

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

RWE AG

The RWE Group is a world leader in renewables with a clear growth focus. RWE keeps its finger firmly on the pulse and is proactively driving change towards the age of renewables. Change is part of the history of RWE. It is also the prerequisite to future-proofing our company. RWE leverages innovation and investment as the basis for a carbon-neutral future. As a leading global renewables player, we want to strengthen this position, investing five billion euros net in renewables by 2022. Our target: being carbon neutral by 2040. Moreover, we are entering the promising hydrogen technology and bringing it to market at full speed. We will put all our energy into making a sustainable life possible. Therefore, we have defined the purpose of the new RWE as: "Our energy for a sustainable life".

RWE Renewables

RWE Renewables, the newest subsidiary of the RWE Group, is one of the world leaders in renewables. With around 3,500 employees, the company has onshore and offshore wind farms, photovoltaic plants and battery storage systems with a capacity of 9 gigawatts. RWE Renewables is driving the expansion of renewables in over 15 countries on four continents. An investment budget of 5 billion euros net is earmarked for further growth through to 2022. With the participation of potential project partners, our medium-term investment budget could be as high as 9 billion. The Americas, our core markets in Europe and the Asia-Pacific region are the key focus of RWE investment activity.

RWE Generation

With its highly efficient power plants in Germany, the United Kingdom and the Netherlands, the 3,000 employees of RWE Generation produce power from gas, hard coal, hydro and biomass. RWE Generation is the number three company in the European gas sector – an excellent starting point. After all, gas is becoming more and more important as the bridge between the old energy world and the new age of renewables. In the Netherlands in particular, the company is focusing on biomass by converting two hard-coal power plants to this carbon-neutral energy source. RWE is also represented in many core markets with hydropower plants.

RWE Power

RWE Power AG, Essen/Cologne, with a workforce of 11,000 employees, is responsible within the Group for power production from lignite and nuclear energy. In the Rhineland region, it operates three open-cast lignite mines, with production there dedicated primarily to electricity generation from its own power plants. Some lignite is also refined to produce solid fuel and filter materials. In addition, the company is responsible for post-operational and dismantling work on the RWE nuclear plants. Power plants in this business segment currently contribute a total of around 13 gigawatts to the grid.

RWE Supply & Trading

RWE Supply & Trading is the interface between RWE and energy markets around the world. A total of 1,600 employees from 40 different countries are engaged in the trade of electricity, gas, commodities and carbon emission certificates. With precise market analysis and a strong customer focus, they create innovative energy-supply solutions and risk-management concepts for industrial companies. The trading house also ensures commercial optimisation of RWE power plants and marketing renewable electricity. In addition, the separate legal entities of RWE gas storage companies also come under the umbrella of RWE Supply & Trading.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Australia
Canada
Chile
China
Czechia
France
Germany
India
Indonesia
Ireland
Italy
Japan
Luxembourg
Mexico
Netherlands
Poland
Republic of Korea
Singapore
Spain
Sweden
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation

Other divisions

Gas storage, transmission and distribution

Battery storage

Coal mining

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	<p>The selection "Board-level committee" refers to RWE's Executive Board. We have a two-tier management structure consisting of the Supervisory Board and the Executive Board. Responsibility for climate topics is anchored at the highest management level of RWE Group. As of 31 December 2020 the Executive Board consists of the Chief Executive Officer (CEO), the Chief Financial Officer (CFO), the Chief Human Resources Officer and (CHO) Labour Director and further member. As of 01 May 2021 it will consist of the CEO, the CFO and the CHO/Labour Director. The Executive Board manages the Company's business in accordance with the provisions of the law, the Articles of Association, and the Rules of Procedure. The members share responsibility for the conduct of the business as a whole and collectively decide on all issues of fundamental or significant importance. Explanation of how the individual's responsibility is related to climate issues: The overall and strategic management of the company is with the Executive Board, this includes responsibilities for climate-related issues. The department "Strategy & Sustainability" is allocated in the portfolio of the CEO and encompasses oversight over climate-related topics. The connection of both topics highlights the priority RWE is giving to sustainability issues in the strategic development of the Group. The Board is responsible for capital allocation, investment decisions, mergers and acquisitions and divestments amongst others. Climate Change is crucial for the development of RWE. Considerations such as emission reductions are part of major strategic decisions. In limiting climate change the energy system will play central role. Promoting sustainable development and combating climate change have become integral aspects of energy planning, analysis and policy making. Example of a climate-related decision made by the individual/committee: The Executive Board has approved the target for Scope 1 and 2 (combined intensity target for 2030 with a 2019 base year) and an absolute emission reduction target for Scope 3. These targets have been validated by the Science Based Targets Initiative in December 2020. Furthermore, the company continued on its strategic ambition to grow its renewables business: In the US, wind farms with a net capacity of over 700 MW begin commercial operation.</p>

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<Not Applicable>	<p>The Board refers to the Executive Board of RWE AG. The Executive Board manages the Company's business in accordance with the provisions of the law, the Articles of Association, and the Rules of Procedure. The members share responsibility for the conduct of the business as a whole and collectively decide on all issues of fundamental or significant importance. This includes crucial climate-related topics. As such the Executive Board lays down the company's strategy and makes decisions on major investments and divestments, the capital base, key policies, controls and audit matters, risk management and crucial operational matters. If of importance climate-related issues are taken into account and items for discussions. As climate change and climate-related topics are paramount for RWE, these issues are part of all discussions in the Board. Example of a climate-related decision made by the individual/committee: The Executive Board has approved the target for Scope 1 and 2 (combined intensity target for 2030 with a 2019 base year) and an absolute emission reduction target for Scope 3. These targets have been validated by the Science Based Targets Initiative in December 2020. Furthermore the company continued on its strategic ambition to grow its renewables business: In the US wind farms with a net capacity of over 700 MW begin commercial operation. The Board oversees mergers and divestments - since the energy sector is important to reach ambitious climate targets by decarbonisation and transition in renewable energy these strategic decisions are often related to climate consideration. As one example in 2020 RWE and Nordex SE have successfully completed the process of acquisition of Nordex' European onshore wind and solar development platform by RWE. This comprises a development pipeline of in total 2.7 Gigawatts (GW) in France, Spain, Sweden and Poland. With the acquisition, RWE strengthens its development platform in France with an overall pipeline of 1.9 GW in various project phases.</p>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Description of CEO responsibility for climate issues:

The highest management-level position with responsibility for climate-related issues is the Chief Executive Officer (CEO) of RWE AG. This role is part of the Executive Board as the highest body for the strategy of the company. The members share responsibility for the conduct of the business as a whole and collectively decide on all issues of fundamental or significant importance. To manage the Group's activities, RWE AG deploys a Group-wide planning and controlling system to ensure efficient use of resources and provides timely, detailed insight into the current and prospective development of the company's assets, its financial position and net worth. Based on the business targets set by the Executive Board, a medium-term plan is formulated in which they forecast the development of financial KPIs. This plan contains the budget figures for the following fiscal year and planned figures for the years thereafter. Not only financial KPIs, but also numerous environmental, social and governance issues are integrated into its core functions. This is also achieved by the fact that the degree to which CR targets are met - such as the CO2 intensity of the generation portfolio - has a direct effect on the remuneration. The Board is advised by and submit the plan to the Supervisory Board, which reviews and approves it.

Explanation of the CEO responsibility for climate issues:

