



# On course for net zero

Supporting paper for E.ON's decarbonization  
strategy and climate-related disclosures

First edition (March 2021)

**e.on**

# Purpose

**This document is a supporting paper for E.ON's climate-related disclosures. It provides a more detailed overview of E.ON's transition to a net-zero carbon world. Although its contents are largely based on TCFD's recommendations, it is not meant to be a stand-alone TCFD report. Rather, it supports the annual TCFD disclosure in our financial and sustainability reporting. It also goes beyond TCFD and addresses additional climate-related aspects more comprehensively. This paper draws on our specific climate disclosures as well as discussions with our investors and deals with specific questions that go beyond our annual reporting. More generally, this document aims to give readers a better understanding of E.ON's annual climate-related facts and figures, to contextualize this information, and to provide more detailed examples of impacts.**

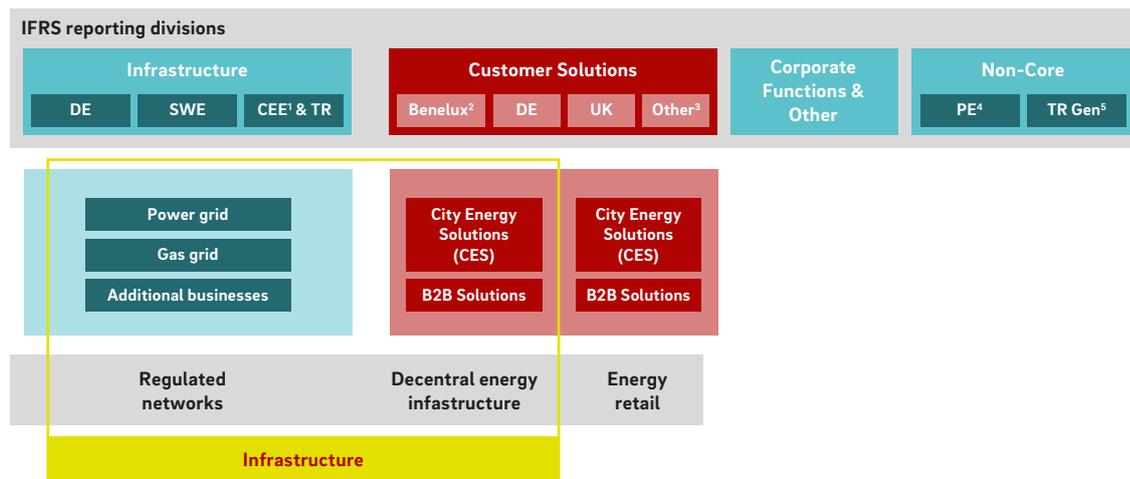
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# E.ON's new business segmentation

Since spinning off its conventional energy business in 2016, E.ON has focused entirely on the new, low-carbon energy world characterized by sustainability, clean technologies, distributed energy generation, and empowered customers. A far-reaching asset swap with RWE in 2019 enabled E.ON to become a truly pan-European leader in energy networks and customer solutions. Our unique downstream position enables us to do even more to make Europe's energy systems cleaner, smarter, and more sustainable. We enable our customers to embark on their own sustainability journey and offer them innovative decarbonization solutions. More than ever before, E.ON is fully committed to enabling Europe's increasingly decentralized, digital, and decarbonized energy system.

## E.ON new segmentation from 2020 onwards



<sup>1</sup>Central and Eastern Europe, including Czech Republic, Hungary, Poland, Romania, Slovakia, Croatia and Slovenia

<sup>2</sup>Belgium, The Netherlands and Luxemburg

<sup>3</sup>Including Czech Republic, Hungary, Italy, Poland, Romania, Sweden

<sup>4</sup>PreussenElektra

<sup>5</sup>Turkey Generation



To understand E.ON's climate-related data and developments, it is important to understand that large-scale power generation is no longer part of its core business. The comparability of E.ON's GHG data with those of traditional power generation utilities is therefore very limited.

# Climate change challenge and commitments

## Climate change challenge

Climate change and the accelerating increase of greenhouse-gas (GHG) emissions are one of this century's biggest challenges. Since the pre-industrial period, atmospheric CO<sub>2</sub> has risen from about 280 ppm to more than 400 ppm.<sup>1</sup> The air now contains more CO<sub>2</sub> than at any time in the last three million years. Global warming causes extreme weather, including heat waves and a greater risk of floods. Plants and animals are at risk of losing their habitats, endangering many species. Public health will deteriorate in some regions; millions may have to relocate. For all these reasons, systematic and coordinated action is urgently needed.

Despite ongoing international efforts to cut emissions, more greenhouse gases continue to accumulate in the atmosphere and intensify climate change. Widespread lockdowns amid the Covid-19 pandemic have not fundamentally altered this situation. Becoming a low-carbon society will require far-reaching and enduring structural changes in all areas of society. These changes include sector integration between electricity, heating, cooling, and mobility. Keeping temperatures within 2 degrees of pre-industrial levels is essential. But even if this target is achieved, there will still be tangible environmental and social consequences.

### **E.ON: a key enabler**

The energy sector accounts for the largest share of man-made GHG emissions and will thus play a crucial role in the transformation to a low-carbon society. Roughly 75% of global GHG emissions are energy-related. Moreover, the global demand for energy continues to rise.

E.ON is focused entirely on the new energy world: our core businesses help make tomorrow's energy world more sustainable. Our 1.5 million kilometers of energy networks are where Europe's transition to a low-carbon energy supply is happening: they integrate renewables, connect producers and consumers, and deftly manage complex energy flows. Our customer solutions help customers of all kinds use energy more efficiently, produce their own renewable energy, and thus reduce their carbon footprint. We are determined to fight climate change, improve people's lives, and help create a future worth living.

<sup>1</sup><https://climate.nasa.gov/evidence/> and The European Environment Agency (EEA).

## Commitments

### Stronger together

Europe's climate targets can only be achieved through concerted action. E.ON therefore urges its customers, suppliers, and business partners to join us in accelerating the transition to a carbon-neutral world. We call on all European countries to put in place ambitious national reduction plans in line with the Paris Agreement's 1.5° C target. Below are our commitments and some of those we have endorsed.

