energy world. In 2019 and beyond, we invite you – our customers, employees, shareholders, and all other stakeholders – to join us on this journey and partner with us to create a sustainable energy future.

Best wishes,



Dr. Johannes Teyssen



# About E.ON



**21 million**

Number of power and gas customers

## Customer Solutions

We partner with customers to actively shape Europe's energy transition. We supply them with power, gas, and heat. And we provide them with products and services that enhance their energy efficiency and autonomy, increase their comfort, and reduce their carbon emissions.

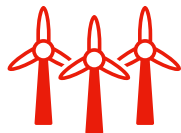


**852,000 km**

Total length of our networks<sup>1</sup>

## Energy Networks

We're one of Europe's largest operators of power and gas distribution networks and a leader in network efficiency, reliability, and innovation. Networks are evolving into smart platforms that manage complex energy and data flows, making them the backbone of the energy transition.

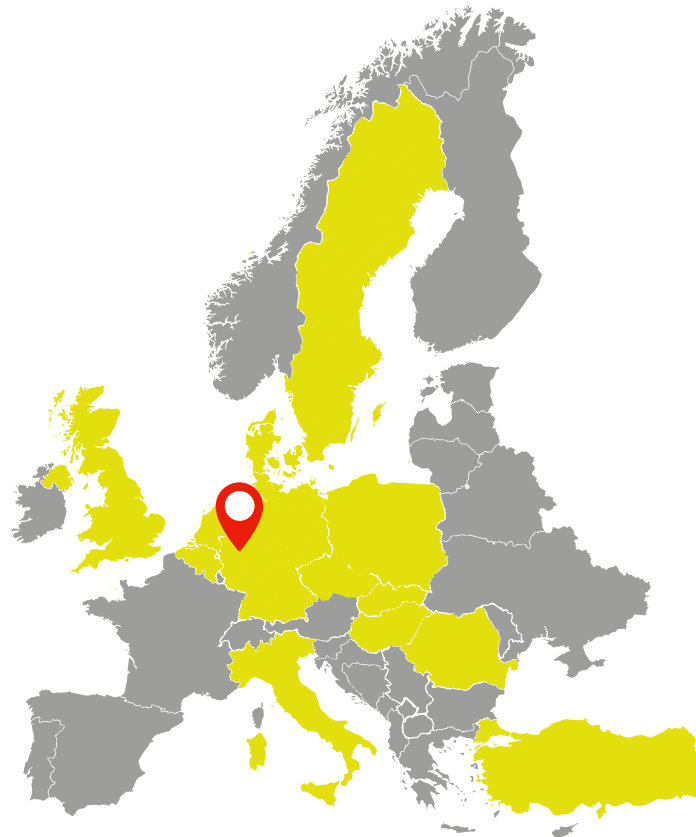


**15bn kWh**

Owned renewables generation

## Renewables

We develop, operate, and manage large wind and solar generation assets. We market their output in several ways: in conjunction with renewable incentive programs, under long-term electricity supply agreements with key customers, and directly to the wholesale market.



■ Where we do business<sup>2</sup>

E.ON SE is an investor-owned energy company based in Essen, Germany. Our mission is to become customers' partner of choice by providing them with individually tailored solutions for a greener, more distributed, and more digital energy world. We have three core businesses and about 43,000 employees.

In addition to our core businesses, we also have a nuclear power business in Germany, which is operated by our subsidiary PreussenElektra and is not a strategic business. Its assets will be decommissioned by 2022.

For detailed information about E.ON's earnings, financial, and asset situation, see our → [Annual Report](#).

<sup>1</sup>Includes a network operator in Slovakia in which we have 49 per cent stake.

<sup>2</sup>Includes our joint venture in Turkey and a company in Slovakia in which we have a 49 per cent stake. Outside Europe, we have renewable operations in the United States.

# Sustainable energy for tomorrow

**The energy world is steadily becoming more distributed, digital, and decarbonised. And that means: more sustainable. Our core businesses – energy networks, customer solutions, and renewables – are making it happen. Our grids are getting smarter all the time, which enables them to integrate more renewable energy while remaining reliable. Our innovative solutions help customers of all sizes – from families and small businesses to large manufacturers and entire cities – to use energy more efficiently, produce their own renewable energy, and thus reduce their carbon footprint. Our wind and solar farms make the energy supply cleaner in Europe and North America. Each of our core businesses is about improving people's lives and creating a better tomorrow.**

The most important players in tomorrow's energy world will be customers. They'll want sustainable homes, businesses, cars, and cities. They'll want efficient, affordable solutions that make them more autonomous. As a result, tomorrow's energy world will become increasingly electric, green, distributed, and partnership-based. We were the first big European energy company to dedicate our entire business to supporting the energy transition. Now, as part of a far-reaching asset swap, we intend to transfer substantially all of our renewables business to RWE. In return, we'll receive assets that will dramatically enlarge our remaining two core businesses and thus enable us to play an even bigger role in meeting customers' expectations and making the energy world smarter, cleaner, and more sustainable. Due to necessary regulatory approvals, E.ON's acquisition of innogy is not expected to close before mid-2019. For more information, visit our → [Energy for Tomorrow](#) portal.

## **UN Sustainable Development Goals and our sustainability strategy**

The United Nations' → [Sustainable Development Goals \(SDGs\)](#) of its 2030 Agenda for Sustainable Development provide a blueprint for a better and more sustainable future. Adopted in 2015, the 17 SDGs and 169 subgoals address a wide range of global challenges. We recognize the SDGs' importance and fully support them. Our Management Board underscored this support by issuing a → [self-commitment](#) to the SDGs in June 2018.

To promote transparency and comparability, more and more companies around the world are aligning their sustainability strategies to the SDGs. In 2018 we decided to do so too. Our sustainability strategy, which we defined in 2016, remains unchanged. Aligning it to the SDGs only affects how we present it and the improvements we achieve. Going forward, we intend to set new sustainability targets that demonstrate our contribution to the achievement of the SDGs.

Our renewed sustainability strategy provides a common framework for the sustainability activities across our company. It articulates how our business activities and company policies support the SDGs, in particular SDG 7 (affordable and clean energy), 11 (sustainable cities and communities), and 13 (climate action). In short, it explains that our primary mission is to provide solutions that decarbonise the energy world, improve people's lives, and create a better tomorrow.

We make a direct and indirect contribution to other SDGs as well. For example, we listen to our customers and treat them fairly (SDG 10). We protect the health and safety of our employees (SDG 3). We foster diversity and inclusion in our workforce (SDG 5). We also realise how important it is for us to strive continually to prevent or mitigate the negative impacts of our business activities.



At the beginning of each chapter in this report, we state the challenges we face, what steps we're taking to meet them, and to which SDGs these steps contribute.

### Sustainability governance

The E.ON Management Board defines our sustainability strategy and has overall responsibility for our sustainability performance. In this, as in other matters, it is supported and advised by the Supervisory Board. We've designated a Chief Sustainability Officer (CSO), who oversees the sustainability activities across our company and informs the Management Board about important sustainability initiatives, developments, and key performance indicators on a quarterly basis and, in the case of extraordinary events, on an ad hoc basis. Leonhard Birnbaum, a member of the E.ON Management Board, has been our CSO since the end of 2017.

The CSO also chairs our Sustainability Council. Established in 2013, the council consists of six senior managers from our corporate headquarters, business units, and support functions with expertise in sustainability issues. The council serves as a forum for sharing information, discussing progress toward our sustainability targets, and identifying emerging challenges. It provides advice on corporate policies relating to sustainability and periodically assesses whether our sustainability strategy is consistent with our vision, corporate strategy, and brand identity. The council also engages with outside stakeholders and helps us forge partnerships. It reports to the Management Board twice a year and in 2018 met three times. Among the key issues it discussed in 2018 were the social impact of E.ON's planned restructuring, the CSR Directive Implementation Act, and a number of our sustainability measures.

The Sustainability team at corporate headquarters is involved in all aspects of our sustainability work. Its main tasks are to coordinate the planning and implementation of sustainability initiatives and monitor their progress, collect sustainability data, and conduct our annual materiality analysis and sustainability reporting. Together with the Sustainability Council, it supports the business units in meeting their sustainability targets. The team also provides advice to employees on sustainability issues and strives to raise awareness across the organisation. In all these tasks it works closely with the Health, Safety, and Environment team.

[→ [GRI 102-18](#)]

### Decentralised implementation

Each business unit's management team is responsible for taking action to enhance sustainability and meet the sustainability targets they set for their unit. This decentralised approach enables the units to contribute to our Group-wide targets for topics like climate protection and corporate governance, while also tailoring their actions to their own specific needs. Each unit has sustainability staff who raise awareness, coordinate projects and initiatives, and monitor progress toward targets. They share information at regular intervals with our Sustainability Council and the Sustainability team at corporate headquarters.

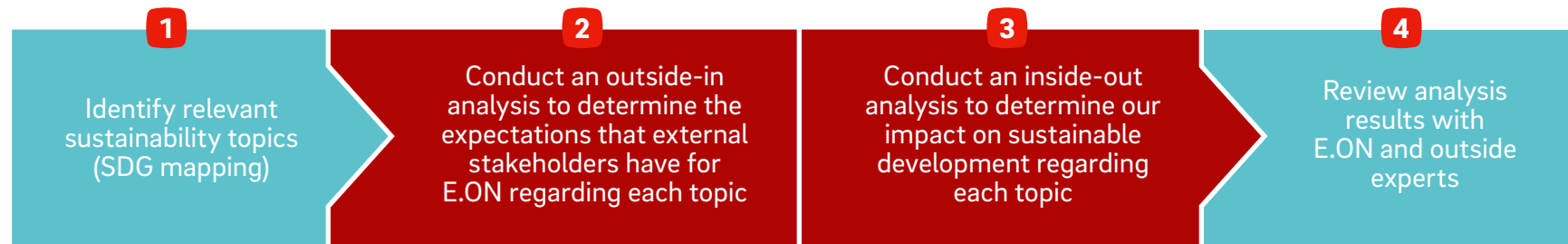
### Sustainability incentives for executives

Implementing our sustainability strategy effectively and consistently requires the active support of our organisation's entire leadership. To encourage and reward this support, a portion of our corporate officers' and senior executives' variable compensation is determined by their unit's achievement of its sustainability targets. The targets, which vary somewhat by unit, are expressed in quantitative metrics. For example, we measure customer loyalty by asking customers to rate their willingness to recommend us to their friends. Members of our Management Board have annual targets for the E.ON Group's sustainability performance in areas such as occupational safety, customer loyalty, and workplace diversity.

# Defining our report content

The → **Global Reporting Initiative (GRI)** requires that an organisation reports on those topics that have significant economic, environmental, and social impacts and that substantively influence its stakeholders' assessments and decisions. We identified these topics by means of a materiality analysis, which we have conducted annually since 2006. This report focuses primarily on the sustainability topics that our materiality analysis indicated are of very high relevance. To meet the diverse expectations of our stakeholders and the requirements of sustainability rankings and ratings, this report also presents information about a number of other sustainability topics.

Steps of our impact-based materiality analysis [→ [GRI 102-46](#) ✓]



## 1) Identifying our sustainability topics

The first step of our materiality analysis for 2018 was to take the sustainability topics that we had identified as material in 2017 and map them against the → [UN Sustainable Development Goals \(SDGs\)](#). We determined which SDGs' subordinate goals they correspond to and whether their influence on these goals is direct or indirect. The purpose of this was to decide whether it made sense to combine similar topics and whether we needed to add topics for 2018.

## 2) Outside-in analysis

Second, we analysed the expectations of our stakeholders (policymakers, customers, employees, NGOs, competitors, and financial markets) regarding our sustainability topics. We did this using existing sources, such as laws, regulations, NGO reports, and customer surveys. Topics on which outside stakeholders have very high expectations are particularly relevant for us because our success depends in part on our ability to meet these expectations.

## 3) Inside-out analysis

Third, we analysed our impact on sustainable development with regard to each topic. We did this by assessing our impact at the various links of our value chain and at our locations. We also assessed the impact of the energy industry as a whole. A one on the scale indicates that we have an impact at all the links of our value chain and at all of our locations and that our industry as a whole has a substantial impact.

## 4) Reviewing the results

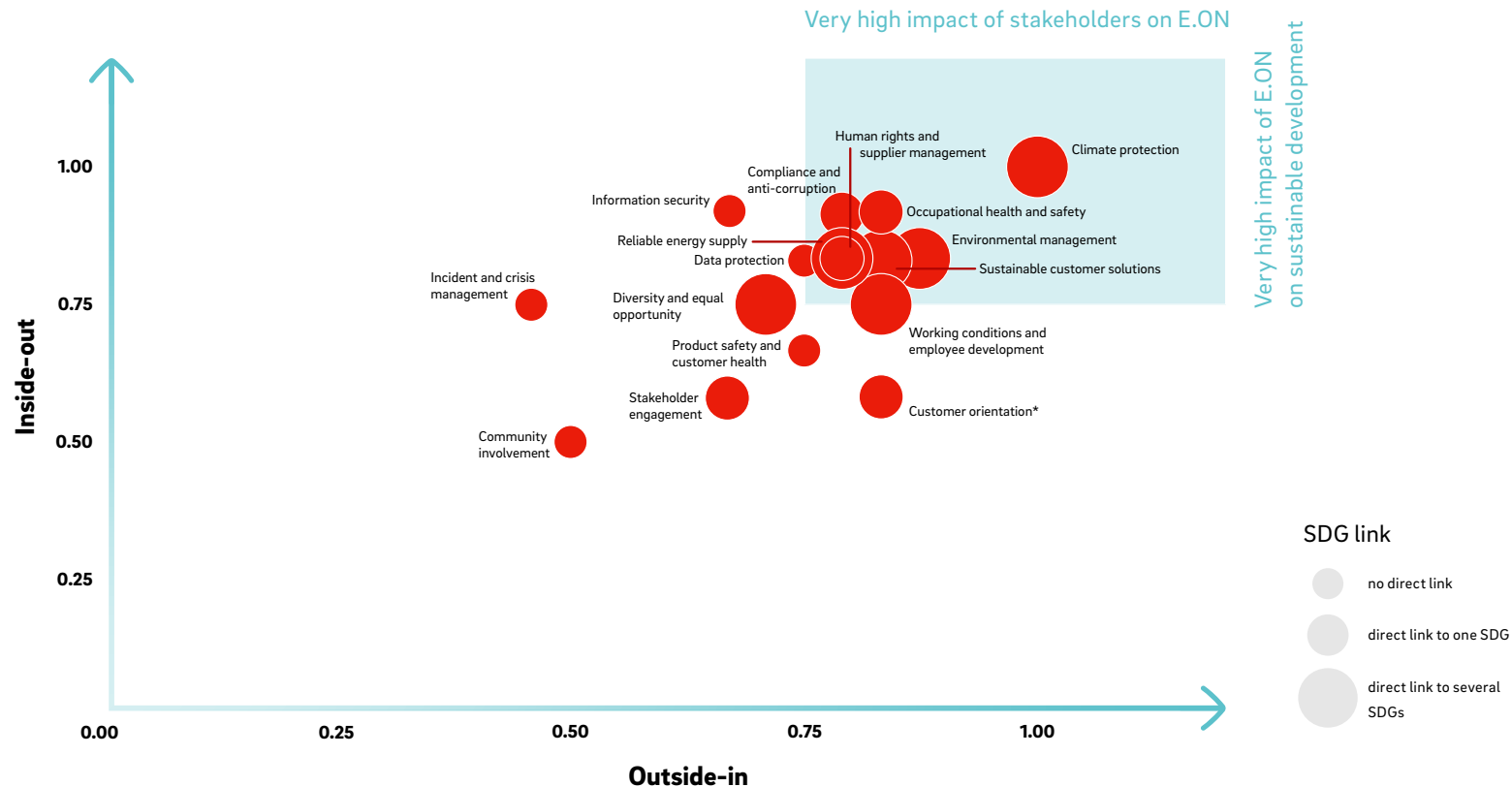
Finally, we held workshops with representatives of our various departments at our corporate headquarters to discuss the results, particularly those of the inside-out analysis. We also conducted interviews with outside experts to learn their thoughts on the results and on sustainable development generally. We evaluated the feedback from the workshops and interviews and, if necessary, adjusted the number assigned to a topic.

### Results for 2018

We charted the final results on a materiality matrix, which is shown below. The horizontal axis indicates the topics' relevance to outside stakeholders (outside-in), the vertical axis our impact on the topics (inside-out). We classify topics that are at least 0.75 on both axes as material. We have thus identified eight topics as material. In addition, we consider customer orientation to be material for E.ON because we use this topic for internal control purposes. A circle's size reflects the degree to which the corresponding topic matches an SDG. Our → [Sustainability Council](#) discussed and approved the final results in late August.

The chapters of this report describe how we manage our material topics and the progress we've made. Some chapters address more than one material topic. For example, climate protection and environmental management are combined in the chapter entitled "Climate and environmental protection". We also determined which → [GRI standards](#) our material topics correspond to. For example, climate protection corresponds to *GRI 305: Emissions*. On the first page of each chapter we indicate the relevant GRI standard or standards. The description of our management approach is guided by *GRI 103: Management Approach*.

### Materiality matrix [→ [GRI 102-47](#)



\*Customer orientation is highly important for internal control purposes and is therefore considered material for E.ON and will be included among our material topics.



A large jellyfish with long, thin tentacles is the central focus, swimming in a blue tank. The jellyfish has a rounded, ribbed bell and numerous long, thin tentacles that trail behind it. The background is a deep blue, and other jellyfish are visible in the foreground and background, creating a sense of depth. The overall scene is illuminated with a blue light, giving it a serene and ethereal appearance.

# Enabling the energy transition

Renewable energy from  
jellyfish? It's possible.  
→ [Learn more](#)

## Topics

→ **Innovative energy solutions**

→ **Reliable and smart grids**

→ **Climate-friendly energy generation**

## Challenges

The energy consumed by households, industries, and transport results in substantial greenhouse-gas emissions.

The rapid expansion of renewables has dramatically increased the number of feed-in points on our networks. This, along with the intermittent nature of renewables production, has made the management of energy flows and voltage much more challenging.

Fossil-fuelled power generation results in significant greenhouse-gas emissions and thus contributes to climate change.

## Our actions

We offer a broad range of innovative, individually tailored energy solutions that help our residential, business, and public-entity customers use energy more sustainably.

We continually maintain and expand our networks as well as upgrade them with smart-grid technology so that they can efficiently integrate renewable energy sources at a reasonable cost.

We support the energy transition by helping the countries where we operate to move toward a climate-friendly energy supply. We plan, develop, build, and operate large-scale wind and solar farms and market individually tailored renewable generation solutions.

## SDGs



Subgoals: 7.1, 7.3



11.3, 11.6



Subgoals: 12.2



13.3



Subgoals: 9.1, 9.4



7.1



Subgoals: 11.a



17.17



Subgoals: 7.1, 7.2

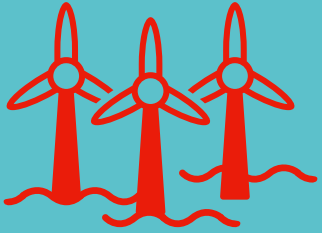


11.3, 11.6

Displayed are the → **UN Sustainable Development Goals** to which we make a direct contribution.



# 2018 Highlights



We and our project partner Equinor **completed Arkona**, a deepwater wind farm located 35 kilometres from Rügen island in the Baltic Sea, in record time. In 2018 we installed all 60 wind turbines in less than three months, faster than ever before in the industry.



We announced a plan to partner **with global software leader Microsoft** to develop a new smart-home solution for energy management. It will connect different devices to a central control platform and enable homeowners to control all of them with a single, easy-to-use app.

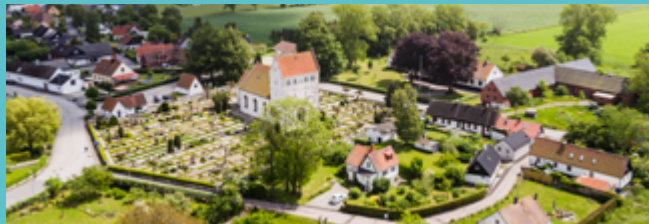


We opened Germany's **first ultra-fast charging (UFC) station** for electric vehicles. It's on the A3 motorway in Bavaria. Our aim is to install UFC stations at 180 locations in seven European countries by 2020.

CO<sub>2</sub>

More than **27,000** tonnes

The carbon emissions that we expect to be avoided annually by **EcoPort 813**, a joint project on the Rhine in west-central Germany. Our role is to design and install an energy centre to recover waste heat from an aluminium manufacturing plant operated by TRIMET.



We're testing **Sweden's first autonomous microgrid** in Simris, a village near Sweden's southeast coast. About one week a month the roughly 200 residents disconnect themselves from the main grid and rely solely on locally produced renewable energy. The project won an international smart-grid award in 2018.

The world's **1st** **ectogrid™** is operational in the Medicin Village district in Lund. This cutting-edge technology for tomorrow's sustainable cities connects customers with different thermal needs and utilizes waste heating and cooling between buildings.







# Saving energy: smart, digital, connected

The easiest way to emit less carbon is to use less energy. Societies will need to do this if we are to successfully reduce emissions. Energy efficiency and recovery as well as distributed and → renewable energy generation have enormous climate-protection potential. The EU and individual member states have passed laws to make sure that this potential is realised. For example, the European Energy Efficiency Directive establishes a set of binding measures to help the EU reduce its primary energy consumption by 20 per cent by 2020. Not surprisingly, our customers – from homeowners and small businesses to big manufacturers, real estate developers, and entire cities – increasingly want smart solutions that enable them to use energy more efficiently, save money, and emit less carbon. Digitalisation helps. It creates new opportunities – like digital energy management and smart-home technology – to make energy consumption transparent and for our customers to make theirs more sustainable. This will require → smart grids and smart meters. Alongside climate-friendlier homes and businesses, our customers increasingly want solutions that render transport less dependent on fossil fuels and thus less carbon-intensive. [→ GRI 103-1 ✓]

## Our approach

We want to be the partner of choice for sustainable energy and mobility solutions. We do this by offering individually tailored products and services that incorporate the latest technology while at the same time trying to standardise successful solutions across the countries where we operate so that we can deliver them at a lower cost. Our portfolio includes solutions for all classes of customers: residential, small and medium-sized enterprises, industrial and commercial, and public entities.

We have solutions for residential customers (B2C) that enable them to produce their own green energy and become more energy-autonomous. These include heat pumps, → solar panels as well as battery storage systems and virtual storage accounts. We also have easy-to-use online energy audits and apps that help residential customers better understand their energy consumption and identify ways to reduce it. In Germany and the United Kingdom we offer smart-home devices and home energy-management systems that enhance homeowners' comfort while reducing their climate impact.


We design integrated solutions for commercial customers (B2B). These include products and services for embedded power and heat generation as well as energy-efficiency plans that enable customers to use less energy for lighting, air-conditioning, and industrial processes. Through our City Energy Solutions (CES) business, we develop integrated solutions for new property developments, city districts, and entire cities. These solutions integrate offerings such as efficient and climate-friendly heating and cooling, cogeneration of heat and power, solar, broadband infrastructure, e-mobility as well as supply and demand management. Our solutions help real estate developers, property managers, housing companies as well as cities and their citizens improve their quality of life, make their living spaces more attractive and sustainable, and reduce their energy bills.

To further expand our portfolio of smart energy solutions, we track technological developments closely and participate in innovative start-ups and development projects.

Smart meters are a key enabler for digital energy-management solutions. An EU Directive from 2009 stipulates that, to the degree technically and financially feasible, all customers should have one. Member states must transpose this directive into national law. For example, Germany's Act on the Digitalisation of the Energy Transition of 2016 specifies that all customers who consume at

least 6,000 kWh electricity annually or have grid-connected generation capacity of at least 7 kW must be equipped with a smart meter by 2032.

By offering e-mobility solutions to all classes of customers, E.ON Drive is making transportation more sustainable. Our main offerings consist of electric-vehicle (EV) charging solutions for homes and businesses as well as public charging infrastructure for cities and municipalities. Our deep experience as an energy-solutions provider ensures that our customers can manage the EV charging process efficiently and that the charging infrastructure is optimally integrated into their existing energy system. In addition, we're building an extensive network of ultra-fast charging (UFC) stations along motorways in seven European countries in order to make longer EV journeys viable. Whenever possible, electricity at our charging stations comes from renewable sources.

[→ [GRI 103-2](#) 

### Organisation and responsibilities

Our Chief Operating Officer – Commercial, who is a member of the E.ON Management Board, has overall responsibility for the customer-oriented businesses that comprise our Customer Solutions segment. We operate these businesses through a variety of entities. For example, E.ON Connecting Energies offers integrated, individually tailored energy-management and embedded-generation solutions to B2B customers in Western and Central Europe, the United Kingdom, and Scandinavia. Its primary role is to assess a customer's needs and design the right solution. Our regional units' B2B sales teams generally handle customer relations. The regional units also have B2C and CES sales teams that develop and market energy and e-mobility solutions for their specific customer groups. These teams tailor their offerings to their customers' individual needs and the particularities of their market. We offer B2C solutions in Germany, the United Kingdom, Italy, Sweden, Hungary, the Czech Republic, Slovakia, and Romania. CES is mainly active in Germany, Sweden, and the United Kingdom. E.ON Solutions designs e-mobility solutions, forges partnerships with industry players, and enlarges our E.ON Drive network of UFC stations. We have e-mobility teams in ten countries: the United Kingdom, Germany, Denmark, Sweden, Norway, France, Italy, the Czech Republic, Hungary, Slovakia, and Romania. Cross-regional and cross-functional teams at corporate headquarters coordinate our sales and solutions activities across Europe and provide technical, commercial, and strategic support.

The Innovation division at corporate headquarters is responsible for exploring emerging opportunity spaces and adjacent markets to grow our energy solutions business. Our areas of interest include advanced e-mobility solutions, energy-smart buildings, and next-generation solutions for residential customers.

Our distribution system operators (DSOs) in Sweden, the Czech Republic, Slovakia, Hungary, and Romania, which are part of our Energy Networks segment, are responsible for installing smart meters in their service territories; in the United Kingdom our sales organisation provides them to its customers. German law created two roles for the provision of smart meters. The first role, the basic metering provider, is responsible for the mass rollout of the standard smart meter mandated by German law. At E.ON, this role is performed by our German DSOs. The second role, the competitive metering service provider, offers the standard smart meter as well as other metering solutions. At E.ON, this role is performed by our German regional energy utilities and E.ON Metering.

[→ [GRI 103-2](#) ✓]

### Goals and performance review

Our goal is to provide customers with pioneering energy solutions for the energy world of today and tomorrow. We want to help them save money, use less energy, recycle energy where possible, and thus emit less carbon dioxide. For the latter, we've set a target: by 2030 we aim to reduce our → customers' carbon emissions by 50 per cent relative to 2016.

We monitor the improvements achieved by our B2B solutions through a variety of key performance indicators. The results show that in 2018 our solutions for B2B customers again delivered reductions in energy consumption, energy costs, and carbon emissions. Our projects with CES customers usually have specific sustainability targets that a city or district developer wants to achieve and that we pledge our solution will deliver. Examples include carbon emission reductions (particularly those caused by buildings), avoided emissions, and the deployment of a renewable generation technology in a new development. As with our B2B solutions, we monitor progress toward these targets.

Our target for smart meters is to install a total of roughly 14.5 million in all our markets by year-end 2026. However, our DSOs in Germany were unable to begin installing smart meters in 2017 as planned because the German Federal Office for Information Security has yet to certify meter manufacturers. It must certify three smart-meter gateways (the communication unit in a smart

metering system) before installation can begin and is expected to do so early in 2019.

To help establish a Europe-wide network of UFC stations, we aim to install UFC stations at 180 locations in seven countries by 2020. We opened the first UFC station, located in Geiselwind, Germany, in 2018.

[→ [GRI 103-2/3](#) ✓]

### Specific actions

E.ON Plus enables residential customers to enter the world of smart homes. They can purchase an energy product – including 100 per cent green power – and combine it with their choice of smart-home devices like Nest smoke detectors and security cameras, Philips Hue intelligent lighting systems, and tado° smart thermostats. We launched E.ON Plus in Germany in mid-2017 and have continually expanded the range of devices. We also offer smart-home devices in the United Kingdom, Italy, Sweden, and Hungary.

We offer a number of apps that enable residential customers to visualise their energy consumption, which is the first step toward identifying ways to reduce it. These include the E.ON SEE app in the United Kingdom and the E.ON app in Sweden. E.ON SmartCheck, an online energy audit, offers our customers in Germany various functionalities depending on whether they have a smart meter. It can display a household's energy usage in real time and offer individualised energy-saving tips.


When designing embedded generation and energy-efficiency solutions for B2B customers, we strive to forge long-term partnerships so that we can help them reduce their energy and operating costs over several years. We begin with a comprehensive energy audit and consultation. We then design a plan to make their facilities and processes less energy-intensive and install an embedded cogeneration unit that efficiently and sustainably meets the reduced energy needs. Our CES business too is founded on long-term relationships with customers ranging from real-estate developers to city administrations. One example is our extensive partnership with the developer of the Werksviertel, a former industrial district near the East train station in central Munich, which is being transformed into a multi-use urban space with a strong emphasis on sustainable living.

E.ON :agile, our accelerator and seed investor, scouts and supports innovative and disruptive energy-related ideas. Backed by E.ON's expertise and network, :agile helps European start-ups test their ideas and turn them into successful



business models. The three-month accelerator phase provides funding, training, and individual coaching to early-stage start-ups. We aim to forge long-term relationships with them and conduct joint pilot projects after the accelerator phase. We also take part in research projects at → [universities and research institutions](#).

E.ON Drive is involved in a variety of e-mobility infrastructure projects like FAST-E and EAST-E, a private-sector initiative to expand Central Europe's EV charging infrastructure. In addition, our roaming agreements give EV drivers in Germany access to about 5,500 charging points nationwide. We also partner with other companies to provide EV-sharing solutions to B2B and CES customers. Our solutions make it easy for businesses and municipalities to switch to e-mobility and enable residents, customers, employees, and guests to embrace low-carbon mobility. Looking further ahead, we're exploring ways to aggregate connected EV batteries into a virtual energy storage system that can be remotely controlled to help stabilise the grid.