Climate Change is crucial for the development of RWE. Considerations such as emission reductions are part of major strategic decisions. In limiting climate change the energy system will play central role. Promoting sustainable development and combating climate change have become integral aspects of energy planning, analysis and policy making. At RWE we recognise this responsibility. An example is the continued work on delivering on our Renewables Growth strategy including net investments of 5 bn EUR until 2022. The CEO together with the Executive Board have also approved our Science-based emission reduction targets.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The structure and level of the Executive Board's remuneration are determined by the Supervisory Board of RWE AG and reviewed on a regular basis to determine whether they are appropriate and in line with the market. In our former and current remuneration system RWE has included incentives for the successful management of climate-related issues. This is linked to specific targets that are set by the Supervisory Board. In short, climate-related issues are integrated in both the yearly bonus system and the Long-Term Incentive Plan.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Board/Executive board	Monetary reward	Emissions reduction target Supply chain engagement	The structure and level of the Executive Board's remuneration are determined by the Supervisory Board of RWE AG and reviewed on a regular basis to determine whether they are appropriate and in line with the market. Executive Board members receive a bonus which is based on the economic performance of the company and the degree to which they achieve their individual goals and the collective goals of the Executive Board. The individual performance factor depends on the achievement of: (1) individual goals, (2) general collective goals, and (3) collective goals in relation to corporate responsibility and employee motivation. In 2020, goals associated with employee motivation, which is measured via regular in-company surveys, were slightly exceeded. The degrees of target achievement with respect to CR goals, which mainly relate to the carbon footprint of the generation portfolio, occupational safety as well as conformity with compliance, environmental and social standards, were between 95 % and 120 %. In addition with the new remuneration system the Long-Term Incentive Plan rewards the achievement of long-term goals. This includes from the ESG sphere a carbon intensity metric. This key figure measures the carbon dioxide emissions per megawatt hour of power generated under normal utilisation of our plants. The Supervisory Board also establishes an average target for the three-year period for this key figure. After the three-year term, the actual figure is compared to the target.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	Our risk analysis normally covers the three-year horizon of our medium-term plan, but can extend beyond that in individual cases. Risks and opportunities are defined as negative or positive deviations from expected figures. Their management is an integral and continuous part of operating processes. We assess risks every six months, using a bottom-up analysis. We also monitor risk exposure between the regular survey dates. The Executive Board of RWE AG is immediately notified of any material changes. Our executive and supervisory bodies are updated on the Group's risks once a quarter.
Medium-term	3	10	Risks and opportunities are defined as negative or positive deviations from expected figures. Their management is an integral and continuous part of operating processes. We assess risks every six months, using a bottom-up analysis. We also monitor risk exposure between the regular survey dates. The Executive Board of RWE AG is immediately notified of any material changes. Our executive and supervisory bodies are updated on the Group's risks once a quarter.
Long-term	10	30	Electricity production is a long-term business with most of our assets having a lifetime of 20 years and longer. Therefore impacts on that long-term horizon are important for us to take into account. All investment decisions encompass a comprehensive risk assessment that takes into account risks arising business risks and possible risks from climate change if important. The assessment includes projections on the development of the energy market and possible technology innovations amongst others. Long-term impacts are mainly covered in the analysis and assessment by our Strategy Department. In some cases the horizon can exceed 30 years.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The Responsibility for Group risk management lies within the RWE AG, whereof the Executive Board monitors and manages the overall risk of the Group and at the level below, the Controlling & Risk Management Department has the task to identify, assess and manages risks at the earliest possible stage. The Controlling & Risk Management Department provides the Executive Board and the Supervisory Board of RWE AG with regular reports on the company's risk exposure. The Group's risk management system that is in line with the requirements of the German Corporate Control and Transparency Act (KonTraG) derives detailed limits for the individual business fields and operating units from the risk caps. Its task also include checking the identified risks for completeness and plausibility and aggregating them. From here on we equate risks with risks identified as substantive financial for the business and that substantive risks have a reporting threshold for the medium-term plan from 150 € million and above a 1% probability of occurrence. Normally risks are assessed every six months, using a bottom-up analysis, nevertheless the risk exposure is also monitored between the regular survey dates. The risk analysis covers the three-year horizon of RWE's medium-term plan, but can extend beyond that in individual cases. Each individual risk rating is based on the level of impact and the probability of impact that is depicted in the RWE AG risk matrix within the RWE Annual Report 2019. The level of impact is defined as the level of potential damage the risk can create (in € million) and is divided into five categories. Each category depends a.) on the potential impact on net income (= earning risks) and b.) on the potential impact on net debt and equity (= indebtedness/equity risk). To clearly assign them, thresholds for net income (<300 € million until >= 8,000 € million) and net debt and equity (<1,000 € million until >= 8,000 € million) that implicit the Group's ability to bear risks have been established. Hedging measures are considered. The probability of impact is defined as the probability of the occurrence (P) that is also divided into five risk event probabilities starting at the most unlikely to occur (1% <= P <= 10%) and ending at the very likely to occur (P >50%) probability. Depending on that evaluation, risks are rated and depicted in the risk matrix in three levels: low, medium and high. One example: a high level risk is characterised by following approach: The higher the potential damage (e.g. > 8,000 € million) and the more likely the probability of impact (e.g. P > 50%), the higher the strategic impact on RWE's business and the higher the need for action and initiate measures to mitigate the risks. Regardless of the individual risk level rating and survey date, risks are classified into seven groups depending on their causes: Market risks, regulatory and political risks, legal risks, operational risks, financial risks, creditworthiness of business partners, and other risks. The risk level rating per each risk can/might change during the three-year horizon but their causes likely not. Several risk categories contain risks linked to or influenced by climate related issues since the power sector is crucial to global efforts to combat climate change. For instance the development of wholesale electricity prices in Germany that we assess as a medium (market) risk. The development of electricity market prices are not only related to the profitability of generation assets but also highly dependent on the prices of fuel and CO2 emissions allowances. Other climate-related but also all non-climate related substantive business risks and opportunities with taken counter measures are listed in the RWE Annual Report. With the provided risk report the Executive Board of RWE AG and the main operating units meet regularly to analyse the interim and annual financial statements and update the forecasts. In the event that the updated forecast figures deviate significantly from the budget figures, the underlying reasons are analysed and countermeasures are taken if necessary.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Description of process for risks: Electricity production is a long-term business with most of our assets having a lifetime of 20 years and longer. In some cases the horizon can exceed 30 years. Therefore impacts on that long-term horizon are important for us to take into account. This includes the development of the energy market and possible technology innovations amongst others. We have established processes on the level of our holding company RWE and within our operating companies to identify, assess and respond to risks and opportunities. These include climate-related risks and opportunities. The Group's risk management system is not limited to climate-related risks, but also included due to the fact that several risk categories contain risks linked to or influenced by climate related issues since the power sector is crucial to global efforts to combat climate change. Briefly summarised, climate-related risks are identified, assessed and responded in the same way as our substantive financial risks: The Group's risk management system derives detailed limits for the individual business fields and operating units from the risk caps set. Its tasks also include checking the identified risks for completeness and plausibility and aggregating them. In doing so, it receives support from the Risk Management Committee. A number of additional organisational units and committees have been entrusted with risk management tasks. For example: Financial risks and credit risks are managed by the Finance & Credit Risk Department, which reports directly to the CFO of RWE AG. Normally risks are assessed every six months, using a bottom-up analysis, nevertheless the risk exposure is also monitored between the regular survey dates. The risk analysis normally covers the three-year horizon of RWE's medium-term plan, but can extend beyond that in individual cases. From here on we equate risks with risks identified as substantive financial for the business and that substantive risks have a reporting threshold for the medium-term plan from 150 € million and above a 1% probability of occurrence. Each risk rating is based on the level of impact and the probability of impact that is the depicted in the RWE AG risk matrix whereas the level of impact is defined as the level of potential damage the risk can create (in € million) and is divided into five categories. Each category depends on the potential impact on net income (= earning risks) and on the potential impact on net debt and equity (= indebtedness/equity risk). Depending on the evaluation, risks are rated and depicted in three levels: low, medium and high. Description of process for opportunities: Climate change is fundamental to RWE's strategy. As close to 75% of global emissions are energy-related utilities have a special role in transitioning out of a carbon-intense world and transitioning in a world of sustainable and climate-friendly energy - important conditions to reach international climate targets and limit the worst consequences of climate change. In the past years we have transformed RWE to these changing environment: RWE is now an all-rounder in electricity generation at the forefront of creating a sustainable energy system. In addition, we will ensure security of supply with our flexible power plants. RWE aims to become carbon neutral by 2040. To this end, we will invest billions in wind energy, photovoltaics and storage technologies, enter the green hydrogen production business, and phase out electricity generation from coal. In doing so, we are playing our part in achieving the Paris climate goals, as officially confirmed by the independent Science Based Targets Initiative at the end of 2020. The Executive Board of RWE AG and the Boards of our operating companies are responsible for executing this strategy. They are advised by our internal strategic units that assess and identify climate-related opportunities. Case study on transitional risks and/or opportunities: Situation - Today energy consumption is the cause of approx. of 75% of global greenhouse gas emissions. Decarbonizing the economy and reaching the climate goals of the Paris Agreement need efforts for lowering emissions in the power sector. Task - RWE is committed to the process of exiting from coal, initiated by Germany's Commission on Growth, Structural Change and Employment in 2019 and codified by both houses of the German parliament this summer in the Coal-fired Power Generation Termination Act (Kohleverstromungsbeendigungsgesetz). Action - Further emission-intense assets have ceased operation in 2020 as part of our commitment to reach international climate goals. RWE is committed to the Paris Agreement and intends to be net zero in 2040. From 31 December 2020, RWE has decommissioned the 300-megawatt Unit D at its Niederaussem lignite power station in Germany. Furthermore the last two hard coal-fired power plants of RWE in Germany have been decommissioned by the same date. Both plants have a total net capacity of 1,560 megawatts. Result - The completion of electricity generation in these power plants will result in carbon savings of over 2m tons of CO2 on an annual basis. Case study on physical risks and/or opportunities: Situation - Power production assets have lifespans of 20 years and more. Increasing the frequency and severity of extreme events, according to climate scenarios by IPCC and others, could disrupt production now and in the future. In addition operational costs, e.g. for incident management and maintenance could increase due to acute and chronic impacts of climate change. Task - RWE is investing billions in renewable energy growth in the next years. With this we enable customers to procure carbon-free electricity. In 2020 we commissioned four large-scale onshore wind farms with a total installed capacity of 719 MW in the USA. Peyton Creek (151 MW) was the first to go online. The Texan wind farm was commissioned in March. Although construction work was delayed by Tropical Storm Imelda, the wind farm managed to go online on schedule. Half a year later, in September 2020, Cranell (220 MW), also located in Texas, went into commercial operation. Cranell experienced slight delays due to the corona crisis. Despite the pandemic, Boiling Springs (Oklahoma, 148 MW) and Raymond East (Texas, 200 MW) were completed before year-end. Before making final investment decisions we have to ensure for our investors and stakeholders that the project is attractive on a long timespan. Action - As part of our development process we assess each location for risks that might occur, that includes wind levels and other parameters. Result - For our assets we have a business continuity plan, thereby minimizing possible future impacts to business and third parties.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Relevant for the utilities sector and for RWE since our performance and successful strategy execution relies heavily on existing and future regulation. Our activities are subject to legal frameworks and official market designs related to climate change and energy. Regulations has therefore implications for our assets, both on the side of renewables and fossil-fueled power generation. Example of risk due to current regulation: Ambitious emission reduction targets have caused the governments in our core markets to intervene in the energy sector repeatedly. The most recent example of this is Germany's Coal Phaseout Act. It envisages gradually reducing coal-fired electricity generation to zero by 2038. In exchange for closing our lignite assets early, we will receive €2.6 billion in compensation. The damage we will actually suffer is much higher. Nevertheless, we find this statutory regulation to be acceptable, because it gives us more planning certainty for our lignite business. With regard to renewable energy we are conscious of the subsidiary and market designs that are evolving in current and future markets. Decision could impact our earning expectations in our growth segments.
Emerging regulation	Relevant, always included	Relevant for the utilities sector and for RWE since our performance and successful strategy execution relies heavily on existing and future regulation. Our activities are subject to legal frameworks and official market designs related to climate change and energy. Regulations has therefore implications for our assets, both on the side of renewables and fossil-fueled power generation. Example of risk due to emerging regulation: Despite the new legislation on a coal phase-out until 2038, it cannot be ruled out that policymakers continue to increase pressure on the lignite sector, for instance by introducing CO2 price floors or establishing extremely restrictive emission limits. In addition, more ambitious climate targets for 2030 could make the next federal government accelerate the coal phaseout.
Technology	Relevant, always included	Our risk management systems covers all potential risks with financial impact (including climate-related risks). RWE defines seven risk classes in which potential risks on our business can be fitted: market risks, regulatory and political risks, legal risks, operational risks, financial risks, creditworthiness of business partners, and other risks. Example of technology risk: RWE operates technologically complex, interconnected production facilities such as conventional power stations and wind farms. Damage and outages can weigh heavily on earnings. When production facilities are built and modernised, delays and cost increases can occur, for example due to accidents, material defects, late deliveries, unfavourable weather conditions or time-consuming approval processes. In such cases, there is a danger that the plants become more expensive and they contribute to earnings later than planned. Furthermore, delays of renewable energy projects can be disadvantageous to the level of subsidies they receive. We counter the described risks through diligent plant and project management as well as high safety standards. We also regularly maintain our facilities and take out insurance policies if economically viable. In the past fiscal year, some construction schedules could not be adhered to, in part due to the coronavirus pandemic. This primarily affected onshore wind projects in the USA, exposing us to the risk of a reduction in tax credits for assets that could not be commissioned by the end of 2020. However, in view of the unusual circumstances, the US government extended the deadlines, enabling wind farms that are completed in 2021to receive the full subsidy.
Legal	Relevant, always included	Our risk management systems covers all potential risks with financial impact (including climate-related risks). RWE defines seven risk classes in which potential risks on our business can be fitted: market risks, regulatory and political risks, legal risks, operational risks, financial risks, creditworthiness of business partners, and other risks. Example of legal risk: Individual RWE Group companies are involved in litigation and arbitration proceedings due to their operations or M & A transactions. Out-of-court claims have been filed against some of them. Furthermore, Group companies are directly involved in various procedures with public authorities or are at least affected by their outcomes. To the extent necessary, we have accrued provisions for possible losses resulting from pending proceedings before ordinary courts and arbitration courts. Risks may also result from exemptions and warranties that we granted in connection with the sale of assets. Exemptions ensure that the seller covers the risks that are identified within the scope of due diligence, the probability of occurrence of which is, however, uncertain. In contrast, warranties cover risks that are unknown at the time of sale. These hedging instruments are standard procedure in sales of companies and equity holdings. We currently have low exposure to legal risks. This assessment did not change compared to the previous year.
Market	Relevant, always included	Our risk management systems covers all potential risks with financial impact (including climate-related risks). RWE defines seven risk classes in which potential risks on our business can be fitted: market risks, regulatory and political risks, legal risks, operational risks, financial risks, creditworthiness of business partners, and other risks. Example of market risk: In most of the countries in which we are active the energy sector is characterised by the free formation of prices. Declines in quotations on wholesale electricity markets can cause generation assets to become less profitable. This also relates to renewable energy assets that are not subsidised with fixed feed-in payments. Negative price developments can cause us to recognise impairments, which are also recorded as market risks with certain exceptions. Power and gas purchase agreements with conditions that do not depend on the development of wholesale prices expose us to the risk of having to pay more for the product than we can earn when selling it. This may force us to form provisions to cover this risk. We have identified such a risk inherent in the two contracts we concluded to purchase electricity from the Datteln 4 hard coal-fired power plant in 2005 and 2006. Operated by German energy group Uniper, the station was commissioned in the summer of 2020, ten years later than planned. We were unsuccessful in taking legal recourse against the continuation of the agreements. We are currently negotiating certain contractual conditions with Uniper and considering taking further legal steps.
Reputation	Relevant, always included	Our risk management systems covers all potential risks with financial impact (including climate-related risks). RWE defines seven risk classes in which potential risks on our business can be fitted: market risks, regulatory and political risks, legal risks, operational risks, financial risks, creditworthiness of business partners, and other risks. Example of reputational risk: Despite a clear roadmap for phasing out coal in Germany, we continue to operate opencast lignite mines and power plants to ensure security of supply. We have therefore already been the target of protests and countermeasures in the past. These high-profile measures are a potential risk to our reputation.
Acute physical	Relevant, sometimes included	Our risk management systems covers all potential risks with financial impact (including climate-related risks). RWE defines seven risk classes in which potential risks on our business can be fitted: market risks, regulatory and political risks, legal risks, operational risks, financial risks, creditworthiness of business partners, and other risks. Example of acute physical risk: Power production assets have lifespans of 20 years and more. Increasing the frequency and severity of extreme events, according to climate scenarios by IPCC and others, could disrupt production now and in the future. In addition operational costs, e.g. for incident management and maintenance could increase due to acute and chronic impacts of climate change. RWE is investing billions in renewable energy growth in the next years. With this we enable customers to procure carbon-free electricity. In 2020 we commissioned four large-scale onshore wind farms with a total installed capacity of 719 MW in the USA. Peyton Creek (151 MW) was the first to go online. The Texan wind farm was commissioned in March. Although construction work was delayed by Tropical Storm Imelda, the wind farm managed to go online on schedule. Half a year later, in September 2020, Cranell (220 MW), also located in Texas, went into commercial operation. Cranell experienced slight delays due to the corona crisis. Despite the pandemic, Boiling Springs (Oklahoma, 148 MW) and Raymond East (Texas, 200 MW) were completed before year-end. Before making final investment decisions we have to ensure for our investors and stakeholders that the project is attractive on a long timespan. Action - As part of our development process we assess each location for risks that might occur, that includes wind levels and other parameters. For our assets we have a business continuity plan, thereby minimizing possible future impacts to business and third parties.
Chronic physical	Relevant, sometimes included	Our risk management systems covers all potential risks with financial impact (including climate-related risks). RWE defines seven risk classes in which potential risks on our business can be fitted: market risks, regulatory and political risks, legal risks, operational risks, financial risks, creditworthiness of business partners, and other risks. Example of chronic physical risk: Power production assets have lifespans of 20 years and more. Increasing the frequency and severity of extreme events, according to climate scenarios by IPCC and others, could disrupt production now and in the future. In addition operational costs, e.g. for incident management and maintenance could increase due to acute and chronic impacts of climate change. RWE is investing billions in renewable energy growth in the next years. With this we enable customers to procure carbon-free electricity. In 2020 we commissioned four large-scale onshore wind farms with a total installed capacity of 719 MW in the USA. Peyton Creek (151 MW) was the first to go online. The Texan wind farm was commissioned in March. Although construction work was delayed by Tropical Storm Imelda, the wind farm managed to go online on schedule. Half a year later, in September 2020, Cranell (220 MW), also located in Texas, went into commercial operation. Cranell experienced slight delays due to the corona crisis. Despite the pandemic, Boiling Springs (Oklahoma, 148 MW) and Raymond East (Texas, 200 MW) were completed before year-end. Before making final investment decisions we have to ensure for our investors and stakeholders that the project is attractive on a long timespan. Action - As part of our development process we assess each location for risks that might occur, that includes wind levels and other parameters. For our assets we have a business continuity plan, thereby minimizing possible future impacts to business and third parties.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Other, please specify (Increased pressure on lignite sector by CO2 price floors or increased climate targets)
---------------------	---