- [E.ON's climate commitment](#)  
We set ambitious decarbonization targets and have called on all types of organizations to take measures to protect the climate (2020).
- [Business leadership for a climate neutral economy: CEO letter](#)  
More than 150 business leaders and investors urge EU heads of state to set higher 2030 emissions reduction targets (2020).
- [European CEOs' call to action](#)  
In partnership with CSREuropeOrg, about 100 CEOs advocate action and collaboration for a new green deal for Europe. We believe collaboration is a crucial for Europe to achieve inclusive growth, meaningful climate protection, and sustainable prosperity (2019).
- [Global companies call for more action to support a strong and predictable carbon price](#)  
This declaration reaffirms the signatories' intention for their business activities to proactively and collectively combat climate change (2018).
- [E.ON Management Board's SDG self-commitment](#)  
In September 2015 the United Nations (UN) approved the sustainable development goals (SDGs) that address major social and environmental problems facing humanity. E.ON explicitly supports these goals (2015).
- [UN Global Compact](#)  
The UN Global Compact (UNGC) is the world's largest initiative for sustainable corporate governance. We support its ten principles and actively engage as a UNGC participant at the global and national level, such as in the German Global Compact (2005).
- [econsense – Forum for Sustainable Development of German Business](#)  
Founded in 2000, this network of 39 Germany-based multinational companies is dedicated to promoting sustainability in the companies' operational practices, corporate strategy, and supply chain. It serves as a forum for sharing knowledge and agreeing on shared positions on sustainability issues. E.ON has 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 (2000).
- [World Energy Council \(WEC\)](#)  
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 organizations. Leonhard Birnbaum, a member of the E.ON Management Board and CEO effective April 1, 2021, currently heads the WEC's European arm (2006).

# TCFD disclosures

The Financial Stability Board established the Task Force on Climate-related Financial Disclosures (TCFD) to develop recommendations for more effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting decisions and, in turn, enable stakeholders to better understand the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks (→ [fsb-tcfd.org](https://www.fsb-tcfd.org)).

TCFD's widely adopted recommendations on climate-related financial disclosures, which are applicable to organizations across sectors and jurisdictions. These recommendations center around four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets. The following sections address all four.

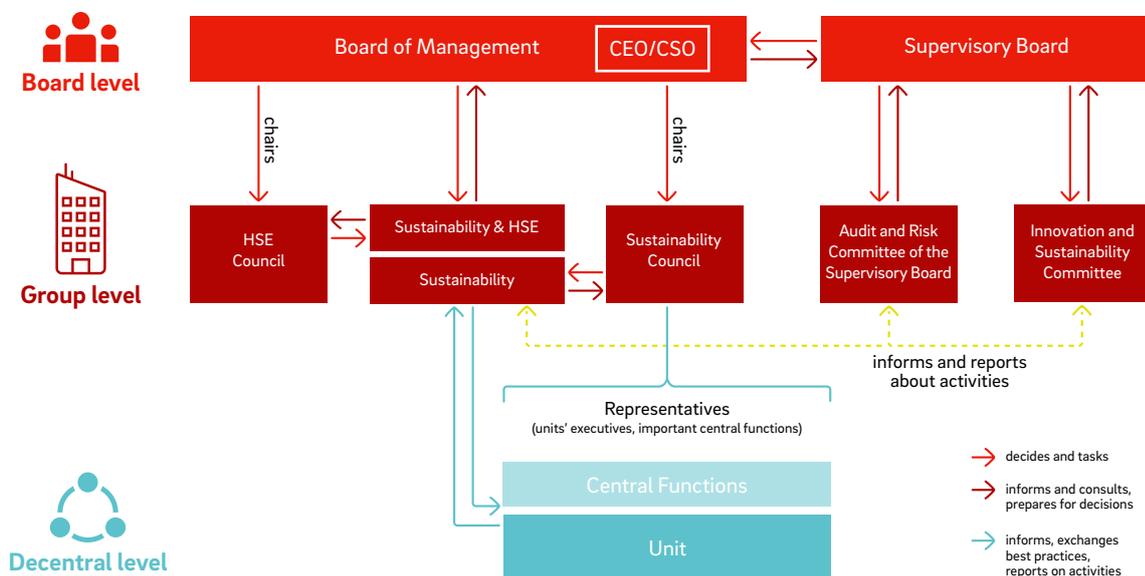
E.ON became an official TCFD supporter in 2019, marking the start of our TCFD reporting. This reporting is described in more detail in the "Purpose" section above.

## Governance

### (a) Describe the board's oversight of climate-related risks and opportunities

E.ON views good corporate governance as a central foundation of responsible and value-oriented management, efficient collaboration between the Management Board and the Supervisory Board, transparent disclosures, and appropriate risk management. The clear organization of our sustainability and climate-related activities ensures that we work together efficiently and improve continually. Information about our carbon footprint, progress toward our climate targets, and our decarbonization initiatives are first presented to our Chief Sustainability Officer and Sustainability Council. The Chief Sustainability Officer, who chairs the council, reports this information along with the council's findings to the E.ON Management Board and the Supervisory Board on a regular basis.

### Our Sustainability Organisation



**(b) Describe management's role in assessing and managing risks and opportunities**

The clear organization of our sustainability activities and management roles for climate-related issues ensures that we work together efficiently and improve continuously:

- The E.ON SE Management Board and Supervisory Board are responsible for managing and supervising key sustainability issues. They also monitor climate-related issues, including in the context of the new European CSR directive.
- The Chief Sustainability Officer (CSO), who is currently the Chairman of the Management Board (CEO), informs both boards on a regular basis about key sustainability initiatives, events, and indicators. He is responsible for our Group-wide sustainability activities and receives support from the Sustainability Council. His role as CSO covers all aspects of ESG, including climate-related issues. The CSO's responsibility for climate-related issues underscores their importance for E.ON.
- The Sustainability Council is E.ON's formal policy-setting, decision-making, coordinating, and advisory forum for sustainability and acts on behalf of the E.ON SE Management Board. It decides on ongoing developments in climate strategy and adopts appropriate guidelines, measures, and initiatives to integrate climate-related issues into E.ON's corporate strategy and business. It also sets and periodically reviews corporate policies and minimum standards relevant for sustainability and monitors E.ON's progress toward its climate targets.
- Group Risk Management and its internal management information system identify risks early so that steps can be taken to actively address them. In 2018 E.ON began to integrate the assessment and management of climate-related risks more systematically into its overall risk management. In 2020 we completed the task of fully integrating climate risk assessment into E.ON's enterprise risk management (ERM) process, which will now be the standard ERM process from 2021 onward.
- The Head of Sustainability & HSE is responsible for communicating climate-related issues to the CSO and relevant committees, such as the Sustainability Council and the Risk Committee. He also serves as the interface to other central functions and units as well as to processes related to climate risk management. His organization is responsible for internal and external climate disclosures and progress monitoring.