[→ [GRI 103-2](#) 

## Progress and measures in 2018

In 2018 we continued to enter into partnerships and to develop products and services that make customers' homes, businesses, and vehicles more energy efficient and sustainable.

### More convenience and data protection for smart homes

In 2018 we forged a partnership with global software leader Microsoft to simplify the control of smart-home devices while also ensuring data security. Until now, these devices – solar panels, battery systems, EV charging points, intelligent lighting, smart heating and cooling – have been controlled with their own apps that are incompatible with one another. Our new solution will connect the devices to a central control platform and enable homeowners to control all of them with a single, easy-to-use app. Moreover, the control platform will use artificial intelligence to learn continually. Data stored and encrypted in the platform will be protected by Microsoft's advanced security software. The new solution will make it easier for homeowners to enjoy the benefits of smart-home device and lead a less carbon-reliant lifestyle while also giving them the peace of mind that their data is secure. We expect to release the first version in 2019.

### Testing smart-home solutions

We entered into a smart-home partnership with Berkeley Homes, one of Britain's best-known property developers, to trial the latest smart technologies at Berkeley's Kidbrooke Village development in London. The aim is to work with homeowners to understand how they engage with these technologies. The project is the first to test innovative energy devices working seamlessly through a single, tablet-based dashboard. Its results will help ensure that smart-home solutions not only reduce homeowners' energy bills and carbon emissions but also are simple and convenient. Reducing carbon emissions is a strategic priority for us and Berkeley, which is committed to enabling all its homes to be net zero carbon by 2030.

### Smart energy recovery

We designed an energy-recovery solution for two companies in Dortmund's industrial district. Waste heat from carbon-black manufacturer → [Deutsche Gasrußwerke](#) will be converted to energy to power a freezer warehouse that Coldstore, a deep-freeze logistics specialist, intends to build nearby. Our solution intelligently balances supply and demand and increases the attractiveness of Cleanport Technology Centre, which is part of the City of Dortmund's effort to revitalise its industrial district.

EcoPort 813 is our new joint project with aluminium manufacturer TRIMET and DeltaPort, a consortium of three port facilities on the Rhine in west-central Germany. The project will use waste heat from a TRIMET plant to produce low-cost, climate-neutral heating and cooling for DeltaPort's logistics facility at Voerde-Emmelsum river port. The ready availability of sustainable energy is intended to attract new companies to the facility. Our role is to design and install an energy centre to recover the waste heat. In October 2018 we and our partners presented the project, which has the potential to reduce carbon emissions by more than 27,000 tonnes annually, at EXPO REAL, a real-estate trade show in Munich.



### 689 kt of carbon

The reduction in emissions delivered in 2018 by our large-scale cogeneration plants for B2B customers in Germany. The improvements resulted mainly from greater fuel efficiency and digitalisation.

### More efficient energy use

The newly built European Spallation Source for Neutron Research (ESS) in Lund, Sweden, chose us to be its partner for energy solutions including cooling, compressed air, the recovery of surplus energy, and the supply of renewable energy to power the research centre. For example, the ESS requires different types of cooling, the generation of which creates heat that can be captured and fed into Lund's district heating network. The partnership is for the duration of the ESS's activities, which will continue until 2065.

In 2018 we designed a solution for Milan-based Bracco, a global leader in diagnostic imaging, to install and operate a gas-fired cogeneration unit at one of its production facilities in northern Italy. The new unit, which replaces an older one, will enhance the facility's energy efficiency and enable it to reduce its annual carbon emissions by 5,000 tonnes.

### Using artificial intelligence to optimise manufacturing facilities

We entered into a partnership with Sight Machine, a California-based software start-up whose digital manufacturing platform uses artificial intelligence, machine learning, and advanced analytics to help manufacturers improve quality, productivity, and visualisation. The partnership will combine Sight Machine's technology with our own energy expertise to design unique digital solutions that enable B2B customers in Europe to make their manufacturing facilities more efficient and less energy-intensive. This technology will also expand the capabilities of our Optimum Platform, which enables customers to visualise the energy flows at their facilities and rapidly identify potential efficiency gains.

### New partnership for critical infrastructure

We also entered into a partnership with Ohio-based Vertiv, a leading technology provider for critical infrastructure like data centres and communication networks. The partnership will market battery solutions to the operators of such infrastructure and to industrial enterprises, initially in Germany. On-site batteries not only ensure that a facility has an uninterrupted power supply. At times when the facility needs less power or has sufficient output from its own embedded generation unit, the batteries can export power to the grid, providing the facility operator with an additional source of revenue. The batteries will be integrated into our → [virtual power plant](#).

### Smart generation unit

The gas-fired cogeneration unit we installed for Netherlands-based DSM Nutritional Products, a global life-science company, began operation in October 2018. The unit, which powers and heats a DSM production facility in Grenzach-Weyhlen, Germany, is smart. It automatically assesses the facility's energy needs in real time while also monitoring fuel and spot power prices. It then determines whether it makes business sense to export surplus power to the grid. The system can also detect malfunctions early and conduct predictive maintenance, thereby ensuring high availability as well as energy efficiency.



2,700

The number of our public charging points in Europe. We're continually expanding our network. In Denmark we reached one million EV charges in 2018.

### E-mobility in the fast lane

In 2018 we expanded our e-mobility business to Norway, the world's leading market for EVs. We also added two new solutions in Germany. E.ON Drive Plaza makes it easy for companies to convert their vehicle fleets to electric by facilitating the smart charging of several EVs simultaneously from a single connection point. Homeowners planning to buy rooftop solar panels can use E.ON SolarCloud Drive to ensure that the solution they choose covers the consumption of an EV and have a charging point included in the installation.

In addition, we entered into two new e-mobility partnerships. We're going to work with Nissan Europe to explore opportunities to conduct trials and offer services relating to EV charging, vehicle-to-grid, grid integration, embedded generation, and energy storage. Our partnership with Virta, a Finnish EV charging service provider, will enable us to make its award-winning IT platform the digital backbone of our charging network in Europe. Virta's technology will improve our network's accessibility and optimise the power flow to the charging stations, thereby preventing power spikes and reducing costs for end-users.

### Connecting thermal flows

With ectogrid™, a cutting-edge technology we developed in Sweden, we can use the thermal energy flow generated by human activity to heat and cool entire cities. By connecting customers with different thermal needs and utilizing waste heating and cooling between buildings, ectogrid™ optimises thermal energy flows. The result is a dramatic reduction – typically well over 50 per cent – in the need to generate new energy for heating and cooling. This conserves resources, protects the earth's climate, and makes zero-carbon solutions affordable for our customers. Unlike conventional district energy solutions, the system has zero distribution losses. It also reduces material and installation costs for piping because a single grid is used for both heating and cooling. Moreover, it is able to integrate a wide range of renewable sources due to low circulation temperatures. We operate the world's first ectogrid™ in the Medicon Village district in Lund, Sweden. In 2018 we began to carry out a feasibility study of applying this principle to a district in Immendingen, Germany. The study is funded by the German Federal Ministry of Economic Affairs.

### New recycling plant in Sweden

Northwest of Stockholm, we're building an advanced material and energy recycling system that will transform something nobody wants (waste) into something everybody wants (energy). It consists of a biogas production plant and a biogas-fired cogeneration unit. The system will provide citizens in the whole region with carbon-neutral heating and electricity as well as biogas from recovered energy. It will also produce biofertiliser, returning nutrients to the soil. A close collaboration between E.ON, recycling company Ragn-Sells, and the municipality resulted in a truly sustainable solution that meets customers' needs while minimizing the impact on the environment and the earth's climate.

### Equipping customers with smart meters

We continued to prepare for the installation of second-generation smart meters in Sweden. Meters installed before 2009 don't meet all current EU requirements and therefore must be replaced. Installation of the new devices is scheduled to start in 2020 and be completed by the end of 2024.

The rollout of smart meters in Germany was delayed by the absence of a regulatory decision (see "Goals and performance review" under "Our approach").

### Installed smart meters by country

<i>Thousand units</i>	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Rollout countries</b>			
Sweden	1,036	1,035	1,000
United Kingdom	1,862	1,002	800
<b>Pilot countries</b>			
Romania	279	252	240
Slovakia <sup>1</sup>	39	33	20
Hungary	35	26	10
Germany	147 <sup>2</sup>	30	30
Czech Republic	0.1 <sup>3</sup>	0.3 <sup>3</sup>	4
<b>Total</b>	<b>3,398</b>	<b>2,378</b>	<b>2,104</b>

<sup>1</sup>DSO in which we have a 49 per cent stake.


<sup>2</sup>Includes digital meters.

<sup>3</sup>The number is lower than in the prior year because a government-sponsored pilot project was completed.





# The backbone of the new energy world

In today's industrialised and increasingly digitised societies, a reliable electricity supply is essential. Our distribution grids play a key role in providing it. This role is becoming more crucial and more complex. Distribution grids used to do one thing: take electricity from a relatively small number of big power stations and deliver it to homes and businesses. They still do this. But now they also integrate a large and steadily growing number of smaller distributed generation facilities whose output fluctuates continually. They enable solar-panel owners to sell their surplus output to neighbours. They provide the power to recharge electric cars and buses, of which there will soon be millions. And they manage these complex energy flows while still keeping the electricity supply reliable. In short, distribution grids are where the energy transition is happening. [[→ GRI 103-1](#) 

## Our approach

From heat pumps to wind farms, from rooftop solar panels to battery storage systems: the devices of the energy transition are plugged into distribution grids. An important objective of our corporate strategy is to upgrade our grids to meet the challenges of this new energy world so that in future we can continue to ensure a reliable electricity supply for our customers at a reasonable cost. That's why we're making our grids smarter by equipping them with sensors and command and control technology and by augmenting them with a powerful communications infrastructure. This will enable us to choreograph energy flows even more deftly and to monitor our grids in real time and with much greater granularity than today. As is described in greater detail below under "Specific actions," smart-grid technology makes it possible for us to avoid or delay some grid expansion.

Going forward, smart grids will serve as the transformative platform for the innovative technologies and business models that are essential to the success of the energy transition: active demand management, virtual power plants, energy storage devices, peer-to-peer energy sales and sharing, to name just a few. Our innovation efforts include developing new approaches for flexible local power systems. For example, we're testing such approaches in three demonstration projects in Sweden and Germany as part of InterFlex, a European research project that began in 2017. Two of the projects are described below under "Progress and measures."

[→ [GRI 103-2](#) ✓]

One thing the energy transition can't succeed without is the decarbonisation of the transport sector. This will require a mass conversion to electric vehicles (EVs). One benefit of the smart-grid technology we've deployed to facilitate the integration of renewables is that our grids in these mostly rural regions will be able to handle the connection of numerous EV charging stations without expensive grid expansion.

### Organisation and responsibilities

Our 13 distribution system operators (DSOs) are responsible for safe and reliable grid operations and for resolving unforeseen outages in their network territory. Their network control centres oversee operations. Our DSOs take certain measures, like investing in grid automation, to keep outages as infrequent and short as possible. In doing so, they adhere to their respective internal operating guidelines.

A member of the E.ON Management Board oversees our Energy Networks segment. Under his leadership, two departments at our corporate headquarters actively manage Energy Networks' DSOs. This includes strategic development, capital allocation, business controlling, and so forth.

In case of widespread outages, our → [crisis management system](#) stipulates responsibilities and processes in accordance with the instructions contained in our Incident and Crisis Management Policy.

Energy-network innovation projects of group-wide importance are coordinated by the Innovation division at corporate headquarters. For example, its Innovation Hub: B2B/Energy Networks team is responsible for developments in the area of local energy systems. In addition, our DSOs conduct innovation projects relevant for their service territory.

[→ [GRI 103-2](#) ✓]

### Specific actions

Each year our DSOs design investment and maintenance plans for their networks. The investment budget for these plans is reviewed and approved by the E.ON Management Board. Their purpose is to ensure that all of our network customers are connected and have a reliable energy supply. Our DSOs are responsible for implementing these plans. Our investments always emphasise efficiency and reliability as well as smart technologies. We choose solutions that make the most technical and business sense, because we know that our investments affect the grid fees paid by our customers.

A smart-grid technology called dynamic line rating (DLR) enables us to use more of the capacity of our existing lines. As the electricity flowing through an overhead power line increases, the line gets hotter, expands, and sags, which could pose a hazard. Line heat is reduced – and thus line capacity is increased – by cool air and wind flow. To ensure safety and reliability, however, lines are assigned a maximum capacity based on conservative estimates of ambient air temperature and wind speed. DLR replaces these estimates with accurate, real-time data from weather stations and temperature sensors placed at intervals along the lines. Our network control centres use the data to calculate, minute by minute, the maximum amount of power the lines can carry without overheating. We use DLR in segments of our grids in Germany and Sweden with lots of wind power. It enables us to accept more renewable energy without costly grid expansion. Hansewerk, one of our DSOs in Germany, has used DLR since 2014, thereby increasing its line capacity by up to 50 per cent.

Voltage-regulated distribution transformers (VRDTs) are another smart-grid technology that reduces the need for new lines. They automatically recognise voltage fluctuations and balance them out by altering the transmission ratio between low and intermediate voltage while under load. This enhanced flexibility means that more renewable power can be fed into the grid. We began using VRDTs in our grids in Germany in 2013. We also install them in smaller quantities in our grids in other European countries.

We launched the E.ON Virtual Power Plant (VPP) in Germany in 2013. It aggregates numerous distributed generation units, consumption points, and also storage devices. We use it to market reserve and balancing power, which helps stabilise the grid and enables the customers who make their capacity available to our VPP to earn extra money on their assets.

In addition to these, there are several other smart-grid technologies that we are currently testing, rolling out, or already using at our DSOs.

We also take part in research projects at universities and research institutions. The purpose is to develop the technology, systems, and approaches that will enable us to meet the needs of tomorrow's energy world. Our flagship partnership is with the E.ON Energy Research Center at RWTH Aachen

University. Its research focuses mainly on distributed generation, smart grids, and efficient building technologies.

[→ [GRI 103-2](#) ✓]

### Goals and performance review

We record all our planned and unplanned outages. We use these data to calculate the system average interruption duration index (SAIDI), which measures the average outage duration per customer per year, and the system average interruption frequency index (SAIFI), which measures the average number of outages per customer per year. Although we don't use these figures for management control purposes, they provide us with information about our service quality. Some countries where we operate have strict legal thresholds for SAIDI. If we don't meet them, we may have to pay fines or compensation. Some of our DSOs therefore set their own SAIDI targets on an annual basis. At regular intervals, the DSOs inform the E.ON Management Board member responsible for network operations about their performance with regard to these targets. The SAIDIs of all DSOs are included in the quarterly performance report to the E.ON Management Board. In addition, once a year we compare our SAIDI in each country with those of our competitors.

[→ [GRI 103-2/3](#) ✓]

### SAIDI power<sup>1</sup> [→ [GRI G4-EU29](#) ✓]

Minutes per year	2018			2017			2016		
	Scheduled	Unscheduled	Total	Scheduled	Unscheduled	Total	Scheduled	Unscheduled	Total
Germany	14	20	<b>34</b>	14	20	<b>34</b>	13	25	<b>37</b>
Sweden	24	120	<b>144</b>	32	89	<b>120</b>	30	91	<b>121</b>
Hungary	132	60	<b>192</b>	126	63	<b>189</b>	121	57	<b>178</b>
Czech Republic	155	49	<b>203</b>	162	70	<b>232</b>	179	44	<b>223</b>
Romania	339	249	<b>588</b>	262	320 <sup>2</sup>	<b>582</b>	178	426	<b>604</b>
Slovakia <sup>3</sup>	97	79	<b>176</b>	91	176	<b>267</b>	106	79	<b>185</b>

<sup>1</sup>Totals may deviate due to rounding.

<sup>2</sup>In 2018 the Romanian regulatory agency changed the definition of unscheduled outage, which now excludes interruptions caused by natural phenomena like storms. We adjusted the prior-year figure accordingly.

<sup>3</sup>DSO in which we have a 49 per cent stake.



In 2018 our SAIDI was comparable to the 2017 figure in most countries. The only noteworthy change was in the Czech Republic and Slovakia, where, on average, our customers were less affected by power outages than in the previous years. In Romania scheduled interruptions increased because of temporary shutdowns that enabled us to invest more in grid renewal and automation. This resulted in fewer unscheduled interruptions. As in previous years, our grids in Germany were our most reliable. Our customers there were affected only by about 0.5 interruptions on average.

**SAIFI power<sup>1</sup>** [[→ GRI G4-EU28](#) ✓]

Interruptions per customer per year	2018			2017		
	Scheduled	Unscheduled	Total	Scheduled	Unscheduled	Total
Germany	0.1	0.4	<b>0.5</b>	0.1	0.4	<b>0.5</b>
Sweden	0.2	1.5	<b>1.7</b>	0.2	1.3	<b>1.5</b>
Hungary	0.5	0.9	<b>1.4</b>	0.4	0.9	<b>1.3</b>
Czech Republic	0.6	0.8	<b>1.4</b>	0.6	0.8	<b>1.4</b>
Romania	1.1	3.0	<b>4.0</b>	0.8	4.2 <sup>2</sup>	<b>5.0</b>
Slovakia <sup>3</sup>	0.5	1.6	<b>2.1</b>	0.5	2.3	<b>2.8</b>

<sup>1</sup>Totals may deviate due to rounding.

<sup>2</sup>In 2018 the Romanian regulatory agency changed the definition of unscheduled outage, which now excludes interruptions caused by natural phenomena like storms. We adjusted prior-year figure accordingly.

<sup>3</sup>DSO in which we have a 49 per cent stake.

## Progress and measures in 2018

Last year we continued to maintain and expand our networks, to make them smarter, and to further digitise our business processes.

### Digital customer experience

Owners of new homes used to have to submit a written form to arrange for a power or gas connection. And sometimes they had to respond in writing to our follow-up questions. Not anymore. Avacon, one of our DSOs in Germany, introduced an easy-to-use online application form in 2017. We extended this customer-friendly digital tool to all our other DSOs in Germany in 2018. It has enabled us to reduce the average processing time for the initial quote from three weeks to two hours. The digitalisation of customer processes is a group-wide effort, and all our DSOs created such digital journeys for our network customers in 2018.

### Fixing power lines before they fail

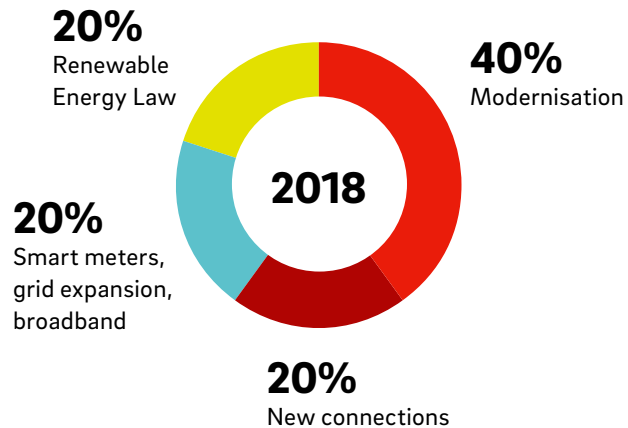
We use artificial intelligence (AI) to improve grid maintenance. By combining lots of data – our power lines' age and type, their maintenance history, the weather they've been exposed to, their current load in real time – with a self-learning algorithm, we can predict and fix grid faults before they occur. Predictive maintenance not only makes our grids more reliable for our customers. It also enables us to plan grid construction projects better, thereby reducing their impact on communities. HanseWerk, one of our DSOs in Germany, began testing predictive maintenance in 2017; its use was expanded to our other DSOs there in 2018. The results are impressive. The technology improves their ability to accurately predict line faults by a factor of two to three. Some of our DSOs in other countries began using the technology later in 2018. We're currently developing AI-assisted predictive maintenance for transformer stations, low-voltage cables, and other grid equipment.



## €1.6bn

That's how much we invested in 2018 to maintain and expand our power and gas networks in Germany, Sweden, the Czech Republic, Hungary, and Romania. We plan to invest €5.4 billion more through the end of 2021. Half of our investments in 2018 went toward our energy networks in Germany.

### Network investments in Germany by category



### Adding optic fibre to our product portfolio

Our DSOs don't just operate extensive power and gas networks in Germany. They also have about 25,000 kilometres of optic fibre, making us the country's fourth-largest network. Until now, we've used it for data communications inside our company and for our ongoing digitalisation. In 2018 we launched a project to leverage this infrastructure to market broadband services – voice, data, and TV – to all classes of customers. The project, which is ongoing, involves clarifying the commercial and regulatory aspects of the business, prioritising regions for market entry, and determining where we may need to expand our network. Our goal is to be one of Germany's leading optic fibre providers by 2025, thereby supporting the country's digitalisation just as we do its decarbonisation. We began a similar project at our DSO in the Czech Republic, which is laying optic fibre along its networks, thereby providing significant cost synergies for commercial broadband.

### Supporting renewables growth in Sweden

Sweden wants its energy system to be fully fossil-free and renewable by 2040. Big wind farms will play a key role. E.ON Energidistribution, our DSO in Sweden, is facilitating their development by providing forward-looking grid connections. A good example is the solution we designed for Jenåsen, a wind farm in east-central Sweden that entered service in October 2018. Although Jenåsen has an installed capacity of 80 MW, the transformer station we built

there has a capacity of 600 MW. This means that other developers can put up more wind farms in the area. In fact, two more wind farms with an aggregate capacity of 232 MW were scheduled to come online in the first quarter of 2019. Current planning for the near term foresees the connection of up to 1,200 MW of wind capacity in the area, enough to supply green electricity to about 138,000 households.

### Safer inspection, more reliable networks

Visual inspection of our power lines and pylons is essential for proper maintenance. In the past we did it by climbing the towers or using an aerial work platform. Since 2017 three of our DSOs (Avacon, HanseWerk, and E.ON Czech) have regularly been using drones equipped with high-resolution cameras. Drones offer big advantages. They enhance safety, lower costs, and make inspection much more systematic. And because drone inspection can be done without turning off power lines, it enables us to maintain uninterrupted service. We use a self-learning algorithm to conduct automated image recognition based on the images provided by the drones. This speeds up our detection of defects and makes our grids even more reliable. Our goal is to deploy drones in conjunction with machine learning in all of our service territories.

### A grid of their own

We're testing Sweden's first autonomous microgrid. About one week a month, the roughly 200 residents of Simris, a village near Sweden's south-east coast, disconnect themselves from the main grid and rely solely on locally produced renewable energy. It comes from wind turbines, solar panels, batteries, heat pumps, and a bio-fuelled backup generator. The brain of the microgrid is our smart energy control system, which monitors voltage fifty times a second and ensures that local production and consumption are always in balance. The project won an international smart-grid award, which was conferred by Sweden's Energy Minister at the Clean Energy Ministerial in Copenhagen in May 2018. Simris is jointly funded by us and InterFlex, an EU programme to explore smart-grid technologies that resolve grid constraints and facilitate the growth of renewables.

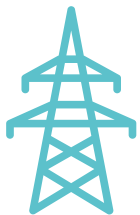
Another InterFlex project is being conducted by Avacon in Germany. This E.ON DSO began operating a Smart Grid Hub in 2018, a smart technology that can control grid-connected systems such as solar arrays and battery storage devices remotely. The Smart Grid Hub ensures that the grid remains stable.

### Smart substations

Smart substations are a key element of our smart grids: in future, nearly every substation we install or replace in Germany (about 2,000 per year) will be smart. Smart substations will provide real-time data about the status of our networks to our regional control centres. Moreover, they'll be remote-controlled and therefore enable us to optimise more complex power flows in tomorrow's energy system. As a result, our customers will benefit from improved supply reliability, less network expansion, and the optimal integration of both renewable generation and new applications such as e-mobility and heat pumps.

### Making local renewables output transparent

In communities across Europe, wind and solar farms are common sights. But how much electricity do they produce? And how much of local energy demand do they meet? Bayernwerk, our DSO in southeast Germany, has answered these questions for a number of communities in its service territory. In 2018 it launched the → [Energy Monitor](#), an online dashboard that displays a community's renewables output and energy consumption in real time. The graphic on the dashboard shows the percentage of demand met by local renewables, which makes it possible to calculate the degree to which a community is sustainably energy-autonomous. The transparency provided by our Energy Monitor enables community decision-makers to take targeted action to promote the energy transformation and to monitor progress.



## 120 per cent

On particularly sunny and windy days, the amount of renewable power fed into our networks in Germany actually surpasses our end-customers' needs. As a result, the ratio between renewables feed-in and end-customer consumption can sometimes reach well above 100 per cent. We export the green surplus to neighbouring grids. Altogether, 36.2 GW of renewables capacity is connected to our networks in Germany.

### Helping Germany harness more wind power

The expansion of grid capacity in Germany hasn't kept pace with the growth of renewables. As a result, on sunny and windy days, renewables facilities often have to reduce or even suspend production because there simply isn't enough line capacity to handle their output. That's green energy gone to waste. Schleswig-Holstein Netz, one of our DSOs in Germany, and ARGE Netz, a consortium for marketing renewable energy, are partnering to do something about it. They've created → [ENKO](#), a day-ahead flexibility market that matches projected surplus output with local sources of flexible demand like the cogeneration units that generate heat for district heating systems. The aim is to prevent line congestion, to make the grid more efficient, and to enable Germany to harness more of its renewable resource. ENKO is part of research project called NEW 4.0, which receives funding from the Federal Ministry of Economics and Energy. It runs through 2020.

### Storing solar power in Hungary

Energy storage offers another way to capture more renewable energy while maintaining grid stability. In 2018 E.ON Hungary installed the country's first DSO-owned → [electricity storage system](#). Located in Levelek, a village in northeast Hungary, the lithium-ion battery system stores surplus solar power that would otherwise cause voltage problems in the local network. The stored power is fed back into the network to meet peak demand. The system will enable Levelek to expand its solar capacity by 12 kW without endangering service reliability.

### Two countries, one grid

Our DSOs in the Czech Republic (ECD) and Slovakia (ZSD) developed a project called → [ACON \(Again Connected Networks\)](#) in 2016 and 2017. It intends to explore opportunities to deploy smart-grid technologies and to expand interconnection with the grids of neighbouring countries, which will improve reliability in border areas. In late 2017 the EU confirmed that ACON was a fundable prioritised project of common interest under the Connecting Europe Facility (CEF) programme. In 2018 ECD and ZSD submitted a funding application to the EU for the first €183 million of an eventual €221 million in total funding. The partners expect to complete the project by the end of 2024.

**System length at year-end**

Thousand kilometres	Power		Gas	
	2018	2017	2018	2017
Germany	350	349	51	60
Sweden	138	137	- <sup>1</sup>	2
Hungary	84	85	18	18
Czech Republic	66	65	5	5
Romania	81	82	22	22
Slovakia <sup>2</sup>	38	38	-	-
<b>Total</b>	<b>757</b>	<b>756</b>	<b>96</b>	<b>107</b>

<sup>1</sup>We divested our gas networks in Sweden effective the first quarter of 2018.  
<sup>2</sup>DSO in which we have 49 per cent stake.


**Ensuring a reliable gas supply**

We operate almost 100,000 kilometres (km) of gas distribution pipelines in four countries. We continually maintain and upgrade these networks and expand them when needed. In 2018, for example, we replaced approximately 340 km of gas piping in Romania. Maintenance like this is crucial for preventing gas leaks and ensuring the safety of our employees and customers.





# Renewables: helping reduce emissions and make the future green

Fossil-fuelled power stations are one of the biggest sources of man-made greenhouse-gas emissions. Steadily replacing them with low-carbon generation technologies will play a key role in reducing emissions and limiting global warming. Many countries, communities, and companies have already embraced climate-friendly energy production to help them achieve their carbon-reduction targets. The European Union's target is for renewables to meet at least 27 per cent of final energy consumption by 2030. Continuing to expand our renewables capacity and also enabling more of our customers to generate their own clean power will help the countries where we operate move toward a climate-friendly energy supply. [[→ GRI 103-1](#) 

## Our approach

Renewables are a key component of our strategy. We plan, develop, build, and operate onshore and offshore wind farms as well as solar farms and innovative battery storage technologies. We market their output in several ways: in conjunction with renewable-incentive programs, under long-term electricity supply agreements with key customers, and directly to the wholesale market. Furthermore, we offer a full range of operations, maintenance, and asset-management services to other renewables operators. We have a strong track record of completing projects on time and on budget. This allows us to continue to succeed, even in today's fast-evolving, increasingly competitive market. In addition, our customer solutions business designs individually tailored solutions that enable residential customers, small and medium-sized enterprises, and cities to produce their own green electricity and achieve greater energy autonomy.

During the development phase of each of our renewables projects, we carefully evaluate and actively address its potential impact on the environment and wildlife, in some cases in partnership with other companies and nature-conservancy organisations. We want our projects to have as little → [environmental impact](#) as possible and to protect biodiversity.

Innovation will play a big role in the further expansion of renewables. We focus primarily on technologies that will help us reduce the cost of wind and solar power. We also explore how renewables can be used more effectively; for example, in conjunction with new storage technologies. We're convinced that only market-driven innovations can ensure a sustainable, secure, and environmentally friendly supply of energy.

[→ [GRI 103-2](#) ✓]

### Organisation and responsibilities

E.ON Climate & Renewables (EC&R), the lead company of our Renewables segment, manages our large-scale renewables business. Founded in 2007, EC&R develops, builds, and operates large offshore and onshore wind farms as well as solar farms and energy-storage systems. Its Chief Executive Officer reports directly to our Chief Operating Officer – Integration, who is a member of the E.ON Management Board. She informs him of EC&R's key financial and technical performance indicators. In 2018 EC&R was active in the United States, the United Kingdom, Germany, Denmark, Sweden, Italy, and Poland.

For information about the organisation and responsibilities of our Customer Solutions segment, visit the → "[Innovative energy solutions](#)" chapter.

The Renewables Innovation team at our corporate headquarters coordinates our innovation activities for renewable energy.