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Risk 1 - Risks associated with planned coal phaseout in Germany: RWE has operated lignite mines and modern lignite and hard coal power plants in Germany, the Netherlands, the United Kingdom and Turkey. As of 31 December 2020 we have 8.5 GW and 2.3 GW of installed capacity from Lignite and Hard Coal. In Germany we are one of the two large operators of lignite power plants - providing important secure and reliable energy during the ramp up of renewables. We are conscious that these assets emit greenhouse gases to a large extent although we continuously invest in improvements and opportunities for efficiency. In order to keep climate warming limited countries have to transition out of carbon-intensive assets. Ambitious emission reduction targets have caused the governments in our core markets to intervene in the energy sector repeatedly. The most recent example of this is Germany's Coal Phaseout Act. It envisages gradually reducing coal-fired electricity generation to zero by 2038. In exchange for closing our lignite assets early, we will receive €2.6 billion in compensation. The damage we will actually suffer is much higher. Nevertheless, we find this statutory regulation to be acceptable, because it gives us more planning certainty for our lignite business. Despite the new legislation, it cannot be ruled out that policymakers continue to increase pressure on the lignite sector, for instance by introducing CO2 price floors or establishing extremely restrictive emission limits. In addition, more ambitious climate targets for 2030 could make the next federal government accelerate the coal phaseout.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

3000000000

Potential financial impact figure – maximum (currency)

3200000000

Explanation of financial impact figure

In 2020 23% or approx. 3,150 EUR million of our Group revenue came from coal-fired generation and other coal products. The risks of an accelerated phase-out from lignite or hard-coal would impact the revenue from this (non-core) business segment. Moreover accelerated phase-out plans might expose us to higher costs for recultivation and earlier closure of both power plants and mines. The agreement we supported on a coal phase-out in Germany by 2038 already place a huge financial burden on our company. In accordance with the law, we will therefore receive compensation in the amount of €2.6 billion, to be paid out in equal instalments over a 15-year period. However, the damage we will actually incur will clearly exceed this figure.

Cost of response to risk

2000000000

Description of response and explanation of cost calculation

Cost of response to risks refers to provisions that are linked to lignite. Due to the early phaseout of coal and closure of our lignite mines we have increased these provisions by about EUR 2 billion in the short term. On the one hand, this is due to the lignite exit, which has been brought forward significantly compared with previous planning, leading to different payout profiles. On the other hand, the preservation of the Hambach forest and the associated, more complex new open-cast mine planning will have an impact here.

Comment**Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market	Other, please specify (Development of Wholesale Electricity and CO2 Prices)
--------	---

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Risk 2 - Changing Wholesale Electricity Prices and CO2 prices: The energy market and climate change are closely linked. In many places, renewable energies are an important means of decarbonizing the electricity sector and industry. Drivers such as regulation through new climate targets are having a direct impact on our business - both on the conventional side and on the renewable energy business, as well as on the electricity market in which we offer our products. In most of the countries in which we are active the energy sector is characterised by the free formation of prices. Declines in quotations on wholesale electricity markets can cause generation assets to become less profitable. This relates to power plants as well as wind farms and other renewable energy assets that are not subsidised with fixed feed-in payments. Declines in electricity prices can cause us to recognise impairments. Power purchase agreements with firm conditions expose us to the risk of having to pay more for electricity than we can earn when selling it on the market. This may force us to form provisions to cover this risk. We have identified such a risk inherent in the two contracts we concluded

to purchase electricity. Wholesale electricity prices in our most important generation markets, i. e. Germany, the UK and the Netherlands, are far above the lows recorded in 2016. This is primarily due to the development of the prices of fuel and CO2 emission allowances. It cannot be ruled out that electricity prices come under significant pressure again. The continued expansion of renewable energy could be a contributing factor. However, there is also a chance that prices develop in our favour, not least due to the German nuclear and coal phaseouts. The reduction of secured generation capacity could lead to more frequent shortages along with high electricity prices. We assess the price risks to which we are exposed on the procurement and supply markets taking account of current forward prices and expected volatility. For our power plants, we limit these risks by selling most of our electricity forward and securing the prices of the fuel and CO2 emission allowances needed for its generation. We also use financial instruments to hedge our commodity positions. In the consolidated financial statements, such instruments, including those serving the purpose of limiting interest and currency risks, are usually presented through the statement of on-balancesheet hedges.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact of rising CO2 prices is fully hedged until 2030. We use hedging instruments to mitigate these risks. Therefore we see no potential impact until 2030 due to that risk.

Cost of response to risk

1886000000

Description of response and explanation of cost calculation

At €1,886 million, the effects of the valuation of derivatives and inventories on earnings were unusually high, after totalling €81 million in the preceding year. However, such effects are only temporary and are due in part to the fact that, pursuant to IFRS, financial instruments used to hedge price risks are accounted for at fair value at the corresponding balance-sheet date, whereas the hedged underlying transactions are only recognised as a profit or loss when they are realised.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Increased severity and frequency of extreme weather events such as cyclones and floods
----------------	--

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Risk 3 - Influence of changing wind levels: With the acquisition of the former E.ON and innogy Renewables assets RWE is one of the leading players - with the clear ambition to accelerate the building of wind (on/offshore), solar and storage assets to enable the decarbonisation of the energy sector. We are investing massively in expanding renewables and are involved in innovative hydrogen projects. We are consistently reducing our carbon emissions until we become carbon neutral by 2040. By the end of 2020 we have over 10 GW of installed capacity of renewable energy of which 2 GW in Offshore and 7 GW in Onshore Wind. Therefore any physical influences of climate could lead to earning reductions since units might stop operating or could operate with lower as expected hours. As seen the energy market and climate change are closely linked. In many places, renewable energies are an important means of decarbonizing the electricity sector and industry. Drivers such as regulation through new climate targets are having a direct impact on our business - both on the conventional side and on the renewable energy business, as well as on the electricity market in which we offer our products. Climate Change might lead to higher or lower wind speeds depending on location and scenarios. As we are the operator of wind farms both onshore and offshore with a installed capacity of around 8.6 GW, wind levels are an important factors for the production of clean energy from these technologies. The short-term effects are taken into account by our processes to identify possible risks that impact our financial results. Although we see a possible impact in the short-term (for financial year 2020 around 150 € million and the level of sensitivity to 10% of production) due to changing wind levels we have not identified a material long-term risks due to climate change effects. Whenever planning future wind farms wind levels and developments are taken into account as part of the project-specific assessment, mitigating measurements might the use of alternative turbines or other features that will fit best to the project.

Time horizon

Short-term

Likelihood

Unlikely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

100000000

Potential financial impact figure – maximum (currency)

260000000

Explanation of financial impact figure

Potential impact figure refers to possible financial impact on the RWE Group adjusted EBITDA. Due to our analysis we are estimating a sensitivity of wind levels for our two business segments Offshore Wind and Onshore Wind/Solar of approx. 10% on the power production.

Cost of response to risk

0

Description of response and explanation of cost calculation

Wind levels and their potential development in the short-term are taken into account in the course of the specific plannings of each wind park. As we see the long-term risk of changing wind levels as very low based on our current assumptions we do not address this risk by specific measurements. Therefore a concrete number for costs of response cannot be given.

Comment

C2.4**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

C2.4a**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.****Identifier**

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased production capacity

Company-specific description

Opportunity 1 - Renewable Energy (wind onshore, wind offshore, solar) The transaction with E.ON has turned us into a world-leading producer of electricity from renewable sources. We want to expand this business rapidly. By the end of 2020, we already had renewable energy assets with a total capacity of 10.8 GW, with 9.2 GW attributable to wind and 0.2 GW to photovoltaics. These figures reflect the generation capacity allocable to us on a prorated basis, i. e. in accordance with the stakes that we hold. In addition to existing assets, we have a wide portfolio of growth projects in various stages of development. Here again, the focus is on wind, followed by solar PV. On top of being environmentally friendly, renewable energy also enables stable and attractive returns. Electricity production from renewables is clearly already our strongest income generator. In the past fiscal year, it already accounted for about half of our adjusted EBITDA. We want to grow our wind and solar capacity to over 13 GW (pro-rata) by the end of 2022. We plan to make over €1.5 billion in net investments to this end every year. Reinvesting proceeds from sales of investments will actually cause the gross expenditure to be much higher. In August 2020, we expanded our financial headroom by increasing our capital by €2 billion. Whenever we tackle wind or solar projects, we want to cover the entire value chain from development to construction and operation. Geographically, we are focusing on markets in Europe, North America and the Asia-Pacific region. As of the balance-sheet date, our largest construction project was the UK North Sea wind farm Triton Knoll with a total installed capacity of 857 MW, which is scheduled to have taken all its turbines online by 2022. We are also building huge onshore wind farms, e. g. Nysäter in Sweden with a capacity of 475 MW, which is expected to be completed in 2021. Moreover, we want to commission our Limondale solar farm in New South Wales, Australia, this year, too. With an installed capacity of 249 MW, it will be one of the most powerful installations of its kind in the country. Thanks to our sizeable project pipeline, we firmly believe that we will make good progress in the expansion of renewable energy over the long term.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

1100000000

Potential financial impact figure – maximum (currency)

1500000000

Explanation of financial impact figure

The financial impact figure refers to our 2021 outlook for the segments Offshore Wind and Onshore Wind/Solar. Going forward we continue our growth strategy in renewable power generation. From Offshore Wind our adjusted EBITDA is expected to total between €1,050 million and €1,250 million (last year: €1,069 million), from onshore wind we expect an adjusted EBITDA of 50 to 250 million €. The commissioning of the first turbines of the Triton Knoll wind farm in 2021 will have a positive effect. In addition, we anticipate being able to fully consolidate the Rampion UK offshore wind farm during the year.