## Strategy

### **(a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term**

E.ON has identified the following areas to be generally relevant to our organization in the context of climate-related risks and opportunities in the electricity utilities sector (infrastructure and energy retail): current regulation, emerging regulation, technology, legal affairs, reputation, acute physical risks, chronic physical risks, and markets.

Our core businesses reflect key emerging energy trends. E.ON's strategy systematically aligns our company with the emerging low-carbon energy world characterized by:

- empowered customers
- renewables expansion
- greater energy efficiency
- distributed energy and local energy systems
- increasing electrification of energy consumption
- ongoing digitization

Regulatory regimes and market designs vary by country, as do risks and opportunities. E.ON, which operates in numerous EU countries and the United Kingdom, therefore adopts a differentiated approach, including for time horizons. Our strategy and financial planning reflects the fundamental climate-related developments and corresponding growth businesses.



E.ON's business operations contribute directly to the avoidance of carbon emissions. Our two core businesses—energy networks and customer solutions—make the energy system more efficient, increase the proportion of renewables in the energy mix, and therefore help prevent GHG emissions. The disposal of our capital-intensive renewables business enables us to focus our efforts entirely on growth in these two businesses. We operate robust, efficient, and increasingly digital energy networks that ensure a highly reliable energy supply to our customers, while serving as the platform for connecting low-carbon devices. Our network business thus plays a crucial role in propelling the transition toward a zero-carbon future. Our customer solutions enhance customers' comfort and efficiency while helping reduce their GHG emissions. Moreover, our climate strategy sets ambitious emission-reduction targets for 2030, 2040, and 2050.

### **(b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning**

The following table provides material climate-related risks and opportunities that E.ON has identified for its organization in the short, medium, and long term:

Time horizon	Risks	Opportunities
Short	<ul style="list-style-type: none"> <li>• Decreased revenues due to reduced demand for products and services (primarily electricity) as more households, companies, and municipalities produce their own.</li> <li>• Increased frequency and severity of extreme weather events, including in Europe, which can damage network components.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased diversification of financial assets (such as green bonds and infrastructure).</li> <li>• The EU's recovery program and Green Deal enhance our growth potential.</li> <li>• E.ON's ongoing digitalization will create opportunities to add value.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>• Decreased revenues due to reduced demand for products and services, such as natural gas due to carbon pricing.</li> </ul>	<ul style="list-style-type: none"> <li>• Expansion of distributed infrastructure solutions.</li> <li>• Build-out of E-mobility infrastructure.</li> <li>• Industrial and energy infrastructure solutions.</li> <li>• Regulated asset base (RAB) growth: accelerated integration of renewables leads to extension of distribution networks.</li> </ul>
Long-term	<ul style="list-style-type: none"> <li>• Decreased revenues due to reduced demand for products and services (such as electricity and heat) amid warmer winters and continued growth in the number of households and organizations that produce their own electricity.</li> </ul>	<ul style="list-style-type: none"> <li>• Conversion of gas grid (to low-carbon hydrogen and synthetic methane).</li> <li>• Deep electrification of different sectors and distributed generation creates the need for substantial grid investments and thus a further increase in our RAB.</li> <li>• Decarbonization targets like the EU's create opportunities for energy-efficient products and services.</li> </ul>

**(c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario**

Climate change—as well as the energy transition aimed at slowing this change—could create risks as well as opportunities for our business. We therefore continually review a range of climate scenarios, including those that are consistent with the goal of limiting the global rise in temperatures to less than 2 degrees Centigrade. Among them are the IEA’s Sustainability Development Scenario and a scenario we developed ourselves. We use these scenarios to analyze the factors that could influence E.ON’s enterprise value and its ability achieve long-term profitability by capturing business opportunities created by the transition to a low-carbon future. Furthermore, we used scenario analyses to set our climate targets in 2017 as well as the new climate targets in 2020, which, in turn, inform our long-term business decisions.

**Substantial decision made from a climate-related scenario**

As a result of the ongoing transition to a low-carbon society, the energy world of tomorrow will become increasingly electric, green, distributed, and partnership-based. Customers and the public at large expect efficient, affordable solutions for their particular energy requirements: green mobility, sustainable living, lower-carbon manufacture and commerce, and smart infrastructure for cities and districts. In 2015 E.ON decided to transform itself into a company fully dedicated to meeting these expectations. E.ON’s robust energy networks, climate-friendly solutions for customers of all types, and ongoing innovation ideally position us to propel Europe’s energy transition.



E.ON’s business model is entirely focused on the new energy world. Because our own transition to a low-carbon world is already well under way, our business model will remain resilient under a wide range of climate-related scenarios. E.ON is also superbly positioned to seize climate-related business opportunities, such as those created by the EU Green Deal.