[→ [GRI 103-2](#) ✓]

### Specific actions

Alongside solar panels, we market innovative storage solutions that give customers greater energy autonomy. → [E.ON Aura](#), a battery storage system we launched in Germany in 2016, enables residential customers with rooftop solar panels to store their surplus output for later use and thus meet up to 70 per cent of their electricity needs. With E.ON SolarCloud, available in conjunction with E.ON Aura since 2017, surplus output is stored in a virtual account that can be drawn on at any time, ensuring that customers can use all the green energy they produce. We market similar products in other countries.

We regularly invest in companies with cutting-edge business models, technologies, or products, including those related to renewables. This gives us access to their innovations and enables us to help enhance their value. So far, we've taken stakes in renewables start-ups in the United States, Europe, and Australia.

[→ [GRI 103-2](#) ✓]

### Goals and performance review

Going forward, we'll continue to draw on our deep expertise and experience to complete projects on time and on budget and to operate safely and reliably. To evaluate our performance in these areas, we use key financial and technical performance indicators, such as our Renewables segment's owned installed capacity and generation. These indicators are part of the EC&R Chief Executive Officer's reports to our Chief Operating Officer – Integration and can be found in our → [Combined Group Management Report](#).

#### Renewables segment's owned generation ✓

Billion kWh	2018	2017	2016
Onshore wind	10.3	8.9	8.2
Offshore wind	4.4	3.6	3.4
<b>Total</b>	<b>14.7</b>	<b>12.5</b>	<b>11.6</b>

Owned generation at Renewables was 2.2 billion kWh higher, in particular because Bruening's Breeze and Radford's Run onshore wind farm in the United States were for the first time operational for the entire year, Stella onshore wind farms in the United States entered service in December 2018, and Rampion offshore wind farm in the United Kingdom entered service in April 2018. [→ GRI 103-2/3

## Progress and measures in 2018

In 2018 we added over 600 megawatts (MW) of owned renewables generation capacity. In addition, several construction projects reached important milestones, and new assets entered service. This steady growth enabled us to remain a global player in renewables. In addition, we expanded our range of products for our customers to generate their own renewable energy.

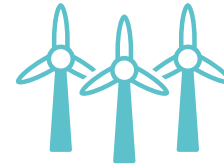
### Renewable segment's owned generation capacity

GW	2018	2017	2016
Onshore wind	3.9	3.7	3.2
Offshore wind	1.4	1.0	1.0
<b>Total</b>	<b>5.3</b>	<b>4.7</b>	<b>4.2</b>

### Growing our onshore wind business in North America and Europe

In 2018 we began building Stella wind farm in south Texas. It's our twenty-third in North America, demonstrating this market's continued attractiveness. Stella, which has 67 turbines and an installed capacity of 201 MW, became operational at the end of 2018. Construction of Morcone wind farm in south-central Italy got under way as well. It will have an installed capacity of 57 MW and is expected to enter service at the beginning of 2019. We own and operate ten onshore wind farms in Italy with a total capacity of around 330 MW.

We expanded our onshore wind business in Germany as well by acquiring the German operations of Kassel-based Vortex Energy in May 2018. Vortex has developed, built, and operated onshore wind farms in Germany since 2004. It has a 300 MW project pipeline and a large number of projects at an early stage of development, ideally complementing our own onshore activities in Germany.



In 2018 Onshore Wind achieved an availability factor of **94.8 per cent** (2017: 94.6 per cent). Offshore Wind was **96.8 per cent** (2017: 97.6 per cent).

### More clean energy generated offshore

Together with our project partner Equinor (formerly Statoil), we completed Arkona, a deepwater wind farm located 35 kilometres from Rügen island in the Baltic Sea, in record time. In 2018 we installed all 60 wind turbines in less than three months, faster than ever before in the industry. This enabled Arkona to deliver its first green power to the grid in September 2018. Arkona, which is scheduled to be fully operational in early 2019, will have 385 MW of capacity and be able to supply up to 400,000 households with renewable energy. Compared with fossil power generation, it will avoid up to 1.2 million metric tonnes of carbon emissions annually.

We work continually to find new technologies that make our offshore operations as environmentally friendly as possible. One example is our project with five other energy companies, the Carbon Trust, and Fistuca to develop a way to make driving turbine foundations into the seabed less noisy and thus less disturbing to marine life. The current method is to strike the top of the foundation with a steel ram suspended from a crane. The new method involves attaching a seawater-filled tank to the top of the foundation and using combustion to push the water upward so that when it descends it exerts downward force. It's designed to reduce underwater noise by up to 20 decibels.

### Harnessing sunlight in Texas

In 2018 we took a big step forward in expanding our large-scale solar business by announcing our intention to invest in West of the Pecos, a 100 MW solar farm in western Texas. It will consist of 350,000 photovoltaic modules and extend across 271 hectares, roughly the area of 550 football pitches. We expect it to create about 300 jobs during construction and to go online in 2020. SK E&S, one of South Korea's largest energy companies, has already purchased the rights to the output of 50 MW of the solar farm's capacity for a period of 20 years.

### Stabilising the grid with green power

Texas Waves, which consists of two 9.9 MW lithium-ion battery systems, entered service in January 2018. The batteries, which are charged with 100 per cent renewable power from two of our wind farms in western Texas, are capable of responding rapidly to fluctuations in demand and voltage and thus help stabilise the grid. Texas Waves helps solidify our position as a leader in the North American energy storage market.

### Helping people decide whether to go solar

Sunroof is an online tool that uses satellite images and weather data to enable customers to determine their roof's solar potential quickly and easily. We've been offering it in Germany in partnership with Google since May 2017. Well over 10,000 customers used it, and many went on to purchase solar panels from us. Sunroof will be available to homeowners in Great Britain starting in March 2019 and in Italy later in the year. As in Germany, we're the first energy company in Britain and Italy to offer its customers a convenient digital assessment of their home's solar potential.

### Promoting residential solar ownership through convenient financing

We launched E.ON Sunrate, a new financing scheme for rooftop solar systems, in Germany in mid-2018. It allows residential customers to pay for their system on a monthly basis. This gives them the advantages of ownership without an upfront investment. In conjunction with one of our energy storage products, an E.ON Sunrate solar system enables homeowners to meet most of their electricity needs with their own output and thus increase their energy autonomy.

We launched a similar financing solution in Italy in June 2018 under the name SoleSmart. We installed more than 1,800 solar systems in Italy last year. Customers benefit from our expertise at every phase of their project, from the feasibility study to after-sales service.

### Non-Core Business: nuclear power offers low emissions and high availability

Nuclear power generation results in no direct carbon emissions. Its lifecycle emissions – which include the emissions caused by uranium mining and enrichment, asset dismantling, and so forth – are similar to those of wind and hydro. Nuclear power is therefore one of the climate-friendliest energy sources. Our subsidiary PreussenElektra (PEL) operates three nuclear power plants (NPPs) in Germany. Our NPPs have long had an availability factor of around 90 per cent and thus rank among the production leaders in Germany and worldwide. Grohnde, for example, has generated over 377 billion kWh of electricity since commissioning. By combining high availability and low emissions, PEL's nuclear fleet helps to make Germany's power supply reliable and climate-friendlier.



# Protecting people and the environment



Another twig delivery? Storks use a lot to  
build a nest to protect their young.  
→ [Learn more](#)

## Topics

### → Climate and environmental protection

### → Occupational health and safety

### → Data protection and product safety

### → Incident and crisis management

## Challenges

Concerted and decisive action worldwide will be necessary to reduce greenhouse gas emissions.

Business activities consume energy and resources and can, if not managed correctly, have an adverse impact on the environment.

We need to protect the health and safety (H&S) of all employees, especially those doing potentially risky tasks. Other challenges are posed by demographic change and a rapidly changing work environment.

Organisations in the EU have to ensure that personal data are processed in compliance with the new General Data Protection Regulation (GDPR).

Products like the solar panels we install in our customers' homes could pose a risk to their health and safety.

Companies with industrial and infrastructure assets need to systematically prevent incidents and crises from happening and be thoroughly prepared to respond if one does.

## Our actions

Our core businesses help protect the earth's climate. Our climate strategy commits us to shrink our carbon footprint.

We have in place environmental management systems helping us ensure our compliance with all environmental laws and regulations.

Our approach to H&S is preventive and proactive: we take comprehensive action to avoid workplace accidents and illnesses. We have a wide variety of programmes that promote our employees' health and well-being.

We updated our systems and policies to comply with all of the GDPR's requirements. Our Information Security Management System helps us protect company information.

We consider safety standards across the life cycle of our solutions.

We have in place risk-specific incident and crisis management organisations, policies, and procedures at all levels of our company.

## SDGs



Subgoals: 13.2, 13.5 12.4, 12.5



Subgoals: 3.5, 3.8 8.8

Displayed are the → UN Sustainable Development Goals to which we make a direct contribution.

# 2018 Highlights



We implemented a **Data Protection Management System** that provides guidance on data protection issues and is intended to ensure that we take a structured, coordinated, and consistent approach to data protection across our company.



We adopted a **new Health, Safety, Environment & Climate Protection Policy Statement** which now encompasses climate protection and treats energy management as an aspect of this. In it we pledge to protect the environment and the earth's climate, reduce our energy consumption, conserve resources, operate responsibly, and strive for continual improvement in our environmental performance.



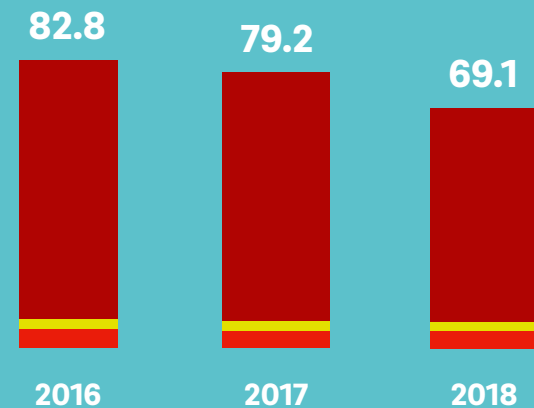
In 2018 we underscored our commitment to shrink the carbon footprint of our own operations by setting the target of making all **E.ON facilities and buildings carbon-neutral** by 2030.



The E.ON Management Board defined a set of **four personal health, safety, and environmental targets** for our 100 most senior executives. These include attending upskilling workshops and developing improvements plans and initiatives for their teams.

Our **carbon footprint** has declined in recent years. Our climate targets for 2030 are to reduce the carbon emissions of our own business operations by 30 per cent and those of our customers by 50 per cent, both relative to a 2016 baseline.

■ Scope 1   ■ Scope 2   ■ Scope 3



Total CO<sub>2</sub> equivalents in million metric tonnes





# Protecting the planet and its climate

Climate change and environmental damage caused by human action are serious and affect us all. As part of the decision to adopt the Paris Agreement, in October 2018 the Intergovernmental Panel on Climate Change (IPCC) published its most recent report on global warming. It once again emphasised the urgent need for concerted and decisive action to reduce greenhouse-gas (GHG) emissions so that global warming can be limited to 1.5 to 2 degrees Centigrade. Keeping temperatures within 2 degrees of preindustrial levels is crucial. But it's important to emphasise that it would probably still leave the earth in a chronic, albeit stable, condition. E.ON acknowledges the IPCC's key scientific input at the Katowice Climate Change Conference in Poland in December 2018, at which governments reviewed the Paris Agreement. The vast majority of energy consumed still comes from conventional sources and therefore results in significant GHG emissions.

E.ON is an energy company focused entirely on the new energy world; climate protection is therefore a crucial issue for us. The transition to a low-carbon economy poses challenges for our competitiveness but also creates opportunities for us to grow our business. Our core businesses reflect the key emerging energy trends and enable us to help our customers use energy more efficiently and generate their own low-carbon energy. Beyond this, the production or provision of all the goods and services as well as customers' use of products results in GHG emissions. We therefore need to take action to reduce our upstream and downstream climate impact. Alongside climate protection, we work systematically to prevent environmental damage and to minimise the impact of our business operations on the environment, the landscape, and biodiversity. Living up to our responsibility to protect the environment and the earth's climate is a core E.ON value and also essential for us to retain our stakeholders' trust. [→ [GRI 103-1](#) ✓]



## Our approach

Our core businesses help protect the earth's climate. Our strategic focus on smart distribution networks, innovative customer solutions, and renewables makes the countries where we operate climate-friendlier, more energy efficient, and more sustainable. We help them avoid GHG emissions and accelerate their → [energy transition](#). Distribution networks like ours are the backbone of this transition: wind farms, battery-storage systems, and other climate-friendly technologies are connected to our distribution grids. Going forward, smart grids will serve as the transformative platform for the innovative technologies and business models that are essential to the energy transition's success.

We want to shrink our own carbon footprint as well. In 2004 we began disclosing the annual carbon emissions from our power and heat generation and from other business activities not directly related to generation. These include upstream and downstream emissions associated with our business activities. We calculate emissions using the globally recognised WRI/WBCSD Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol). As part of our systematic focus on the new energy world, in 2017 the E.ON Management Board set new climate-protection targets for 2030. To achieve them, we've defined specific actions to reduce our emissions in all three scopes of the GHG Protocol (see "Goals and performance review" below).

Energy management – continually looking for ways to reduce our own energy consumption – plays an important role in our environmental management and helps us reduce our GHG emissions. Its implementation is supported by our operational health, safety, and environment (HSE) management, as we're committed to protecting people as well as the environment. Because the approaches and systems for doing both well are similar, we've combined environmental management and occupational health and safety in a single HSE organisation. Our environmental management is guided by the precautionary principle endorsed by the United Nations, and we've explicitly supported the UN Global Compact's ten principles since 2005. Our objective is for our business activities to cause no environmental damage and to have as little environmental impact as possible. We comply with all environmental laws and regulations. Beyond this, we've also defined our own environmental standards, which are mandatory across E.ON. Because we want to do business only with companies that share our commitment to environmental protection, our suppliers and contractors must pledge to observe our standards. A company policy (see "Guidelines and policies" below) requires all E.ON units (except for very small entities) to have in place an environmental

management system certified to ISO 14001 or EMAS, internationally recognised standards for such systems.

[→ [GRI 103-2](#) ✓]

### Organisation and responsibilities

The Sustainability department at corporate headquarters took the lead in developing our company-wide climate-protection targets and monitors progress towards them (see "Goals and performance review" below). Our units are responsible for taking action to reduce their own emissions as well as those that arise from their particular business activities. They're supported in these efforts by their HSE team and our wider HSE organisation, which helps design energy-efficiency measures and shares ideas and best practices. Together, their achievements enable us to progress toward our company-wide reduction targets for direct and indirect emissions.

The next chapter, → "[Occupational health and safety](#)," contains detailed information about our HSE organisation.


[→ [GRI 103-2](#) ✓]

### Guidelines and policies

In June 2018 we adopted the E.ON Health, Safety, Environment & Climate Protection Policy Statement, which supersedes our Health, Safety and Environment Policy Statement from 2014. The statement now encompasses climate protection and treats energy management as an aspect of this. It articulates our commitment to comply with all HSE laws and regulations and defines the appropriate management systems for this. It pledges us to protect the environment and the earth's climate, reduce our energy consumption, conserve resources, operate responsibly, and strive for continual improvement in our environmental performance.

We also updated two other HSE policies, which are more specific in nature: our Sustainability & HSE Function Policy and our Health, Safety, and Environment People Guideline, both of which took effect at the beginning of 2018. Our Function Policy defines HSE roles, responsibilities, management approaches and tools, and minimum requirements for our entire organisation. It empowers our Sustainability & HSE division to monitor units' compliance with the obligation to have an HSE management system certified to ISO 14001 or EMAS. We've also defined HSE standards for incident management, which replace the standards stipulated in previous business directives. Our → [Code of Conduct](#) contains HSE rules with which all employees must comply.

In addition, we've adopted → [procurement policies and standards](#) that require our suppliers to pledge to meet minimum standards for HSE.

[→ [GRI 103-2](#) 


### Specific actions

In October 2018 we replaced our previous online incident management system, Prevent!, with PRISMA (Platform for Reporting on Incident and Sustainability Management and Audits). For more information about PRISMA and our incident management, visit the → ["Occupational health and safety"](#) chapter.

We measure and analyse the energy consumed by our facilities and office buildings. The findings help us identify opportunities to conserve energy and recommend cost-effective energy-efficiency measures. We've already implemented several, such as installing smart LED lighting in buildings and car parks, reducing the energy consumed by ventilation and air-conditioning, and using smart building controls that automatically adjust interior temperatures depending on exterior temperatures and the day of the week (workday or weekend).

In 2017 we began offering our employees in Germany incentives to embrace e-mobility. They include an attractively priced leasing contract for an electric vehicle (EV), an at-home charging point, and a certified renewable power tariff so that employees can charge their EV with clean energy. We also have incentives for managers to choose an EV as their company car.

To obtain planning or regulatory consent, we're often required to conduct an environmental impact assessment during the development stage of new power lines, gas pipelines, renewables assets, and other large industrial equipment we intend to build. There may be additional requirements for us to monitor an asset's environmental impact once it's operational in order to ensure that our assessment was correct. For example, some jurisdictions where we operate wind farms require us to conduct periodic environmental assessments of flora and fauna, including habitat development and bird populations. In addition, we engage in ongoing → [dialogue with local stakeholders](#) and interested parties on a range of environmental issues.

[→ [GRI 103-2](#) 

Our distribution system operators (DSOs) take a variety of actions to prevent birds from colliding with our power lines or perching on the energised components of pylons. For example, Avacon, one of our DSOs in Germany, has installed over 1,300 → [special black-and-white markers](#) on its lines to make them more visible to birds.


Below under "Carbon footprint" (see "Progress and measures in 2018") we describe the specific measures we take to reduce emissions in the three scopes of the GHG Protocol.

### Goals and performance review

In 2017 we set two climate-protection targets for 2030: to reduce the carbon emissions of our own business operations by 30 per cent and those of our customers – their carbon emissions per kWh of power and gas we sell them – by 50 per cent, both relative to a 2016 baseline. The latter, known as indirect or Scope 3 emissions, occur primarily during the generation of purchased power and the use of sold gas. They account for most of our carbon emissions. In 2016 we began taking action to help us achieve our climate-protection targets for 2030. In monitoring progress toward them, it's important to remember that year-on-year comparisons can be affected by temporary fluctuations caused by weather patterns and other factors. A period of several years is necessary to determine whether the action we're taking is effective and where we stand with regard to our targets. We'll therefore assess the trend every three years, for the first time after year-end 2019. If our findings indicate that corrective measures are necessary, we'll work with our units to take such measures to ensure that we meet our targets. If, on the other hand, it becomes apparent that we'll achieve our targets earlier than planned, we'll set higher targets for 2030. In addition, each unit has the authority to pursue more ambitious emission-reduction targets that go beyond the targets for E.ON as a whole.

In 2018 we underscored our commitment to reduce the carbon footprint of our own operations by setting the target of making all E.ON facilities and buildings carbon-neutral by 2030 (see "New energy efficiency project" under "Progress and measures in 2018").

In December 2018 E.ON joined → [EV100](#), a global initiative that brings together companies committed to accelerating the transition to electric vehicles (EVs) and to making electric transport the new normal by 2030. Where technically feasible and cost-effective, we aim for all of our vehicles under 3.5 tonnes and at least half of those between 3.5 and 7.5 tonnes to be EVs by 2030. In addition, we'll continue installing charging infrastructure at our own facilities and promote the change to our customers. We're working on a detailed plan to reach our goals.

[→ [GRI 103-2/3](#) 

### Governance setup for climate and environmental protection

Information about our carbon footprint, progress toward our climate targets, and the measures we're taking are first presented to our Chief Sustainability Officer and → [Sustainability Council](#). Our Chief Sustainability Officer, who chairs the council, reports the information to the E.ON Management Board on a regular basis.

In addition, the E.ON Management Board is informed about serious environmental incidents (category 3 in our → [Standard on Incident Management](#)) by means of monthly reports from HSE and periodic consultations with the Senior Vice President for Sustainability & HSE. In the case of a major incident (category 4), the unit at which it occurred reports it directly to the Management Board within 24 hours.

[→ [GRI 103-2/3](#) ✓]

### Progress and measures in 2018

In June 2018 our Management Board underscored the importance of the United Nations' → [Sustainable Development Goals \(SDGs\)](#) by issuing a self-commitment to the SDGs. The statement emphasises our role in tackling climate change (goal 13). Our new objective of making all E.ON facilities and offices carbon-neutral by 2030 will help us shrink our carbon footprint. In addition, conservation and resource efficiency are increasingly important criteria in our purchasing decisions [→ Human rights and supplier management]. For example, we now only use certified recycled paper for office printing.

CDP awarded E.ON a B rating in its 2018 climate disclosures. This again makes us a top performer in our industry: our score is higher than the electric utilities' average (C) and higher than the Europe regional average (B-). CDP is one of the largest international associations of investors that independently assess the transparency and detail of companies' climate reporting. We've reported data on our carbon emissions to CDP (CDP carbon response) since 2004.

### New energy-efficiency project

In 2018 we started a new energy-efficiency project to support the E.ON Management Board's commitment to make all E.ON facilities and offices carbon-neutral by 2030 (see "Goals and performance review"). The target year is 2030 to fit the timetable of the SDGs and our own climate strategy. The first step in the project is to equip all our facilities and offices in Germany with

smart meters and connect them to energy-management software we've developed. The next step will be to use the findings to design specific measures to conserve energy. Our approach is to reduce first and then offset. In other words, our business units will exhaust all reasonable options for conserving energy before they offset their remaining emissions. The project got under way in Germany in November 2018. In 2019 we intend to extend it to other countries where we operate.

### Consistent carbon reporting and pricing

We continued our dialogue with initiatives involved in improving climate protection and reporting. For example, we further explored our contribution to the Task Force on Climate-related Financial Disclosures (TCFD). We want to help establish consistent, comparable, and accurate climate disclosures in line with TCFD recommendations, starting in 2019.

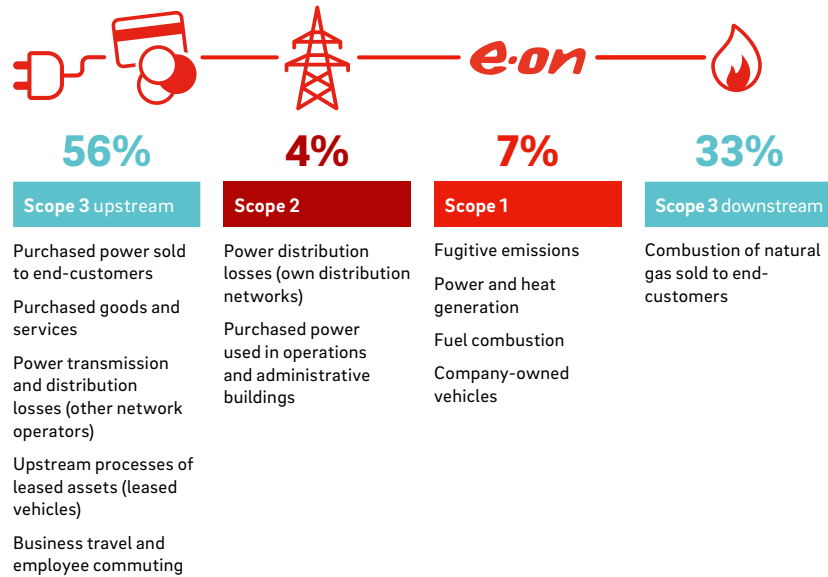
In November 2018 E.ON and 16 other energy companies signed a joint declaration reaffirming our commitment to proactively and collectively combat climate change through our business activities. The declaration advocates the creation of a progressive carbon price floor (CPF) for the power sector. Several renewables technologies are cost-efficient on market terms if carbon costs are factored into wholesale electricity prices. Rising carbon prices would help ensure that the EU achieves its climate targets in an economically efficient manner.

### Carbon reporting according to the GHG protocol

We calculate our emissions using the globally recognised WRI/WBCSD Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol) for the six greenhouse gases covered by the Kyoto Protocol: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>). CO<sub>2</sub> is by far our biggest GHG. Although other GHGs like SF<sub>6</sub> and CH<sub>4</sub> contribute to our climate impact, we emit much less of them than CO<sub>2</sub>. Global warming potentials indicate how much GHGs affect global warming over a period of time compared with CO<sub>2</sub>. All GHG emissions can be expressed as CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

The GHG Protocol defines three scopes for GHG accounting and reporting. This improves transparency and provides guidance for different types of climate policies and business goals.

**E.ON's carbon footprint by GHG Protocol scope**

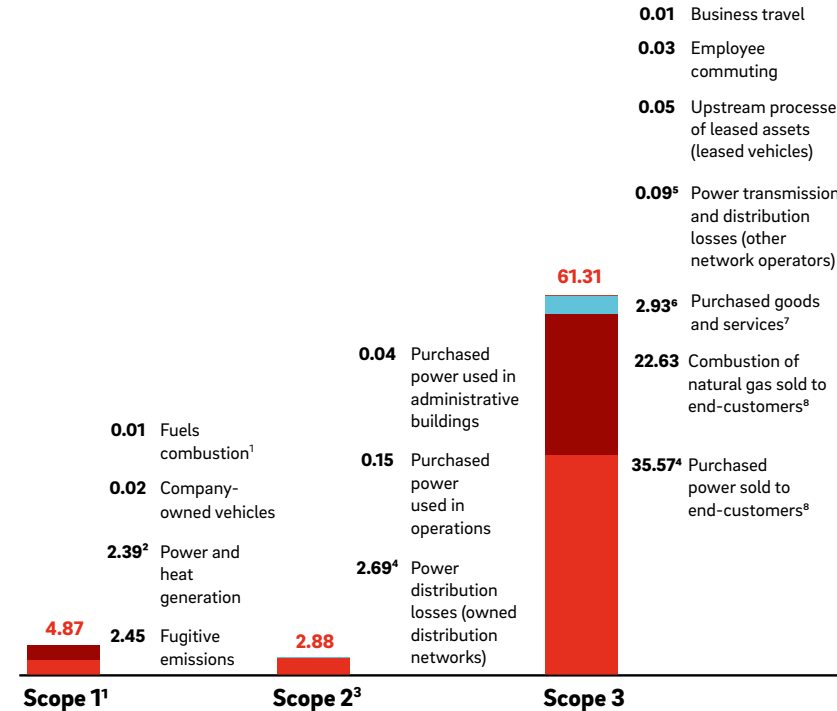


Scope 1 are direct GHG emissions from fuels combusted in sources that we own or control, such as our power and heat plants and vehicle fleet. It also includes fugitive methane emissions from our gas distribution networks.

Scope 2 are indirect GHG emissions from the generation of electricity that we purchase to power our buildings and operations or that are classified as line losses in our power distribution networks. These emissions don't physically occur at our facilities but rather at the facility where the electricity is generated.

Scope 3 are indirect emissions that occur upstream and downstream of us. They result primarily from the generation of the purchased electricity and the combustion of the gas that we sell to customers. But they also include the emissions attributable to the production and provision of the goods and services we purchase.

**2018 carbon footprint (total CO<sub>2</sub> equivalents in million metric tonnes) ✓**



<sup>1</sup>To heat buildings.  
<sup>2</sup>The Greenhouse Gas Protocol and DEFRA attribute no direct CO<sub>2</sub> emissions to energy generated at renewable facilities and nuclear power stations. This figure does not include 66 kilotonnes of CO<sub>2</sub>e from biogenic emissions.  
<sup>3</sup>Excludes our consumption of district heating due to the immateriality of the quantity compared with the other Scope 2 categories.  
<sup>4</sup>An update of the emissions factors used for calculating data limits the comparability with the prior-year figures.  
<sup>5</sup>A change in the scope of consolidation limits the comparability with the subsequent year's figures. Since 2018 the figure only includes losses from a DSO in Slovakia in which we have a 49 per cent stake.  
<sup>6</sup>New emission factor based on prior-year calculations. This figure does not include an offset of approximately 3,700 metric tonnes of CO<sub>2</sub>e.  
<sup>7</sup>Includes capital goods.  
<sup>8</sup>Figures include residential, commercial, and industrial customers.

Our direct and indirect CO<sub>2</sub>e emissions totalled 69.1 million tonnes in 2018, a reduction relative to the prior-year figure of 79.2 million tonnes of CO<sub>2</sub>e.



**Scope 1** [→ [GRI 305-1](#) ✓]

Total CO <sub>2</sub> equivalents in million metric tonnes	2018	2017	2016
Fugitive emissions	2.45	2.72 <sup>1</sup>	3.32
Power and heat generation	2.39 <sup>2</sup>	2.03 <sup>1</sup>	2.00
Company-owned vehicles	0.02	0.04	0.02
Fuel combustion <sup>3</sup>	0.01	0.02	0.03
<b>Total</b>	<b>4.87</b>	<b>4.81</b>	<b>5.37</b>

<sup>1</sup>Prior-year figures have been adjusted due to the subsequent adjustment of certain figures.  
<sup>2</sup>The Greenhouse Gas Protocol and DEFRA attribute no direct CO<sub>2</sub> emissions to energy generated at renewable facilities and nuclear power stations. This figure does not include 66 kilotonnes of CO<sub>2</sub>e from biogenic emissions.  
<sup>3</sup>To heat buildings.

Our 2018 Scope 1 emissions totalled 4.9 million metric tonnes of CO<sub>2</sub>e, slightly more than in 2017. Fugitive emissions consist predominantly of methane from gas leaks as well as leaks of sulphur hexafluoride (SF<sub>6</sub>) and coolants used in energy distribution equipment. Their global-warming potential is very high, which is reflected in their high CO<sub>2</sub>e. However, our fugitive emissions are quite small in proportion to the quantity distributed or used: in 2018 just 0.3 per cent of methane and 0.003 per cent of SF<sub>6</sub> were lost. Going forward, we intend to reduce fugitive emissions by continually improving and modernising our gas networks.

Emissions from power and heat generation are mainly attributable to our combined heat and power (CHP) plants. At 68 per cent, the majority of these emissions was caused by the generation of heating and cooling. Our generation portfolio consists predominantly of embedded and smaller plants. We therefore strive continually to improve the accuracy of our reporting boundaries for Scope 1 emissions from power and heat generation. As part of this effort, in 2018 we included, for the first time, CHP plants leased to third parties, resulting in higher emissions from power and heat generation relative to 2017.