Cost to realize opportunity

1500000000

Strategy to realize opportunity and explanation of cost calculation

The transaction with E.ON has turned us into a world-leading producer of electricity from renewable sources. We want to expand this business rapidly. By the end of 2020, we already had renewable energy assets with a total capacity of 10.8 GW, with 9.2 GW attributable to wind and 0.2 GW to photovoltaics. These figures reflect the generation capacity allocable to us on a prorated basis, i. e. in accordance with the stakes that we hold. In addition to existing assets, we have a wide portfolio of growth projects in various stages of development. Here again, the focus is on wind, followed by solar PV. On top of being environmentally friendly, renewable energy also enables stable and attractive returns. Electricity production from renewables is clearly already our strongest income generator. In the past fiscal year, it already accounted for about half of our adjusted EBITDA. We want to grow our wind and solar capacity to over 13 GW (pro-rata) by the end of 2022. We plan to make over €1.5 billion in net investments to this end every year. Reinvesting proceeds from sales of investments will actually cause the gross expenditure to be much higher. Whenever we tackle wind or solar projects, we want to cover the entire value chain from development to construction and operation. Geographically, we are focusing on markets in Europe, North America and the Asia-Pacific region. As of the balance-sheet date, our largest construction project was the UK North Sea wind farm Triton Knoll with a total installed capacity of 857 MW, which is scheduled to have taken all its turbines online by 2022. We are also building huge onshore wind farms, e. g. Nysäter in Sweden with a capacity of 475 MW, which is expected to be completed in 2021. Moreover, we want to commission our Limondale solar farm in New South Wales, Australia, this year, too. With an installed capacity of 249 MW, it will be one of the most powerful installations of its kind in the country. Thanks to our sizeable project pipeline, we firmly believe that we will make good progress in the expansion of renewable energy over the long term. But we look as well for attractive opportunities to accelerate the growth: As part of this strategy WE and Nordex SE have successfully completed the process of acquisition of Nordex' European onshore wind and solar development platform by RWE. This comprises a development pipeline of in total 2.7 Gigawatts (GW) in France, Spain, Sweden and Poland.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased production capacity

Company-specific description

Opportunity 2 - High-capacity storage: Electricity generation from wind and solar power greatly depends on the weather, time of day and season. Sometimes, power produced from renewable sources only covers a fraction of demand, and at other times, it exceeds local needs to such an extent that production actually has to be throttled. Consequently, storage technologies are increasingly coming to the fore as renewable energy continues to be expanded. They usually do not yet meet the technical and economic requirements for securing supply in the long term. But we are working on changing the situation. RWE has been involved in the development, construction and operation of battery storage systems for several years now. We operate such a unit in the town of Herdecke in the Ruhr area with a storage capacity of 7 MWh, making it one of the biggest in Germany. We are rolling out our largest battery project to date in Hickory Park, which is located in the south of the US state of Georgia. The site will be home to a 196 MW solar farm coupled to an 80 MWh battery storage system. This combination will enable electricity feeds into the local grid to be optimised, significantly improving the solar array's yield. We want to launch further projects of this type. Concurrently, we are exploring innovative electrochemical storage methods. We have presented two research and development undertakings dedicated to this goal on page 32. Besides electrochemical storage, power-to-gas technologies can also make a substantial contribution to security of supply. They use electricity generated by carbon-neutral methods to produce hydrogen by electrolysis, which can later be used to generate electricity when needed.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

50000000

Potential financial impact figure – maximum (currency)

250000000

Explanation of financial impact figure

Potential impact figure refers to our EBITDA outlook for 2021 (2020: 524 m EUR) for our business segment Onshore Wind/Solar - that includes earnings from our storage units that are allocated in that segment. Since storage systems are in early development the actual figure for this technology alone can be expected much lower however. We do not publish more detailed financial figures for competitive reasons.

Cost to realize opportunity

500000000

Strategy to realize opportunity and explanation of cost calculation

By 2022 we want to invest more than 5 bn EUR in renewable energy, due to asset rotation this amount can be much larger. A portion of these capital expenditures can be expected for our storage assets. As one of the world's leading energy companies, we shoulder special responsibility for the implementation of the emission reduction targets in the energy sector. The European Union aims to be carbon neutral by 2050. Our objective is to achieve the same goal by 2040, and we have already made good progress on this path. We reduced our annual carbon dioxide emissions from electricity production by 62 % from 2012 to 2020. By 2030, we plan to have lowered them by at least 75 %. The phaseout of electricity generation from coal will play a central role. Further elements of our emissions reduction strategy are the rapid expansion of zero-carbon renewable energy, increased utilisation of storage technologies and the use of carbon-neutral fuel to produce electricity. In doing so, we are acting in line with the Paris climate goals, as recently confirmed by the Transition Pathway Initiative and the Science Based Targets initiative. Battery storage systems are essential to the success of the energy transition. They help balance out fluctuations in the power grid, which are increasing as the share of renewable energies grows. The fact that RWE has all the necessary expertise within the company – outstanding battery competency, a deep understanding of the market and many years of experience in operating power stations – formed the basis for developing this innovative solution. The company already operates battery storage systems in the U.S., Germany and Ireland. Other large-scale projects are currently ongoing. At the same time, RWE is working on projects with innovative technologies such as redox-flow storage systems and second-life batteries, i.e. the stationary use of former electric vehicle batteries.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of new technologies

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Opportunity 3 - Hydrogen: We are convinced that green hydrogen will be an important factor for the success of the energy transition, alongside the further expansion of renewable energies. Hydrogen opens up the opportunity to decarbonise those areas that cannot be electrified. This applies above all to industry. Hydrogen will replace fossil fuels in many industrial processes or will also be used in transport where batteries are of no help. The economy can only be decarbonised completely if solutions are also found for applications where direct electrification is not an option. Examples of this are the production of steel and fertilisers as well as aviation and shipping. In the near future, these areas offer the greatest potential for utilising hydrogen produced by zero-carbon methods. RWE intends to spur the expansion of the hydrogen economy, especially in Germany, the Netherlands, and the United Kingdom. In pursuit of this goal, we will work along the entire value chain, from green electricity generation and hydrogen production by electrolysis to hydrogen trading and storage and the conclusion of commercially optimised supply agreements with major industrial customers. In the last two years, we have forged numerous partnerships with businesses and research institutes seeking to co-operate with us to create nationwide hydrogen infrastructure. Examples of this are the German GET H2 and AquaVentus initiatives and the Dutch Eemshydrogen and NorthH2 ventures. In AquaVentus the initiative has set its sights on one renewable energy generation technology: offshore wind. The initiative aims to use electricity from offshore wind farms to operate electrolyzers also installed at sea on an industrial scale. Plans envisage setting up electrolysis units in the North Sea with a total capacity of 10 gigawatts by 2035, enough to produce 1 million metric tons of green hydrogen.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

0

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Currently we are investigating different options along the hydrogen value chain and conduct research with support of other actors. Therefore we do not expect major contributions of our hydrogen business in the very close future. However we believe in the potential given the rapid need for decarbonization. Hydrogen is considered a beacon of hope for climate-neutral power generation and can play an important role in a successful energy transition. For energy-intensive industries such as steel, chemicals or cement, hydrogen will be an important step towards carbon reduction, both as an energy source and as a raw material. As well as reducing CO2 emissions in industrial processes, hydrogen could become a sustainable fuel for the transport sector and, in the medium term, a sustainable fuel for Germany's heat supply. The ever-increasing integration of applications - electricity and heat, transport and industry - is called sector coupling. RWE is working at full speed on green hydrogen projects together with partners from business, industry, research and politics. Green hydrogen is completely CO2-free, enables storage of solar and wind-generated electricity and thus represents a key technology for the goal of carbon neutrality.

Cost to realize opportunity

20000000

Strategy to realize opportunity and explanation of cost calculation

RWE is innovative in many ways. We are motivated both by a desire to remain competitive in an ever-changing environment as well as a passion to be a driving force of this change. With the help of our innovation projects, we are looking to develop solutions that help us advance the utilisation of renewable energy, expand electricity storage, become involved in large-scale hydrogen production, and help build a circular economy in which sensible use is made of carbon dioxide. Our more than 900 patents and patent applications, based on about 250 inventions, are testimony to the importance we ascribe to research and development (R & D). Last year, we worked on 205 R & D projects. Around 390 of our staff were solely dedicated to these activities or contributed to them in addition to performing their normal tasks. In such ventures, we often work with other companies or research institutions, meaning we generally only bear a portion of the project costs. This is reflected in the RWE Group's operating R & D spending which in 2020 amounted to €20 million (previous year: €21 million). We do not provide a detailed breakdown of our investments in innovation and new technology. The more electricity generation switches to the wind and sun as energy sources, the more important energy storage becomes in order to ensure the availability

of electricity when needed, independent of the weather. Two alternatives exist to provide power storage to the necessary scale: high-capacity batteries and hydrogen produced from green energy, which can be converted back to electricity on demand. The added advantage of hydrogen from zero-carbon techniques lies in its versatility: it can be used not only to store electricity but also to decarbonise industrial processes and modes of transport which cannot be electrified. We are involved in current initiatives for the expansion of hydrogen infrastructure focusing on these hydrogen applications. RWE is working on a large number of hydrogen projects in Germany, the Netherlands and the United Kingdom.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization’s low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	On our annual AGM the Executive Board outlines the strategy of the Group and reports on the progress made against the outlined targets. As climate and emission reductions are a crucial part of this overall strategy there are automatically included in all our AGMs. By law it is not required for the company to put climate or low-carbon transition plans to a vote on the AGM. The shareholders are able to pose motions at the AGM. So far, there has not been a motion on the issues of climate. Moreover the support given at the last and most recent AGM for the strategy of the Group is seen as approval for the emissions reductions scheduled for the years to come.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
IEA B2DS MESSAGE-GLOBIOM Other, please specify (Company-specific approach)	We reflect our business planning and strategy against the various scenarios that are discussed in the public domain. Identification of relevant scenarios in the public domain is based on an assessment whether the publicly available scenarios map RWE’s relevant issues and whether the scenario modelling is of high quality and reliability. Time horizons of more than 20 years are suitable to reflect boundary conditions for the electricity sector. Assessments are made by a dedicated team within RWE, whose expertise and experience is a crucial condition for selection of relevant studies. These scenarios can offer insights for each year up to 2040 and beyond. Typically, several areas of the organisation are involved in assessing and developing key input drivers of a scenario, meaning experts from all business units of power generation including energy trading. Informed by these assessments we extracted main drivers and trends to develop three scenario alternatives to work with: - In Baseline we extrapolate the current political ambition levels into new regulation and the respective reaction in markets and consumption. - In Efficient & Decentral we assume more efficiency gains as expected today and a decentralised economy. - In Electrification we assume an even more intense use of electricity in all sectors of the economy. These three scenarios are updated on a regular basis with the involvement of all relevant internal stakeholders. The results of the scenario analysis are group internally accessible via an own intranet application and intended for internal use only. The whole scenario preparation process is audited by an external auditor. Based on our internal scenario analysis, business decisions are taken. Examples of potential business decisions would be new-build of conventional or renewable power plants, decisions regarding the strategic direction of the group, M&A acquisitions or PPA contracts for electricity or other commodities. These scenario analyses have been used in 2019 to develop our new climate targets in 2040. In collaboration with a interdisciplinary team RWE we looked at future power generation and attributed emissions. In 2020 the analyses have informed the process to develop and set our Science-based targets. As part of this assessment we included data and pathways from IEA and IPCC scenarios, including the B2DS and others.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	The power sector is crucial to global efforts to reduce greenhouse gas emissions and combat climate change. We are now an all-rounder in electricity generation at the forefront of creating a sustainable energy system. In addition, we will ensure security of supply with our flexible power plants. RWE aims to become carbon neutral by 2040. To this end, we will invest billions in wind energy, photovoltaics and storage technologies, enter the green hydrogen production business, and phase out electricity generation from coal. As we see more and more industries on the road to decarbonization electricity is a main pillar of their strategy. We see this as an opportunity for our growth business in renewable energy. As one of the world's leading energy companies, we shoulder special responsibility for the implementation of the emission reduction targets in the energy sector. By the end of 2020, we already had renewable energy assets with a total capacity of 10.8 GW, with 9.2 GW attributable to wind and 0.2 GW to photovoltaics. We want to grow our wind and solar capacity to over 13 GW (pro-rata) by the end of 2022. We plan to make over €1.5 billion in net investments to this end every year. Reinvesting proceeds from sales of investments will actually cause the gross expenditure to be much higher. We offer this electricity to large customers as a green product called Green Power Purchase Agreement. In 2020 we have announced several successful contracts. RWE Supply & Trading and Ineos have entered into a long-term Power Purchase Agreement (PPA). Under the terms of the ten-year agreement set to begin in 2021, Ineos will purchase 198 gigawatt-hours of green electricity per year from RWE, which will be generated by the Northwester 2 wind farm in the Belgian North Sea. The wind farm is located off the coast of Zeebrugge and is operated by the Belgian company Parkwind. The PPA represents around 25% of the electricity generated by Northwester 2. Thanks to the PPA, Ineos will reduce its carbon footprint in Belgium by 745,000 tonnes of CO2 during the term of the agreement. RWE Renewables signed a Power Purchase Agreement (PPA) with E.ON UK under which the company will offtake 100% of the electricity produced by the Humber Gateway Offshore Wind Farm from 2022 until 2035.
Supply chain and/or value chain	No	Due to mitigation efforts we see power generation from wind and solar growing in the future. These intermittent and volatile energy generation requires grid balancing and storage provisions. This is important for our downstream value chain including industrial customers that depend on reliable energy. Therefore one of our focus areas are storage and battery systems that have a broad applications from frequency stabilisation to load shifting. We already operate some storage systems in the USA and as part of a pilot project in Germany. In Ireland a 60-megawatt (MW) facility will be located in the Irish county of Monaghan within the vicinity of Lisdrumdoagh. As the growth of renewable generation continues to replace conventional power generation in Ireland, there is an increasing challenge for the grid operators to safely manage imbalances in the system, which can include the curtailment of wind generators. Large storage systems, like the battery facility planned in Lisdrumdoagh, will respond in less than 150 milliseconds to frequency changes, importing or exporting electricity from the grid as needed. As a result, battery storage schemes help not only to even out the fluctuating feed-in from renewable energies, but also to efficiently stabilise the grid and guarantee a reliable electricity supply. After commissioning, the battery storage system in Lisdrumdoagh will have the ability to deliver 60 MW of power, enough capacity to power around 125,000 homes. The planned investment volume for the Lisdrumdoagh storage facility amounts to about €25 million in total.
Investment in R&D	Yes	The power sector is crucial to global efforts to reduce greenhouse gas emissions and combat climate change. Innovation and technology developments play a vital role to achieve a sustainable energy system. In several research and development projects, we are dedicating ourselves to Power-to-Gas technologies, which convert green electricity to hydrogen and then use this gas as a carbon-neutral commodity. In addition to Power-to-Gas and thermal or mechanical storage concepts, batteries can also help to mitigate fluctuations in renewable energy. RWE is already involved in the development and construction of battery storage facilities, which is a business we are expanding. Our more than 900 patents and patent applications, based on about 250 inventions, are testimony to the importance we ascribe to research and development (R & D). Last year, we worked on 205 R & D projects. Around 390 of our staff were solely dedicated to these activities or contributed to them in addition to performing their normal tasks. In such ventures, we often work with other companies or research institutions, meaning we generally only bear a portion of the project costs. This is reflected in the RWE Group's operating R & D spending which in 2020 amounted to €20 million (previous year: €21 million). In 2020 we have announced some major new projects in which we are collaborating on a range of topics: The FUREC project plans to transform residual waste into raw material pellets, which are then converted into hydrogen at industrial park Chemelot. This process will reduce the use of natural gas at Chemelot by more than 200 million m3 per year. This is comparable to the annual gas demand of approximately 140,000 households and results in a CO2 reduction of 380,000 tonnes per year. The CO2 released during the production of hydrogen can be either captured and stored or used as a raw material in the future.
Operations	Yes	The power sector is crucial to global efforts to reduce greenhouse gas emissions and combat climate change. For years RWE has reduced emission with making our current power plants more efficient. Besides that changing market environment and political regulation have influenced our decision regarding the use of our coal-fired power plant. With our early exit from hard coal-fired electricity generation in Germany, we have taken a major step towards improving our carbon footprint. The stage for this was set in the second half of 2020 when we won remuneration contracts for Unit B (794 MW) in Ibbenbüren and Unit E (764 MW) at the Westfalen site in Hamm in the first nationwide shutdown auction for hard coal power plants. Therefore, since 1 January 2021 we may no longer market electricity from our last two German hard coal power stations. We secured compensation of €216 million in the auction. We will shut down the units as soon as the relevant transmission system operators confirm that they are not needed to maintain grid stability. Including Niederaussem Block D (297 MW), which was decommissioned at the end of 2020, we are thus taking a total of 1.9 GW offline right at the beginning of the German coal phaseout. A collective agreement ensures that the shutdowns will be conducted in a socially acceptable manner. The hard coal auction called for bids to win state subsidies to decommission 4 GW of power plant capacity. The deadline for submitting bids was 1 September 2020. Those requesting the lowest compensatory payment per metric ton of carbon dioxide avoided won contracts. The auction was significantly oversubscribed, and eleven assets with a combined capacity of as much as 4.8 GW submitted winning bids. The invitation to tender was the first of a series of hard coal auctions through which the German Network Agency is implementing the legally mandated coal phaseout. As we were successful with both our German hard coal-fired power stations in the first round, there is no need for us to participate in further auctions. We have also stopped generating electricity from hard coal in the United Kingdom. The last station in which we used this fuel, Aberthaw B in Wales, was officially decommissioned at the end of March 2020.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Capital expenditures Capital allocation Acquisitions and divestments Access to capital	Climate change required steep decarbonization of the power sector over the next decade. RWE is committed to the Paris Agreement's Climate targets and has reduced its direct power plant emissions by over 60% from 2012. RWE aims to become carbon neutral by 2040. To this end, we will invest billions in wind energy, photovoltaics and storage technologies, enter the green hydrogen production business, and phase out electricity generation from coal. Revenues: With the growth in our renewables business revenues from these segments will increase. We see clear indications that seizing this opportunity has impacts on our revenue figures. In 2020 our revenue from customers outside of the Group totalled €13,688 million (excluding natural gas tax and electricity tax), 4 % more than in the prior year. Our electricity revenue recorded an increase of 14 % to €11,701 million, clearly exceeding sales growth. Two effects came to bear here: we realised higher market prices for the electricity generation of our conventional power stations than in 2019 and we benefited from the shift in our production to electricity from renewables, for which we usually receive payments exceeding the market level. Capital expenditures and capital allocation: With our strategy we intend to grow our capacity from renewable sources. Therefore we plan to invest a net EUR 5 billion in the continued expansion, with this sum having the potential to rise significantly through the contributions from partners. With this money we want to build solar and wind assets and contribute in the mitigation of climate change by providing low-carbon electricity. Acquisitions and divestments: In November 2020, RWE purchased the European project development business of wind turbine manufacturer Nordex for €396 million. We received a project pipeline of new onshore wind and solar farms with a total installed capacity of 2.7 GW. A total of 1.9 GW is located in France, with further ventures in Spain, Sweden and Poland. At the end of 2020, a final investment decision was reached for four projects in the pipeline, which will result in 76 MW of generation capacity. Thanks to the Nordex transaction, we have added over 70 employees to our headcount, mostly in France, who will develop further projects for RWE in the future. Access to capital: We are recognising the recent developments on building a sustainable financial system in the European Union with the taxonomy as key element. We have been part of the consultations and discussions. We are also facing increased interest from investors and banks regarding our performance on environmental, social and governance aspects.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1