**EU Green Deal offers additional business opportunities for E.ON**

**EU Green Deal**

- Climate neutrality by 2050
- At least 50% carbon emission reduction by 2030, if possible 55%<sup>1</sup>

**Opportunities for E.ON**

- Accelerated integration of renewables lead to massive extension of distribution grid
- Conversion of gas grid (to hydrogen)

**Electrification of the following sectors**



**Building**



**Transport**



**Industry**

**Creating value for our customers through**

- > Expansion of decentral infrastructure solutions
- > Build out of E-mobility infrastructure
- > Industrial and energy infrastructure solutions

<sup>1</sup>Reference year 1990

<sup>2</sup>Source: Electrification scenarios, DENA Leitstudie/ewi (2018)

## Risk management

### (a) Describe the organization's processes for identifying and assessing climate-related risks

E.ON uses a multistep process to identify, evaluate, simulate, and classify risks and chances. Risks and chances are generally reported on the basis of objective evaluations. If this is not possible, we use estimates by in-house experts. The evaluation measures a risk/chance's financial impact on our current earnings plan while factoring in risk-reducing countermeasures. We then evaluate the likelihood of occurrence of all quantifiable risks and chances. For example, energy passthrough in our networks may be affected by unseasonably warm or cold weather. Risk types are modelled with a normal distribution. Modelling is supported by a Group-wide IT-based system. This statistical distribution makes it possible for our IT-based risk management system to conduct a simulation of quantifiable risks/chances. This yields an aggregated risk distribution that is quantified as the deviation from our current earnings plan for adjusted EBIT.

### (b) Describe the organization's processes for managing climate-related risks

E.ON's management information system identifies risks early so that steps can be taken to actively address them. The following examples show in more detail how E.ON manages climate-related risks and embeds them into its operating processes.

#### Risk type and primary climate-related risk driver

##### Regulation

Carbon pricing mechanisms

#### Risks

The regulatory environment in which E.ON does business is characterized by uncertainty, such as decreased revenues and/or narrower margins from natural gas sales due to carbon pricing. A carbon price can come in the form of a tax or a cap-and-trade system for the heating and building sectors, respectively. The steps we take to manage these risks include:

1. Increasing the proportion of biomethane to decarbonize natural gas.
2. Selling more heat pumps to offset lower gas sales and enable the transition to lower-carbon heating.
3. Introducing zero-emission alternatives to natural gas, such as a nationwide initiative we launched in Germany in 2020 to use surplus wind and solar power to run electrolysis equipment that transforms water into hydrogen, which is then methanized. The resulting green methane can be fed into the gas system where it can help decarbonize heating, mobility, and industrial processes.

##### Market

Changing customer behavior

Increasingly, households, municipalities, and companies produce their own green energy and are becoming more energy autonomous, which disrupts traditional value-creation mechanisms in the energy supply business. Nevertheless, our strategy is to propel this trend in ways that benefit our customers and increase our revenues. For example, we offer residential customers heat pumps, solar panels, battery storage systems, and charging points for electric vehicles. We also offer a solution that connects these devices to a central control platform, enabling homeowners to control all of them with a single, easy-to-use app. Making home energy production and management easier will encourage even more households to join this trend.

##### Chronic physical

Rising mean temperatures

The demand for electric power and natural gas is seasonal, with our operations generally experiencing higher demand during the cold-weather months of October through March and lower demand during the warm-weather months of April through September. As a result of these seasonal patterns, our sales and results of operations are higher in the first and fourth quarters and lower in the second and third quarters. Sales and results of operations for all our energy operations can be negatively affected by periods of unseasonably warm weather during the autumn and winter months. We expect seasonal and weather-related fluctuations in sales and results of operations to continue.

We address this risk by scaling up new businesses, such as the businesses that provide the aforementioned low-carbon household devices and apps. We also offer a solution called ectogrid™, which we developed in-house, that makes buildings' heating and cooling systems more efficient and thus less carbon-intensive. By connecting customers with different thermal needs and utilizing waste heating/cooling between buildings, ectogrid™ optimizes thermal energy flows. The result is a dramatic reduction—typically well over 50 percent—in the need to generate new energy for heating and cooling. This conserves resources and protects the climate. Moreover, unlike conventional district energy solutions, ectogrid™ has zero distribution losses.

##### Acute physical

Increased severity and frequency of extreme weather events such as cyclones, floods, or wildfires

Electricity grids, particularly overhead lines, can be affected by extreme weather, such as high winds, heavy snow, and lightning strikes. To limit these risks, we continually improve our infrastructure, operations, and network management. This enhances the reliability of our distribution networks, even under extraordinarily adverse conditions. In addition, we have factored the operational and financial effects of environmental risks into our emergency plan. We'll invest more than €6.6 billion over the next three years to modernize our energy networks in Germany. Our main method of weatherproofing is putting power lines underground. We have 37,000 kilometers of underground cables in Sweden alone. We also conduct ongoing vegetation management to keep tree limbs a safe distance from power lines. E.ON also takes into account the risk of wildfires caused by network assets, particularly overhead lines. Our enterprise risk management includes risks relating to network faults, such as earthquakes, storms, ice, and cyberattacks. The worst-case scenario for such risks for our networks in Germany is valued at approximately €1.5 to €2 billion, with a probability of occurrence of 1%. Germany's regulation defines precise rules to guarantee the availability of overhead lines. We conduct ecological corridor management in Germany as well, increasingly using habitat-friendly approaches.

***(c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management***

Our enterprise risk management (ERM) process provides the management of all units as well as the E.ON Group with a fair and realistic view of all relevant risks and chances resulting from their planned business activities. The GHG reductions achieved under our climate strategy contribute significantly to the successful management of climate-related risks and opportunities. The clear organization of our sustainability activities and management roles for climate-related issues ensures that we work together efficiently and improve continually.

**Joint interaction between the Risk Management and Sustainability functions at the Group and unit level**

In 2019 our Risk Management and Sustainability functions began working together more closely to better address stakeholders' expectations regarding non-financial risks. As part of this, they clearly delegated tasks. For example, the Sustainability function is responsible for identifying non-financial risks that affect E.ON's business and for analyzing the quantitative relationship between cause and effect in the long term. Risk Management analyzes how E.ON is already addressing these effects and provides a breakdown of the effects for the next three years, which is our medium-term planning (MTP) period. It circulates this information to senior management in a periodic ERM Report.

Furthermore, E.ON developed an in-house strategy paper on climate-related risks. It evaluates currently prevailing risks and opportunities, identifies those relevant for E.ON, and recommends actions and measures to mitigate risks and seize opportunities. The paper, which draws on insights from a wide range of experts both in and outside E.ON, is updated at regular intervals.

**Organization's frequency and time**

Significant risks at the company level are reported quarterly. We assess the potential effects of risks and opportunities for different time horizons: for the MTP period and further in the future.