To reduce emissions from company-owned vehicles, we're increasingly converting to electric vehicles. As part of this effort, in 2018 we joined the EV100 initiative (see "Goals and performance review").

**Scope 2**<sup>1</sup> [→ [GRI 305-2](#) ✓]

Total CO <sub>2</sub> equivalents in million metric tonnes	2018	2017	2016
Power distribution losses (location-based) <sup>2</sup>	2.69 <sup>3</sup>	3.10	3.06
Power distribution losses (market-based) <sup>4,5</sup>	3.96	4.14	4.20
Purchased power used in operations	0.15	0.22 <sup>6</sup>	0.25
Purchased power used in administrative buildings	0.04	0.05	0.05
<b>Total</b>	<b>2.88</b>	<b>3.37</b>	<b>3.36</b>

<sup>1</sup>Excludes our consumption of district heating due to the immateriality of the quantity compared with the other Scope 2 categories.  
<sup>2</sup>Based on the emission factors of the national electricity mixes for specific geographic regions.  
<sup>3</sup>An update of the emissions factors used for calculating data limits the comparability with the prior-year figures.  
<sup>4</sup>Based on the emission factors of the national residual mixes for specific geographic regions.  
<sup>5</sup>A large portion of the power distribution losses in Sweden was offset by the purchase of green electricity.  
<sup>6</sup>Prior-year figures have been adjusted due to the subsequent adjustment of certain figures.

We recorded Scope 2 emissions of 2.9 million tonnes of CO<sub>2</sub>e in 2018, slightly less than in 2017. A decline in emissions from power distribution losses was the main factor, although this resulted from an update of the emission factors used to convert these emissions to CO<sub>2</sub>e. In absolute terms, distribution losses were at the prior-year level.

Line losses in our networks account for the majority of our Scope 2 emissions. Pursuant to GHG Protocol Scope 2 Guidance, since 2016 we've calculated them two ways: using the location-based method and the market-based method. For our own decision-making, we use the figure determined by the location-based method, which is based on the respective national generation mix. The market-based method yields a different figure because it is based on the contractually attributable generation mix of each of our electricity suppliers. The effort required to identify every single provider that feeds electricity into each of our networks would be considerable. We therefore use the emission factor of the residual generation mix. In most cases, this is well above the factor of the national generation mix. Line losses accounted for approximately 4 per cent of the power we distributed in 2018.

Each euro we invest to maintain our grids helps to reduce line losses. Our approach depends on the type of loss. Technical losses can be reduced through network optimisation. We're also upgrading our grids using → [smart-grid technology](#), which enables our lines and transformers to adapt to the current production and consumption in a given grid segment. Commercial losses result primarily from theft. We seek to reduce these losses by using the data

provided by smart meters and other devices to identify suspicious consumption patterns.

**Scope 3** [→ GRI 305-3

Total CO <sub>2</sub> equivalents in million metric tonnes	2018	2017	2016
Purchased power sold to end-customers <sup>1</sup>	35.57 <sup>2</sup>	42.97	43.41
Combustion of natural gas sold to end-customers <sup>1</sup>	22.63 <sup>2</sup>	24.41	25.73
Purchased goods and services <sup>3</sup>	2.93 <sup>4</sup>	2.28	3.33
Upstream processes of purchased fuels	-	-	0.21 <sup>5</sup>
Power distribution losses (other network operators)	0.09 <sup>6</sup>	1.29	1.26
Employee commuting	0.03	0.03	0.03
Upstream processes of leased assets (leased vehicles)	0.05	0.03	0.03
Business travel	0.01	0.01	0.02
<b>Total</b>	<b>61.31</b>	<b>71.02</b>	<b>74.02</b>

<sup>1</sup>Figures include residential, commercial, and industrial customers.

<sup>2</sup>An update of the emissions factors used for calculating data limits the comparability with the prior-year figures.

<sup>3</sup>Includes capital goods.

<sup>4</sup>New emission factor based on prior-year calculations. This figure does not include an offset of approximately 3,700 metric tonnes of CO<sub>2</sub>e.

<sup>5</sup>Includes coal.

<sup>6</sup>A change in the scope of consolidation limits the comparability with the subsequent year's figures. Since 2018 the figure only includes losses from a DSO in Slovakia in which we have a 49 per cent stake.

Our 2018 Scope 3 emissions of 61.3 million metric tonnes made up the lion's share of our carbon footprint. Although we recorded a reduction of roughly 10 million metric tons compared with 2017, nearly all of it is attributable to an update of the emissions factors used to calculate emissions from the generation of purchased power and the combustion of gas sold to end-customers. We expect the carbon intensity of purchased power to continue to decline further as the European countries in which we purchase power decarbonize their energy mixes.

Our travel policy promotes the use of low-carbon transport. In addition, we offer attractive incentives to embrace e-mobility for leased cars (see "Specific actions").



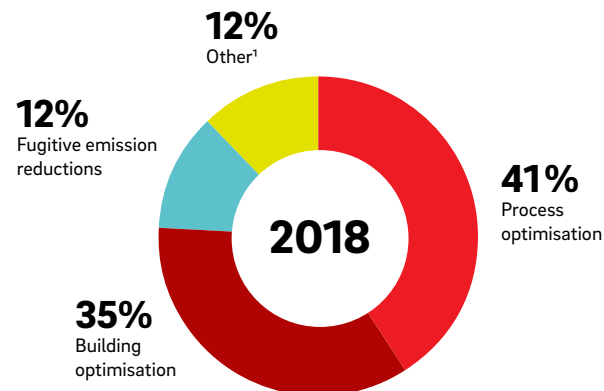
The emission factor for electricity consumed by our end-customers in Germany in 2018 was **261g of CO<sub>2</sub>e per kWh**. By comparison, the emission factor for the total electricity mix in Germany was 435g (Source: BDEW). The emission factor is shown on our customers' energy bill.

By deciding to purchase green power and gas products, customers can do their part to support the energy transition. In addition, our customers in Germany can opt to offset the CO<sub>2</sub> emissions of their gas consumption. The money goes toward sustainable energy production and emission avoidance in developing and emerging countries, such as the construction of a hydroelectric station in India. The projects help achieve other UN Sustainable Development Goals as well, such as job creation in these countries. The projects supported by our customers in Germany offset a total of 100,000 metric tonnes of carbon in 2018.

**Savings through emission-reduction projects**

We regularly carry out projects to reduce our own carbon emissions. In 2018 these projects delivered 1,610 tonnes of CO<sub>2</sub>e savings. These resulted primarily from process optimisation (such as heat recovery and the replacement of machines), building optimisation (such as improved insulation and more efficient lightning), and measures to reduce fugitive emissions, particularly methane.

**Carbon emission reductions achieved through targeted projects**



<sup>1</sup>Includes projects involving low-carbon energy like installing renewables capacity at company facilities.

### Energy consumption within the organisation

We consumed 239 million GJ in 2018, 38 million GJ more than in 2017. An extension of the survey method was responsible for the increase. This will limit the information value of a comparison with the subsequent year's figures. To further reduce the electricity consumed by our buildings, in 2018 we set the target of making them all carbon-neutral by 2030 (see "Goals and performance review").

[→ [GRI 302/1](#)

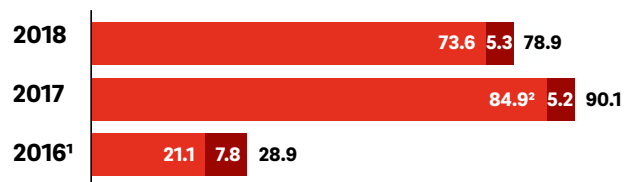
### Environmental incident

We had one serious environmental incident (category 3) in 2018. It occurred at Avacon, a subsidiary in Germany. The depressurisation of a high-pressure gas pipeline resulted in the unintentional release of oil in aerosol form in the immediate vicinity. This affected our equipment, an adjacent walking path, and part of a nearby field. When the oil leak was detected, it was stopped immediately by closing the blow-out valve.

### Avoiding and recycling waste

We always try to avoid creating waste and, when this isn't feasible, to recover as much of it as we can. If neither avoidance nor recovery is possible, we ensure that waste is disposed of correctly and responsibly. Our operating business generates hazardous and non-hazardous waste, as does the retirement of some assets, such as the dismantling of our nuclear power stations in Germany.

### Non-hazardous waste (metric kilotonnes)



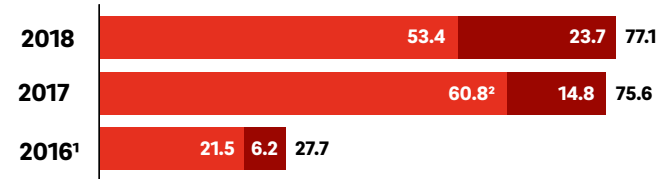
■ Recovered ■ Disposed

<sup>1</sup>Different data-collection method and scope of consolidation.

<sup>2</sup>Prior-year figure has been adjusted.

We produced 11.2 kilotonnes less non-hazardous waste than in 2017. We recovered 93.2 per cent of the total of 78.9 kilotonnes.

### Hazardous waste (metric kilotonnes)



■ Recovered ■ Disposed

<sup>1</sup>Different data-collection method and scope of consolidation.

<sup>2</sup>Prior-year figure has been adjusted.

We produced 77.1 kilotonnes of hazardous waste in 2018, around 1.5 kilotonnes more than in 2017. We recovered 69.3 per cent of it. We expect the amount of waste to stay at this level the years ahead owing to the dismantling of nuclear power stations at our Non-Core Business segment.

### Non-Core Business: water management at PreussenElektra

We spun off most of our conventional generation business as Uniper at the start of 2016. Consequently, the nuclear power plants in Germany operated by our subsidiary PreussenElektra (PEL) represent our only material use of water. PEL's plants use water for cooling and processes.

PEL is committed to using water efficiently and sustainably and to maintaining high quality in the rivers from which its plants extract water. It also strives continually to use less. PEL complies with all laws and regulations regarding water withdrawal and discharge. It protects aquatic flora and fauna by carrying out mechanical purification processes, eliminating biocides, and constantly monitoring the temperature of discharge water. PEL also expects its contractors to use water sparingly and has binding water-management provisions in its agreements with them. Below is a three-year overview of how much water PEL has withdrawn, discharged, and consumed.

### Water balance of PreussenElektra

Million cubic meters	2018	2017	2016
Fresh water withdrawal	2,316.0	1,433.0	2,355.5
Fresh water discharge	2,278.3	1,396.0	2,329.3
<b>Fresh water consumption</b>	<b>37.7</b>	<b>37.0</b>	<b>26.2</b>

PEL withdrew 2,316 million cubic meters of fresh water in 2018, 883 million cubic meters more than in 2017. Almost all of it comes from rivers. PEL uses it mainly as cooling water. The increase in withdrawals is attributable to the fact that we had fewer power plant outages than in 2017. PEL returned to the rivers 98.4 per cent of the water that had been withdrawn. In 2018 about 37.7 million cubic meters of fresh water evaporated into the atmosphere through the power plants' cooling towers. The evaporation rate and consumption of fresh water are thus roughly at the same level as in 2017.

### Non-Core Business: safe handling of radioactive waste

Our subsidiary PreussenElektra is responsible for the safe and reliable operation and dismantling of our nuclear power plants (NPPs). Both activities result in radioactive waste. We're well aware of the high responsibility this gives us.

The Law on the Reorganisation of Responsibility in Nuclear Waste Disposal and the contract to finance the costs of the nuclear-energy phase-out between the German federal government and the country's NPP operators stipulate the division of responsibility for nuclear-waste disposal and its financing.

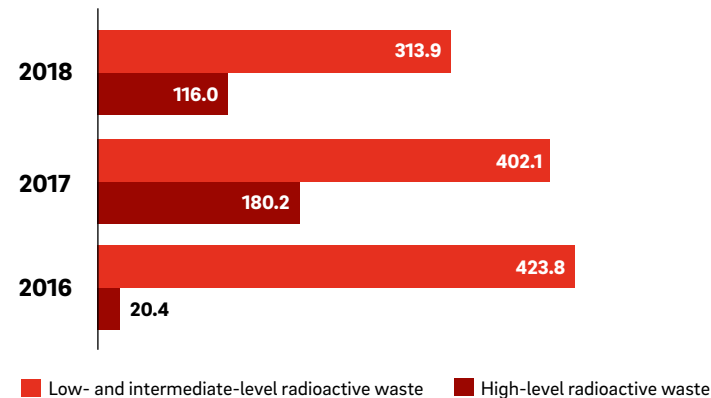
Our goal is to minimise radioactive waste. We do this in part by separating it from uncontaminated waste and by subjecting it to certain treatments that reduce its volume. The industry distinguishes between radioactive waste that generates negligible heat – low-level waste (LLW) and intermediate-level waste (ILW) – and waste that generates high heat – high-level waste (HLW):

- LLW and ILW account for the largest amount of radioactive waste in terms of both weight and volume. Examples of LLW include protective clothing, cleaning equipment, tools, and building rubble from plant control areas. ILW includes, in particular, the reactor pressure vessel's near-core fixtures. Together, both waste categories contain less than one per cent of an NPP's total radioactivity.
- HLW contains more than 99 per cent of an NPP's total radioactivity and consists primarily of the fission products of uranium in the irradiated fuel assemblies.

NPP operators package LLW and ILW safely and professionally. After regulatory certification, packaged LLW and ILW becomes the responsibility of the German federal government. Konrad repository for LLW and ILW is currently being built by BGE, the German Federal Company for Radioactive Waste Disposal. BGE most recently postponed the expected date of Konrad's commissioning from 2022 to 2027.

As for HLW, irradiated fuel assemblies are placed in approved transport and storage containers and stored safely in interim storage facilities at the NPPs. Under the Law on the Reorganisation of Responsibility in Nuclear Waste Disposal, the interim storage facilities and containers of irradiated fuel assemblies became the responsibility of the federal government effective 1 January 2019. Fuel assemblies will remain in the interim storage facilities until Germany has a state-owned receiving facility or repository for HLW. When this will happen is unclear. The responsibility for final disposal lies with the federal government.

### Radioactive waste (metric tonnes)




In 2018 we generated 88.2 tonnes, or 21.9 per cent, less low- and intermediate-level radioactive waste than in 2017. We expect the amount of waste to increase again in the years ahead owing to upcoming dismantling projects in which dismantled plant components is treated as radioactive waste. The amount of high-level radioactive waste decreased by 64.2 tonnes year on year because we removed fewer fuel elements from reactors than in 2017.





# Ensuring a safe and healthy workplace

Ensuring our employees' health and safety is of the utmost importance and therefore a core value of our corporate culture. Every accident, even a minor one, can endanger the health and dramatically alter the lives of the individuals affected and of their families. Accidents are also bad for us as a company. They may impact the environment, damage property, cause work stoppages, and harm our reputation. For all these reasons, we demand that everyone at E.ON comply with our stringent safety standards at all times. This is particularly true for employees whose tasks are potentially risky, like those who work on our power grids, gas pipelines, and wind farms or install rooftop solar panels. We strive to foster our employees' mental health as well. For example, we take steps to help them cope with the increased demands and anxiety that can be caused by digitalisation, corporate restructuring, and other types of change. Finally, we address the needs of an ageing workforce and take steps to maintain our people's ability to work. [→ [GRI 103-1](#) 

## Our approach

Our approach to health and safety (H&S) is proactive and preventive and has long been firmly embedded in our corporate culture as well as our organisational setup, policies, and procedures. By signing the Düsseldorf Statement on the Seoul Declaration on Safety and Health at Work and the Luxembourg Declaration on Workplace Health Promotion in 2009, we pledged to promote a culture of prevention.

Our vision for occupational safety is zero: to have zero tolerance for accidents and thus ensure that none occurs. This applies to our own employees as well as contractor employees who do work on our behalf. In order to ensure systematic and effective compliance with our safety standards, we require, with few exceptions, all units to have in place a certified occupational H&S management system. Our purchasing policies classify work activities by their riskiness and stipulate the requirements contractors must meet for each activity, such as having their own H&S management system.

We strive to actively promote our employees' well-being and enable them to maintain their performance and employability well into the future. In particular, we try to prevent the main health conditions that most frequently result in unfitness for work and that are the precursors of preventable diseases and even causes of death. Our health management includes designing target-group-specific prevention measures and health services, which we increasingly promote through digital communications channels. To continually improve the effectiveness of our measures, our Health, Safety, and Environment (HSE) organisation shares information, ideas, and best practices across our company.

[→ [GRI 103-2](#) ✓]

### Organisation and responsibilities

We're committed to protecting people and the environment. Because the approaches and systems for doing both well are similar, we've combined environmental management and occupational health and safety in a single HSE organisation. The E.ON Management Board and the management of our units are responsible for our HSE performance. They set our strategic objectives and adopt policies to promote continual improvement. They are supported and advised by the HSE division at corporate headquarters, our HSE Council, and employee representatives. The council is composed of senior executives and employee representatives from different business areas and countries. It meets at least three times a year and is chaired by the member of the

Management Board responsible for HSE. Our units have HSE councils and expert teams as well. They define specifications and design plans to ensure that their unit meets our standards.

[→ [GRI 103-2](#) ✓]

### Guidelines and policies


In June 2018 we adopted the E.ON Health, Safety, Environment & Climate Protection Policy Statement, which supersedes our Health, Safety and Environment Policy Statement from 2013. The statement now encompasses climate protection and treats energy management as an aspect of this. It also articulates our zero-tolerance approach to accidents and work-related diseases: we're committed to ensuring the safety of our employees, customers, and contractors in all work processes at all times and to continually improve these processes as well as our work environment and workplace design. We aspire to be an employer of choice for health management and to foster a work environment that protects and promotes our employees' physical and mental well-being.

We also updated two other HSE-related policies, which are more specific in nature: our Sustainability & HSE Function Policy and our Health, Safety, and Environment People Guideline, both of which took effect at the beginning of 2018. Our Function Policy defines HSE roles, responsibilities, management approaches, and reporting channels. It sets minimum requirements and management tools needed to prevent physical and mental harm in the workplace. It also requires all our operating units to have in place an occupational H&S management system certified to ISO 45001, an internationally recognised standard for such systems (ISO 45001 replaced OHSAS 18001). Under this standard, contractors who work for us are indirectly covered by our management systems. The People Guideline on HSE clearly and succinctly conveys our HSE aspirations and states our expectation that all employees embrace HSE on the job. It also describes our three Safety FIRST principles, which together encompass the mindset and behaviours necessary to prevent accidents. The guideline contains extra tasks for managers, because they take the lead in delivering on our commitment to continual improvement in our HSE performance.

An updated Group standard for incident management took effect in mid-2018. Its purpose is to establish consistent rules for reporting, investigating, and analysing HSE incidents and for sharing what we learn from them. It complements PRISMA, our new IT solution for incident management, which is described below under "Specific actions."

In 2015 management and the Group Works Council concluded the Group Health Agreement for our employees in Germany. Its purpose is to foster a healthy work environment and promote the health of all employees. It defines four action areas: occupational health management, addiction prevention and intervention, occupational integration management, and employee counselling.

In addition, we've adopted → [procurement policies and standards](#) that require our suppliers to pledge to meet minimum standards for HSE.

[→ [GRI 103-2](#) 

### Specific actions

The Centre of Competence for Global Learning at corporate headquarters, which was formerly responsible for H&S training and seminars, closed on 31 December 2017. Corporate headquarters still oversees strategic H&S instruction, such as the training provided to the E.ON Group's top 100 executives. Otherwise, however, our units now conduct their own training.

In October 2018 we replaced our previous online incident management system, Prevent!, with PRISMA (Platform for Reporting on Incident and Sustainability Management and Audits). PRISMA is an integrated solution that supports the reporting and management of HSE incidents. The new system enables us to reach more users, create more transparency, and report and manage data better. All E.ON units must adopt and use PRISMA, which has five categories of incidents. They range from 0 (low) to 4 (major). According to our HSE Standard on Incident Management, units must use PRISMA to report category 4 incidents to the HSE division at corporate headquarters within 24 hours. We systematically investigate and analyse all incidents and use the findings to take preventive action.


Safety walks give senior managers the opportunity to see our workplaces up close and to talk directly with our employees to identify H&S risks and issues. PRISMA includes a downloadable app (Go, See & Talk) that makes safety walks easier for managers to conduct. It contains the right questions to ask for each type of workplace, including questions on a workplace's HSE culture and health issues. It also has blank fields for managers' own questions. Managers also use the app to submit the answers they received, their own observations, as well as photos and documents. The information is automatically entered into PRISMA and becomes part of our storehouse of data for further analysis.

Alongside familiarising our employees with H&S rules and regulations, some of which are highly technical, we actively motivate them to embrace safe work practices and involve them directly in the process. One example is a multi-week interactive campaign on Connect, our corporate social media platform. It consists of a series of stories on H&S issues. Employees are encouraged to post their feedback and suggestions, creating an ongoing dialogue. The purpose is to spur them to rethink their actions, preferences, and expectations regarding H&S and to stimulate independent thinking and action in our organisation. In addition, their feedback provides our HSE departments with new insights into employees' mindset. The campaign is part of our effort to shift from an H&S culture that focuses on setting rules to one that emphasises caring about our employees.

In addition, we thoroughly train our lead investigators to examine fatal and other severe incidents. Training includes methodologies for comprehensive investigations of root causes (barrier-based systematic analysis) as well as intercultural competence, communication skills, and other ancillary topics.

The values and rules of our Safety F1RST! campaign, which we introduced in 2011, are still valid throughout our company, but awareness measures under its auspices were discontinued in 2018.

Employees who have questions or concerns about their physical or mental health can contact our employee assistance programme (EAP). EAP is a free, independent, and strictly confidential health-advisory and life-coaching service available in multiple languages to our employees in Germany, Great Britain, Sweden, and Hungary. We have similar programmes in other countries where we operate.

[→ [GRI 103-2](#) 


### Goals and performance review

Our units develop their own HSE improvement plans, which set HSE targets for one or more years. Many units set annual targets for combined TRIF, thereby helping us reach our goal of zero accidents. In addition, the E.ON Management Board defined a set of four personal HSE targets for the top 100 senior executives who report directly to them. Examples of targets for executives included participating in HSE upskilling workshops held in the first quarter of 2018 and working with their management team to obtain a clear understanding of the current HSE culture in their area of responsibility, define a target HSE culture and the timetable for achieving it, and enumerate the proper initiatives to pursue.

The E.ON Management Board is informed about severe incidents, developments relating to accidents, and related measures and programmes by means of monthly reports from HSE and periodic consultations with the Senior Vice President for Sustainability & HSE. Our units report major incidents directly to the Management Board within 24 hours. We carefully review performance indicators for lost time, accidents, and dangerous situations. The purpose is to understand the causes of accidents, take action to prevent them, and conduct risk analyses. If safety data indicate that a unit may not be meeting our standards, the Corporate Audit and HSE divisions at corporate headquarters conduct an HSE audit.

The findings of our 2018 audits show that our H&S management systems are largely effective. In some cases, however, we identified room for improvement. Examples included a gap in the effectiveness of how H&S is communicated to engineers, project managers, and contractors on the operational side of the business and a failure of some employees to carry out a risk assessment prior to performing a task or putting on their personal protective equipment. We initiated training courses for employees and managers at these units and took steps to eliminate weaknesses in their processes.

We assess the success of our approach to health management by asking ourselves a simple question: "Did we reach out to our staff with information on health and prevention and motivate them to participate in our programmes?" For example, our colorectal cancer prevention programme in 2018 reached around 23 per cent of our employees in Germany. We also calculate the return on investment of our health programmes by comparing their cost with the downtime they prevent. More generally, we strive to foster a work environment in which all employees feel comfortable, valued, and supported.

[→ [GRI 103-2/3](#) 

## Progress and measures in 2018

In 2018 we focused in particular on designing and implementing new measures to reinforce our senior managers' awareness of safety issues. Since 2018, employees can use our → [whistle-blower hotline](#), anonymously if they prefer, to report concerns about possible violations of our H&S rules.

We also continued to emphasise mental health through ongoing measures like flyers, team workshops, talks, and e-learning modules. In addition, in 2018 one of our business units in Germany conducted an assessment to gather data for new prevention and intervention measures that will be implemented in 2019. A key objective is to make the EAP available across E.ON as soon as possible.

### Goals and programmes for senior managers

In 2018 we defined four personal HSE targets for our 100 most senior executives (see "Goals and performance review" above). In addition, we introduced a new one-day workshop for senior managers at our operating units. Its goal is to sensitise them to their personal responsibility for occupational safety, to train them to recognise safety risks early, and to provide them with ways to positively influence the safety attitude of their colleagues and employees. We held the workshop at our distribution system operators and E.ON Connecting Energies in Germany in 2018 and will do so at operating units in Hungary, Romania, and Sweden in 2019.

### New safety campaign

In 2018 we developed a new campaign called HOW WE CARE to foster a caring culture. It will be carried out by managers across E.ON at the start of 2019. It's supported by a safety-walk app that helps managers to dialogue with employees to identify H&S risks and issues in the workplace. We made the app available to our 350 most senior managers at our Group Executive Conference in September 2018.

As part of the campaign, we will issue guidelines for the use of mobile phones in vehicles. By instructing employees, for example, to avoid calls and refrain from listening to machine-read email messages while driving, we aim to reduce the risk of traffic accidents.

### Individually tailored health initiatives

Our units in Germany introduced new initiatives to raise their employees' health awareness. They tailored the initiatives to their specific needs. E.ON Business Services, for example, focused on reducing psychological stress and



on training for line managers, while Hansewerk offered health coaching that emphasised proper exercise, nutrition, and relaxation.

### More detailed health data

In 2018 we added several key performance indicators (KPIs) to give us a more detailed picture of our employees' health and to make data collection consistent across our organisation: health rate, number of sick days, classification of sick days by the ten most common causes, participation rate in health initiatives, and participation rate in the EAP and events.



**96.3 per cent** ✓

Our employees' health rate in 2018. It reflects the number of days actually worked in relation to agreed-on work time. The 2018 figure was again high (2017: 96.6 per cent).

### Accident statistics

Total recordable injury frequency (TRIF) is our KPI for safety. It measures the number of recorded work-related injuries and illnesses (excluding first aid accidents) per million hours of work. We've calculated it since 2010 (employee TRIF) and included contractor employees' in our safety performance since 2011 (combined TRIF).

#### Employee TRIF<sup>1</sup>



<sup>1</sup>TRIF measures the number of reported fatalities and occupational injuries and illnesses per million hours of work. It includes injuries that occur during work-related travel that result in lost time or no lost time and/or that lead to medical treatment, restricted work, or work at a substitute work station.

#### Employee TRIF by segment<sup>1</sup>

	2018
Energy Networks	2.5
Customer Solutions	2.6
Renewables	9.6
Corporate Functions/Other	1.3
<b>Core businesses</b>	<b>2.6</b>
Non-Core Business	1.0
<b>E.ON Group</b>	<b>2.5</b>

<sup>1</sup>TRIF measures the number of reported fatalities and occupational injuries and illnesses per million hours of work. It includes injuries that occur during work-related travel that result in lost time or no lost time and/or that lead to medical treatment, restricted work, or work at a substitute work station.

In 2018 our employee TRIF of 2.5 was slightly higher than the prior-year figure (2.3). By contrast, contractor TRIF declined from 2.9 in 2017 to 2.1 in 2018. The different direction of these two trends may be due to the fact that in 2018 our Renewables segment in particular hired as employees a number of technicians who had previously worked for us as contractors. This segment has an above-average number of accidents compared with our other segments, which led to the increase in employee TRIF. We also assume that the introduction of our new online incident management system improved our reporting culture. On balance, our safety performance improved slightly: our combined TRIF declined from 2.5 to 2.4.

#### Employee LTIF<sup>1</sup>



<sup>1</sup>Lost time injury frequency measures work-related accidents resulting in lost time per million hours of work.

We use lost-time injury frequency (LTIF) to measure work-related accidents resulting in lost working hours. Employee LTIF of 1.9 represented a slight worsening relative to 2017. Contractor LTIF was 1.5, a year-on-year decrease (2017: 2.3). In 2018 we focused on contractor management. This included developing and implementing contractor-specific programs that likely contributed to the reduction.

In 2017 we introduced a new H&S KPI: serious incident and fatality rate (SIF). SIF measures accidents and incidents that have caused, or could have resulted in, serious or fatal injuries. Only incidents that surpass a predefined severity threshold are included in SIF. Combined SIF of 0.6 in 2018 represented a slight improvement relative to the prior-year figure of 0.7. The number of serious injuries and potentially serious incidents decreased by approximately 3 per cent year on year.

### **Fatal accidents at work**

Despite our intensive safety measures, three E.ON employees and two contractor employees died in 2018. Two of the E.ON employee fatalities occurred as a result of electrical accidents, one in the Czech Republic, another in Germany. A third E.ON employee died in Hungary from a knife wound received during an altercation with a co-worker (crime-related). In addition, two contractor employees died, one in Romania during the hoisting of a pole, another in Sweden while removing fallen trees from a power line. After fatal accidents we immediately initiate investigations to understand the exact course of events. The aim is to identify the root causes and to take all necessary measures to prevent comparable accidents in the future. These principles also apply at subsidiaries that are not fully consolidated, such as those in Slovakia and Turkey. Serious accidents are not acceptable. In 2019 we'll continue to implement our HSE strategy to foster a caring culture at E.ON and also launch a ZERO Major Harm program to reduce the number of serious incidents.

### **Non-Core Business: occupational health and safety at PreussenElektra**

Our subsidiary PreussenElektra (PEL) is responsible for the operation, decommissioning, and dismantling of our nuclear power plants (NPPs). Its top priorities in all these activities are the health and safety of employees – its own as well as contractors' – and environmental protection. PEL is fully integrated into our safety organisation and embraces our high standards. Its extensive experience in plant operations and decommissioning helps it further optimise its H&S processes and procedures. It strives for continuous improvement through process and operational reviews, improvement plans, and prevention and training initiatives that foster safe work practices and behaviours among employees. All this contributes to the high level of safety at our NPPs, which in 2018 again had no serious accidents.