Base year

2012

Covered emissions in base year (metric tons CO2e)

180000000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2040

Targeted reduction from base year (%)

100

Covered emissions in target year (metric tons CO2e) [auto-calculated]

0

Covered emissions in reporting year (metric tons CO2e)

70366000

% of target achieved [auto-calculated]

60.9077777777778

Target status in reporting year

Revised

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

<Not Applicable>

Please explain (including target coverage)

Climate protection and climate-protection measures constitute key elements of our corporate strategy. This is reflected in the new target that have been announced in 2019 with our strategy update: We intend to meet the ambition to be carbon neutral in our power generation until 2040 with a major reduction of 75% until 2030 against a 2012 base year. As an additional step in 2020 we have integrated our Scope 1, 2 and 3 emissions in our ambition to be net zero in 2040 - therefore our targets cover all direct and indirect emissions that are accounted for by RWE as per operational control approach. As an intermediate target we aim to decarbonize our power generation by 75% until 2030 from a 2012 base year.

Target reference number

Abs 2

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Base year

2019

Covered emissions in base year (metric tons CO2e)

22315000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2030

Targeted reduction from base year (%)

30

Covered emissions in target year (metric tons CO2e) [auto-calculated]

15620500

Covered emissions in reporting year (metric tons CO2e)

18879000

% of target achieved [auto-calculated]

51.3257151392934

Target status in reporting year

New

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

As part of our 2030 science-based emission reduction target we have introduced a new Scope 3 target that is absolute. We want to reduce these emissions - mainly from our hard coal supply chain and our downstream refinement and trading business - by 30% until 2030. Our baseline are our updated 2019 GHG emission figures that we reevaluated as part of the transaction with E.ON and the deconsolidation of retail and grid business.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Metric tons CO2e per megawatt hour (MWh)

Base year

2019

Intensity figure in base year (metric tons CO2e per unit of activity)

590

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

50

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

295

% change anticipated in absolute Scope 1+2 emissions

57

% change anticipated in absolute Scope 3 emissions

30

Intensity figure in reporting year (metric tons CO2e per unit of activity)

497

% of target achieved [auto-calculated]

31.5254237288136

Target status in reporting year

New

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

As part of our 2030 science-based emission reduction target we have introduced a 2030 Scope 1 and 2 intensity target and a new Scope 3 target that is absolute. The Scope 1 and 2 target is covering all

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Net-zero target(s)

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Int1

Target year for achieving net zero

2040

Is this a science-based target?

No, but we are reporting another target that is science-based

Please explain (including target coverage)

As a leading global renewables player, we want to strengthen this position, investing five billion euros net in renewables by 2022. Our target: being climate neutral by 2040. Our Net Zero Target for 2040 covers all business operations (operational control approach) and all direct and indirect emission scopes.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	100000
To be implemented*	0	0
Implementation commenced*	3	45100000
Implemented*	4	10800000
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Company policy or behavioral change	Site consolidation/closure
-------------------------------------	----------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

2000000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

From 31 December 2020, RWE has decommissioned the 300-megawatt Unit D at its Niederaussem lignite power station in Germany.

Initiative category & Initiative type

Company policy or behavioral change	Site consolidation/closure
-------------------------------------	----------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

3300000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

In the United Kingdom and in Germany we have closed our hard coal-fired powerplants. The last two hard coal-fired power plants of RWE in Germany have been decommissioned by 31 December 2020. Both plants have a total net capacity of 1,560 megawatts.

Initiative category & Initiative type

Company policy or behavioral change	Change in procurement practices
-------------------------------------	---------------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

1500000

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

150000

Payback period

No payback

Estimated lifetime of the initiative

>30 years

Comment

For our administrative buildings in Germany we have implemented the procurement of green electricity.

Initiative category & Initiative type

Low-carbon energy generation	Solid biofuels
------------------------------	----------------

Estimated annual CO2e savings (metric tonnes CO2e)

4000000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)**Payback period**

No payback

Estimated lifetime of the initiative

6-10 years

Comment

More and more biomass is being used in our Dutch power plants - and the trend continues to rise. In the country's national energy agreement, corresponding agreements have already been made. The Amer power plant in Geertruidenberg has already been converted into a biomass power plant. Over 50% of the hard coal is being replaced by biomass on a daily basis. By the end of 2020 this percentage will be increased to 80% or more. One of two units of the hard coal-fired power plant in Eemshaven is also technically capable of using woody biomass. Up to 15% of its current electricity production is already sustainable by using biomass. With its efficiency level of 46 %, and modern cleaning techniques the power plant is one of the cleanest of its kind.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Agreements with national governments on shut down and stand-by of power stations
Internal price on carbon	We perform CO2 price estimates in scenarios, reflecting price projections for EU emissions allowances.
Employee engagement	With our new purpose "Our energy for a sustainable life" and activities in our countries we want to encourage our employees to be more sustainable - including savings of emissions.
Dedicated budget for low-carbon product R&D	We have a department for Research and Development that is driving low-carbon innovation and efficiency projects.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

We offer electricity supply from renewable energy (e.g. through Green Power Purchase Agreements) and renewable energy certificates. A Power Purchase Agreement (PPA) is a long-term contract under which a business agrees to purchase electricity directly from a renewable energy generator. Power Purchase Agreements provide financial certainty to both customer and the project developer, which removes a significant roadblock to building new renewable facilities. PPAs therefore help to deliver more renewable energy, saving CO2. Examples of our green power commercialisation include: - 15 year PPA for Nysäter project covering 18 TWh - one of the largest onshore wind PPAs globally - 15 year tailored PPA with company Honda for 120 MW offtake from a 150 MW wind farm in Oklahoma, US - 5 year offtake agreement with German Railway (Deutsche Bahn) for portion of Nordsee Ost offshore wind farm

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Internal Assessment)

% revenue from low carbon product(s) in the reporting year

16

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

The revenue refers to the share of our company RWE Renewables that is responsible for the growth of our renewable energy business. It does not include trading business with renewable energy conducted by RWE Supply & Trading.

Level of aggregation

Product

Description of product/Group of products

RWE Technology International (RWE TI) is a leading engineering consulting company for internal and external clients, providing independent expertise and technical advice to global energy markets. RWE TI enables organizations in mining, thermal generation, renewables and grids to advance efficiency, safety and sustainability of their business. The subsidiary supports customers across the full value chain - helping them to plan, develop, construct, operate and shut-down their energy assets. By doing so in many cases efficiency measurements or other improvement lead to avoided emissions at the customers. As an examples RWE TI supported the retrofitting measurements in our Dutch power plants. Assigned by RWE Generation (Power Unit), RWE TI's role as lead engineer included the project development, tendering and execution to retrofit several hard coal-fired plants to co-fire biomass. The main challenges of co-firing are related to the properties of different fuel types combusted, particularly the calorific value, moisture content, ash production and combustion characteristics. As such, various technologies perform differently depending on the biomass type and the quantities co-fired.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (Internal Assessment)

% revenue from low carbon product(s) in the reporting year

5

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

We do not report on the share of revenue for certain operating companies. The above figure is an estimate.

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.