## Metrics and targets

### (a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

E.ON's current climate metrics consist mainly of the emission figures for its carbon footprint categories (Scope 1, 2, and 3) and the measurement of progress toward its climate targets. E.ON's business operations directly contribute to the avoidance of CO<sub>2e</sub>. Our two core businesses—energy networks and customer solutions—make the energy system more efficient, increase the proportion of renewables in the energy mix, and therefore help prevent GHG emissions. Consequently, we also disclose avoided emissions, including in the annual reporting for our Green Bonds (metric tons of CO<sub>2e</sub> avoided by the projects funded). In addition to GHG-related metrics, we measure risks and opportunities using financial key performance indicators. Examples include carbon prices (cap and trade), financial performance, operating costs, impact on revenues.

### (b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

We publish our GHG emissions annually in our Sustainability Report. This supporting document is not part of these disclosures. The following two tables show E.ON's current GHG footprint relative to 2019, the baseline for our climate targets, broken down by country.

#### CO<sub>2</sub> Emissions

Total CO <sub>2</sub> equivalents in million metric tons	2020	2019
Scope 1: Direct emissions from E.ON's own business operations <sup>1</sup>	3.56	3.88 <sup>2</sup>
Scope 2: Indirect emissions associated with E.ON's electricity and heat consumption (location-based) <sup>3</sup>	4.49	4.82 <sup>2</sup>
Scope 2: Indirect emissions associated with E.ON's electricity and heat consumption (market-based) <sup>3,4</sup>	6.09	-
Scope 3: Indirect emissions from all other business operations <sup>1,5</sup>	108.21	120.27 <sup>1</sup>
<b>Total (location-based)</b>	<b>116.26</b>	<b>128.98</b>
<b>Total (market-based)</b>	<b>117.85</b>	<b>-</b>

<sup>1</sup>From 2019 onward, emissions from power and heat generation are divided into emissions from plants owned and operated by E.ON (Scope 1) and emissions from plants leased to, and operated by, customers (Scope 3). This improves E.ON's ability to manage its emissions and makes progress toward its targets more transparent.

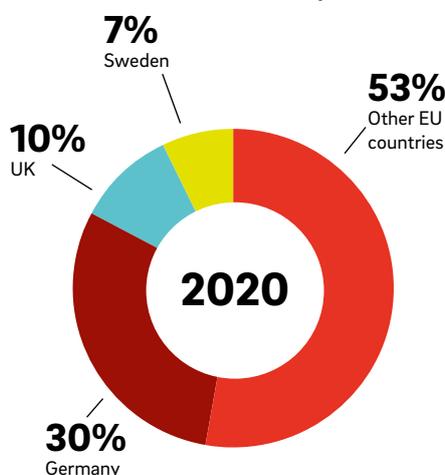
<sup>2</sup>Prior-year figures were adjusted owing to changes in methodology and the scope of recalculation, as specified in the text.

<sup>3</sup>Excludes E.ON's consumption of district heating due to the immateriality of the quantity compared with the other Scope 2 categories.

<sup>4</sup>First-time reporting of market-based Scope 2 emissions in 2020.

<sup>5</sup>Scope 3 emissions from purchased power and the combustion of natural gas sold to end-customers are from energy sold to residential and B2B customers only. Energy sold to sales partners and the wholesale market is not included.

#### Break down of our direct Scope 1 Emissions by region<sup>1</sup>



<sup>1</sup>Does not include 107 kilotonnes of CO<sub>2e</sub> of biogenic emissions from power and heat generation.

As stated above, E.ON's business model is entirely focused on the new energy world. Because our own transition to a low-carbon world is already well under way, our risk profile in each of the three scopes is low. However, the EU and a number of member states have taken steps to increase carbon prices. We expect

carbon prices to rise in the years ahead, which could result in higher operating costs for our company (Scope 1 and 2, such as fuel supply). Furthermore, the regulatory environment in which E.ON does business is a source of uncertainty, such as decreased revenues and/or narrower margins from natural gas sales due to carbon pricing (Scope 3). The latter, known as indirect or Scope 3 emissions, occur primarily during the generation of the power we purchase and supply to customers and during the use of the gas we sell.<sup>2</sup> They account for most of our carbon emissions.



Amid an increasingly decentralized energy world, business models are changing. Energy companies like E.ON now help their customers—municipalities, businesses, and households—generate climate-friendly energy. This enables E.ON to avoid more than 60 million metric tons of CO<sub>2</sub> per year.

**(c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.**

To support the achievement of Europe's climate targets, we intend to dramatically reduce the GHG emissions we can influence directly and to become carbon-neutral by 2040:

- We will reduce our Scope 1 and 2 emissions by 75 percent by 2030 and by 100 percent by 2040 (versus 2019).
- We aim to reduce our Scope 3 emissions by 50 percent by 2030 and by 100 percent by 2050 (versus 2019)

In addition, each of our business units has the authority to pursue more ambitious emission-reduction targets that go beyond the targets for E.ON as a whole. Furthermore, in 2018 we underscored our commitment to reducing the carbon footprint of our own operations by setting the target of making all E.ON buildings carbon-neutral by 2030.

The adoption of our climate strategy set in motion actions to help us achieve our climate-protection targets for 2030, 2040, and 2050. In monitoring progress toward them, it is 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 take is effective and where we stand with regard to our targets. We therefore assess our progress in greater depth every three years as part of a trend analysis. Our first assessment was at year-end 2019 (relative to our former 2016 baseline after the Uniper spinoff). The trend (in absolute terms and with regard to our carbon intensity target) indicated that the reduction rate is in line with our forecasts.



Our decarbonization trajectory must also be seen in the context of our transformed business model. The Uniper spinoff dramatically reduced the baseline of our direct emissions. Going forward, our decarbonization trajectory will therefore be flatter than that of energy companies that start with high direct emissions.

<sup>2</sup>Scope 3 emissions are all indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. These represent often the greatest share of a company's carbon footprint. They include emissions associated with business travel, procurement, and the use of sold products.