# Guarding data, ensuring safety


Digitalisation opens up a wide range of possibilities for our customers and our company. It enables us to make our → grids smarter and our customers to monitor and analyse their energy consumption data in real time using → smart devices. In the course of our business, we process personal data of customers, employees, enterprise partners as well as other organisations and individuals. The processing of these data is subject to the EU General Data Protection Regulation (GDPR) and Germany's new Federal Data Protection Act. Both came into effect in May 2018. The former harmonises the rules for the processing of personal data by organisations in the EU and the wider European Economic Area; the latter establishes specific regulations for Germany. In addition to protecting personal data, it's crucial for us to safeguard all company information – in oral, written, and digital form – in order to prevent damage to our competitive position, brand, and reputation. [→ GRI 103-1 ✓]

We offer our customers digital solutions as well as a steadily expanding range of → products installed at their premises: from solar panels on roofs to battery storage systems in cellars. Ensuring that these products are safe is essential for us to protect our customers' health, retain their trust, and continue our successful partnership with them.

## Our approach

We take the lawful and confidential handling of our customers', enterprise partners', and employees' data very seriously. "Personal data" means any information relating to an identified or identifiable natural person. Data protection regulations provide individuals with rights to control and protect the use of their personal data. In 2018 we updated our business directives, policies, guidelines, and processes to comply with the GDPR. We implemented a Data Protection Management System (DPMS) based on IDW PS980, an audit standard for compliance management systems. Our DPMS was designed by the data protection team at our corporate headquarters and approved by a law firm. It provides guidance on data protection issues and is intended to ensure that, to the extent possible, we take a structured, coordinated, and consistent approach to data protection across our company.

In 2018 we also took all the steps necessary to comply with the GDPR with regard to our business partners, stakeholders, customers, and other relevant parties. These steps included revising data protection contracts and other documents, and informing all relevant parties, (thereby enabling them to exercise their rights to delete, rectify, and transfer data), and putting in place a data breach process.

[→ [GRI 103-2](#) 

To protect all company information, we have in place an Information Security Management System (ISMS) based on ISO 2700x, an internationally recognised standard for information security. The ISMS is certified for those parts of the organisation where this is mandatory. We work hard to ensure and maintain the confidentiality, availability, and integrity of our information resources. This includes monitoring our infrastructure, vulnerabilities, and threats as well as detecting and responding to security events like cyber attacks. We adopted an information security strategy and designed an implementation roadmap for it. Items on the roadmap include awareness, identity and access management, cloud security, and new detection and prevention capabilities.


We extend our high standards for → [occupational health and safety](#) to the products we offer our customers. We set uniform standards to ensure that our products are safe throughout their life cycle, from development to recycling. We comply fully with all applicable safety laws and regulations. If, in the case of innovative products, current laws and regulations lag behind the state of the art, we meet more stringent safety standards.

## Organisation and responsibilities

Each of our units is responsible for complying with the GDPR. The minimum standard they must meet is to implement, where necessary, an adapted version of our DPMS. We have in place a comprehensive set of processes, including those to fulfil the data subject's rights (for information, deletion, and so forth), to consider data protection requirements in relation to our suppliers and other business partners, and to report and handle personal data breaches. We assess a breach's severity using a method developed by the → [European Union Agency for Data Network and Information Security](#). In addition, these processes provide guidance to our units, which have implemented the necessary processes in their organisations as well.

The units are responsible for dealing with all data protection issues related to their business and with the claims that individuals address to them pursuant to the individuals' rights under the GDPR, such as information, rectification, deletion, and data portability. In addition, our units' systems and policies must comply with the data protection laws and regulations of the country or countries where they operate. Where required by law, the units have appointed Data Protection Officers (DPOs). The requirements for appointing DPOs vary by country. The DPOs share information with each other on a regular basis and report regularly to our Chief DPO at our corporate headquarters on the following dimensions of data protection: the rights of the data subject, relations to third parties, company documentation, and relations to data protection agencies.

Our E.ON SE DPO is responsible for data protection issues at the corporate level. Our units report to him on such issues. His responsibilities include coordinating data protection activities across E.ON. He also reports periodically to the Information Security and Data Protection Council, which includes two Management Board members and, if the need arises, the entire Management Board. In addition, internal stakeholders are regularly informed about relevant developments in data protection, such as legislation, technology, decisions issued by regulatory agencies, and so forth. This information is disseminated by e-mail or, where appropriate, through internal communications channels, including Connect, our corporate social media platform.

[→ [GRI 103-2](#) 

The Information Security division at our corporate headquarters is responsible for information security at the corporate level. Its tasks include defining our group-wide information security strategy, monitoring its implementation, and coordinating the information security organisation across E.ON. Our



Chief Information Security Officer (CISO) reports to our Chief Information Officer and has the authority, when necessary, to directly escalate to the CEO of E.ON SE. This organisational setup ensures that if a serious issue arises, the CEO of E.ON SE is informed immediately. Our units have designated Information Security Officers who report to our CISO, as well as their unit's board, any relevant issues arising in their organisations.

Our regional units know their customers, their products, and the local market conditions and requirements. Consequently, their Product Development teams take the lead in product safety, supported by their unit's HSE department. In these activities they work closely with, and receive support and guidance from, several divisions and departments at our corporate headquarters, primarily B2C/B2SME Solution Management, Innovation, HSE, and Sustainability. As decided in 2017, in 2018 we established a product safety and compliance team in the B2C department. A new position was filled tasked with designing our strategy for product safety and compliance, focusing on global standards and best practise.

### Guidelines and policies

In 2018 we adopted a new data protection policy, which replaces the previous one. It makes explicit reference to the rights of the data subject and the principles of data protection (fairness, transparency, lawfulness, and so forth) from Article 5 of the GDPR. With a territorial scope extended from Germany to the entire Group, it defines roles and responsibilities in a uniform manner across our organisation.

[→ [GRI 103-2](#) ✓]

We adopted the new E.ON Information Security Standard in 2018 as well, which defines roles and responsibilities in information security. To facilitate certification, the standard reflects ISO 2700x requirements. A People Guide-line summarises the main information security rules that are relevant for all employees. Using the ISO 2700x framework will make it easier for employees to design or operate new IT or operational technology solutions with the level of information security we want.

### Specific actions

Our employees receive training in data protection every two to three years. New employees typically receive such training in their first year. In addition, individual departments and teams – such as call centres and sales organisations – provide training to meet their special data protection requirements. In 2018 we rolled out a company-wide e-learning module to familiarise our employees

with the GDPR's new rules. All employees either completed the module or were exposed to awareness campaigns.

[→ [GRI 103-2](#) ✓]

We also use e-learning to familiarise our employees with information security risks, their obligation to keep confidential company information secure, and the proper way to handle such information. In 2018 we for the first time used gamification to train employees in cyber security risks. We encourage employees to be part of our information security line of defence.


We take a variety of steps to address health and safety issues across the life cycle of our products. During product development we closely monitor emerging issues and comply with current standards and guidelines. Our regional units test all market-ready products (including e-mobility solutions) for CE conformity in their own test labs or have them tested in our main test lab in Essen or by outside testing firms. This provides us with a comprehensive assessment of the risks, their likelihood, and other potential impacts. Prior to hiring, → [contractors](#) who install and maintain products on our behalf must undergo prequalification to ensure that they meet our standards and values. As part of this process, we evaluate not only the contractors themselves but also their products to ensure they meet specific standards. In addition, we engage in ongoing dialogue with our contractors and train them to ensure that they adhere to all requirements and the latest technical standards. Safety training, for example, is mandatory for all installers of our solar and battery solutions in Germany. If a product has a safety-related problem we need to be able to recall it immediately. We therefore check and track all hardware product changes so that we can contact our customers immediately in the event of safety-related problems. We work to improve these processes on an ongoing basis.

Whenever we are the product manufacturer or deemed to be such, we are legally obliged to comply with a number of requirements. These include the installation of a system ensuring the traceability of these products and a concept for corrective measures. In case of safety-related issues, we immediately inform the appropriate market surveillance agency about the issue and our intended corrective measures, such as withdrawal, warning, and recall. Also, we are obligated to perform necessary corrective actions.

### Goals and performance review

Our DPMS uses the plan-do-check-act (PDCA) method, which helps us to plan, implement, manage, and improve our processes, which is mandatory

under the GDPR. The PDCA cycle includes continuously monitoring the DPMS's effectiveness and taking action if the need for improvement arises. We therefore consider the DPMS to be effective. Where required, changes to the DPMS are approved by the E.ON Management Board, which receives reports four times a year from the Information Security and Data Protection Council.

[→ [GRI 103-2/3](#) 

We assess the effectiveness of our ISMS on a quarterly basis and report the assessment to our Information Security and Data Protection Council. If we identify deficiencies or areas for improvement, we adjust our information security roadmaps accordingly.

We document product safety incidents at the unit whose product was involved and at the corporate level. The investigation and analysis of such incidents help us identify their causes and determine how to prevent them in future. We share the insights gained in this process across the relevant departments of our organisation.

# Systematic crisis prevention, professional crisis management

**We have an important responsibility to prevent a crisis at E.ON from ever happening. That's why we work systematically to ensure the safety, security, and reliability of our generation assets, distribution networks, and customer solutions. If a crisis occurs despite these efforts, we respond immediately and manage the situation professionally. A lot is at stake: the health and safety of our employees and local residents, the integrity of the environment, the reliability of the energy supply, and our reputation.**

## Our approach

We thoroughly train our employees, carefully maintain our assets, and operate in accordance with stringent safety and security standards. Nevertheless, we can't rule out the possibility of a crisis caused by a natural disaster, human error, a technical failure, a cyber attack, or other event. Our incident and crisis management system therefore encompasses a variety of organisational measures to protect ourselves against significant risks. If a crisis occurs, we have in place response plans consisting of rapid, efficient, and precisely defined counter-measures. We believe that the best way to prevent crises from escalating is to prepare thoroughly for potential crises and to intervene quickly at the first sign of one. The main objective of our crisis prevention and response measures is to safeguard human life, the environment, our business, and our property.

In the case of a widespread power outage following a natural disaster, some of our network operators have mobile generators to provide temporary emergency power to relief crews, medical facilities, and victim shelters until power is restored.

## Organisation and responsibilities

Our standard procedures for running our business are designed to prevent crises. Our Response Centre at corporate headquarters is staffed 24 hours a day by at least two people. In addition, we have a dedicated crisis management organisation consisting of crisis management teams at the operational, business/regional unit, and Group level. The teams work together closely and have broad powers in the event of a crisis. Corporate headquarters and our business/regional units have designated Incident and Crisis Managers

(ICMs) who are responsible for managing our efforts to prevent, identify, assess, respond to, and learn from crisis situations. This includes designing and conducting training and realistic simulation exercises for the crisis management teams around E.ON. Our ICMs share information and experience on an ongoing basis. Ultimate responsibility for preventing and managing crises lies with the E.ON Management Board.

### Guidelines and policies


In 2018 we replaced our existing incident and crisis management policy with a new policy called Legal, Security and Crisis Management, and Data Protection. It stipulates that all parts of the company must report severe security issues and crises to the Response Centre without delay. It also requires each unit to form its own crisis management organisation and, commensurate with its business operations and risk profile, to put in place policies and procedures to prevent, identify, assess, and manage crises. Corporate headquarters provides the units with any guidance or support they may need in establishing these mechanisms.

### Specific actions

We take a variety of steps to ensure that we're thoroughly prepared for incidents and crises. For example, each year we conduct two to three crisis management exercises to simulate a power outage, cyber attack, or other crises as realistically as possible. Participation is mandatory for all crisis management team members, who also have to take part in availability tests at least twice a year. The tests' purpose is to assess our team's availability and reaction speed at any time of the day or night.

PreussenElektra periodically conducts nuclear crisis exercises, notifies them to the ICM at corporate headquarters, and reports their results. The exercises are required by law and in some cases may be organised on short notice by Germany's nuclear regulatory agency.





# Working together to create value

What can we learn from ants?  
Teamwork.  
→ [Learn more](#)

## Topics

→ **Customer experience**

→ **Employee matters**

→ **Stakeholder engagement**

## Challenges

Global trends like digitalisation, rapid technological evolution, and climate protection are creating a highly dynamic energy market in which customers' needs and expectations are changing rapidly.

We need to recruit, retain, and develop employees whose personal and professional skills match our current and future needs amid a skills shortage resulting from demographic change.

Understanding and addressing the needs of different stakeholder groups and helping them understand our business activities are crucial to our success.

## Our actions

We're establishing a customer-led organisation that will enable us to remain or become customers' partner of choice in the new energy world.

We strive to provide attractive work conditions with a wide range of development programmes and career paths so that we have the right people in the right roles and empower them to continue to drive E.ON's success. We want to ensure equal opportunity for all our employees.

We dialogue with our stakeholders through a variety of formats and inform them transparently about our business activities.

## SDGs



Subgoals: 17.17



Subgoals: 4.3, 4.4



Subgoals: 8.5, 8.6



Subgoals: 12.6



Subgoals: 17.16

Displayed are the → **UN Sustainable Development Goals** to which we make a direct contribution.

# 2018 Highlights



In 2018 we introduced a revised **employee value proposition (EVP)**. It articulates the advantages of working at E.ON with the aim of further enhancing our ability to attract highly qualified people. Our revised EVP is aligned with the new E.ON's corporate strategy, vision, values, and brand.



The E.ON Management Board, the Group Works Council, and the SE Works Council signed **New Ways of Working, an agreement** that establishes a framework for ensuring that digitalisation is good for our businesses and employees alike.



We introduced a **new methodology** that enables us to **measure strategic Net Promoter Score (NPS)** consistently across all our markets. NPS indicates our customers' willingness to recommend us to their family and friends. It helps us identify which issues are currently of particular importance to them.



**14 years**  
Our employees' average length of service.



Avacon, one of our distribution system operators in Germany, held a number of **day-long Community Dialogue** events in 2018. They consisted of panel discussions, presentations by experts, and opportunities for guests to network and share ideas.



We conducted a second **maturity assessment on complaint management**. The goal was to understand and measure the quality of complaint management in all our markets and use the results to improve our customers' experience, even in cases where they complained.





GRI 417:  
Marketing and  
Labelling

# Partnering with customers to shape tomorrow's energy world

The energy world is becoming greener, more distributed, and more digital. All types of customers – households and businesses, cities and government entities – are eager to join this new world and reap its benefits. We listen carefully to each customer's needs and design an innovative, sustainable energy solution that meets them. Throughout this process we strive to provide a superior customer experience. Delivering the right solution along with the right experience: that's how we earn customers' trust and loyalty, which are crucial for us to sustainably grow our business. Loyal customers tend to stay with us longer, to purchase additional products and services, and to recommend us to their family and friends. [→ [GRI 103-1](#) ✓]

## Our approach

We put our customers at the centre of everything we do. This enables us to continually improve the experience we offer them and maintain or deepen their loyalty. We've shifted our focus from products to people. Our commitment to being a customer-led company is reflected in our brand idea: "Let's Create a Better Tomorrow." The E.ON brand promises to give our customers what they want in the new energy world: brilliant experiences and smart, sustainable solutions. Delivering on this promise will make us distinctive in the marketplace and thus enable us to grow our business. Our ambition is to become the number one energy-solutions company in each of our markets. [→ [GRI 103-2](#) ✓]

### Organisation and responsibilities

The Chief Operating Office – Commercial (COO-C) at corporate headquarters coordinates our marketing strategy with the aim of bringing the E.ON brand to life. COO-C helps launch and scale up our customer solutions, provides data-based insights into customer needs, and continually looks for new ways to improve our customer experience. COO-C supports our energy-sales and solutions businesses for all customer divisions, in all our markets.

Our customer experience teams serve as our ambassadors for customer loyalty in their country. They're the direct contacts to our company-wide customer experience organisation and take the lead on related projects and activities. We have teams in Germany, the United Kingdom, Italy, Romania, Sweden, the Czech Republic, and Hungary. They regularly share information so that successful programmes and service improvements in one sales territory benefit us elsewhere.

In 2018 customer advocacy councils met regularly at all of our regional units. Chaired by the regional unit's CEOs, they bring together senior leadership for the purpose of guiding the unit toward its goal of being the number one energy-solutions company in its market and seeing the business through its customers' eyes. The councils track their unit's performance on key customer objectives such as Net Promoter Score (see "Specific actions" below), monitor the effectiveness of improvement plans (and, if necessary, adjust or reprioritise them), and review the progress of change initiatives aimed at customer advocacy.

The Customer and Market Insights team at corporate headquarters monitors the trends that are shaping our customers' attitudes and behaviours. It

conducts consumer studies and broad market research as well as advanced data analytics and modelling in order to create actionable insights and knowledge that translate into business opportunities.

[→ [GRI 103-2](#) ✓]

### Guidelines and policies

Our customer experience principles state our pledge for how we interact with our customers. Our efforts to design new customer journeys are inspired by our brand ambition and personality with the aim of creating brilliant experiences. This is our pledge:

- We'll get to know you and treat you like a person
- We'll speak your language and make it simple
- We're the experts so you don't have to be
- We'll always be honest and straightforward
- We'll respond to your needs as they change over time
- We'll empower you and help you become a better energy user

These group-wide principles provide overall guidance and are embedded in → [Grow@E.ON](#), our group-wide competency framework. Each of our regional units uses a standardised process for adapting these principles to reflect their customers' needs, their own priorities, and the situation in their respective market. Our regional units in Germany, the United Kingdom, Sweden, the Czech Republic, Italy, Hungary, and Romania have had their own customer experience principles in place since 2015.

[→ [GRI 103-2](#) ✓]

### Specific actions

We measure customer loyalty by means of Net Promoter Score (NPS), which we introduced in 2013. NPS indicates our customers' willingness to recommend us to their family and friends. It helps us identify which issues are currently of particular importance to our customers and to adapt our activities to current customer needs. We measure three types of NPS:

- Strategic or top-down NPS compares our performance with that of our competitors and is based on the feedback of customers regardless of whether they've had an interaction with us.
- Bottom-up NPS is based on the feedback of customers who have had a specific interaction with us, such as talking to a call centre agent.
- Journey NPS measures the loyalty of customers who have completed an experience with us, such as transferring their energy service to their new residence when they move.



NPS is now used by our regional units in all our markets (Germany, the United Kingdom, Italy, Romania, Sweden, the Czech Republic, and Hungary). In 2017 we introduced a new methodology for measuring strategic NPS consistently across all our markets. For more information, see "Progress and measures in 2018" below.

The internal NPS (iNPS) programme aims to sensitise all employees, even those who have no direct contact with customers, to the importance of customer loyalty for our company's success. iNPS was first introduced in 2009 in selected divisions and then rolled out across E.ON in 2014. It has been implemented in IT, human resources, supply chain management, finance, and other support functions.

Each regional unit has a set of Game-Changing Initiatives in place to systematically improve its customer experience. They're sponsored by the unit's CEOs and board, who are personally responsible for improving their unit's NPS. The initiatives, which are defined annually, may span multiple years depending on the level of transformation required. We introduced these initiatives in 2017 and initially called them CEO-led signature actions.

Our Customer Immersion programme brings our senior managers and employees into direct contact with residential and business customers. Its purpose is to bring the customer's voice into our organisation and enhance our employees' customer orientation. The programme, which has been offered in all our markets since 2015, has been coordinated centrally by COO-C since 2016. Throughout 2018 COO-C and the regional units' Customer Immersion programmes deepened their collaboration and continued to develop capabilities that make E.ON even more customer-centric. Leadership teams choose Customer Immersion activities that fit with their unit's business priorities and aim to achieve tangible improvements in customer experience. We no longer emphasise the number of immersion sessions and therefore don't report it.

The price customers pay for their energy consists of a sometimes confusing array of components: the cost of the energy itself, grid and other fees, taxes, and levies. That's why in the past we conducted projects at several of our regional units to improve the layout and content of our energy bills so that they're easier to read and understand and more transparent. We've involved customers in this process and also used customer-centric methodologies like design-thinking.

Our assistance for vulnerable customers varies according to the market situation, customer needs, and welfare programmes in each country and is therefore the responsibility of our regional units. Examples of this assistance include helping customers find out whether they qualify for government support schemes and partnering with other organisations to prefinance insulation for customers' homes.

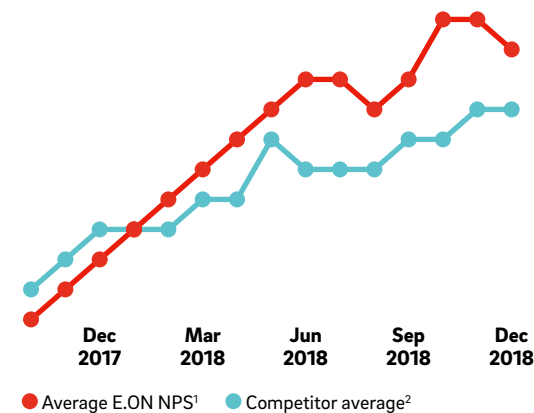
[→ [GRI 103-2](#) ✓]

### Objectives and performance review

NPS is a key measure of our success because we can only expand our business if our customers are satisfied and recommend us to others. This KPI is therefore used at the segment level for the purpose of management control.

We define company-wide targets for strategic NPS and journey NPS annually. The variable compensation of senior managers has two components: a company factor and a factor reflecting a manager's individual performance. Strategic NPS accounts for 20 per cent of the company factor and Journey NPS is included in the individual performance factor of our senior managers' compensation. NPS target achievement is not factored into the E.ON Management Board's compensation. However, the Board holds quarterly discussions with the units to evaluate their NPS and, if necessary, to decide what action they should take to achieve their NPS target.

### Strategic NPS residential customers

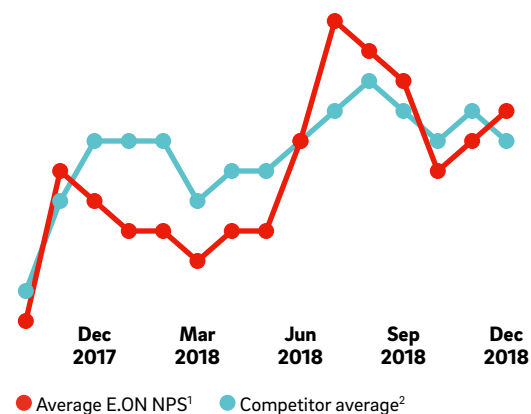


<sup>1</sup>Equal weighting of E.ON's strategic NPS in seven countries (the Czech Republic, Germany, Hungary, Italy, Romania, Sweden, and the United Kingdom; excludes Slovakia and Turkey).

<sup>2</sup>Based on a set of competitors reflecting the whole market of each country.

Our average NPS for residential customers increased in 2018 and was slightly above the competitor average at the end of the year. In six out of seven countries the number of promoters (customers who speak positively about us and recommend us to friends and family) rose, while the number of detractors (customers who speak negatively about us) declined.

### Strategic NPS small and medium-sized enterprises



<sup>1</sup>Equal weighting of E.ON's strategic NPS in seven countries (the Czech Republic, Germany, Hungary, Italy, Romania, Sweden, and the United Kingdom; excludes Slovakia and Turkey).

<sup>2</sup>Based on a set of competitors reflecting the whole market of each country.

Our average NPS for small and medium-sized enterprises (SME) continued to improve, as did that of our competitors. We need to focus even more on these businesses in order to not just be slightly ahead of our competitors. Our strategic NPS for SME customers was below expectations in five of seven countries.

[→ [GRI 103-2/3](#) ✓]

## Progress and measures in 2018

A key accomplishment in 2018 was our new, consistent methodology for measuring strategic NPS. We also instituted a wide variety of measures and programmes to further improve our customer experience.

### Measuring strategic NPS consistently

As we announced in our last Sustainability Report, in September 2017 we introduced a new methodology that enables us to measure the strategic NPS of residential and SME customers consistently across all our markets. This methodology compares us against the entire market, not just selected competitors. It better captures our changing business environment, which is characterised by a more dynamic marketplace and a greater emphasis on digital channels. In addition, it allows us to identify and resolve cross-market customer issues and also target areas where we could provide useful innovations for our customers. Adopting a consistent, company-wide methodology ensures that we comply fully with the EU → [General Data Protection Regulation](#) and the data protection laws of the countries where we operate. The new system features automated reporting, which eliminates the errors of manual data entry, thereby improving data quality and auditability.

### Needs-based customer segmentation

In 2018 our Customer and Market Insights team developed a cross-regional, needs-based customer segmentation that highlights customers' commonalities and differences across our markets. After extensive market research, we identified six discrete need segments and showed how their socio-demographics and personal attitudes toward energy solutions differ. We use the segmentation primarily in the development stage of our solutions to enable us to tailor them to the specific needs of a particular segment. The segmentation also fosters discussion and information sharing about customer advocacy across our company.

### New system to capture and display customer sentiment

In 2018 we put in place a new digital system that allows us to capture and visualise customer feedback almost in real time, instead of addressing it days or even weeks later. Digital dashboards on our sales staff's computers display, minute by minute, customers' cumulative satisfaction with their experience with us. This helps us understand their feedback better, resolve their issues faster, and design targeted training for our frontline employees to enable them to deliver an even better experience in future.

## Guidelines for talking with our customers

In late 2017 we introduced Tone of Voice guidelines to help our employees project our brand idea through the language they use with customers across all channels: face to face, on paper, online, in social media, or by phone. The guidelines define our content, our choice of words, and the way we put them together to bring our brand idea – Let's Create a Better Tomorrow – to life. In 2018 we disseminated the guidelines along with illustrative examples to front office staff across E.ON.



### First place

*Focus Money*, a weekly German business magazine, named us the country's energy supplier with the best customer service for the third time. It evaluated roughly 53 million social-media posts to rate energy suppliers on price, service, quality, and reputation.

## Better complaint management

After developing a maturity model for complaint management and conducting a first assessment in 2017, the sales organisations in all the countries where we operate conducted a second maturity assessment on complaint management in June 2018. The goal was to understand and measure the quality of complaint management in all our markets and use the results to improve our customers' experiences, even in cases where they complained. The model has six categories: strategic direction and governance, people, processes, systems and technology, proactivity and action, and data. Our sales organisations used the findings of the first assessment to identify areas for improvement and to design roadmaps to address them. The second assessment showed that all had improved their performance. The main drivers were an increased awareness of complaints (including support from unit CEOs), new automated reporting, streamlined processes, and investment in training and IT. To further improve customer experience going forward, we're working to expand our use of analytical tools like text and voice recording systems for customer feedback and to refine our tone of voice in written and spoken communications.



# Enabling all our people to do their best

To shape tomorrow's energy world, remain competitive, and launch new businesses, we need talented, dedicated people whose personal and professional skills match our current and future needs. Yet with demographic change affecting the labour market, skilled workers are more in demand than ever. We need to maintain an attractive, supportive, and inclusive work environment in which our people can realise their potential. It's the only way we'll be able to attract great employees and retain those we already have. Doing all this in a rapidly changing business environment and amid technological developments and corporate restructuring poses challenges for our human resources (HR) management. [[→ GRI 103-1](#) ✓]



## Our approach

We aim to attract talented people to our company and provide them with a work environment that enables them to do their best. Our people strategy helps us do this, especially in times of change. Its three focus areas – preparing our people for the future, providing opportunities, and recognising performance – are crucial for maintaining attractive work conditions and fostering our employees' personal and professional development. We bring these focus areas to life through a combination of unit-level activity and Group-wide implementation projects. A key enabler for professional development is Grow@E.ON, a group-wide competency framework that's integrated into all our HR mechanisms. It helps ensure that we recruit, retain, place in the right roles, and develop the people who will continue to drive E.ON's success. We offer a range of career paths. This ensures that we're an attractive employer to people who wish to pursue a specialist or a generalist career. We believe that a competitive package of salary and benefits is essential for rewarding our employees.

[→ [GRI 103-2](#) ✓]

Diversity and inclusion are essential elements of our vision and values. We want to ensure equal opportunity for all our employees and to make the most of their individual differences. Diversity fosters creativity and innovation, and we therefore take a targeted approach to promoting it. We signed the German Diversity Charter in 2008, publicly affirming our long-standing commitment to a tolerant and inclusive corporate culture.

### Organisation and responsibilities

We decentralised our HR activities in 2018. Group HR performs HR management for our company's top 100 leaders. These tasks include executive development, placement, succession planning, and talent-pipeline management. Each unit must have in place its own mechanisms to identify and develop talent and to conduct succession planning. Its management's responsibilities include ensuring that all new employees receive a company orientation as well as training on important topics like health and safety. For this purpose, the units may use standardized E.ON e-learning modules. These and other virtual learning tools as well as courses and training programmes are offered by the units based on locally coordinated classroom training catalogues.

[→ [GRI 103-2](#) ✓]

To further strengthen its business, each of our units addresses diversity in its particular cultural context. This gives them the opportunity to meet local challenges and develop country-specific programmes. Diversity is now managed by a network of HR professionals that meets, both in person and using virtual presence technology, on a regular basis. Supported by Group HR, the E.ON Management Board is responsible for setting diversity targets for E.ON as a whole and its units. Some targets may reflect the laws of a particular country. It is our units' responsibility to design action plans to meet their targets.

### Guidelines and policies

In December 2017 the HR team and the E.ON SE Management Board developed and approved People Commitments to adopt an appropriate approach to decentralisation. The People Commitments, which were agreed with our European Works Council, establish twelve principles that articulate our values and how we treat our employees. These principles are binding for the entire E.ON Group. At the same time, we provide support to E.ON units so that they can adopt these principles in a way that reflects their particular legal, cultural, and business environment.

Our People Guidelines and our People Commitments encompass a number of policies and guidelines. Examples include agreements on remote working and flexible work arrangements, such as sabbaticals, part-time work, special holidays, and so forth. Our International Transfer Policy governs the temporary foreign deployment of our employees. The average length of a foreign deployment is between two and three years.

[→ [GRI 103-2](#) ✓]

The Diversity and Inclusion Declaration, signed by the E.ON Management Board and E.ON SE Works Council in 2016, aims to create a diverse and inclusive work environment that empowers all employees to realise their potential. In April 2018 the E.ON Management Board, the E.ON SE Works Council, and the Group representation for severely disabled persons signed the Shared Understanding of Implementing Inclusion at E.ON, creating a strong foundation for integrating people with disabilities into our organisation.

### Specific actions


We take action in a variety of areas to make working at E.ON attractive. Flexible work arrangements have been part of our corporate culture for many years. We also have programmes to support our employees when they face challenges outside work, such as when a family member suffers an illness.

For example, our employees across Germany have cost-free access to a wide range of services from a reputable provider. The services range from counselling for stress and addiction issues to home care for elder or invalid family members. Employees who are sick for more than six weeks during a twelve-month period have access to reintegration assistance. Our benefits include company pension plans and employer-funded accident insurance. Both full and part-time employees generally receive any benefits that are offered. We periodically conduct employee surveys – called PulseChecks – to find out how our people feel about their job, their supervisor, the work atmosphere in their unit, and other topics. We analyse their feedback carefully to identify areas where we may need to do better. Employees also have several opportunities a year to participate in a live online chat with a member of the E.ON Management Board. More generally, E.ON has a long tradition of maintaining a constructive, mutually trustful partnership with employee representatives.

Our mechanism for recruiting management staff applies across E.ON and aims to optimise the filling of senior management positions, make the recruitment process more transparent, and ensure equal opportunity. Its main component is a biweekly placement conference at which HR representatives from around the company gather to discuss open positions and potential candidates. In addition, we conduct an annual management review. It helps us ensure continued professional development of managers and executives and creates transparency about our current talent situation and our needs for the future.

We help people launch their careers. We do so by offering apprenticeships in a wide variety of vocations as well as internships, work-study arrangements, and other programmes. Examples include local training initiatives in Germany, which use school projects, internships, and training courses to assist young people in making the transition from secondary school to employment. The E.ON Graduate Programme (EGP) recruits highly qualified university graduates for a 24-month programme during which they receive a broad overview of our business through three to six deployments in different E.ON units and departments. We offer the EGP in Germany, the United Kingdom, Sweden, the Czech Republic, Hungary, and Romania.

Feedback is essential for empowering our people to perform at their best and for identifying opportunities to develop their skills. That's why we provide employees with periodic performance and career-development reviews. Each unit is responsible for ensuring compliance with our company-wide rules regarding feedback.


[→ [GRI 103-2](#) 

We promote diversity and equal opportunity through a variety of programmes. In Germany we conduct a mentoring programme to prepare female employees for management positions. Participants are mentored by a senior manager who – together with their immediate supervisor – offers advice and support regarding career-related issues. A company-wide network called Womenergy provides a forum for women at E.ON to support each other, share information and experiences, offer advice on professional and career-related issues, and promote women's visibility and influence at our company. In addition, E.ON is a member of numerous national and international networks and initiatives dedicated to different aspects of diversity. Examples include Catalyst, a global nonprofit focusing on empowering and accelerating women in business, and Stonewall, a UK-based nonprofit that assists individuals and organisations in identifying how they can make a positive difference for LGBT people.

### Objectives and performance review

Our approach to HR is decentralised: 90 per cent of our HR activities are defined and implemented by our units, just 10 per cent by corporate headquarters. The units and corporate headquarters collaborate in a number of areas, such as Grow@E.ON, our group-wide competency framework and employee value proposition.

We want to retain our people's expertise and enable them to grow professionally. One of our objectives is therefore to develop our employees so that we can fill management positions internally. In 2017 we put in place a shared platform for our placement conferences to systematically track how many women participated in the application process and who ultimately got the job. It also allows us to monitor whether selected candidates are from our development pool and reflect our diversity target. This will enable us to evaluate the effectiveness of our talent management once enough data have been collected.

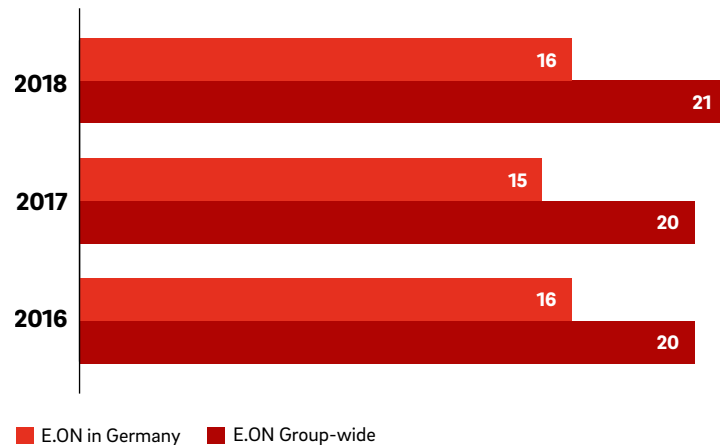
[→ [GRI 103-2/3](#) 

E.ON SE and E.ON companies in Germany must comply with the German Law for the Equal Participation of Women and Men in Leadership Positions in the Private Sector and the Public Sector, which took effect on 1 May 2015. We meet all of the law's requirements. Pursuant to the law, in 2017 we set new targets for the next five-year period, which ends on 30 June 2022. Our targets are for women to occupy 30 per cent of the positions in the first level of management below the E.ON Management Board and 35 per cent of the positions in the second level. At year-end 2018, the proportion of women in

first and second levels of management below the Management Board was 25 per cent and 22 per cent, respectively. In addition, in December 2017 the E.ON Supervisory Board resolved that by year-end 2021 women will make up 20 per cent of the E.ON Management Board.

Beyond compliance with statutory requirements, in 2017 we voluntarily set a company-wide target for increasing the proportion of women across all management positions. By year-end 2026, we want the proportion of women in management positions to be the same – 32 per cent – as the proportion of women in our overall workforce was at year-end 2016. Each unit has specific targets, which together will enable us to meet the company-wide target. Group HR monitors progress toward these targets twice a year and reports it to the E.ON Management Board. We disclose the figures at year-end for E.ON companies in Germany and for the E.ON Group as a whole here and in our → [Annual Report](#).

#### Proportion of women managers (percentages)<sup>1</sup>



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

## Progress and measures in 2018

We want to be customers' partner of choice for sustainable energy solutions. By doing so, we aim to make an important contribution to the success of the energy transition and to climate protection in Europe. In 2018 we continued to take steps to ensure that we hire and retain the people who will enable us to achieve these missions, while also making our organisation more diverse and inclusive.

### Repositioning our employer brand

In 2018 we introduced a revised employee value proposition (EVP). It articulates the advantages of working at E.ON with the aim of further enhancing our ability to attract highly qualified people. An image as an attractive employer is crucial, especially amid a shortage of skilled labour. The development of our EVP involved extensive research. We drew on the expertise of industry-leading benchmarks and studies and conducted focus groups inside E.ON. Our revised EVP is aligned with the new E.ON's corporate strategy, vision, values, brand, and our Grow@eon competency framework. Ultimately, we want the EVP to be reflected in all aspects of our recruitment: our job adverts, our use of social media channels to promote E.ON as attractive employer, and the tone of voice we use in these communications.

### New employee hires and voluntary turnover rate [→ GRI 401-1]

We hired 5,579 new employees in the reporting period. Our voluntary turnover rate in 2018 was 4.8 per cent, including board members, managing directors, and apprentices (2017: 4.6).

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

Headcount	2018	2017	2016
Energy Networks	17,896	17,379 <sup>2</sup>	16,814
Customer Solutions	19,692	19,519 <sup>2</sup>	19,106
Renewables	1,374	1,206	1,082
Corporate Functions/Other	2,447	2,683 <sup>2</sup>	4,102
<b>Core businesses</b>	<b>41,409</b>	<b>40,787</b>	<b>41,104</b>
Non-Core Business	1,893	1,912	2,034
<b>E.ON Group</b>	<b>43,302</b>	<b>42,699</b>	<b>43,138</b>

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

<sup>2</sup>Prior-year figures have been adjusted.

## Diversity activities

We aim to actively dialogue with our employees about diversity and sensitise them to differing needs and perspectives across our company. In 2018 we continued to pursue this goal through an array of measures. For example, we actively promoted International Women's Day across E.ON and encouraged our top 100 leaders to participate in an awareness campaign about the day on our internal communications platform.

### Proportion of female workforce by segment<sup>1</sup> ✓

Percentages	2018	2017	2016
Energy Networks	21	20	20
Customer Solutions	43	43	43
Renewables	20	21	21
Corporate Functions/Other	49	45	45
<b>Core businesses</b>	<b>32</b>	<b>32</b>	<b>33</b>
Non-Core Business	13	13	13
<b>E.ON Group</b>	<b>32</b>	<b>32</b>	<b>32</b>

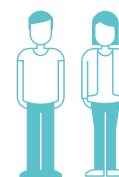
<sup>1</sup>Includes board members, managing directors, and apprentices.

At year-end 2018, women accounted for 32 per cent of our workforce, unchanged from the prior year.

### Apprentices in Germany ✓

	Headcount			Percentages		
	2018	2017	2016	2018	2017	2016
Energy Networks	818	846	821	8.4	8.5	8.4
Customer Solutions	24	20	17	0.9	0.8	0.6
Renewables	-	-	-	-	-	-
Corporate Functions/Other	14	29	63	0.7	1.3	2.0
<b>Core businesses</b>	<b>856</b>	<b>895</b>	<b>901</b>	<b>5.8</b>	<b>5.9</b>	<b>5.6</b>
Non-Core Business	43	47	70	2.2	2.4	3.3
<b>E.ON Group</b>	<b>899</b>	<b>942</b>	<b>971</b>	<b>5.4</b>	<b>5.5</b>	<b>5.3</b>

At the end of the year, we employed a total of 899 apprentices and work-study students in Germany. This corresponds to a trainee ratio of 5.4 per cent. We hired as permanent and temporary employees 88 per cent of apprentices who had completed their training, which is very high rate (2018: 189 out of 216; 2017: 240 out of 270, or 89 per cent). This is one of the ways we're addressing the shortage of skilled workers.



# 100

Number of nationalities in our workforce in 2018 (2017: 99).

### New agreement on digitalisation in the workplace

Digitalisation and the use of artificial intelligence are central to our corporate strategy. They're making our grids smarter, our customer experience better, and our energy solutions more sustainable. They're also having an impact on work processes and job profiles at our company. To address this, in September 2018 the E.ON Management Board, the Group Works Council, and the SE Works Council signed New Ways of Working. The agreement creates a framework that makes digitalisation good for our businesses and employees alike. It defines roles for managers, employees, and employee representatives and specifies the need for action to propel digitalisation in a mutually beneficial way.



### New training to foster diversity and inclusion

To further embed diversity and inclusion across E.ON, in 2018, a number of units conducted training sessions to raise awareness about unconscious bias. Studies show that diverse organisations and teams outperform homogenous ones. Yet everyone has prejudices that subconsciously influence their actions. This unconscious bias – which affects hiring, promotion, and other decisions – prevents our organisation from becoming more diverse. The training sessions were designed to help break down these prejudices. They involved an engaging mix of knowledge-sharing, interactive exercises, exercises to improve self-awareness, and video demonstrations. We intend to offer more training and events focusing on diversity in 2019.

### Proportion of severely disabled employees in Germany<sup>1</sup> ✓

Percentages	2018	2017	2016
Energy Networks	5.9	6.2	6.3
Customer Solutions	3.7	3.5	3.9
Renewables	1.2	0.8	0.2
Corporate Functions/Other	3.2	3.1	3.1
<b>Core businesses</b>	<b>5.0</b>	<b>5.1</b>	<b>5.1</b>
Non-Core Business	7.6	7.3	7.8
<b>E.ON Group</b>	<b>5.3</b>	<b>5.4</b>	<b>5.4</b>

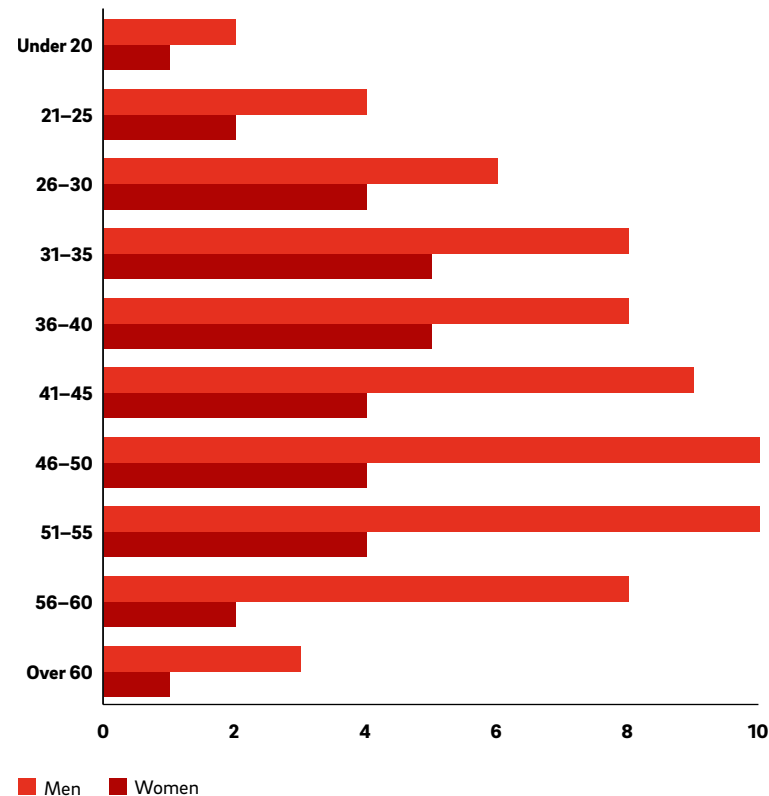
<sup>1</sup>Excludes board members and managing directors.

At the end of 2018 861 people with severe disabilities or the equivalent were employed at E.ON companies in Germany (2017: 899).

### Managing our employees' pension assets responsibly

We also take sustainability into account when managing our pension assets. Our fund managers are guided by the ESG analyses of the Norwegian State Pension Fund, and a steadily growing number of them have signed the → [UN Principles for Responsible Investment](#). In addition, we've instructed them not to invest in companies that clearly violate our ESG principles.

### Workforce age distribution in 2018 (percentages)<sup>1</sup> ✓



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

At year-end 2018, the average age of E.ON employees was 42, as in the previous year. In 2018 around 19 per cent of our employees were under the age of 31, 53 per cent between 31 and 50, and around 28 per cent older than 50.

# Listening to our stakeholders, addressing their needs

**Our long-term business success depends to a large degree on our ability to understand and address our stakeholders' expectations. Equally important is helping our customers, our employees, policymakers, and other stakeholders understand our business activities and their role in propelling the energy transition. It's the only way we can earn stakeholders' trust and maintain our good reputation. Moreover, dialogue helps us identify stakeholders' concerns early and address them whenever we can as we expand our distribution grids, invest in digital infrastructure, and launch new businesses. Our discussions with policymakers are important for us as well: to make large, long-term investments in infrastructure and new energy solutions for customers, we need a stable policy and regulatory environment. More broadly, dialogue is essential for the success of the energy transition. Although the energy transition enjoys broad public support in many European countries, transparent and constructive discussion is still necessary to achieve a reasonable balance between ambitious climate protection and the interests of stakeholders who are adversely affected by it.**

## Our approach

We continually seek opportunities to dialogue with our stakeholders, understand their viewpoints, and talk to them transparently about our business. It's part of our daily work at the local, national, and European level. Stakeholder management is a core process of our corporate governance. We factor in the short- and long-term impacts our business has on stakeholders. The type of dialogue we choose varies by stakeholder and issue. It ranges from information campaigns and discussion forums to lobbying and public advocacy.

We actively participate in the policy debates on the issues that affect us – through lobbying, media interviews with our executives, and their appearances as public speakers. In addition, policymakers and regulators frequently invite us to provide our technical and energy expertise as part of their decision-making processes. We also offer our expertise voluntarily. These

types of advocacy are important because the energy sector is significantly influenced by policy and regulatory decisions. We take part in discussions on energy, environmental, and climate policy in a variety of other forums as well. For example, we're a member of the steering committee of Agora, a German think tank. Agora brings together policymakers, energy industry leaders, and renowned researchers to discuss issues relating to the energy transition.

All of our lobbying activities and dialogue formats comply with national and European laws and guidelines for the representation of corporate interests and responsible lobbying.

A stakeholder is anyone who has an interest in our company. Below is an overview of our main stakeholders, their significance for us, and their expectations of us.

[→ [GRI 102-42/43](#)]

**Stakeholder groups** [→ GRI 102-40/44]

Significance	Stakeholder	Expectations
Our customers' purchasing decisions determine our success	Customers	<ul style="list-style-type: none"> <li>• A secure energy supply at reasonable prices</li> <li>• An active contribution to the energy transition in Europe</li> <li>• Support for self-generation and energy efficiency</li> </ul>
Our employees are essential for our business to thrive, grow, and operate safely and responsibly.	Employees	<ul style="list-style-type: none"> <li>• A safe and interesting work environment</li> <li>• Fair pay and equal opportunity</li> </ul>
Our investors' capital is necessary for our company's successful development.	Shareholders and investors	<ul style="list-style-type: none"> <li>• Transparent information about how we manage their capital</li> <li>• Transparent financial disclosures and statements about our future development</li> </ul>
We procure the services of numerous suppliers and subcontractors.	Suppliers and enterprise partners	<ul style="list-style-type: none"> <li>• Fair terms and conditions</li> <li>• Mutually beneficial partnerships</li> </ul>
The transition of Europe's energy system can only succeed if it's actively embraced by communities.	Communities and regions	<ul style="list-style-type: none"> <li>• Transparency about planned measures</li> <li>• Active participation at the municipal level</li> </ul>
Our business activities are strongly influenced by social change and the policy decisions that result from it.	Policymakers and the general public	<ul style="list-style-type: none"> <li>• Transparency</li> <li>• A reliable, affordable, and environmentally friendly energy supply</li> <li>• Compliance with laws and regulations</li> </ul>
We see universities and social institutions as important partners. Non-governmental organisations give us valuable information about public expectations.	Non-governmental organisations and sustainability experts	<ul style="list-style-type: none"> <li>• Transparency</li> <li>• Accountability</li> </ul>

**Organisation and responsibilities**

Corporate headquarters defines our position and talking points on issues that affect the E.ON Group as a whole and establishes the framework for our activities to engage stakeholders. The Political Affairs & Corporate Communications division at corporate headquarters is responsible for our communications with policymakers. Our regional units, who are best able to assess the needs and conditions in their sales or service territory, conduct stakeholder dialogue on the local and regional level. Corporate headquarters provides advice on the design and implementation of stakeholder engagement projects. Depending on the topic, these projects may involve a variety of divisions and departments.

In addition, our distribution system operators and some other B2B and B2M business units have employees whose role is to engage in dialogue with the municipalities in their service territory.

**Guidelines and policies**

Our Communications & Political Affairs Policy includes guidance for Group stakeholder management. It defines the principles, roles, and tasks of our stakeholder management, which includes sustainability management. It applies to our relations with all stakeholder groups inside and outside E.ON with the exception of capital market participants, who are served by our Investor Relations department. In addition, our new → [Code of Conduct](#) contains a chapter entitled, "Creating sustainable relationships," which defines our ethical standards for donations, sponsorships, and preventing corruption. The E.ON Code of Conduct categorically rules out donations to political parties, candidates, and incumbents.

We've been registered in the EU Transparency Register since 2011. The register contains a list of the organisations and individuals who engage in lobbying at EU institutions as well as the yearly financial budget of each organisation. It also includes a code of conduct defining principles for ethical and transparent lobbying. By registering we pledge to abide by this code.

**Specific actions**

Our regional units conduct numerous dialogue forums and information events. For example, the board members of three of our distribution system operators in Germany (Avacon, E.DIS, and Hansewerk) meet annually with municipal shareholders and representatives to discuss grid expansion, landscape preservation, the latest advances in smart grids, and other issues. We take the viewpoints, interests, and concerns of the people who live near our assets very seriously. Their feedback helps us ensure a reliable energy supply

and promote the energy transition while having the least-possible impact on people, communities, and the environment. In addition, we periodically invite outside stakeholders to attend meetings of our → [Sustainability Council](#) in order to hear what they think about our sustainability activities.

We engage individual stakeholder groups in different ways. For example, our → [Customer Immersion programme](#) brings our senior managers and employees into direct contact with residential and business customers in a variety of formats, including small-group discussions and online chats. We use periodic corporate governance road shows held in Europe's major financial centres to meet face-to-face with investors and analysts to discuss corporate governance, climate protection, and other sustainability issues. We engage our → [employees](#) in a wide variety of formats and programmes.

We also use social media. Our tweets and Facebook posts reach policymakers, the media, trade associations, academic institutions, and members of the general public across Europe and around the world. We have a total of over 650,000 followers on the two channels, a number that has grown steadily over time. We also use Instagram, YouTube, Google+, and LinkedIn. [[→ GRI 102-43/44](#)]

We're a member of a variety of industry networks and trade associations in individual countries and at the European level. They provide a useful forum for sharing information about climate protection, customer needs, and industry trends and for representing shared interests to policymakers and regulators. Examples of our memberships include:

- German Federal Association of Energy and Water Industries (BDEW); through the BDEW we're also represented in two European trade associations, Eurelectric and Eurogas.
- German Industry Initiative for Energy Efficiency (Deutsche Unternehmensinitiative Energieeffizienz, or DENEFF): a multi-industry network of companies and organisations dedicated to enhancing energy efficiency.
- Bitkom: an industry initiative for the digital economy, which we joined in October 2018; through it we're also represented in the Federal Association of German Industry (Bundesverband der Deutschen Industrie) and its European umbrella organisation, BusinessEurope.
- E.ON executives have sat on the Economic Councils of both the CDU and SPD, two of Germany's major political parties.
- WindEurope: a network of organisations involved in wind energy, such as power producers, research institutions, and trade associations.
- Smart Energy Demand Coalition (SEDC) and European Distribution System

- Operators for Smart Grids (EDSO for Smart Grids): European associations promoting smart grids and the digitalisation of the energy sector.
- Energy UK: a British trade association for energy.
- Swedenergy: a private association of companies involved in the production, sale, and trading of electricity in Sweden.
- Romanian Federation of Associations of Energy Utilities: a federation of energy suppliers in Romania.

[[→ GRI 102-12/13](#)]

## Progress and measures in 2018

In 2018 we again dialogued with our stakeholders on a variety of issues. For example, more than 350 of our customers, suppliers, enterprise partners, and employees attended a discussion forum as part of E.ON Innovation Days on 22 and 23 March in Essen. The topic was the energy world of the future. Our CEO Johannes Teyssen gave a keynote address in which he emphasised the urgent need for concerted action to tackle climate change. He also responded to questions from renowned journalist and author Gabor Steingart. The event was followed live on Twitter by 50,000 people.

### Community Dialogue

Avacon, one of our distribution system operators in Germany, held a number of day-long Community Dialogues in Lower Saxony and Saxony-Anhalt between May and October. They consisted of panel discussions, presentations by experts, and opportunities for guests to network and share ideas. The focus was on climate change, extreme weather, and their impact on communities as well as Avacon's innovative approaches for communities and individuals who produce their own energy. The event was attended by numerous full-time and honorary mayors and city councillors in Avacon's service territory. Avacon intends to repeat the event in 2019 and highlight new topics.

### Gigabit Summit

In early July, Thomas König, a member of the E.ON SE Management Board, participated in the Gigabit Summit in North Rhine-Westphalia and signed the joint declaration on behalf of E.ON. This underscores our support for the state government's objective of providing North Rhine-Westphalia with convergent gigabit networks by 2025 and intend to contribute to their realization by leveraging our extensive experience in building fibre-optic networks all the way to customers' premises. The goal is to achieve substantial progress by the second Gigabit Summit in early 2019. For this purpose, participants have formed working groups.

### **Business for Climate Protection**

We're an active participant in → Business for Climate Protection, a dialogue forum launched in June 2017 by the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. It aims to bring all sectors of the German economy together to promote climate protection. In early March 2018 representatives of the companies involved formed six issue-specific working groups. The groups are tasked with developing climate-protection strategies and initiatives that the companies can implement together.

### **Forward to Zero Carbon**

In November E.ON held a two-day City Energy Solutions Conference in Berlin to bring together representatives of city governments, the real estate industry, and start-ups. The purpose was to share ideas on sustainability, carbon neutrality, innovation, and the ongoing challenge of how municipalities, and developers working on their behalf, can meet their climate-protection targets. The agenda included panel discussions, networking, pitches by start-ups, and talks by researchers, industry executives, and other thought leaders. More than 130 people from seven European countries attended. E.ON CEO Johannes Teysen and COO Karsten Wildberger both gave keynote speeches.

### **Non-Core Business: stakeholder dialogue on reliable operation and plant dismantling**

Our subsidiary PreussenElektra is responsible for the safe and reliable operation and dismantling of our nuclear power plants (NPPs). Ongoing dialogue with stakeholders is essential. We communicate with a broad range of stakeholders through press releases and briefings as well as events and forums that provide the opportunity to dialogue directly with stakeholders and to benefit from their feedback. The aim of all these measures is to provide transparent information, particularly on NPP dismantling, and to build trust.

We continually expand our communications activities, especially with local stakeholders, and did so again in 2018. In addition to annual dialogue forums and plant visits for members of the German federal parliament and state parliaments, we held a variety of information events at all our NPPs. For example, we invited regional policymakers, administrators, fire-fighters, and police officers to Grafenrheinfeld and Unterweser to familiarise them with the dismantling process. Encouraged by the success of a similar event at Würgassen in 2017, we held two one-day information events on the dismantling progress at Stade. Feedback from participants indicates that these events as well as all others were well received.



Lone wolf? No, wolf packs have a clear social structure.  
→ [Learn more](#)

A photograph of three wolves in a pack, standing in a field. The wolves are shown in profile, facing right. The foreground wolf is in sharp focus, while the two wolves behind it are slightly blurred. The background is a soft, out-of-focus landscape with trees and a fence. The overall tone is warm and natural.

# Ensuring good corporate governance

## Topics

→ **Compliance and anti-corruption**

→ **Human rights and supplier management**

→ **Community involvement**

## Challenges

The compliance of all managers and employees is crucial for preventing corruption and ensuring that decisions are not taken for the wrong reasons.

We must ensure that human rights are respected in all aspects of our business, including along our value chain, and that all our suppliers meet recognised social and environmental standards.

We're part of the countries and communities where we do business. We therefore have a responsibility to help make them better places to live.

## Our actions

We have in place an effective Compliance Management System to identify compliance risks early and systematically eliminate improper conduct by employees.

We have in place group-wide guidelines and policies to prevent human rights violations. Social and environmental issues are embedded in the processes we use to manage the relationships with our suppliers.

Our units engage in community involvement and support sustainable development in their region. The focus is primarily on projects in which we can leverage our core competencies.

## SDGs



Subgoals: 16.5



Subgoals: 8.7, 8.8

Displayed are the →[UN Sustainable Development Goals](#) to which we make a direct contribution.

# 2018 Highlights



We strive to address **sustainability in all our purchasing decisions**, including office equipment. In 2018 we issued a tender for new printers in which suppliers were requested to submit bids for equipment that is particularly cost- and resource-efficient.



As our revised Code of Conduct (CoC) entered into force in 2018, Group Compliance provided all units with an **updated eLearning module** in their respective language to familiarise employees with the new CoC.



In the course of our Phoenix reorganisation programme, we **amended our guidelines and policies**. Most of them took effect on 1 January 2018. We now divide our policies into two types: people and behaviour, organisation and management.

**Purchase volume**

We spent more than **95 per cent** of our non-fuel purchase volume **in countries that are members of the Organisation for Economic Cooperation and Development (OECD)**, which have common guiding principles for human rights, fair work practices, environmental protection, and anti-corruption.



We further **improved our supplier performance reviews**, the format in which we periodically evaluate our non-fuel suppliers, including their corporate social responsibility (CSR) performance. We also extended the reviews to suppliers beyond those who are biggest in terms of purchase volume.

# Structures and policies that ensure good corporate governance

**How can we offer our customers the best solutions? How can we be successful over the long term? By doing our best across our business and by managing our company responsibly and transparently. To achieve the latter, we've put in place effective organisational structures, clearly assigned roles and responsibilities, and embedded sustainability into our business processes.**

## Management and oversight

Corporate governance refers to the way we manage, monitor, and control our company and its operations. E.ON adopts the two-board system common in Germany. The E.ON Management Board sets the company's strategic course and exercises management control over its businesses and support functions. The E.ON Supervisory Board advises and monitors the Management Board, appoints its members, and approves E.ON SE and the E.ON Group's financial statements. In addition, the Supervisory Board's approval is necessary for some decisions by the Management Board, such as transactions above a certain monetary threshold. At year-end 2018, the E.ON Supervisory Board consisted of ten men and four women from a total of seven countries. In accordance with German law, it has an equal number of shareholder and employee representatives. The → [Corporate Governance Report](#) in our 2018 Annual Report contains detailed information about the roles and responsibilities

of the Management Board and Supervisory Board, how they work together, and E.ON's statement of compliance with the German Corporate Governance Code. The code consists of recommendations and suggestions that constitute the recognised best practices of good corporate governance. These include achieving a reasonable balance between the interests of companies and their shareholders, fostering transparent decision-making by management boards, and ensuring that supervisory boards are independent.

[→ [GRI 102-18](#)]

## Systematic risk management

Every business activity involves risks. To mitigate them, we conduct systematic risk management that's embedded into our workflows. Our → [Annual Report](#) describes in detail our management system for assessing risks and chances and the measures we take to limit risks.



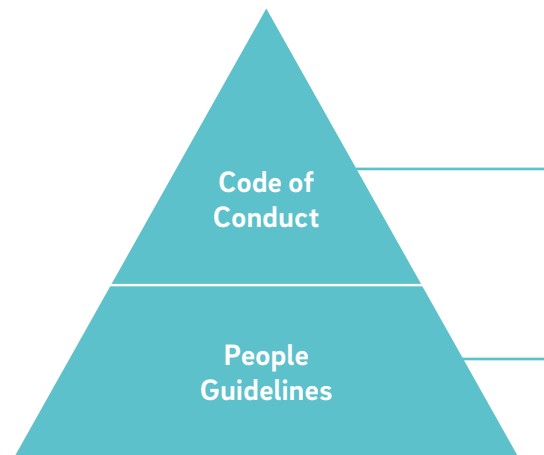
Our risk management system addresses a wide variety of risks. These include legal and regulatory risks, operational and IT risks, finance and treasury risks, strategic risks, as well as environmental, social, and governance (ESG) risks. Among our ESG risks are fines for violations of the law and damage to our reputation resulting from accidents or power outages. Thanks to the management approaches described in the chapters of this report, at year-end 2018 we had no material reportable risks for non-financial issues.