In the past we did not consider our methane emissions as relevant due to its insignificance in comparison to other GHG emissions. In 2019 we started a project with the target to reassess our Corporate Carbon Footprint. In that process we have also evaluated methane emissions. Although there have been adaptations to the accounting process for methane we still come to the conclusion that this GHG is of minor importance within our carbon footprint. In the new RWE, methane sources are within the owned mines and occur in our fossil-fuel power plants. With the agreed exit from coal as source of electricity in Germany and other European markets we assume lowering levels of methane from these sources. Within our gas plants and gas storage facilities we recognise that there might be leakages from the piping system. Emissions mainly occur during major investments actions because of planned depressurization or surface equipment. However these actions and investments in the infrastructure help us to reduce methane emissions over the medium term. As a concrete example RWE Gas Storage CZ has been replacing gas-driven pneumatic armatures with new electrically-driven ones since 2018, a work that continued in 2020. By design, the former gas-driven pneumatic armatures release some volume of natural gas into the atmosphere when they open and close. In the last two years we replaced 18 pieces of armatures, leading to a reduction of methane emissions that cannot be specified.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1 2012

Base year end

December 31 2012

Base year emissions (metric tons CO2e)

179800000

Comment

EU Emission Trading System (ETS) quantities plus emissions from power plants which are not subject to EU ETS. Includes power stations not owned by RWE that we can deploy at our discretion on the basis of long-term agreements. In the year under review, they produced 21.1 million metric tons of CO2 and were allocated certificates for 18.9 million metric tons. We have changed the base year compared to last year as 2012 is our basis for our 2040 long-term target to become carbon neutral.

Scope 2 (location-based)

Base year start

January 1 2012

Base year end

December 31 2012

Base year emissions (metric tons CO2e)

1900000

Comment

Indirect CO2 emissions from the transmission and distribution of electricity purchased from third parties outside the Group in our own grids.

Scope 2 (market-based)

Base year start**Base year end****Base year emissions (metric tons CO2e)****Comment**

We only report location-based data.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year**Gross global Scope 1 emissions (metric tons CO2e)**

70366000

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

Based on new emission inventory methodology that was introduced in 2020. Sold grid and retail business have been excluded, approach has been aligned with the businesses and structure of the new RWE including Renewables.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

We plan to report Scope 2, market-based figures in the future. Due to the update of our emission inventory our systems are not equipped yet to deliver detailed market-based data.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

2566000

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

Based on new emission inventory methodology that was introduced in 2020. Sold grid and retail business have been excluded, approach has been aligned with the businesses and structure of the new RWE including Renewables.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

693728

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Emissions from the production or execution of purchased goods and services: Emissions have been calculated on the basis of procurement spent data for 2019 using the EEIO Model of Carnegie Mellon University (2002).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

590245

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Emissions from the production of capital goods that the company procures: Similar to approach in Category 1 spent data have been used to calculate emissions based on the EEIO Model. An internal assessment has been made to distinguish capital goods from further goods and services.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5481594

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Emissions from extraction, production, and (in part) transportation of fuels and energy purchased or acquired: Fuel data from internal systems and cradle to gate emission factors have been used. These factors include all relevant parts of the fuel supply chain, including pipeline grid losses.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

269190

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Transportation and distribution of products purchased between a supplier and our own operations

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

52153

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Disposal and treatment of waste generated in RWE operations: Waste volume separated in different categories as collected in our internal ESG data system. Each category is sub-divided into recycled material and different disposal routes. Emission factors from literature are then applied for the volumes of each channel.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1828

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Travel activities of our workforce including train, air, rental car, hotel stays: We used internal data on the activities and used various emissions factors. Certain assumptions had to be made, e.g. on booking class for intercontinental flights. Due to lacking data from our Renewables business these emissions have not been included yet. We aim to include them as soon as the different systems are integrated

Percentage of emissions calculated using data obtained from suppliers or value chain partners

50

Please explain

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

16118

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Employee commuting: To assess emissions we used global employee figures by country and average emission factors per country taking into account general distances and modes of transports per country.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We do not have upstream leased assets in our Group. Therefore this category is not relevant for RWE.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5466

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Shipped distances for delivery of refinement products in ship, train and lorry: Data have been taken from internal systems. For emission calculation we used Life cycle assessment emission factors of the GaBi database.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

59539

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions from the following activities: Mineral products and Gypsum production

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

11708952

Emissions calculation methodology

According to the methodology this category encompasses GHG emissions at customers site using our products from the following activities: • Lignite Refinement Products • Gas Trading to end-customers: Volumes by end-customers' business unit of RWE Supply & Trading have been used based on an internal assessment • Hard coal trading to end-customers

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Our main products is electricity. Further refinement or trading products (e.g. gas) products are mostly burned from customers. Therefore there is no end of life treatment.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

According to the Greenhouse Gas Protocol Corporate Standard in this category emissions from operation of assets owned by the reporting company (lessor) and leased to other en-tities in the reporting year have to be accounted. This category has been identified as not material to the scope 3 inventory for our business and an emissions figure is not calculated. This assessment will be periodically reviewed.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We do not operate franchises. Therefore this category is not relevant for RWE.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In this category emissions from investments (including equity and debt investments and project finance) in the reporting year have to be accounted. During our inventory design we have investigated reported emission from our equity investments. However due to the lack of reliable external data we have decided to exclude any emissions for the time being. This assessment will be periodically reviewed.

Other (upstream)

Evaluation status

Not evaluated

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Other (downstream)

Evaluation status

Not evaluated

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.497

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

72932344

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

146775000

Scope 2 figure used

Location-based

% change from previous year

15

Direction of change

Decreased

Reason for change

Based on our updated 2019 GHG emissions we had an intensity value of 0.590 t CO2e per MWh (based on Scope 1 and 2 emissions). In 2020 this intensity value has been reduced to 0.497 t CO2e/MWh. The decline is mainly due to decreased electricity generation for carbon-intensive power plants, e.g. our lignite and hard-coal power plants. Moreover we have started operation of further renewables assets that contribute to our generation while being operated carbon-free. In the fiscal year that just ended, we commissioned four large-scale onshore wind farms with a total installed capacity of 719 MW in the USA. Peyton Creek (151 MW) was the first to go online. The Texan wind farm was commissioned in March. Although construction work was delayed by Tropical Storm Imelda, the wind farm managed to go online on schedule. Half a year later, in September 2020, Cranell (220 MW), also located in Texas, went into commercial operation. With regard to the decommissioning of carbon-intense power plants, most of these are shut down at the end of the year. Therefore, the effects from our measures taken in 2020 (mainly decommissioning of power plants) will only be visible in the intensity figures for 2021. Hence the the measures taken in and reported for 2019 are responsible for the reduction in our emission intensity.

Intensity figure

0.00533

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

72932344

Metric denominator

unit total revenue

Metric denominator: Unit total

13688000000

Scope 2 figure used

Market-based

% change from previous year

23

Direction of change

Decreased

Reason for change

Based on our updated 2019 GHG emissions we had an intensity value of 0.0069 t CO2e per EUR revenue (based on Scope 1 and 2 emissions). In 2020 this intensity value has been reduced to 0.00533 t CO2e/EUR. The decline is mainly due to decreased electricity generation for carbon-intensive power plants, e.g. our lignite and hard-coal power plants. Moreover we have started operation of further renewables assets that contribute to our generation while being operated carbon-free. In the fiscal year that just ended, we commissioned four large-scale onshore wind farms with a total installed capacity of 719 MW in the USA. Peyton Creek (151 MW) was the first to go online. The Texan wind farm was commissioned in March. Although construction work was delayed by Tropical Storm Imelda, the wind farm managed to go online on schedule. Half a year later, in September 2020, Cranell (220 MW), also located in Texas, went into commercial operation. With regard to the decommissioning of carbon-intense power plants, most of these are shut down at the end of the year. Therefore, the effects from our measures taken in 2020 (mainly decommissioning of power plants) will only be visible in the intensity figures for 2021. Hence the the measures taken in and reported for 2019 are responsible for the reduction in our emission intensity.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Germany	51838000
Netherlands	7087000
United Kingdom of Great Britain and Northern Ireland	9213000
Turkey	1620000

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Hydro/Biomass/Gas	21200000
Coal/Nuclear	47700000

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Electricity generation	69759000
Other Scope 1 GHG from activities related to our business	607000

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	69759000	<Not Applicable>	
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	In 2020, we accelerated our transformation and the growth of renewable energy in our portfolio. We commissioned four large-scale onshore wind farms with a total installed capacity of 719 MW in the USA. Peyton Creek (151 MW) was the first to go online. The Texan wind farm was commissioned in March. Although construction work was delayed by Tropical Storm Imelda, the wind farm managed to go online on schedule. Half a year later, in September 2020, Cranell (220 MW), also located in Texas, went into commercial operation. However as the electricity from these new power plants is sold to customers this has no implications on our emissions baseline, therefore change in emissions is 0.
Other emissions reduction activities	4630000	Decreased	6.3	We ceased operations in some of our carbon-intensive power plants in the course of 2020 or in 2019. Consequently that leads to a drop in emissions due to this planned closure activities. As an example in July 2019, we decided to decommission the Aberthaw B hard coal-fired power plant in Wales early. The station, which has a net installed capacity of 1,560 MW, was taken offline in December 2019. Thus this has an impact on our emission from hard coal. The fact that our Dutch hard coal-fired power stations Amer 9 and Eemshaven are now increasingly run on biomass also had a positive impact. The calculation is based on our accounting system that is audited by external parties. As RWE is operating under the EU Emissions Trading Scheme dedicated processes to account for emissions have been put into place. The value of reduction is calculated by using year-on-year data based on the specific carbon content of the raw materials used, amongst other methods.
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	13367000	Decreased	18.3	Last year, our power stations emitted 68.9 million metric tons of carbon dioxide. This was 19.2 million metric tons, or 22 %, less than in 2019. The main reason for the drop was the substantial reduction in electricity generation from lignite and hard coal last year. Due to very strong performance by Renewable Energies our lignite operations run less full-load hours in 2020, leading to a change in output. The calculation is based on our accounting system that is audited by external parties. As RWE is operating under the EU Emissions Trading Scheme dedicated processes to account for emissions have been put into place. The value of reduction is calculated by using year-on-year data based on the specific carbon content of the raw materials used, amongst other methods.
Change in methodology	3000000	Decreased	2.1	Compared to FY 2019 reporting we adapted a new methodology to account for GHG emissions including Scope 1, 2 and 3. This was necessary due to the major transaction with German utility E.ON and the sell of our former retail and grid business (innogy). For FY 2019 we still accounted for emissions from these activities, e.g. minor power plant emissions in Scope 1 and grid losses in Scope 2. These have been deconsolidated in FY2020 which leads to a decrease from these activities that we do not continue to operate.
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	29700000	94164000	123864000
Consumption of purchased or acquired electricity	<Not Applicable>	8734	5938000	5947000
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	29708734	100102000	129811000

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

7375000

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.45

Unit

metric tons CO2e per MWh

Emissions factor source

We use specific methods to determine the emissions from the raw materials we use to generate electricity. This is necessary because as an energy company we are subject to EU emissions trading and an accurate survey is required. The survey is carried out using tested survey processes and proven systems. In principle, emissions are certified once a year by an external body. All quantities of substances consumed, for which we are obligated to release according to the EUA monitoring plan, are checked in the corresponding logistics/storage systems. For some substances, such as coal in particular, a measurement including chemical analysis is taken on site. In the gas sector, we receive metering point and analysis information via the gas network operator. During the year we have the same procedure only with simplified storage determination via electronic belt scales or level measurements on site. It is therefore not possible to report general emission factors for specific substances, as these can also vary within a fuel type.

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

Please select

Total fuel MWh consumed by the organization

50140000

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.42

Unit

metric tons CO2e per MWh

Emissions factor source

We use specific methods to determine the emissions from the raw materials we use to generate electricity. This is necessary because as an energy company we are subject to EU emissions trading and an accurate survey is required. The survey is carried out using tested survey processes and proven systems. In principle, emissions are certified once a year by an external body. All quantities of substances consumed, for which we are obligated to release according to the EUA monitoring plan, are checked in the corresponding logistics/storage systems. For some substances, such as coal in particular, a measurement including chemical analysis is taken on site. In the gas sector, we receive metering point and analysis information via the gas network operator. During the year we have the same procedure only with simplified storage determination via electronic belt scales or level measurements on site. It is therefore not possible to report general emission factors for specific substances, as these can also vary within a fuel type.

Comment**Fuels (excluding feedstocks)**

Lignite Coal

Heating value

Please select

Total fuel MWh consumed by the organization

36649000

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

1.2

Unit

metric tons CO2e per MWh

Emissions factor source

We use specific methods to determine the emissions from the raw materials we use to generate electricity. This is necessary because as an energy company we are subject to EU emissions trading and an accurate survey is required. The survey is carried out using tested survey processes and proven systems. In principle, emissions are certified once a year by an external body. All quantities of substances consumed, for which we are obligated to release according to the EUA monitoring plan, are checked in the corresponding logistics/storage systems. For some substances, such as coal in particular, a measurement including chemical analysis is taken on site. In the gas sector, we receive metering point and analysis information via the gas network operator. During the year we have the same procedure only with simplified storage determination via electronic belt scales or level measurements on site. It is therefore not possible to report general emission factors for specific substances, as these can also vary within a fuel type.