# Other climate-related aspects

## Environmental

### Carbon intensity

E.ON transferred substantially all of its renewables business to RWE effective year-end 2019 as part of the innogy transaction. Large-scale power generation is therefore no longer part of our core business. Our remaining nuclear power plants in Germany, a non-core business operated by our PreussenElektra subsidiary, will be decommissioned by year-end 2022 at the latest. E.ON's total installed power generating capacity will therefore decline considerably further—by a total of more than 95 percent compared with 2018. This, in turn, will affect the carbon intensity of our power generation. From 2023 onward, nearly all of the power we generate will be at the smaller, predominantly gas-fired combined heat and power (CHP) plants that supply our district heating networks and at small CHP plants embedded at customers' premises, typically under lease arrangements.



E.ON has exited large-scale renewables generation and will soon exit nuclear power generation. This eliminates two very large sources of zero-carbon output. Although most of our remaining generating units include highly efficient on-site gas-fired CHP plants, their carbon intensity is nonetheless higher than that of a wind or nuclear asset. Because of these fundamental portfolio changes, our carbon intensity currently indicates no meaningful trend, nor is a comparison with peer companies particularly useful.

### Other atmospheric emissions

Fossil-fueled power plants emit nitric oxide (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and dust. As stated above, this type of power generation is no longer a core E.ON business. We therefore no longer consider it a key indicator. Our NO<sub>x</sub>, SO<sub>2</sub>, and dust emissions are mostly attributable to small-scale gas-fired CHP plants and some larger plants that supply our district heat networks.

E.ON's Health, Safety and Environment (HSE) & Climate Protection Policy articulates our commitment to achieving continuous improvement in HSE, including other atmospheric emissions. The reduction trajectories largely correlate with the decarbonization trajectories of our power plants, which are primarily in our district heating business. A more detailed breakdown of the reductions and targets will be provided once former innogy assets have been fully integrated and the corresponding emissions and target trajectories have been recalculated.

### Avoided emissions and Green Bond impact indicators

E.ON continually makes its grids smarter and more flexible to increase the proportion of clean energy they can carry. We provide innovative solutions that help households, businesses, and entire cities increase their energy efficiency and produce their own clean energy. As our solutions business grows, so too do the CO<sub>2</sub> emissions associated with it. However, these emissions take place at our customers' premises and are therefore beyond our GHG accounting boundary. Measuring the emissions avoided by our solutions is a way to show the positive impact they have on the earth's climate.<sup>3</sup>

For example, the annual reporting for our Green Bonds—fixed-interest securities whose issuance proceeds are used to fund low-carbon infrastructure and energy-efficiency projects—includes disclosures on the metric tons of CO<sub>2e</sub> the projects avoid. E.ON, which issued €4.6 billion of Green Bonds in both 2019 and 2020, will make and keep readily available reporting on the allocation of net proceeds to the Eligible Green Project Portfolio and, wherever feasible, on the Eligible Green Project Portfolio's impact. For the corresponding categories, we report impact indicators such as CO<sub>2e</sub> avoided. The annual reporting for the bonds, including disclosures on the metric tons of CO<sub>2e</sub> the projects avoid, are published annually in our Sustainability Report.

<sup>3</sup>Emissions are avoided primarily where the generation or use of electricity and heat lead to a positive overall GHG balance through innovative approaches or services, usually involving cross-sector solutions.

## Contribution to Sustainable Development Goals (SDGs)

### UN Sustainable Development Goals and our sustainability agenda

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. In 2019 we aligned our strategy more closely with the SDGs. This enables us to demonstrate how we help achieve them. Our sustainability strategy provides a common framework for the sustainability activities across our company.

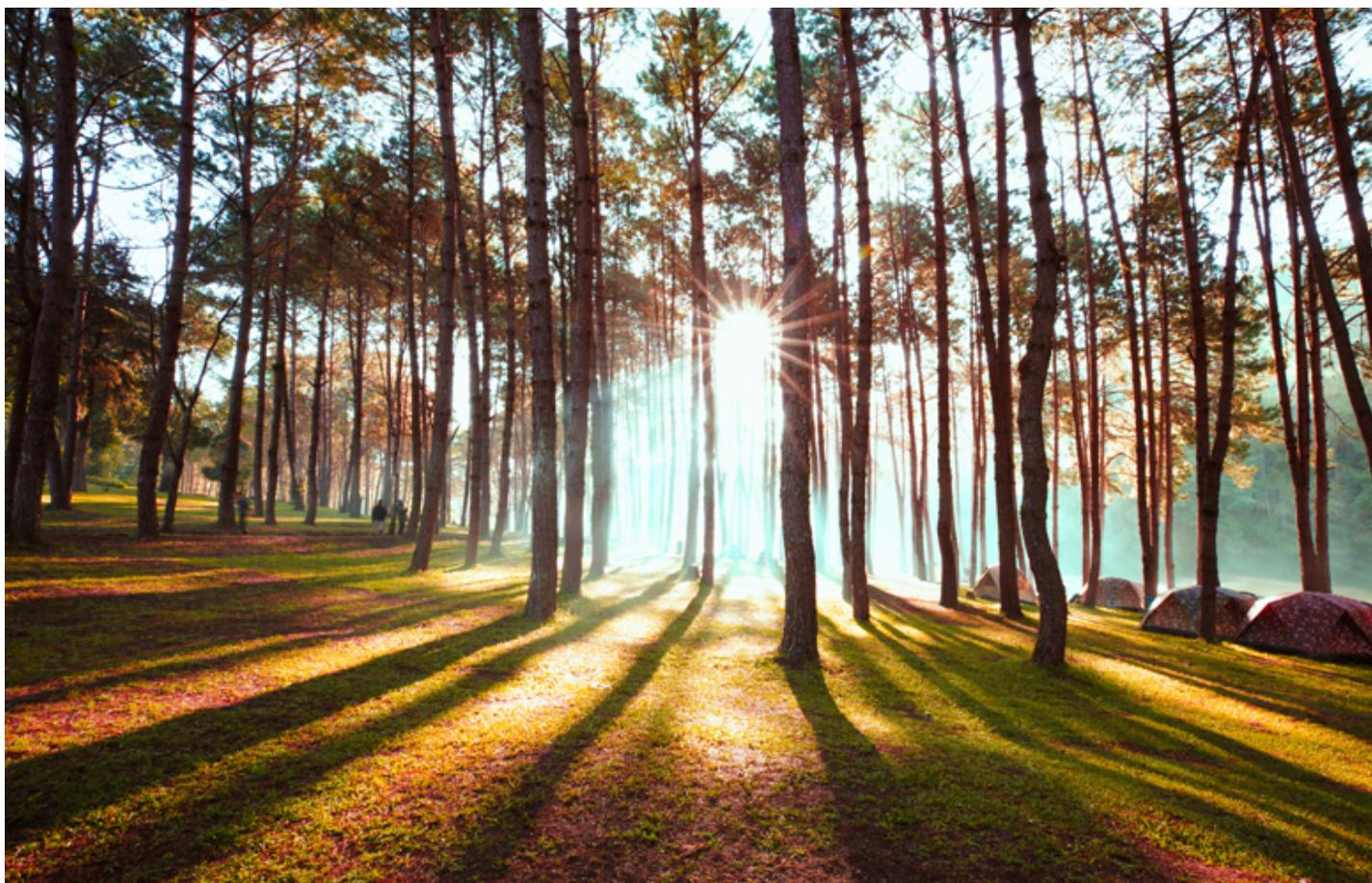
### Impact of our core business

Our core business has the biggest impact on the following climate-related SDGs:



Our ambition is to help create a sustainable energy future by:

- keeping our networks extremely stable and reliable while making them increasingly smart so that they can enable the energy transition
- developing and delivering innovative solutions that help achieve the SDGs and enable our customers to reduce their emissions.



## Social aspects and a just transition

### What is a just transition?

Climate action has social consequences as well. A carbon tax makes energy more expensive, which, depending on its implementation, may be felt most by people on low incomes. The closure of a coal-fired power station results in job losses. The idea behind a just transition is that these social consequences “are taken into account in moving to a low carbon economy” and that “climate action also supports an inclusive economy and avoids exacerbating existing injustices, or creating new ones.”<sup>4</sup>

The social impact of climate action can accelerate or hinder decarbonization. Ensuring a just energy transition is crucial for gaining public approval for the necessary changes, for example by creating social programs for workers whose jobs are lost or transformed.

Royal London Asset Management and Friends Provident Foundation approached E.ON and other energy companies to join a call for action to develop a strategy for just transition ahead of COP26. They are encouraging companies to actively involve employees, communities, and consumers in their journey to net zero and to make the journey as fair as possible for everyone affected by it. E.ON agrees that addressing the potential social impacts of its net zero ambitions from the start can help it gain the public approval and support necessary for ambitious decarbonization.

### Social acceptance is the key to the energy transition

Achieving Germany’s and Europe’s ambitious climate targets will not flounder on a lack of technological solutions or governments’ willingness to invest. The situation regarding consumer and investor acceptance is different.

Although public awareness of and support for the energy transition have increased tangibly in recent years—as is exemplified by Fridays for Future—people’s willingness and ability to make personal sacrifices to help reach climate targets varies considerably across the population. For example, 90 percent of Germany’s population views the energy transition positively, but 80 percent is afraid of rising energy costs. This fear is reflected in local resistance to infrastructure projects like overhead power lines and in the slow change in consumer purchasing behavior. Almost half of Germany’s population would not accept power lines near their homes (43%), and 19% would even protest against them. Large segments of the public and businesses stress the importance of combining the energy transition with affordable energy and industrial competitiveness. The visions of how carbon neutrality should be reached differ too. They range from large-scale hydrogen imports from Africa to decentral energy systems made up of prosumers.

The 2018 Social Sustainability Barometer for Germany, conducted by the Institute for Advanced Sustainability Studies e.V. (IASS), highlighted the public’s general support and simultaneous dissatisfaction with the details: “A clear majority of Germans across all income brackets, age groups and educational backgrounds still supports the Energiewende. Indeed, since the publication of the first Social Sustainability Barometer in 2017, there has been a notable rise in the number of people who view the energy transition as a broad societal task to which they personally want to contribute. However, there is growing criticism of the implementation of the energy transition by the German Government: Three quarters of respondents describe the process as ‘expensive,’ while over half view it as ‘chaotic’ and ‘unfair.’ The population would also like to see faster progress in the area of climate protection, with greater emphasis placed on social justice. There is, however, a general unwillingness to pay more for climate protection, and a relative majority would like some form of financial relief to offset possible costs. People are also more reserved in their support for e-mobility and reluctant to invest in wind and PV systems for self-generation.”<sup>5</sup>

### Acceptance barriers are currently the energy transition’s main obstacles

We see three main acceptance barriers to the energy transition. One is local opposition to infrastructure projects. This in some cases leads to new overhead power lines being laid underground, which is costlier and more time-consuming. Another barrier is consumers’ unwillingness or sluggishness in changing their habits and purchasing behavior to reduce their climate footprint. For example, even if offered substantial rebates, only very few people would consider buying an electric vehicle. The third barrier is some investors’ tepidness due to the uncertain returns of long-term decarbonization investments. Finding appropriate ways to overcome these barriers is therefore also an important task for policymakers and regulatory agencies.

<sup>4</sup><https://www.rlam.co.uk/institutional-investors/our-views/2020/expectations-for-energy-utilities-just-transition-strategies/>.

<sup>5</sup><https://www.iass-potsdam.de/en/news/soziales-nachhaltigkeitsbarometer-energiewende-2018>.



The public acceptance of the energy transition differs by country and, within the same country, by population groups (education, income, age, rural/urban, and so forth). Similarly, opinions in regions affected by power-plant closures or power-line construction differ from those in the rest of the population.

### Our contribution

Being a major European energy company gives E.ON the opportunity to help shape the discussion on social acceptance while keeping its customers' needs in mind. 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 types of dialogue we choose vary by stakeholder and issue. They range from information campaigns and discussion forums with trade associations and NGOs to face-to-face discussions 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. We pay particular attention to two stakeholder groups. One is consumers and communities, the other is employees.

### Consumers and communities

Achieving climate targets will require fundamental changes in the energy landscape. These changes will go beyond the energy mix and business models. As more consumers produce their own energy, the energy market will become more decentralized, and relationships between suppliers and consumers will necessarily evolve. New approaches to citizen participation could improve the acceptance of renewables expansion. Comprehensive digitalization will lead to the electrification of almost all aspects of daily life. In addition, renewable electricity will play a big role in the decarbonization of sectors like heating, mobility, and industry.

Achieving public acceptance and providing a sufficient supply of clean, affordable energy are enormous challenges that cannot be met by the energy industry alone. All stakeholders must do their part. This is the only way to create the necessary conditions for public acceptance of a low-carbon future. There are opportunities to partner with the communities where we operate. For example, the board members of our regional companies in Germany meet annually with municipal shareholders and/or 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 to ensure a reliable energy supply and promote the energy transition while having the least-possible impact on people, communities, and the environment. Furthermore, 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. Our assistance for vulnerable customers varies according to the market situation, customer needs, and the welfare programmes in each country and is therefore our regional units' responsibility. Examples of this assistance include helping customers to find out whether they qualify for government support schemes and partnering with other organisations to prefinance insulation for a customer's home.

E.ON also conducts research on the energy transition's effects on communities. For example, a study conducted by E.ON and Essen's municipal utility shows that using existing gas networks to transport green gases like hydrogen and synthetic methane is the most cost-effective and socially fair way to decarbonize space heating and would thus have the least impact low-income households, even before any government assistance programs. The modelling was based on five different scenarios, including a gradual switch to green gas in the existing natural gas grid. Studies like this one can be of great value to municipalities, distribution system operators, and real estate companies in Germany and elsewhere. The computer model makes it possible for overarching climate protection goals to be broken down regionally and even to the level of individual buildings. This helps municipalities find the right approach for cutting carbon emissions.

### People strategy

As described earlier, our business is oriented toward the new energy world. After successfully managing the workforce transition resulting from this fundamental shift, our focus is further on our Group People Strategy and creating the optimal environment for our people to perform at their best.

In an ever-changing world, our people strategy supports this orientation and E.ON's long-term success. It focuses on four high-impact priorities for E.ON: the future of work, diversity and inclusion, sustainability, and leadership.

#### **Future of work**

We foster the adaptation of a new mindset and capabilities, making E.ON fit for the future of work. We have the necessary capabilities to work in an increasingly digital world. We also adapt our communication and collaboration structures to allow for efficient work in both the virtual and physical world. We identify the skills and capabilities required for the future, evaluate the gap, and provide learning experiences to develop them. We also share knowledge freely and easily to create the foundation for collaboration and innovation. More generally, we foster a continuous learning culture where we fail, learn, grow, adapt, and evolve.

#### **Diversity and inclusion**

We are inclusive and we champion difference, boosting our talent pipelines, individual growth and team performance. Our culture is based on accountability and capability for diversity and inclusion, both by leaders and employees.

#### **Sustainability**

We are aware that today's decisions and actions will shape tomorrow's world. To achieve our potential and sustain our performance, we focus on physical and mental well-being. We give purpose by providing meaningful work to our employees. Lastly, we ensure our workforces' employability by embracing lifelong learning.

#### **Leadership**

Societal and economic change significantly impacts E.ON. Leaders are instrumental in navigating this change and to building a future-oriented, diverse, inclusive, and sustainable E.ON. We encourage our leaders to scrutinize and adapt their behaviors, serving as role models for all employees. We develop talented employees and future leaders to enable and propel innovation while sustaining and fostering our leadership culture. Our leaders share not only their knowledge but also bring outside impulses into our organization.

In addition, we are committed to being a fair and caring employer and take our social responsibilities seriously. We acknowledge the International Bill of Human Rights and the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO) and its fundamental conventions. We have a long tradition of a mutually trustful partnership with employee representatives. This proven social partnership enables us also to jointly find appropriate solutions for employees affected by change processes. These can range from targeted strengthening of employability to socially acceptable offers for employees to leave the company on a voluntary basis. Social approval for the changes taking place is thus an important component of the transformation toward a low-carbon and more sustainable economy.

## Responsible lobbying

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 to understand our business activities and their role in propelling the energy transition. This helps us 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 framework. This framework should support the energy transition, in particular the integration and use of renewables and other efficient, climate-friendly technologies. In some cases, this will require amendments to the existing framework, amendments that we believe are essential for the energy transition's success. 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.

Corporate Functions 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 Corporate Communications & Political Affairs division at corporate headquarters is responsible for our communications with policymakers in Brussels and Berlin. 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. We have been registered in the EU Transparency Register since 2011. The register contains a list of the organizations and individuals who engage in lobbying at EU institutions as well as the annual financial budget of each organization. It also includes a code of conduct defining principles for ethical and transparent lobbying. By registering we pledge to abide by this code.



E.ON advocates a sustainable, climate-friendly, and democratic energy future that involves people in the progress toward it. To help make this vision and the Paris Agreement a reality, we engage in dialogue with policymakers, regulators, trade associations, NGOs, and customers. Our Sustainability Report contains a partial list of our memberships in trade organizations. Our positions on policy issues are available at → <https://www.eon.com/en/about-us/politics.html>.

# Non-core activities

E.ON's non-strategic activities are reported in a segment called Non-Core Business. It includes the operation, decommissioning, and dismantling of our nuclear power plants (NPPs) in Germany (which are managed by our PreussenElektra subsidiary) and our joint venture in Turkey. Our remaining NPPs will be closed by year-end 2022 at the latest. The "Power generation carbon intensity" chapter contains information about how these closures will affect our carbon intensity. In 2020 our nuclear business generated just 2 percent of our revenues.



# Summary and outlook

As mentioned at the opening, this paper's purpose is to support and supplement E.ON's annual climate related disclosures and to provide a more detailed overview of E.ON's transition to the net-zero carbon world. It also aims to give readers a better understanding of E.ON's annual climate-related facts and figures, to contextualize this information, and to provide more detailed examples of impacts.

The focus of our climate reporting in 2020 was on integrating innogy data and adjusting our 2019 climate-target baseline accordingly. The addition of new business units, countries, and operations will alter our emission-reduction trajectories. The next step is to integrate these changes into our measures to achieve the climate targets, to demonstrate our progress toward these targets, and to refine our reporting of the potential financial impact of climate-related risks and opportunities. Going forward, we intend to continually expand our climate-related disclosures. We are also studying the potential social implications of our decarbonization plans as part of an evolving engagement with the idea of a just transition.



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