[→ [GRI 102-11](#)]

### Binding policies and guidelines

Our guidelines and policies define the framework and minimum standards for our business processes. Group policies apply throughout the E.ON Group. This encompasses all entities in which we hold a majority stake as well as projects and partnerships over which we have operational control. We also require our business partners, suppliers, and contractors to meet our minimum standards. Group policies do not automatically apply to our 50:50 joint ventures. However, they do provide guidance for policies that are adjusted to a joint venture's particular circumstances. Several amended guidelines and policies took effect on 1 January 2018. We now divide our policies into two types: people and behaviour, organisation and steering.

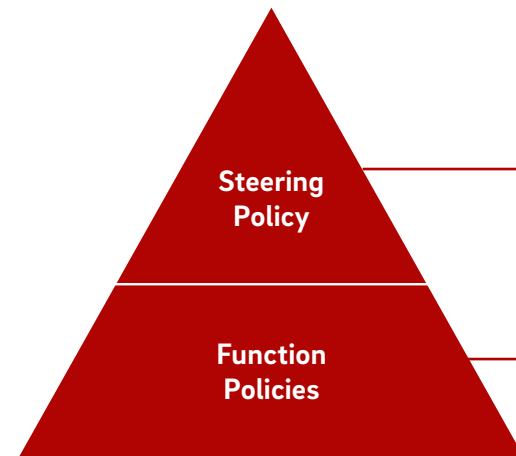
#### People and behaviour



Defines behaviours and values that are important to us. It refers employees to the relevant People Guidelines for more details.

Explain in greater detail what employees need to do to comply with our standards.

#### Organisation and steering



Establishes a Group-wide organisational setup, describes our steering philosophy, and delegates roles to Group functions.

Define the specific tasks and mandatory involvement of Group functions; they apply to employees affected by the policy.

The "Management approach" section of each chapter of this report contains information about the sustainability policies and guidelines that are relevant for a chapter's particular topic. Our → [Sustainability Channel](#) contains a list of our People Guidelines and Function Policies that are relevant for sustainability as well as a downloadable copy of our Code of Conduct.

[→ [GRI 102-16](#)]

We endorse internationally accepted ethical, social, and ecological principles like the → [United Nations' Global Compact](#) and Sustainable Development Goals and align our company policies and commitments to them. Our → [Sustainability Channel](#) contains a list of our commitments.



## Memberships and initiatives

Sustainable development requires the concerted efforts of many different actors. That's why we work with other companies, organisations, policymakers, and other stakeholders to promote sustainability in Europe and around the world. Below is a list of some of the sustainability initiatives in which we were involved in 2018.

[→ [GRI 102-12](#)]

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UN Global Compact  
(since 2005)

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The UN Global Compact (UN GC) is the largest initiative worldwide for sustainable corporate governance. We support its ten principles and actively engage as a UN GC participant at the global and national level, such as in the German Global Compact.

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econsense – Forum for Sustainable Development of German Business  
(since 2000)

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Founded in 2000, this network of 36 Germany-based multinational companies is dedicated to promoting sustainability in the companies' operational practice, corporate strategy, and supply chain. It serves as a forum for sharing knowledge and agreeing on shared positions on sustainability issues. econsense then actively communicates these positions in public discussions. We've participated in a variety of econsense working groups focusing on issues such as sustainability in the supply chain, climate and environmental protection, and sustainability performance metrics.

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World Energy Council (WEC)  
(since 2006)

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The WEC is involved in efforts worldwide to promote an affordable, reliable, and environmentally friendly energy supply. Its members include governments, public agencies, corporations, academic and research institutions, and non-governmental organisations. Leonhard Birnbaum, a member of the E.ON Management Board, currently heads the WEC's European arm.

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The Sustainability Code  
(Deutscher Nachhaltigkeitskodex – DNK)  
(since 2011)

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We support the Sustainability Code and take the criteria of the German Council for Sustainable Development, a panel of experts commissioned by the German federal government, into account in our sustainability reporting.

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WindEurope

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This association is the voice of the European wind power industry and actively promotes the growth and commercial viability of wind power in Europe and around the world. We're involved in a number of WindEurope working groups.

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The → [Stakeholder engagement](#) chapter of this report lists a number of other industry networks and trade associations of which we're a member.

## Ratings and rankings

We welcome external assessments of our sustainability performance. Independent sustainability ratings and rankings help us identify our strengths and weaknesses and improve our performance. Our → [Sustainability Channel](#) shows the latest results.




# Ensuring strict compliance, combating corruption

Compliance is the foundation of good corporate governance. Strict compliance with laws and company policies is essential to retain our stakeholders' trust over the long term. Violations could result not only in fines and loss of income. They could potentially harm our reputation as well. Corruption leads to decisions being taken for the wrong reasons. It can thus impede progress and innovation, distort competition, and do lasting damage to companies. Employees, managers, and board members guilty of corruption may be subject to fines and criminal prosecution. To earn our stakeholders' enduring trust, we closely monitor compliance with laws and our own policies. If violations occur, we deal with them transparently and, if necessary, take disciplinary action. [→ [GRI 103-1](#) ✓]


## Our approach

We're committed to combating corruption in all its manifestations worldwide and support national and international efforts directed against it. We also reject it as a member of the UN Global Compact. The E.ON Management Board has the ultimate responsibility for ensuring compliance with applicable laws and for monitoring compliance risks. The E.ON Group has an effective Compliance Management System (CMS). It sets uniform Group-wide minimum standards for certain compliance issues, such as anti-corruption. The CMS's goal is to identify compliance risks early and to systematically eliminate improper conduct by employees. We have put in place a variety of preventive measures for this purpose.

[→ [GRI 103-2](#) 

### Organisation and responsibilities

Pursuant to a group-wide policy, the Chief Compliance Officer (CCO), the Group Compliance team, and the business units' Compliance Officers are responsible for refining and optimising the CMS on a continual basis. The CCO reports to the E.ON Management Board and the Supervisory Board's Audit and Risk Committee on a quarterly basis on the status of the CMS and current developments and incidents. In the event of serious incidents, the Management Board and the Audit and Risk Committee are informed immediately. The same applies to important new laws. Potential violations are investigated centrally by Group Audit and Group Compliance.


[→ [GRI 103-2](#) 

### Guidelines and policies

Our updated Code of Conduct, which took effect on 1 January 2018, is considerably shorter and more straightforward than the previous one. It focuses on our guiding principle, "Doing the right thing." The Code provides easy-to-understand guidance for all areas that are of particular concern to us. These include human rights, anti-corruption, fair competition, and ethical relationships with business partners. The Code also contains an integrity test that employees can use to check whether their assessment of a situation is in compliance with E.ON principles and values. Every employee in the E.ON Group is obliged to act in accordance with the Code of Conduct's rules and regulations. The Code is therefore part of our employees' duties under their employment contract. It's supplemented by several People Guidelines which explain in greater detail how employees can be sure that they're doing things right.

Managers and employees may be invited to events and restaurants, especially by business partners, or receive gifts. The updated version of our Anti-Corruption People Guideline contains a decision-making scheme that uses the familiar green, amber, and red of traffic lights to indicate when accepting or granting such offers or gifts is permissible, potentially problematic, or forbidden. Gratuities above a certain threshold, which varies by country, must receive Compliance Officer approval. Particularly strict requirements apply to invitations and gifts from public, elected, or government officials and their representatives.

In 2018 we integrated the Management Group Compliance Policy into the new Compliance Function Policy, which establishes basic compliance structures, roles, and responsibilities.

[→ [GRI 103-2](#) 

### Specific actions

Since 2010, all new employees have had to complete a Code of Conduct eLearning module, to which new material was added in 2018 to cover the updated Code. Employees in units without internet access receive this training in an offline format.


We use various tools to assess continually which of our business areas are or could be exposed to the risk of compliance violations. These tools include formal compliance risk assessments (CRAs), which are conducted on a regular basis. CRAs employ various methods, ranging from spreadsheet-style questionnaires to personal interviews for executives based on state-of-the-art scientific findings of behavioural psychology. Based on the results, we determine whether and which specific measures need to be taken to amend and refine E.ON's existing CMS in order to appropriately address any (new) risks identified. In addition, Group Compliance continually engages in dialogue with, and monitors the work of, the units' Compliance Officers and managers.

If employees suspect misconduct or a violation of laws or company policies, they're instructed to report it immediately. If they wish, they may do so anonymously through internal reporting channels or a group-wide external whistle-blower hotline, which we operate with a law firm.

We subject all potential suppliers to prequalification to ensure that they meet our compliance standards. This includes searching media reports for references to the supplier in connection with compliance issues such as corruption and determining whether the supplier appears on lists of sanction violators or

terrorist funders. In addition, potential suppliers must complete an extensive questionnaire, which we evaluate carefully. Prequalification is mandatory for all new suppliers.


Furthermore, our Know Your Counterparty principle defines certain minimum requirements for our business partners. The Know your Counterparty Check is an IT process that helps us verify their identity and integrity and avoid legal, regulatory, and reputational risks related to compliance issues such as corruption, money-laundering, tax evasion, economic sanctions, and terrorism financing. This tool replaced certain manual compliance checks and expanded the range of checks for specific contracts and financial transactions. It is covered in our new Know Your Counterparty People Guideline, which took effect at the start of 2018.

[→ [GRI 103-2](#) 

### Goals and performance review

The effectiveness of our CMS is the main indicator of our compliance performance for purposes of management control. All compliance measures, policies, processes, controls, and so forth are assessed and guided by this criterion. The CMS's effectiveness is also monitored by the E.ON Management Board, the Supervisory Board's Audit and Risk Committee, and Group Audit. The latter, an independent entity, is our third line of defence for monitoring the CMS. The criteria we use for monitoring effectiveness include assessing whether and how prescribed measures are implemented across E.ON. Special consideration is given to violations that lead to an internal audit. The audit determines whether a violation resulted from misconduct by an individual or individuals or from shortcomings in the CMS. We use the results to implement measures to avoid similar incidents in future.

Because our CMS is consistent throughout E.ON, we follow a uniform roadmap. All Compliance Officers must present the status of their unit's compliance roadmap regularly to their board. Presentations must be approved in advance by Group Compliance. Progress along the compliance roadmap was on schedule in 2018.

[→ [GRI 103-2/3](#) 

## Progress and measures in 2018

Several activities in 2018 supported the entry into effect of the updated version of our Code of Conduct. In addition, we took a variety of steps to improve our compliance performance and quantify the value it adds.

### Familiarising employees with our new Code of Conduct

Group Compliance provided all E.ON employees with a printed version of the Code of Conduct and all units with an updated version of the eLearning module in their respective language. The module guides employees through the Code of Conduct and includes a Mission Statement from our CEO, who emphasises that E.ON expects its employee to act with integrity at all times. We adopted our new Anti-Corruption People Guideline in 2018 and made anti-corruption a prominent feature in the updated eLearning module. These segments of the module explain what corruption is, define the value threshold for accepting or giving gratuities, identify the respective unit's Compliance Officer, and instruct employees to contact him or her in cases of doubt or when required (for example, when granting gratuities to public officials).

### Number of compliance notices<sup>1</sup>

	2018	2017	2016
Fraud or breaches of internal guidelines	65	32	46
Conflicts of interest	4	4	13
Other	16	17	16
<b>Total</b>	<b>85</b>	<b>53</b>	<b>75</b>

<sup>1</sup>Compliance notices are notices regarding misconduct and violations of the law and/or company policies by E.ON employees that are addressed through our internal reporting procedures and group-wide whistle-blower hotline. The numbers refer to cases recorded at our corporate headquarters that resulted in investigations and were not subsequently found to be false reports.

In 2018 the number of compliance notices rose from 53 to 85. The increase in the category "fraud or breaches of internal guidelines" was particularly significant. This is probably attributable to an improved reporting culture. The resulting investigations found that none of the incidents reported was serious.

### **Fines for non-compliance**

We paid a total of €102,200 in fines for non-compliance with laws in Germany, the UK, and Romania in 2018, mostly for violations from 2016. No fines were imposed on us for incorrect tariff information or non-compliance with environmental regulations.

### **Quantifying the added value of compliance**

Compliance is costly and time-consuming, yet its success is difficult to measure. A new compliance index model we're currently testing could help. The model is the result of two empirical studies carried out at the Frankfurt University of Applied Sciences with the support of the Frankfurt Institute for Risk Management and Regulation (FIRM). It uses standardised surveys to measure the influence that different aspects of compliance have on each other. For example, it can show how compliance risk is affected by improved employee compliance. We think the model will make it possible to quantify the value that compliance programmes add to E.ON and to identify areas for improvement.






# Respecting human rights, ensuring high standards along our supply chain

Human rights are precious and inalienable. We have the obligation to ensure that we respect them in all aspects of our business, including our supply chain. That's why we expect our suppliers worldwide to meet minimum standards for environmental, social, and governance (ESG) performance, including respect for human rights. We source goods and services predominantly from countries in the Organisation for Economic Cooperation and Development (OECD), whose members have shared guiding principles for human rights, fair work practices, environmental protection, and anti-corruption. Although we do some business with companies based outside the OECD, where a lack of such shared principles may increase the risk of practices or incidents that harm people and the environment, it accounts for less than 5 per cent of our purchase volume. We assess the ESG performance of our suppliers before any contracts are signed and subject those in higher-risk countries or categories to particular scrutiny. In addition, we comply with the increasingly demanding regulatory requirements for transparency along the supply chain. [→ [GRI 103-1](#) ✓]


## Our approach

As a company that takes its responsibilities seriously, we're committed to doing business ethically, respecting human rights, protecting the environment, and ensuring proper work conditions. We expect our suppliers to share our commitment to high ESG standards and have processes in place to ensure that they do. Engaging in → [dialogue with our stakeholders](#) and participating in industry initiatives help us identify potential human rights issues. For example, we belong to econsense, a network of Germany-based multinational companies dedicated to promoting sustainable business development and the protection of human rights.

[→ [GRI 103-2](#) 

### Organisation and responsibilities

Our → [Chief Sustainability Officer](#), Leonhard Birnbaum, who is a member of the E.ON Management Board, is also our Chief Human Rights Officer. Staff in the Sustainability and Legal Affairs departments deal with human rights issues, such as changes in legislation. They inform the Chief Human Rights Officer about current developments and incidents and advise him about upcoming activities and decisions. Depending on the issue, the Chief Human Rights Officer may also consult our Sustainability Council or the E.ON Management Board.

[→ [GRI 103-2](#) 


### Guidelines and policies

We've defined standards for ethical behaviours and business practices in a → [Code of Conduct](#), which is binding for all our employees. The revised Code of Conduct took effect at the start of 2018. It obliges our employees to contribute to a non-discriminatory and safe work environment and to respect human rights. The revised Code of Conduct for employees incorporates the standards of our Human Rights Policy Statement from 2008, which is currently under revision. In addition, a People Guideline provides guidance to employees so that they procure goods and services in line with our ESG standards. Our standards are based on the ten principles of the → [United Nations Global Compact \(UN GC\)](#), the world's largest initiative for responsible corporate governance, which includes protecting human rights. We've been a signatory of the UN GC since 2005. In addition to the UN GC, we endorse the Universal Declaration of Human Rights of the UN and the European Convention for the Protection of Human Rights.

The E.ON Function Policy on Supply Chain describes the mandate and organisational setup of the Supply Chain function. The mandate encompasses the management of supply chain processes, activities, policies, tools, and supplier relationships. The function performs these tasks in compliance with legal requirements, internal policies, as well as → [health, safety, and environmental \(HSE\)](#) and sustainability standards.

The standards for human rights, working conditions, environmental protection, and ethical business practices that we require our suppliers to meet are defined in our Supplier Code of Conduct. Our supplier prequalification process (see "Specific actions" below) consists of self-registration, formal agreement to adhere to our Supplier Code of Conduct, and a compliance check. Non-fuel suppliers who are not subject to supplier onboarding must agree to our General Terms and Conditions for Purchase Contracts, which are legally binding. These were updated in 2018 and oblige non-fuel suppliers, among other things, to comply with our Supplier Code of Conduct and to endorse the principles of the UNGC. In addition, our new Supply Chain Handbook, which took effect in mid-2018, defines group-wide principles, processes, and responsibilities for non-fuel procurement. It also ensures that we adopt a structured approach to managing our relationships with suppliers (see "Specific actions" below).

We've issued a Slavery and Human Trafficking Statement, which describes the steps we take to prevent and combat human rights violations along our supply chain. The statement fulfils our obligations under the UK Modern Slavery Act. We review the statement annually and publish it in our → [Sustainability Channel](#).

[→ [GRI 103-2](#) 

The total installed capacity of our biomass-fired assets is 300 MW electric, just over 1,400 MW thermal. We're committed to procuring the fuel for these assets responsibly and sustainably. Suppliers of solid biomass must, like non-fuel suppliers, contractually agree to compliance with our Supplier Code of Conduct. In addition, the E.ON Biomass Purchasing Amendment from 2010 defines our policies and procedures, which include risk assessments, supplier audits, and provisions for joint ventures. The amendment is part of all contracts with biomass suppliers. They must pledge to respect human rights, safeguard the general living conditions of persons affected by biomass production, and protect biodiversity and the environment.

### Specific actions

Our supplier relationship management (SRM) for non-fuel suppliers has four main facets: prequalification (supplier onboarding), risk assessment, evaluation, and development.

In 2018 we completely revised our supplier qualification process and adopted a fully digital supplier onboarding solution which is integrated into our enterprise resource planning (ERP) system. Supplier onboarding is the step in the SRM process in which we ensure that existing and new suppliers comply with our minimum requirements. It helps us systematically identify and mitigate potential risks to HSE and corporate social responsibility (CSR), including the protection of human rights. Every non-fuel supplier whose individual transaction volume exceeds €25,000 or whose HSE risk is medium or high must complete an online onboarding process. The former threshold was €500,000 for products and €100,000 for services based on a supplier's estimated annual order volume. New suppliers use the supplier onboarding tool to self-register after being invited to do so by the procurement manager responsible for their category of product or service. As with our previous qualification process, supplier onboarding requires that suppliers pass a compliance check and accept our Supplier Code of Conduct. Depending on their transaction volume and HSE risk per individual event, suppliers must complete one or more questionnaires. In some cases, we may take additional steps during the supplier onboarding process, such as conducting a supplier audit (to assess, among other issues, whether the supplier complies with our standards for human rights, working conditions, and environmental protection) or requiring a supplier to have in place an environmental management system certified to ISO 14001 or EMAS III and/or a health and safety management system certified to OHSAS 18001 or ISO 45001. Suppliers that participate in tenders as part of a public procurement act do not use the tool but instead follow the qualification procedures required by law. Between the tool's launch in October 2018 and year-end, we invited 289 new suppliers to take part in onboarding and completed 89 onboardings.

Our supplier risk assessment analyses four categories of risks: financial, market, CSR, and performance. The assessment is embedded into existing processes, which ensures that risks are monitored on an ongoing basis. For example, we evaluate CSR risks as part of supplier performance reviews and the onboarding process.

Following the comprehensive assessment conducted 2017, in 2018 we continued to evaluate our suppliers' performance and, based on the findings, make

decisions about our relationship with them. Once a year we determine which of our non-fuel suppliers are key based on the amount we purchase from them, their criticality to our business, and other criteria. We periodically evaluate them using five key performance indicators (KPIs): quality, cost, delivery, innovation, and CSR; the latter includes the protection of human rights. We share the results with each supplier during a performance review meeting. The outcome of the meeting may trigger a change in a supplier's status (including disqualification) and/or result in us requiring a supplier to take specific actions to improve its performance in one or more of the KPIs if it wants to continue doing business with us. In 2018 we increased the number of supplier performance reviews by 46 per cent relative to 2017.

[→ [GRI 103-2](#) ✓]

Sweden is home to over 90 per cent of our biomass-fired capacity. Since 2014 we've evaluated the CSR performance of our suppliers there using a method developed by E.ON Värme Sverige, which operates a district heating business in Stockholm, Malmö, and other cities. In 2018 we evaluated 31 suppliers, which together provide more than 99 per cent of the biomass we consume in Sweden.

### Goals and performance review

Our goal is to prevent human rights abuses by identifying risks along our value chain. Our onboarding assessments help us to do business exclusively with suppliers committed to our standards, and periodic risk assessments enable us to identify violations or suspected violations. In such cases, the Supply Chain Compliance Officer and the respective Supply Chain Director are notified and a process is set in motion to ensure that the situation is rectified without delay. If it is not, we terminate our business dealings with the supplier.

If our employees are aware of or suspect misconduct, violations of laws or regulations, including those protecting human rights, they're instructed to report this information without delay. They may talk to their supervisor or their unit's compliance officer. If they wish to remain anonymous, they may call a group-wide → [whistleblower hotline](#) which is connected to the offices of a law firm. The law firm forwards the information to Group Compliance, which provides it to the appropriate department or unit. Depending on the nature and severity of the potential violation, Group Compliance may report it immediately to the E.ON Management Board, notify law enforcement, initiate its own investigation, or take other appropriate action. In 2018 no violation of human rights was reported through these channels.

[→ [GRI 103-2/3](#) ✓]

## Progress and measures in 2018

Along with including human rights issues in our revised Code of Conduct, in 2018 we continued or initiated a variety of actions to deepen our business relationships with our suppliers and to improve our ability to assess risks along our supply chain. These actions included conducting audits of our suppliers' production facilities, especially outside, but also in the EU. The procurement team at our corporate headquarters conducted and supported more than three times as many supplier audits than in 2017. When necessary, our units conducted additional supplier audits in the countries where they do business. In cases where we demanded that suppliers take corrective action, we followed up to ensure compliance. Some audits were also conducted repeatedly to ensure that compliance was ongoing.

We also carried out several initiatives to reinforce awareness of the importance of HSE standards and further embed them into our supply chain organisation and culture. For example, we continued to provide online training to all new E.ON supply chain employees in Germany, Sweden, the United States, and the United Kingdom to enhance their knowledge of sustainability issues, including CSR. Our supply chain employees completed a total of 148 e-learning courses in 2018.

In November we began a human rights due diligence analysis. The first step was to determine which factors are relevant in the design and implementation of a human rights due diligence process at E.ON. The next step will be to define a focus area in which we'll deepen our analysis and, where necessary, develop measures to improve our performance.

### More sustainable office printing

Sustainability aspects find more and more consideration in our tendering activities. This project involved output-oriented tendering, which means that suppliers were asked to submit a maximum cost- and resource-efficient concept to deliver this output. The main rollout of this contract will take place throughout 2019. It will enable us to significantly reduce energy consumption and achieve a higher recycling rate.

### Partnering with suppliers to foster innovations for the new energy world

In 2018 we continued and expanded E.ON Supplier Innovation Days, conducting a range of events highlighting different issues. We held our third-annual Supplier Innovation Day in July in Essen. We invited nine companies and start-ups to make presentations about how their solutions are addressing

current customer challenges in areas like smart control, data analysis, and smart devices. About 65 E.ON employees from different departments and countries attended the event, whose purpose was to explore potential partnerships with new suppliers whose innovative solutions enhance home comfort and efficiency.

### Optimising performance reviews

In 2018 we further improved the format of the supplier performance reviews described above under "Specific actions" and extended the reviews to suppliers beyond those who are biggest in terms of purchase volume. Other criteria for selecting a supplier for a review now include potential growth and level of dependency.

In addition, we continued our partnership with EcoVadis, a provider of CSR ratings. In 2016 EcoVadis supported us in conducting a comprehensive assessment of our 100 most important non-fuel suppliers. In 2018 we gave our purchasers across the company access to the assessment's findings so that they can use them for supplier performance reviews on a case-by-case basis. Discrimination, forced labour, and other human rights issues were important criteria in the assessments.

### Non-Core Business: uranium procurement

The nuclear power plants operated by our subsidiary PreussenElektra need uranium fuel. We maintain high procurement standards by incorporating our Supplier Code of Conduct into our contracts for procuring uranium and nuclear fuel assemblies. The code is supplemented by the Nuclear Fuel Purchasing Amendment, which defines the standards for the procurement of nuclear fuel. The E.ON Nuclear Fuel Policy from 2014 stipulates the procedure for selecting and verifying new uranium suppliers. We purchase uranium exclusively from established suppliers with proven experience. In addition, we conduct reviews and on-site audits of new long-term suppliers and of current suppliers if there's a reasonable suspicion of misconduct. In 2018 we concluded a contract for spot delivery of enrichment services in 2018 and a contract for the supply of enriched uranium in 2019. The supplier for spot delivery in 2018 is based in the United States; natural uranium enriched for delivery in 2019 comes almost entirely from Kazakhstan. The provider of enrichment services under both contracts is based in Russia and has already been audited for previous contracts.

# Actively shaping communities

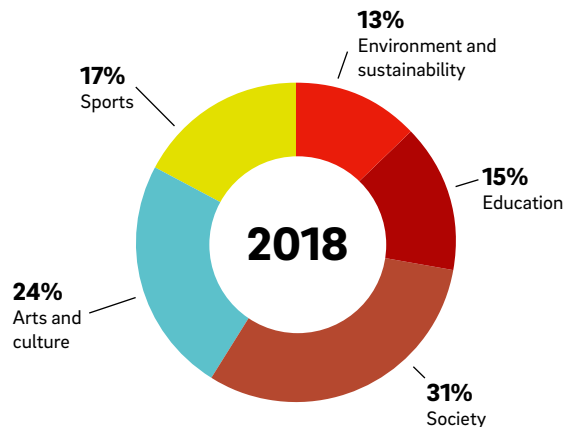
**We're part of the countries and communities where we do business. We therefore have a responsibility to help make them better places to live. We do this in part by creating jobs and by offering individually tailored energy solutions that enhance our customers' sustainability and comfort. We also strive to make a tangible contribution to prosperity and economic development.**

We engage in community involvement and support employee volunteering in all the countries where we operate. The specifics vary by country. That's because our units know their country's needs and challenges best and so we let them decide which projects and organisations to support. We believe that this approach has a greater positive impact than one-size-fits-all. You'll find a map with a selection of our community involvement projects in our → [Sustainability Channel](#).

## Our community investments in 2018

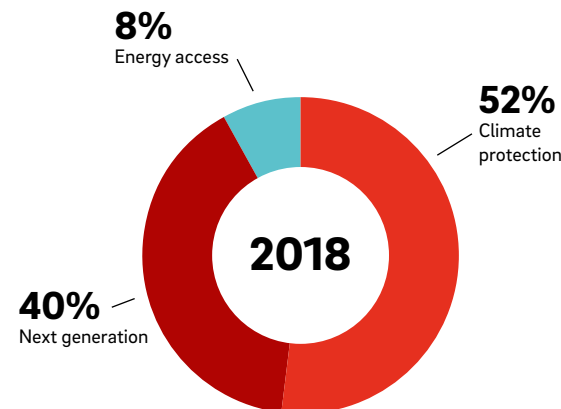
We report our corporate giving by categories, which we redefined in 2018 for greater clarity. We reduced the number of categories from eight to five by subsuming three society-related categories ("Communities, customers and energy," "Healthcare," and "Other") under "Society" and by subsuming "Job creation projects," which educate young people for employment, under "Education."

### Corporate giving by categories



The figures by category do not include our strategic investments in community involvement, which are typically more long-term in nature. Our strategic investments went toward three focus areas: climate protection, educational support for the next generation, and energy access.

### Strategic community involvement



Together, our corporate giving and strategic community involvement amounted to €8 million in 2018, less than the 2017 figure of €10.3 million. The main reason was that our Phoenix reorganisation programme made it impossible to continue a number of projects.

### Corporate volunteering

Our employees have been actively involved in non-profit projects in all of the countries in which we operate since 2009. Participation varies by country. Last year, 6,188 E.ON employees performed 11,807 hours of volunteer work.



# Appendix

# About this report

E.ON has published a Sustainability Report annually since 2004 and exclusively online since 2008. This is the first E.ON Sustainability Report to be available in English only. It was published in mid-March 2019. The reporting period is the 2018 calendar year. The editorial deadline was 31 December 2018. You can download a pdf version of this report from the → [Sustainability Channel](#) at eon.com. Our previous report was published in March 2018. You can find it and older reports in the Sustainability Channel's archive. [[→ GRI 102-50/51/52](#) ✓]

This report focuses primarily on sustainability topics that are material to us and our stakeholders. Each year we conduct a → [materiality analysis](#) to identify these topics. The report covers our three core businesses: energy networks, customer solutions, and renewables. It also provides information about our nuclear power business in Germany, which is operated by our subsidiary PreussenElektra and is not a strategic business; these disclosures are therefore marked "Non-Core Business."

## Standards and compliance

Our reporting has been guided by the standards of the → [Global Reporting Initiative \(GRI\)](#) since 2005. Sections of this report that fulfil a GRI standard are followed by square brackets containing the corresponding standard, like at the end of the first paragraph above. This report meets the reporting requirements of the → [German Sustainability Code](#) and serves as our progress report for the → [United Nations Global Compact](#).

In addition to this report we published a Combined Non-financial Report in mid-march 2019, which complies with the reporting requirements of the German CSR Directive Implementation Act (Sections 289b-e and Sections 315b-c of the German Commercial Code) and is included in our → [2018 Annual Report](#).


## Structure

The introductory chapter of this report provides general information about E.ON, our sustainability strategy and organisation, and our materiality analysis. The four main chapters describe the different areas in which we have an impact on sustainable development: "Enabling the energy transition," "Protecting people and the environment," "Working together to create value," and "Ensuring good corporate governance." The appendix contains this report profile as well as condensed information about our key performance indicators and GRI standards.


The four main chapters describe our material topics and, in compliance with *GRI 103: Management Approach*, how we manage them (“Our approach”). These chapters also contain information about our current and planned projects as well as our progress in the reporting period (“Our achievements in 2018”).

### Scope

This report encompasses all subsidiaries in which E.ON holds a majority stake and that are fully consolidated in its Consolidated Financial Statements. The statements in this report always refer to E.ON and its majority-held subsidiaries (the E.ON Group). Any deviations from this are indicated. For example, our reporting about occupational safety also encompasses entities in which we do not hold a majority stake but over which we have operational control.


[→ [GRI 102-45](#) 


Key performance indicators for which the prior-year figure was adjusted because of discontinued operations or other reasons are indicated by footnotes. This practice is in accordance with International Financial Reporting Standards. We use key performance indicators that we consider to be important in view of a business unit's operations and material in terms of its contribution to our business.

[→ [GRI 102-10/48/49](#) 

Statements on the future development of E.ON and its subsidiaries are estimates based on information available at the time of reporting. Actual results may deviate from these statements. To improve readability, we generally use the shorter name for companies and organisations (“E.ON” rather than “E.ON SE”).

### Assurance

As with previous reports, key sections of this report were assured with limited assurance by PricewaterhouseCoopers GmbH. The assurance engagement was conducted in accordance with the International Standard on Assurance Engagements 3000 (Revised) issued by the International Federation of Accountants. Assured content is indicated by the  icon. The → [Assurance Report](#) describes the exact scope of the audit.


[→ [GRI 102-56](#) 

# Reporting according to GRI

We have based our sustainability reporting on → [Global Reporting Initiative \(GRI\)](#) guidelines since 2005. The GRI guidelines are the result of a transparent, multi-stakeholder process and consist of performance indicators for all sectors and all types of organisations. This report was prepared in accordance with the current version of the guidelines, the GRI Sustainability Reporting Standards (GRI SRS) 2016. It also includes the sector-specific disclosures of the GRI Electric Utilities Sector Disclosures 2013. As for previous years, our reporting for 2018 is in line with the GRI standards' core option according to our own estimates.

In accordance with the GRI SRS and as in previous years, we selected this report's contents on the basis of a → [materiality analysis](#). The table below indicates the pages in this report, our Annual Report, and our corporate website where information complying with GRI requirements can be found. It contains:

- general disclosures to report contextual information about E.ON (GRI 102)
- information about our management approach for each material topic (GRI 103)
- specific disclosures for each material topic (topic-specific GRI standards series 200, 300, 400 as well as the Electric Utilities Sector Disclosures); we report at least one indicator per material topic.

Where GRI requirements are not fully met by the contents on the linked pages, the table includes additional information or labels the gaps as omissions. → [Assured content](#) is identified with the  icon. For some material issues we disclose E.ON-specific indicators in addition to, or in place of, GRI indicators. The following symbols indicate where in our value chain an issue is relevant:



Supply chain



Company



Customers

## GRI Disclosures

## GRI 102: General Disclosures

### Organisational profile

**102-1:** Name of the organisation

**102-2:** Activities, brands, products, and services

**102-3:** Location of headquarters

**102-4:** Location of operations

**102-5:** Ownership and legal form

**102-6:** Markets served

**102-7:** Scale of the organisation

**102-8:** Information on employees and other workers

**102-9:** Supply chain

**102-10:** Significant changes to the organisation and its supply chain

## References, additions, and omissions

→ [About E.ON\\*](#)

→ [About E.ON\\*](#)  
→ [2018 Annual Report](#) (p. 22 ff.)

→ [About E.ON\\*](#)

→ [About E.ON\\*](#)

→ [2018 Annual Report](#) (p. 15)

E.ON is a stock corporation under EU law (Societas Europaea, or SE), a supranational form of incorporation for companies that are fundamentally European and have an international orientation. It is therefore appropriate for E.ON, a company whose corporate headquarters and main activities are in Europe but that also operates elsewhere. E.ON SE's shareholder base is broadly diversified by type (retail, institutional) and region.

→ [About E.ON\\*](#)  
→ [2018 Annual Report](#) (p. 22, pp. 64 ff.)

→ [About E.ON\\*](#)  
→ [2018 Annual Report](#) (pp. 29 ff., pp. 62 ff., pp. 114 ff.)  
→ [www.eon.com\\*](#)

→ [Employee matters](#)  
→ [ESG figures\\*](#)

→ [Human rights and supplier management](#)  
→ [2018 Annual Report](#) (pp. 64 ff., p. 146, p. 208)

→ [Report profile\\*](#)  
→ [2018 Annual Report](#) (pp. 18 f., p. 209)

## GRI Disclosures

**102-11:** Precautionary principle or approach

**102-12:** External initiatives

**102-13:** Membership of associations

### Strategy

**102-14:** Statement from senior decision-maker

### Ethics and integrity

**102-16:** Values, principles, standards, and norms of behaviour

### Governance

**102-18:** Governance structure

### Stakeholder engagement

**102-40:** List of stakeholder groups

**102-41:** Collective bargaining agreements

**102-42:** Identifying and selecting stakeholders

## References, additions, and omissions

→ [2018 Annual Report](#) (pp. 54 ff.)  
→ [Enabling the energy transition\\*](#)  
→ [Protecting people and the environment\\*](#)  
→ [Working together to create value\\*](#)  
→ [Ensuring good corporate governance\\*](#)

In general, E.ON manages all of its units and action areas from a long-term perspective. E.ON's risk management system factors in environmental and social risks to a degree beyond that required by law.

→ [Corporate governance structures\\*](#)  
→ [Stakeholder engagement\\*](#)  
→ [Environmental and climate protection](#)

→ [Corporate governance structures\\*](#)  
→ [Stakeholder engagement\\*](#)

→ [Foreword\\*](#)

→ [Governance structures\\*](#)  
→ [Compliance and anti-corruption](#)

→ [Governance structures\\*](#)  
→ [Sustainability strategy and organisation\\*](#)  
→ [2018 Annual Report](#) (pp. 75 ff.)

→ [Stakeholder engagement\\*](#)

→ [Employee matters](#)

→ [Stakeholder engagement\\*](#)



## GRI Disclosures

**102-43:** Approach to stakeholder engagement

**102-44:** Key topics and concerns raised

## Reporting practice

**102-45:** Entities included in the consolidated financial statements

**102-46:** Defining report content and topic boundaries

**102-47:** List of material topics

**102-48:** Restatements of information

**102-49:** Changes in reporting

**102-50:** Reporting period

**102-51:** Date of most recent report

**102-52:** Reporting cycle

**102-53:** Contact point for questions regarding the report

**102-54:** Claims of reporting in accordance with GRI Standards

**102-55:** GRI content index

**102-56:** External assurance

## References, additions, and omissions

→ [Materiality analysis](#)  
→ [Customer experience](#)  
→ [Stakeholder engagement\\*](#)

→ [Materiality analysis](#)  
→ [Stakeholder engagement\\*](#)

→ [Report profile\\*](#)  
→ [2018 Annual Report](#) (pp. 141 ff.)

→ [Materiality analysis](#)  
→ [Report profile\\*](#)

→ [Materiality analysis](#)

→ [Report profile\\*](#)

→ [Report profile\\*](#)

→ [Report profile\\*](#)

→ [Report profile\\*](#)

→ [Report profile\\*](#)

→ [www.eon.com\\*](#)

→ [GRI content index](#)

→ [GRI content index](#)

→ [Report profile\\*](#)  
→ [Assurance Report](#)

## GRI Disclosures

# GRI 200: Economic

## GRI 205: Anti-corruption

**103-1/2/3:** Management approach

**205-2 (core):** Communication and training about anti-corruption policies and procedures

## Sector-specific Disclosure: Research and development (R&D)

**103-1/2/3:** Management approach

# GRI 300: Environmental

## GRI 302: Energy

**103-1/2/3:** Management approach

**302-1:** Energy consumption within the organisation

**E.ON-specific (core):** Renewables segment's owned generation

## References, additions, and omissions

→ [Compliance and anti-corruption](#)

→ [Compliance and anti-corruption](#)

→ [Innovative energy solutions](#)  
→ [Reliable and smart grids](#)  
→ [Climate-friendly energy generation](#)  
→ [2018 Annual Report](#) (p. 162)

The 2018 Annual Report discloses our R&D expenditures. A breakdown of these expenditures according to their relevance for sustainability is not available. The relevant department cannot provide such a breakdown.

→ [Climate-friendly energy generation](#)  
→ [Innovative energy solutions](#)  
→ [Climate and environmental protection](#)

→ [Climate and environmental protection](#)

Our disclosures include following parameters:

- Fuel consumed for energy generation (fossil, nuclear, and renewable fuel) for company purposes
- Power and district heat consumption
- Fuel combustion for heating
- Vehicle fuel consumption
- Power distribution losses (resold power and gas are excluded).

→ [Climate-friendly energy generation](#)

The 2018 Annual Report discloses key performance indicators for our generation business.

## GRI Disclosures

## GRI 305: Emissions

103-1/2/3: Management approach

305-1: Direct (Scope 1) GHG emissions

305-2: Energy indirect (Scope 2) GHG emissions

305-3 (core): Other indirect (Scope 3) GHG emissions

## References, additions, and omissions



→ [Innovative energy solutions](#)  
 → [Climate-friendly energy generation](#)  
 → [Climate and environmental protection](#)

→ [Climate and environmental protection](#)

Our disclosures are based on CO<sub>2</sub> equivalents, which include CH<sub>4</sub>, N<sub>2</sub>O, and CO<sub>2</sub> emissions, with the following exceptions:

- Fugitive CH<sub>4</sub> emissions from the handling, transport, and distribution of natural gas
- Fugitive emissions from equipment of various cooling agents with a defined global-warming potential
- Fugitive sulphur-hexafluoride (SF<sub>6</sub>) emissions from line losses.

In line with the Kyoto Protocol, the baseline year is 1990. Global-warming potential is relative to a 100-year time horizon.

Our GHG emission disclosures encompass all subsidiaries and generation assets (including leased assets) that are fully consolidated in E.ON's financial statements or in which E.ON owns a majority stake.

→ [Climate and environmental protection](#)

Our disclosures are based on CO<sub>2</sub> equivalents, which include CH<sub>4</sub>, N<sub>2</sub>O, and CO<sub>2</sub> emissions.

For baseline year and consolidation approach, see 305-1.

→ [Climate and environmental protection](#)

Information about Scope 3 biogenic CO<sub>2</sub> emissions is not available. We do not record emissions from the combustion or biodegradation of biomass that occur in our upstream value chain.

Our disclosures are based on CO<sub>2</sub> equivalents, which include CH<sub>4</sub>, N<sub>2</sub>O, and CO<sub>2</sub> emissions.

For baseline year and consolidation approach, see 305-1.

## GRI Disclosures

## GRI 400: Social

## GRI 401: Employment

103-1/2/3: Management approach

401-1 (core): New employee hires and employee turnover

## GRI 403: Occupational health and safety

103-1/2/3: Management approach

403-2 (core): Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities

## GRI 404: Training and education

103-1/2/3: Management approach

404-2 (core): Programmes for up-grading employee skills and transition assistance programmes

## References, additions, and omissions



→ [Employee matters](#)

→ [Employee matters](#)  
 → [ESG figures\\*](#)

The 2018 Annual Report discloses figures for employee turnover.



→ [Occupational health and safety](#)

→ [Occupational health and safety](#)

E.ON discloses the following key performance indicators for safety:

- Total recordable injury frequency (TRIF), which measures the number of work-related accidents and illnesses with and without lost working time
- Lost time injury frequency (LTIF), which measures work-related accidents with lost time.

Only the figures for E.ON employees and the number of fatal accidents were audited.

A breakdown by gender is not applicable as we believe this would not provide useful information. Instead of breaking TRIF down by country, we do so by segment.



→ [Employee matters](#)

→ [Employee matters](#)

**GRI Disclosures**

**References, additions, and omissions**

**GRI 412: Human rights assessment**



**103-1/2/3:** Management approach

→ [Human rights and supplier management](#)  
→ [Compliance and anti-corruption](#)

**412-3 (core):** Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening

→ [Human rights and supplier management](#)  
→ [Compliance and anti-corruption](#)

**GRI 417: Marketing and labelling**



**103-1/2/3:** Management approach

→ [Customer experience](#)

**E.ON-specific (core):** Results of surveys measuring customer satisfaction

→ [Customer experience](#)

**GRI 418: Customer privacy**



**103-1/2/3:** Management approach

→ [Data protection and product safety](#)

**418-1 (core):** Substantiated complaints concerning breaches of customer privacy and losses of customer data

→ [Data protection and product safety](#)  
Due to confidentiality constraints and the sensitivity of such data, we are unable to provide information about substantiated complaints concerning data breaches.

**Sector-specific Disclosure: Access**



**103-1/2/3:** Management approach

→ [Reliable and smart grids](#)

**G4-EU28:** Power outage frequency (SAIFI)

→ [Reliable and smart grids](#)

**G4-EU29 (core):** Average power outage duration (SAIDI)

→ [Reliable and smart grids](#)

**G4-EU30:** Average plant availability factor by energy source and by regulatory regime


→ [Climate-friendly energy generation](#)

Pages marked with an asterisk (\*) were not or only partially → [assured](#). All disclosures, with the exception of the sector-specific disclosures, are based on GRI SRS 2016.

# Sustainability key performance indicators


**We assess the effectiveness of our sustainability strategy and initiatives by gathering data for key performance indicators (KPIs). Capital markets in particular want standardised environmental, social, and governance (ESG) KPIs. Consequently, we have reported our KPIs structured according to ESG since a number of years.**


Since 2010 we've reported our KPIs in accordance with standards of the German Association for Financial Analysis and Asset Management (German abbreviation: DVFA) and the European Federation of Financial Analysts Societies (EFFAS). KPIs that reflect these standards are indicated by the DVFA/EFFAS-ID.

Assured disclosures display the  icon. KPIs that are particularly important to us have a blue-shaded background.


More information about these figures (such as more detailed breakdowns) can be found in the corresponding chapters of this report.

Sample presentation of key figures

	DVFA/EFFAS	2018	2017	2016
Key figure XX	E/S/GXX-XX	XX 	XX	XX

DVFA/EFFAS-ID

Assured

## Environment

### Climate protection

	DVFA/EFFAS	2018	2017	2016
Greenhouse gas emissions (total CO <sub>2</sub> equivalents in million metric tonnes)	<b>E03-01</b>	69.06 <input checked="" type="checkbox"/>	79.20	82.75
Scope 1	<b>E02-01</b>	4.87 <input checked="" type="checkbox"/>	4.81 <sup>1</sup>	5.37
Scope 2 <sup>2</sup>	<b>E02-01</b>	2.88 <input checked="" type="checkbox"/>	3.37 <sup>1</sup>	3.36
Scope 3	<b>E02-01</b>	61.31 <input checked="" type="checkbox"/>	71.02	74.02

<sup>1</sup>Prior-year figures have been adjusted.

<sup>2</sup>Excludes our consumption of district heating due to the immateriality of the quantity compared with the other Scope 2 categories.

For more information, visit the → [Climate and environmental protection](#) chapter.

### Waste

	DVFA/EFFAS	2018	2017	2016
Non-hazardous waste (metric kilotonnes)		78.9	90.1	28.9 <sup>1</sup>
Recovered		73.6	84.9 <sup>2</sup>	21.1 <sup>1</sup>
Disposed		5.3	5.2	7.8 <sup>1</sup>
Hazardous waste (metric kilotonnes)	<b>E06-01</b>	77.1	75.6	27.7 <sup>1</sup>
Recovered		53.4	60.8 <sup>2</sup>	21.5 <sup>1</sup>
Disposed		23.7	14.8	6.2 <sup>1</sup>
Low- and intermediate-level radioactive waste (metric tonnes)	<b>E08-01/02</b>	313.9	402.1	423.8
High-level radioactive waste (metric tonnes)	<b>E08-03</b>	116.0	180.2	20.4
Total waste (metric kilotonnes) <sup>3</sup>	<b>E04-01</b>	156.0	165.7	56.6
Total amount of waste recycled (percentages) <sup>4</sup>	<b>E05-01</b>	81.4	87.9	74.7

<sup>1</sup>Different data-collection method and scope of consolidation.

<sup>2</sup>Prior-year figures have been adjusted.

<sup>3</sup>Hazardous and non-hazardous waste.

<sup>4</sup>Percentage of recycled hazardous and non-hazardous waste.

For more information, visit the → [Climate and environmental protection](#) chapter.

### Environmental management

	DVFA/EFFAS	2018	2017	2016
Energy consumption within the organisation (million GJ)	<b>E01-01</b>	239 <sup>1</sup> <input checked="" type="checkbox"/>	201	260 <sup>2</sup>
Business units certified to ISO 14001 (percentages)	<b>E33-01</b>	99	99	95
Number of environmental incidents				
4 (major)		0	0	0
3 (serious)		1 <sup>3</sup>	0	0
2 (moderate)		10	6	10
1 (minor)		153	115	119
0 (inconsequential)		412	390	369
Incidents on the seven-step International Nuclear Event Scale (INES)		0	0	0
Provisions for environmental remediation and similar obligations (€ in millions) <sup>4</sup>	<b>E12-05</b>	520 <input checked="" type="checkbox"/> <sup>5</sup>	507	469
Short-term		28 <input checked="" type="checkbox"/> <sup>5</sup>	29	23
Long-term		492 <input checked="" type="checkbox"/> <sup>5</sup>	478	446
Fresh water consumption (million cubic metres) <sup>6</sup>	<b>E28-01</b>	37.7	37.0	26.2

<sup>1</sup>A change in the scope of consolidation limits the information value of a comparison with the subsequent year's figures.

<sup>2</sup>Includes business travel (change in the GRI definition).

<sup>3</sup>The depressurisation of a gas pipeline at our subsidiary Avacon resulted in the unintentional release of oil.

<sup>4</sup>Funds set aside for potential redevelopment, water protection, and the remediation of contaminated sites.

<sup>5</sup>Audited disclosures from the E.ON Annual Report.

<sup>6</sup>For reasons of materiality, includes the Non-Core Business segment (PreussenElektra) only.

For more information, visit the → [Climate and environmental protection](#) chapter.



## Social

### Employee matters

DVFA/EFFAS	2018	2017	2016
Group employees (headcount) <sup>1</sup>	43,302 <input checked="" type="checkbox"/> <sup>2</sup>	42,699	43,138
New hires			
<i>Full-time equivalent (FTE)</i>	5,478	4,536	4,346
<i>Headcount</i>	5,579	4,616	4,451
<i>Permanent employment contracts (percentages)</i>	69	73	67
Employees with full-time contracts (percentages) <sup>3</sup>	92	92	92
Employees with permanent employment contracts (percentages) <sup>3</sup>	95	96	95
Employees with collective bargaining agreements (percentages)	83	85	84
Employees with part-time contracts	3,328 <input checked="" type="checkbox"/> <sup>2</sup>	3,395	3,517
Average length of service (years) <sup>3</sup>	14 <input checked="" type="checkbox"/> <sup>2</sup>	14	14
Voluntary turnover rate (percentages) <sup>3</sup> <b>S01-01</b>	4.8 <input checked="" type="checkbox"/> <sup>2</sup>	4.6	5.3
Apprentices in Germany (headcount)	899 <input checked="" type="checkbox"/> <sup>2</sup>	942	971
Apprentice ratio in Germany (percentages)	5.4 <input checked="" type="checkbox"/> <sup>2</sup>	5.5	5.3
Female workforce (percentages) <sup>3</sup> <b>S10-01</b>	32 <input checked="" type="checkbox"/> <sup>2</sup>	32	32
Women managers (percentages) <sup>4</sup> <b>S10-02</b>	21 <input checked="" type="checkbox"/> <sup>2</sup>	20	20
Severely disabled employees in Germany (percentages) <sup>5</sup>	5 <input checked="" type="checkbox"/>	5.4	5.4
Severely disabled employees in Germany (headcount) <sup>5</sup>	861 <input checked="" type="checkbox"/>	899	934
Nationalities	100 <input checked="" type="checkbox"/>	99	97
Average age (in years) <sup>3</sup>	42 <input checked="" type="checkbox"/> <sup>2</sup>	42	42

DVFA/EFFAS	2018	2017	2016
Average employee age (percentages) <sup>3</sup> <b>S03-01</b>			
<30 years	19 <input checked="" type="checkbox"/> <sup>2</sup>	18	18
31-50 years	53 <input checked="" type="checkbox"/> <sup>2</sup>	54	55
>50 years	28 <input checked="" type="checkbox"/> <sup>2</sup>	28	27

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

<sup>2</sup>Audited disclosures from the E.ON Annual Report.

<sup>3</sup>Includes board members, managing directors, and apprentices.

<sup>4</sup>Includes board members and managing directors.

<sup>5</sup>Excludes board members and managing directors.

For more information, visit the → [Employee matters](#) chapter.

### Occupational health and safety

DVFA/EFFAS	2018	2017	2016
Combined TRIF <sup>1</sup>	2.4	2.5	2.5
<i>Employee TRIF</i>	2.5 <input checked="" type="checkbox"/>	2.3	2.5
<i>Contractor TRIF</i>	2.1	2.9	2.6
Employee LTIF <sup>2</sup>	1.9 <input checked="" type="checkbox"/>	1.8	1.9
Contractor LTIF <sup>2</sup>	1.5	2.3	2.1
Business units certified to ISO 45001 (percentages)	99	99	-
Employee and contractor fatal accidents	5 <input checked="" type="checkbox"/>	5	4
Employee health rate (percentages) <sup>3</sup>	96.3	96.6	96.5

<sup>1</sup>Total recordable injury frequency measures the number of reported workplace and work-travel fatalities, lost-time injuries, restricted-work injuries, and medical-treatment injuries per million hours of work.

<sup>2</sup>Lost-time injury frequency measures work-related accidents resulting in lost time per million hours of work.

<sup>3</sup>Includes board members, managing directors, and apprentices.

For more information, visit the → [Occupational health and safety](#) chapter.

## Community involvement

DVFA/EFFAS	2018	2017	2016
Corporate giving (€ in millions)	2.3	4.4	10.5
Strategic community involvement (€ in millions)	5.7	5.9	7.6
Total community investments (€ in millions)	8.0	10.3	18.1
Involvement of E.ON employees (number of volunteer hours)	11,807	10,910	11,828

For more information, visit the → [Community involvement](#) chapter.

## Governance

### Power generation

DVFA/EFFAS	2018	2017	2016
Owned generation renewables (billion kWh)	14.7 <input checked="" type="checkbox"/> <sup>1</sup>	12.5	11.6
Fully consolidated generation capacity (MW)	5,334 <input checked="" type="checkbox"/> <sup>1</sup>	4,716	4,176
Availability factor (percentages)			
<i>Onshore wind</i>	94.8 <input checked="" type="checkbox"/> <sup>1</sup>	94.6	94.2
<i>Offshore wind</i>	96.8 <input checked="" type="checkbox"/> <sup>1</sup>	97.6	96.7
Renewables as a percentage of owned generation <b>E26-01</b>	30.4	29.3	24.9
Owned generation by energy source (percentages) <b>E26-01</b>			
<i>Wind and solar</i>	30.4	29.3	24.9
<i>Natural gas/oil</i>	1.7	1.8	1.8
<i>Nuclear</i>	64.6	64.6	69.5
<i>Coal</i>	0.2	0.2	-
<i>Other (includes biomass)</i>	3.1	4.1	3.8

<sup>1</sup>Audited disclosures from the E.ON Annual Report.

For more information, visit the → [Climate-friendly energy generation](#) chapter.

### Customers

DVFA/EFFAS	2018	2017	2016
Number of power and gas customers (millions)	21.0 <input checked="" type="checkbox"/> <sup>1</sup>	21.1	21.4
Installed smart meters (millions) <sup>2</sup> <b>V11-02</b>	3.4	2.4	2.1
Customer loyalty <b>V06-01</b>	Visit the → <a href="#">Customer experience</a> chapter.		
Reduction of CO <sub>2</sub> emissions at commercial and industrial customers (metric tonnes)	688,814	731,228	10,823 <sup>3</sup>

<sup>1</sup>Audited disclosures from the E.ON Annual Report.

<sup>2</sup>Includes smart meters in Slovakia (DSO in which we have a 49 per cent stake).

<sup>3</sup>A change in the scope of consolidation limits the information value of a comparison with the subsequent year's figures.

For more information, visit the → [Community involvement](#) chapter.

## Energy networks

DVFA/EFFAS	2018	2017	2016
Power system length (thousand kilometres) <sup>1</sup>	757	756	754
Gas system length (thousand kilometres)	96	107	104
Power distribution losses (percentages)	4.2	6.0	4.6

<sup>1</sup>Includes our power networks in Slovakia (DSO in which we have 49 per cent stake).

For more information, visit the → [Reliable and smart grids](#) chapter.

## Compliance

DVFA/EFFAS	2018	2017	2016
Procurement volume in countries with corruption risks (percentages) <sup>1</sup>	14.3	12.2	11.8
Number of compliance notices <sup>2</sup>	85	53	75
Contributions to political parties (percentages) <sup>3</sup> <b>G01-01</b>	0	0	0

<sup>1</sup>Countries with less than 60 points in Transparency International's Corruption Perception Index.

<sup>2</sup>Cases recorded at our corporate headquarters that resulted in investigations and were not subsequently found to be false reports.

<sup>3</sup>The E.ON Code of Conduct forbids donations to political parties, candidates, and incumbents.

For more information, visit the → [Compliance and anti-corruption](#) chapter.

## Supplier management

DVFA/EFFAS	2018	2017	2016
Supply chain: key performance narrative <b>V28-04</b>	Visit the → <a href="#">Human rights and supplier management</a> chapter.		



# Commitment to the UN Global Compact

E.ON has been committed to upholding the ten principles of the United Nations Global Compact since 2005. With more than 9,900 participants from over 160 countries, the Global Compact is the world's largest sustainability initiative.

## Basis for company policies and standards

Being a signatory to the UN Global Compact affirms our commitment to respect human rights, uphold labour and environmental protection standards, and fight against corruption. We draw on the Global Compact's ten principles when establishing our own standards and guidelines. Our participation in Global Compact networks at the national and international level fosters collaboration across industries.

## Reporting on the principles of the Global Compact

Our commitment to the Global Compact includes reporting annually on our progress in implementing the ten principles (Communication on Progress, or COP), which is part of our Sustainability Report. The table below specifies which sections of the report address which principles. The company policies and guidelines listed there are available for download in our → [Sustainability Channel](#).

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## Human rights

**Principle 1:** Support and respect internationally proclaimed human rights

**Principle 2:** Eliminate any participation in human rights abuses

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### Cross-references in the report

→ [Human rights and supplier management](#)  
 → [Compliance and anti-corruption](#)  
 → [Governance structures](#)

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### Guidelines and policies

- Human Rights Policy Statement
- E.ON Code of Conduct
- Supplier Code of Conduct
- Code of Responsible Conduct for Business
- Slavery and Human Trafficking Statement

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## Labour

**Principle 3:** Uphold the freedom of association and the effective recognition of the right to collective bargaining

**Principle 4:** Eliminate all forms of forced and compulsory labour

**Principle 5:** Eliminate child labour

**Principle 6:** Eliminate discrimination in respect of employment and occupation

→ [Human rights and supplier management](#)  
 → [Employee matters](#)  
 → [Compliance and anti-corruption](#)  
 → [Governance structures](#)

- Human Rights Policy Statement
- E.ON Code of Conduct
- Supplier Code of Conduct
- Joint "Diversity and Integration" statement
- Slavery and Human Trafficking Statement

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## Environment

**Principle 7:** Support a precautionary approach to environmental challenges

**Principle 8:** Undertake initiatives to promote greater environmental responsibility

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

→ [Climate and environmental protection](#)  
 → [Climate-friendly energy generation](#)  
 → [Innovative energy solutions](#)  
 → [Governance structures](#)  
 → [Sustainability strategy and organisation](#)

- E.ON Health, Safety, Environment and Climate Protection Policy Statement
- E.ON Climate and Renewables Health, Safety, Security and Environment Policy
- SDG Self-Commitment by the E.ON Board of Management

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## Anti-corruption

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

→ [Compliance and anti-corruption](#)  
 → [Governance structures](#)  
 → [Stakeholder engagement](#)

- E.ON Code of Conduct
- People Guideline on Anti-corruption
- Supplier Code of Conduct



## Independent Practitioner's Report on a Limited Assurance Engagement on Sustainability Information<sup>1</sup>

To E.ON SE, Essen

We have performed a limited assurance engagement on the disclosures denoted with "(✓)" in the sustainability report of E.ON SE, Essen, (hereinafter: "the Company"), for the period from 1<sup>st</sup> January to 31<sup>st</sup> December 2018 (hereinafter: "Report"). Our engagement in this context relates solely to the disclosures denoted with the symbol "(✓)".

### Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Report in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter: "GRI-Criteria") and for the selection of the disclosures to be evaluated.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of sustainability reporting as well as making assumptions and estimates related to individual sustainability 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 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

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

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 disclosures denoted with "(✓)" in the 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 information or expert opinions, referred to in the 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 disclosures denoted with "(✓)" in the Company's Report for the period from 1<sup>st</sup> January to 31<sup>st</sup> December 2018 has not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria. This does not mean that a separate conclusion is expressed on each disclosure so denoted.

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 Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Report,
- Identification of the likely risks of material misstatement of the Report under consideration of the GRI-Criteria,
- Analytical evaluation of selected disclosures in the Report,
- Survey regarding local data gathering and approval of GHG emissions FY18 in order to obtain an understanding of how the data has been gathered in the first place and how potential sources of error have been dealt with (e.g. incomplete or wrong data),

- Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the group management report,
- Evaluation of the presentation of the selected disclosures regarding sustainability performance.

### **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 disclosures denoted with “(☑)” in the Company's Report for the period from 1<sup>st</sup> January to 31<sup>st</sup> December 2018 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

### **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 as to the results of the assurance engagement. The report is not intended to provide third parties with support in making (financial) decisions. Our responsibility lies solely toward the Company. We do not assume any responsibility towards third parties.

Essen, 5 March 2019

PricewaterhouseCoopers GmbH  
Wirtschaftsprüfungsgesellschaft

Markus Dittmann  
Wirtschaftsprüfer  
(German Public Auditor)

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**Further information**

Visit our → [Sustainability Channel](#)