Comment**C-EU8.2d**

(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)

2257

Gross electricity generation (GWh)

Net electricity generation (GWh)

7375

Absolute scope 1 emissions (metric tons CO2e)

3326000

Scope 1 emissions intensity (metric tons CO2e per GWh)

451

Comment

We do not report gross electricity generation.

Lignite

Nameplate capacity (MW)

8548

Gross electricity generation (GWh)

Net electricity generation (GWh)

36649

Absolute scope 1 emissions (metric tons CO2e)

44823733

Scope 1 emissions intensity (metric tons CO2e per GWh)

1223

Comment

We do not report gross electricity generation.

Oil

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not operate assets of this source.

Gas

Nameplate capacity (MW)

14301

Gross electricity generation (GWh)

Net electricity generation (GWh)

50140

Absolute scope 1 emissions (metric tons CO2e)

21238067

Scope 1 emissions intensity (metric tons CO2e per GWh)

424

Comment

We do not report gross electricity generation.

Biomass**Nameplate capacity (MW)**

792

Gross electricity generation (GWh)**Net electricity generation (GWh)**

4011

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not report gross electricity generation.

Waste (non-biomass)**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not operate assets of this source.

Nuclear**Nameplate capacity (MW)**

2770

Gross electricity generation (GWh)**Net electricity generation (GWh)**

20682

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not report gross electricity generation.

Fossil-fuel plants fitted with CCS**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not operate assets of this source.

Geothermal**Nameplate capacity (MW)**

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not operate assets of this source.

Hydropower**Nameplate capacity (MW)**

602

Gross electricity generation (GWh)**Net electricity generation (GWh)**

1981

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not report gross electricity generation.

Wind**Nameplate capacity (MW)**

8534

Gross electricity generation (GWh)**Net electricity generation (GWh)**

23276

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not report gross electricity generation.

Solar**Nameplate capacity (MW)**

220

Gross electricity generation (GWh)**Net electricity generation (GWh)**

432

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not report gross electricity generation.

Marine

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not operate assets of this source.

Other renewable

Nameplate capacity (MW)

2358

Gross electricity generation (GWh)

Net electricity generation (GWh)

2060

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Other renewable consists of pumped storage, batteries. We do not report gross generation.

Other non-renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not operate assets of this source.

Total

Nameplate capacity (MW)

40702

Gross electricity generation (GWh)

Net electricity generation (GWh)

146775

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

We do not report gross electricity generation.

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?

No

C9. Additional metrics

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-EU9.5a

(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Wind	765000000	85	2022	CAPEX includes investments for Offshore and Onshore wind in our current CAPEX plan and refer to gross growth CAPEX. This includes net growth CAPEX and CAPEX due to asset rotation that is common in renewables investments. In 2020 Capital expenditure on property, plant and equipment has been markedly up on previous year. Capital expenditure on property, plant and equipment and intangible assets is estimated to be much higher than in 2020 (€2,285 million). A substantial amount of funds will be spent on the construction of the offshore wind farms Triton Knoll in the UK North Sea and Kaskasi near Heligoland, Germany. In addition, if we reach a positive investment decision on Sofia, we will start building the wind farm off the coast of east England. Other focal points of investment are onshore wind and solar projects in the USA and Europe. We plan to spend €200 million to €300 million outside of the core business in the Coal / Nuclear segment. These funds will primarily be used to maintain our power plants and opencast mines. We will give our next update on the CAPEX programme at the CMD later this year.
Solar	135000000	15	2022	CAPEX includes investments for Offshore and Onshore wind in our current CAPEX plan and refer to gross growth CAPEX. This includes net growth CAPEX and CAPEX due to asset rotation that is common in renewables investments. In 2020 Capital expenditure on property, plant and equipment has been markedly up on previous year. Capital expenditure on property, plant and equipment and intangible assets is estimated to be much higher than in 2020 (€2,285 million). A substantial amount of funds will be spent on the construction of the offshore wind farms Triton Knoll in the UK North Sea and Kaskasi near Heligoland, Germany. In addition, if we reach a positive investment decision on Sofia, we will start building the wind farm off the coast of east England. Other focal points of investment are onshore wind and solar projects in the USA and Europe. We plan to spend €200 million to €300 million outside of the core business in the Coal / Nuclear segment. These funds will primarily be used to maintain our power plants and opencast mines. We will give our next update on the CAPEX programme at the CMD later this year.

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Large-scale storage	Our objective is to achieve the same goal by 2040, and we have already made good progress on this path. We reduced our annual carbon dioxide emissions from electricity production by 62 % from 2012 to 2020. By 2030, we plan to have lowered them by at least 75 %. The phaseout of electricity generation from coal will play a central role. Further elements of our emissions reduction strategy are the rapid expansion of zero-carbon renewable energy, increased utilisation of storage technologies and the use of carbon-neutral fuel to produce electricity. Electricity generation from wind and solar power greatly depends on the weather, time of day and season. Sometimes, power produced from renewable sources only covers a fraction of demand, and at other times, it exceeds local needs to such an extent that production actually has to be throttled. Consequently, storage technologies are increasingly coming to the fore as renewable energy continues to be expanded. They usually do not yet meet the technical and economic requirements for securing supply in the long term. But we are working on changing the situation. RWE has been involved in the development, construction and operation of battery storage systems for several years now. We operate such a unit in the town of Herdecke in the Ruhr area with a storage capacity of 7 MWh, making it one of the biggest in Germany. We are rolling out our largest battery project to date in Hickory Park, which is located in the south of the US state of Georgia. The site will be home to a 196 MW solar farm coupled to an 80 MWh battery storage system. This combination will enable electricity feeds into the local grid to be optimised, significantly improving the solar array's yield. We want to launch further projects of this type. Concurrently, we are exploring innovative electrochemical storage methods. Besides electrochemical storage, power-to-gas technologies can also make a substantial contribution to security of supply. They use electricity generated by carbon-neutral methods to produce hydrogen by electrolysis, which can later be used to generate electricity when needed.	50000000	5	2022

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	RWE is innovative in many ways. We are motivated both by a desire to remain competitive in an ever-changing environment as well as a passion to be a driving force of this change. With the help of our innovation projects, we are looking to develop solutions that help us advance the utilisation of renewable energy, expand electricity storage, become involved in large-scale hydrogen production, and help build a circular economy in which sensible use is made of carbon dioxide. Our more than 900 patents and patent applications, based on about 250 inventions, are testimony to the importance we ascribe to research and development (R & D). In 2020, we worked on 205 R & D projects. Around 390 of our staff were solely dedicated to these activities or contributed to them in addition to performing their normal tasks. In such ventures, we often work with other companies or research institutions, meaning we generally only bear a portion of the project costs. This is reflected in the RWE Group's operating R & D spending which in 2020 amounted to €20 million. We rank among the world's leading companies in offshore wind power and are looking for ways to expand our reach. The aim of some of our current R & D projects is to identify the most competitive floating foundation technologies. This would enable us to venture into entirely new wind power territories. One of the three demonstration projects we are working on is TetraSpar. It consists of a tubular steel support structure which is kept stable in the water by a keel. As the support structure has a modular design, its individual parts can be prefabricated at different locations, which is cost-effective. We are working on this project with Shell, Stiesdal Offshore Technologies from Denmark, and Japanese power utility TEPCO. We finished assembling the first TetraSpar base in the Danish port of Grenaa in October 2020. It was placed in storage for the winter and is scheduled to be launched in the spring of 2021.

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Renewable energy	Large scale commercial deployment	41-60%		We rank among the world's leading companies in offshore wind power and are looking for ways to expand our reach. The aim of some of our current R & D projects is to identify the most competitive floating foundation technologies. This would enable us to venture into entirely new wind power territories. One project here is DemoSATH, in which we are working with the Spanish company Saitec Offshore Technologies on the development and construction of a floating platform for a 2 MW wind turbine in the sea near Bilbao, in northern Spain. The project is based on Saitec's SATH (swinging around twin hull) technology using a catamaran-like float made of pre-cast, post-tensioned concrete elements. The floating platform can freely rotate around a single point of mooring, depending on wind and wave directions. The DemoSATH prototype including its turbine will be assembled on a quayside in the port of Bilbao, before being towed to its mooring point at a test site in the Atlantic, two kilometres from the Basque coast, where the water is around 85 metres deep.
Energy storage	Large scale commercial deployment	≤20%		Alongside hydrogen technology, electrochemical storage is an indispensable building block of climate-friendly energy supply. We have operated a 7 MWh battery storage facility next to the Herdecke pumped-storage power plant on the Ruhr river since the beginning of 2018. Three freight containers, equipped with a total of 552 battery modules, serve as the beating heart of the unit. Drawing on experience gained, we have initiated further battery storage projects, two of which we will present below. Pantarhei is the first such project: at the new RWE campus in Essen, we have been developing a redox flow battery since May 2020. What is unique to this technology is that it stores electric energy in chemical compounds that are dissolved in a liquid. This explains why it is also referred to as a 'liquid battery'. Our pilot plant has a storage capacity of 390 kWh. When fully charged, it can deliver 120 kW for more than three hours
Steam turbine and/or other component upgrades	Full/commercial-scale demonstration	≤20%		RWE represents energy with a conscience: our conventional power plant portfolio with its modern, flexible power plants safeguards the security of the electricity supply. Using cutting-edge technologies, RWE has also enhanced its new coal-fired power plants to an efficiency level of 46 % – significantly above the current European average of approximately 36 %. Combined cycle power plants are even more efficient, using the fossil fuel natural gas. With downstream cogeneration, they can achieve efficiency levels of up to an incredible 80 %. Over the long term, researchers are pursuing a vision that could become reality within the next decade: a climate-friendly coal-fired power plant with CO2 capture and storage. Technological advances have already enabled us to achieve a lot. However, European countries still need to work together to develop the legal and regulatory framework necessary for offering security for investments and promoting acceptance of technology. With this goal in mind, some innovations are already approaching market-readiness. The importance of innovation and technology in the entire power plant portfolio is highlighted in particular by the interrelationship of conventional and renewable energy sources within the energy mix. One practical example: the transmission system operator Amprion has to intervene between 50 to 100 times a year in the operation of the lignite-fired power plants in the coalfields in order to stabilise the electricity grid. This is where our billion-euro investments in the highly flexible lignite-fired power plants with optimised equipment technology (BoAs) and in new control technology and innovative materials really pay off. RWE is able to decrease the output of the entire fleet in the coalfields from a good 10,000 MW to around 5,000 MW within 30 minutes. This corresponds to the speed of a modern gas-fired power plant.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

21-03-16_RWE Annual Report 2020_eng.pdf

21-04-09_RWE Sustainability Report 2020_eng.pdf

Page/ section reference

For CO2 Emissions of Power Plants: Audited by reasonable assurance with Auditor's statement in Annual Report 2020, pp. 233-240 For GHG Emissions Scope 1, 2 and 3: Audited by limited assurance with Auditor's statement in Sustainability Report 2020, pp. 128-130: Tables with GHG figures are marked with a sign that indicates external assurance.

Relevant standard

ASAE3000

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

21-04-09_RWE Sustainability Report 2020_eng.pdf

Page/ section reference

For CO2 Emissions of Power Plants: Audited by reasonable assurance with Auditor's statement in Annual Report 2020, pp. 233-240 For GHG Emissions Scope 1, 2 and 3: Audited by limited assurance with Auditor's statement in Sustainability Report 2020, pp. 128-130: Tables with GHG figures are marked with a sign that indicates external assurance.

Relevant standard

ASAE3000

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

21-04-09_RWE Sustainability Report 2020_eng.pdf

Page/section reference

For CO2 Emissions of Power Plants: Audited by reasonable assurance with Auditor's statement in Annual Report 2020, pp. 233-240 For GHG Emissions Scope 1, 2 and 3: Audited by limited assurance with Auditor's statement in Sustainability Report 2020, pp. 128-130: Tables with GHG figures are marked with a sign that indicates external assurance.

Relevant standard

ASAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Upstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

21-04-09_RWE Sustainability Report 2020_eng.pdf

Page/section reference

For CO2 Emissions of Power Plants: Audited by reasonable assurance with Auditor's statement in Annual Report 2020, pp. 233-240 For GHG Emissions Scope 1, 2 and 3: Audited by limited assurance with Auditor's statement in Sustainability Report 2020, pp. 128-130: Tables with GHG figures are marked with a sign that indicates external assurance.

Relevant standard

ASAE3000

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

21-04-09_RWE Sustainability Report 2020_eng.pdf

Page/section reference

For CO2 Emissions of Power Plants: Audited by reasonable assurance with Auditor's statement in Annual Report 2020, pp. 233-240 For GHG Emissions Scope 1, 2 and 3: Audited by limited assurance with Auditor's statement in Sustainability Report 2020, pp. 128-130: Tables with GHG figures are marked with a sign that indicates external assurance.

Relevant standard

ASAE3000

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

96

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2021

Period end date

December 31 2020

Allowances allocated

1100000

Allowances purchased

66200000

Verified Scope 1 emissions in metric tons CO2e

70366000

Verified Scope 2 emissions in metric tons CO2e

70366000

Details of ownership

Facilities we own and operate

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Our European fossil-fuel power plants are subject to the European Emissions Trading Scheme (EU-ETS). Reporting on CO2 emissions from these power plants is made to the national emissions trading offices and these in turn report to the responsible EU authorities. Rights and obligations of the emitters are regulated in detail at the level of the member states so that additional corporate regulatory standards are rendered obsolete. The European Emissions Trading Directive is one of the regulations applicable for this area at European level. The relevant national regulations based on this directive are applicable in Germany, the Netherlands and the UK (where RWE operates conventional power plants). We are compliant with the regulations of the EU ETS and have internal processes in place to safeguard the accounting of all relevant emissions. Basis of our calculations are the used raw materials in our power plants that are measured with competent systems. The emission amounts are audited by an external partner.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations
Stakeholder expectations

GHG Scope

Scope 1

Application

Application of an internal carbon price to all relevant generation/company-wide which falls under the regulation of the EU ETS. Estimations of an internal carbon price is based on scenarios which are reflecting price projections/local variations accepted for EU emissions allowances.

Actual price(s) used (Currency /metric ton)

32

Variance of price(s) used

0

Type of internal carbon price

Implicit price

Impact & implication

Influence on strategic as well as operating decisions: The emissions generated by RWE are determined in operational terms by the use of our power plants in association with development in the energy markets. The prices for fuels and CO2 certificates determine the costs at which power plants are able to offer the electricity they produce on the wholesale market. The demand for electricity determines when and which power plants are used. More expensive power plants are correspondingly only deployed when there is high demand in the electricity market and they emit correspondingly lower levels of greenhouse gases and other pollutants owing to the lower number of operating hours.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

100

Rationale for the coverage of your engagement

The responsible approach to natural resources and promotion of the use of environmental technologies is one of the principles governing conduct at RWE and this principle is enshrined in the RWE Code of Conduct. The compliance rules and principles must be complied with for all procurement transactions alongside the RWE Code of Conduct. The supplier or service provider is obliged to adhere to these regulations. We review business relationships with business partners if it becomes known in the public domain that they have breached the principles of the UN Global Compact. We then take appropriate measures that we consider necessary and put them into action.

Impact of engagement, including measures of success

We regularly monitor the proportion of the purchase volume in which the requirements of our Code of Conduct are a constituent element of the contractual relationship. During the year under review, the corresponding level of coverage of RWE Group Procurement met its target value of 100% in relation to the procurement volume for goods and services.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

100

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

RWE is in continuous exchange with its customers about new or additional solutions. We recognize that many of our customers are placing more and more value on sustainability - which is why we are adapting existing products and offering new solutions to suit our customers. As we are not active in the end-customer business, these are mainly large companies to which we sell electricity or gas. We are open to all our customers and discuss possible solutions to save greenhouse gases.

Impact of engagement, including measures of success

In 2020 we have signed contracts for the procurement of green electricity. As two examples, RWE Supply & Trading and Ineos have entered into a long-term Power Purchase Agreement (PPA). Under the terms of the ten-year agreement set to begin in 2021, Ineos will purchase 198 gigawatthours of green electricity per year from RWE, which will be generated by the Northwester 2 wind farm in the Belgian North Sea. The wind farm is located off the coast of Zeebrugge and is operated by the Belgian company Parkwind. The PPA represents around 25% of the electricity generated by Northwester 2. Thanks to the PPA, Ineos will reduce its carbon footprint in Belgium by 745,000 tonnes of CO2 during the term of the agreement. Furthermore RWE Renewables signed a Power Purchase Agreement (PPA) with E.ON UK under which the company will offtake 100% of the electricity produced by the Humber Gateway Offshore Wind Farm from 2022 until 2035. This includes the Renewable Obligation Certificates (ROCs) from the plant. The contract directly follows on from the previous agreement to supply E.ON UK's customers with green electricity from the offshore wind farm, and which is due to end in 2022. Humber Gateway is located in the United Kingdom, off the coast of East Yorkshire and was commissioned in 2015. With an installed capacity of 219 megawatts (MW), the wind farm is capable of supplying green electricity equivalent to the annual average demand of almost 300,000 UK homes²

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Funding research organizations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Clean energy generation	Support	In our core markets and potential growth areas we closely observe the discussions on renewable energy regulation and market design, climate targets and other initiatives that are closely linked to energy and climate issues. With offices in Berlin and Brussels and dedicated staff responsible for covering regulatory affairs we engage directly and indirectly with our stakeholders. Main priorities in 2020 include the discussion around a European Climate Law, Hydrogen expansion roadmaps and strategies and renewable energy subsidy conditions.	RWE welcomed the Green Deal and especially the combination of climate protection and competitiveness. As stated in our speech line as of 5 December, RWE welcomes the target of climate neutrality by 2050. This requires an increase of the GHG emission reduction target for 2030. But: In addition to long-term goals, concrete measures to reduce emissions are also needed. RWE supports the decarbonization of all sectors and the increase of the targets for the use of renewable energies in all sectors. However, the competitiveness of European industry must not be jeopardized. Climate protection is a global challenge that can only be met if the entire international community ambitiously decarbonizes. Innovation necessary to achieve climate protection targets should be promoted. This is particularly true in the area of technologies to facilitate sector coupling.
Climate finance	Support with minor exceptions	We have followed the discussions on the EU Action Plan on Sustainable Finance including the so-called taxonomy for sustainable activities. To this end we have contributed to the consultations and engaged in political talks.	RWE advocates for a technology neutral approach and rejects a negative list. Additional bureaucracy for listed companies should be avoided. The taxonomy should always measure activities and not companies.
Mandatory carbon reporting	Support with minor exceptions	We have followed the discussions on the EU Action Plan on Sustainable Finance including the so-called taxonomy for sustainable activities. To this end we have contributed to the consultations and engaged in political talks. In addition we have followed the discussions on the updated regulation for non-financial information in the EU. This regulation is encompassing environmental issues including emissions.	For years RWE is reporting emissions under the EU Emissions Trading Scheme. In addition we publish additional metrics in our Sustainability Report.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Bettercoal, Bundesverband der Deutschen Industrie (BDI), Bundesverband der Energie- und Wasserwirtschaft (BDEW), Business Europe, Deutscher Braunkohlen-Industrie-Verein (DEBRIV), Energie Nederland, Energy UK, EURACOAL, eurelectric, Eurogas, European Federation of Energy Traders (EFET), International Emissions Trading Association (IETA), International Energy Agency Coal Industry Advisory Board (IEA CIAB), Internationaler Verband der Energieanlagenbetreiber (VGB PowerTech), Verband der Industriellen Energie- & Kraftwirtschaft (VIK), Verein der Kohleimporteure (VDKI), VNO NCW, World Energy Council International

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Associations are an important tool for us in political work and for the articulation of common interests to policymakers, social institutions and other players. As far as we are concerned, they are a place for exchanging ideas on positions and are therefore indispensable for our companies. Our memberships in associations are always directed towards strategic objectives, and related to current and future activities of the Group. RWE cooperates on the positioning of associations with differing intensity but specific association positions may also deviate from our own principles. In the reporting year, we established a process for the topic of climate in order to identify discrepancies of this nature. We also reviewed the positioning of 18 association organisations relating to the Paris Climate Agreement on the basis of public documents. RWE is committed to the targets of the Paris Agreement and would like to ensure that the associations are in conformity with our position. We have published the complete results and a description of the selection and approach in an independent report.

How have you influenced, or are you attempting to influence their position?

In the course of its membership activities, RWE shares our company position and checks whether the association positions published in press releases or in another form match RWE positions on these issues, e.g. on climate change. We expect that any climate-related position are in line with the Paris Agreement. There was no need for the Group to distance itself from specific association positions in 2020.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

We are pursuing a strategy geared to the long term which is oriented towards the currently applicable legal framework conditions and those anticipated in the future. The Group Communications & Public Affairs Department at RWE AG coordinates our contacts. The Department Head reports directly to the Chief Executive Officer. RWE maintains two liaison offices in Brussels and Berlin as points of contact. Our conduct in relation to policymakers is clearly regulated in our Code of Conduct. We state there that dialogue with representatives of government institutions and political parties is indispensable as far as we are concerned. At RWE, our strategy and our commitment is communicated both internally to our employees and externally to our investors, NGOs, general public and politics. By informing transparently about our strategy, we ensure that all stakeholders have access to the information they are interested in.

Associations are an important tool for us in political work and for the articulation of common interests to policymakers, social institutions and other players. As far as we are concerned, they are a place for exchanging ideas on positions and are therefore indispensable for our companies. Our memberships in associations are always directed towards strategic objectives, and related to current and future activities of the Group. RWE cooperates on the positioning of associations with differing intensity but specific association positions may also deviate from our own principles. In the reporting year, we established a process for the topic of climate in order to identify discrepancies of this nature. We also reviewed the positioning of 18 association organisations relating to the Paris Climate Agreement on the basis of public documents. RWE is committed to the targets of the Paris Agreement and would like to ensure that the associations are in conformity with our position. We have published the complete results and a description of the selection and approach in an independent report. In 2020 we have checked additional associations that we joined lately. We published this updated report in the course of 2021.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary communications

Status

Complete

Attach the document

20-12-00_RWE Emission inventory and methodology FY 2019 updated.pdf

Page/Section reference

Pages 1 to 14: Complete Document is about emissions and climate

Content elements

Governance

Strategy

Emissions figures

Emission targets

Comment

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

21-04-09_RWE Sustainability Report 2020_eng.pdf

Page/Section reference

Pages 73 to 79

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Comment

Publication

In mainstream reports

Status

Complete

Attach the document

21-03-16_RWE Annual Report 2020_eng.pdf

Page/Section reference

Pages 22 to 28 (Strategy, emission targets), page 51 (Emission figures), pages 69 to 78 (risk and opportunities)

Content elements

Strategy

Risks & opportunities

Emissions figures

Emission targets

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

No additional information.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Main interface to global commodities markets and our customers is RWE Supply & Trading - a Group company of RWE AG. RWE Supply & Trading is a leading European energy trading company. In addition to trading electricity, commodities and certificates, RWEST is responsible for the optimisation of RWE's European gas storage systems and power plants. The company thus functions as the link between commodities and the electricity generation markets.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	13688000000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	DE	0007037129

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

BMW AG

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

180045

Uncertainty (±%)

0

Major sources of emissions

Combustion of fuels for power generation

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We have two supply contracts with BMW. We continue to supply the plants with 684 GWh. With a CO2 footprint of 263 g/kWh, this would mean 180,045 t/CO2. This is also shown as such on the monthly invoices for electricity to BMW. Towards the end of 2020, BMW purchased certificates of origin for the entire amount. We have invalidated

these for our electricity supply.

Requesting member

Accenture

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

Major sources of emissions

We had no deliveries of electricity in 2020.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had no deliveries of electricity in 2020.

Requesting member

BT Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

0

Major sources of emissions

We had no deliveries of electricity in 2020.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had no deliveries of electricity in 2020.

Requesting member

Deutsche Telekom AG

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

0

Major sources of emissions

We had no deliveries of electricity in 2020.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had no deliveries of electricity in 2020.

Requesting member

SSE

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

0

Major sources of emissions

We had no deliveries of electricity in 2020.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had no deliveries of electricity in 2020.

SC1.2**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

Used data for calculations are taken from internal systems. We report emissions from our operations in our Annual Report and Sustainability Report.

SC1.3**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	Carbon emissions from electricity is well defined in our markets. The allocation of power plant emissions to individual customers is not a problem by identifying specific emissions in g / kWh and distribution on the basis of consumed amounts of electricity. Difficult for industrial companies is the timing, because the applicable labeling will be published with a time lag of 10 months of the reporting year.

SC1.4**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

No

SC1.4b**(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.**

The difficulties in timing are due to legal requirements in the Energy Act and EEG. RWE placed this within the usual lobbying activities and at the relevant associations. For other topics, methods working sufficiently well and are in line with applicable regulation.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

BMW AG

Group type of project

New product or service

Type of project

New product or service that reduces customers operational emissions

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

0

Estimated payback

Other, please specify (Unknown)

Details of proposal

To offset existing emissions from our electricity deliveries, we offer BMW so-called guarantees of origin. These can be obtained from RWE and cover the emissions for the electricity deliveries made to BMW.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms