RWE

Our energy for a sustainable life

Annual Report 2019

Our energy for a sustainable life

Electricity. This is what we have been producing for over 120 years. And it hasn't changed. But what has changed is that it is capable of so much more compared to when our company was founded in 1898. Electricity is indispensable for driving innovation and progress and it is ubiquitous in our daily lives. Charging mobile phones, taking the train to work and so much more would be impossible without electricity. It powers robots used on production lines, enables billions of digital processes, and propels entire fleets of electric vehicles.

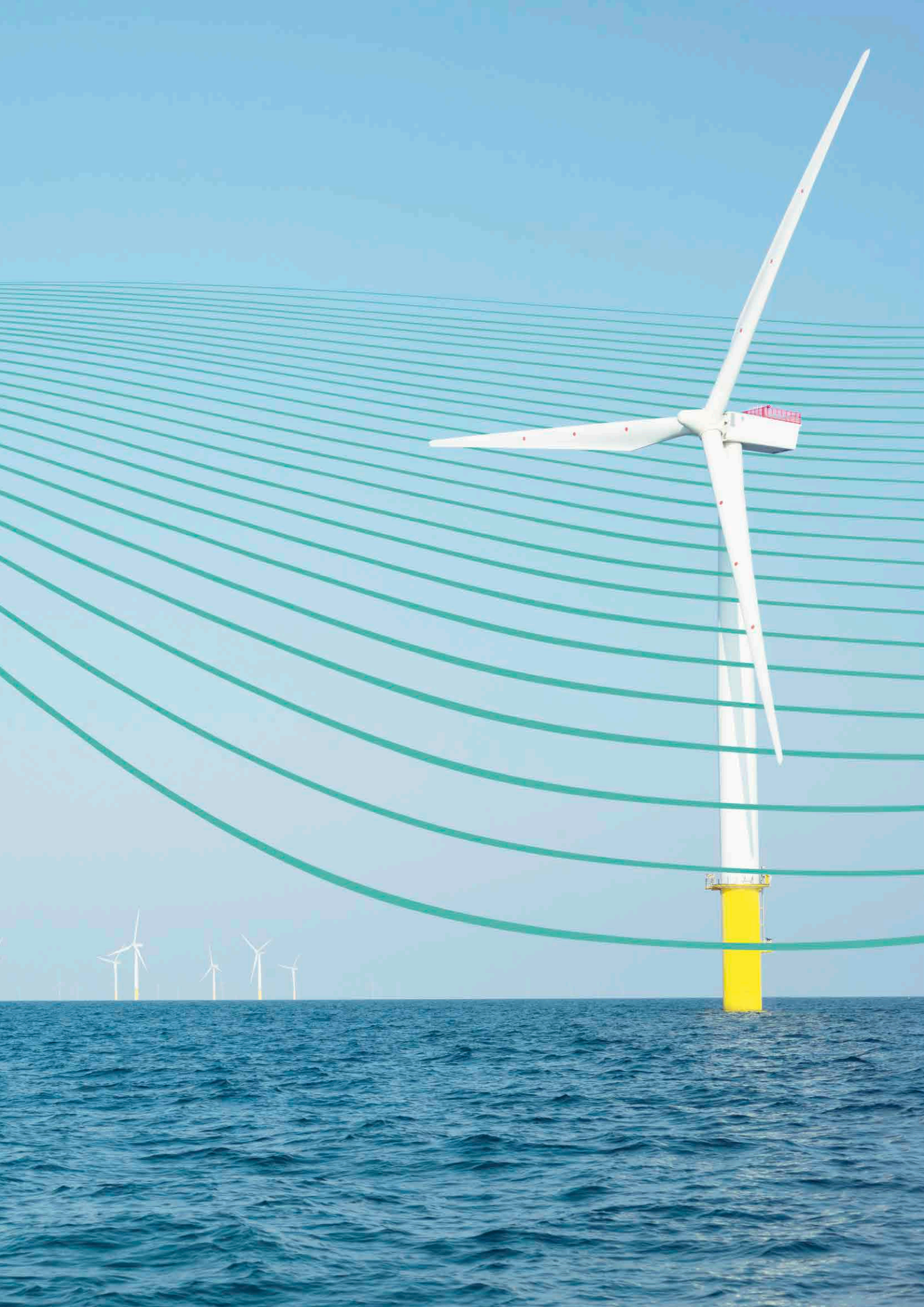
A lot has also changed in electricity generation. We now increasingly produce electricity by harnessing the energy all around us – from wind, sun and water. By contrast, we use less and less CO_2-intensive coal. In doing so, we are channelling all our energy into achieving a goal that is more important today than ever before: sustainability.

We have become a world leader in electricity generation from renewables as the result of an asset swap with E.ON. Right from the start, we will be investing in the expansion of renewable energy – a net 1.5 to 2 billion euros every year. In doing so, we will build onshore and offshore wind farms and explore new technologies enabling energy harnessed from the wind and sun to be stored so that it can be used when the wind isn't blowing and it's dark outside. Until storage infrastructure has been expanded to entirely meet demand with green electricity, we will use our flexible power stations to guarantee security of supply. We want our electricity generation to be carbon neutral by no later than 2040.

Who would have dreamt of this 120 years ago?

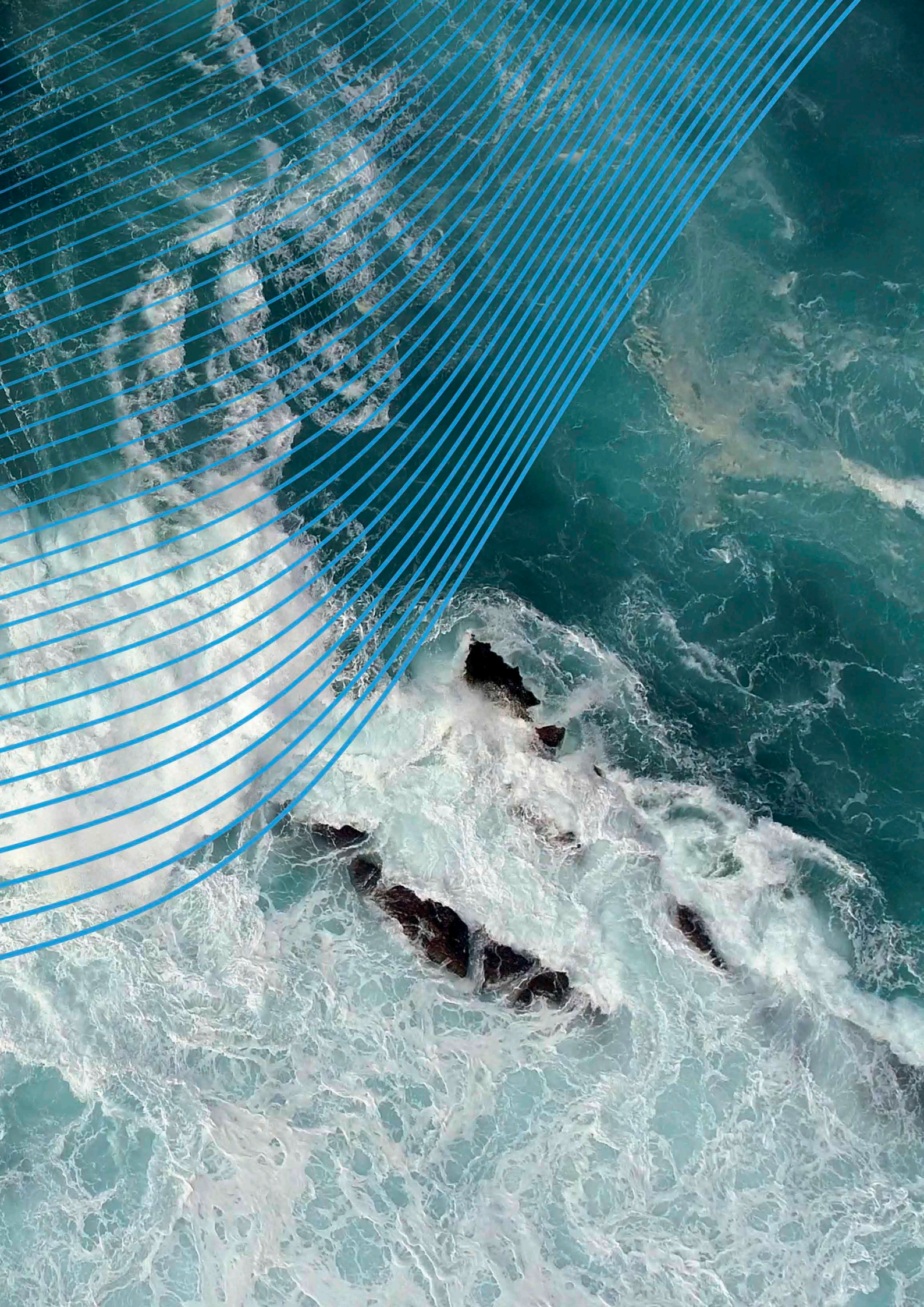
We aim to be carbon neutral by 2040

This is ten years ahead of the schedule for the EU. If you're wondering how we intend to go about this, we will rapidly expand renewables while making an exit from coal-fired electricity generation. Our accomplishments demonstrate how seriously we take this: since 2012 we have halved our CO_2 emissions.



We produce clean, secure and affordable electricity

The electricity we generate from wind, sun, water and biomass is our energy for a sustainable life. However, it is also important to ensure the availability of this energy. And under no circumstances should it become a luxury. Here, we are doing all we can by spurring the development of high-capacity, economically viable energy storage.



A global player in renewable energy

Efforts to protect the climate shouldn't stop at country borders. We also build wind and solar farms outside Europe, especially in North America and in the Asia-Pacific region. The USA is already our largest onshore wind market.

€1.5 to 2 billion in net investments per year in renewable energy

The new RWE focuses on wind, sun, water and biomass as energy sources. We want to make increasing use of them. We will set aside 1.5 to 2 billion euros to invest in this every year. As these are net figures, the funds of project partners will increase this capital expenditure.

At a glance

RWE Group – key figures		2019	2018	+/–
Power generation	billion kWh	153.2	176.0	–22.8
External revenue (excluding natural gas tax/electricity tax)	€ million	13,125	13,406[1]	–281
Adjusted EBITDA	€ million	2,489	1,538	951
Adjusted EBIT	€ million	1,267	619	648
Income from continuing operations before tax	€ million	–752	49	–801
Net income	€ million	8,498	335	8,163
Cash flows from operating activities of continuing operations	€ million	–977	4,611	–5,588
Capital expenditure	€ million	9,838	1,260	8,578
Property, plant and equipment and intangible assets	€ million	2,090	1,079	1,011
Financial assets	€ million	7,748	181	7,567
Free cash flow	€ million	–2,053	3,439	–5,492
Number of shares outstanding (annual average)	thousands	614,745	614,745	–
Earnings per share	€	13.82	0.54	13.28
Dividend per share	€	0.80[2]	0.70	0.10
		31 Dec 2019	31 Dec 2018	
Net debt of continuing operations	€ million	9,066	4,389	4,677
Workforce[3]		19,792	17,748	2,044

1 Figure adjusted due to changes in the recognition of revenues from derivative transactions.
2 Dividend proposal for RWE AG's 2019 fiscal year, subject to the passing of a resolution by the 28 April 2020 Annual General Meeting.
3 Converted to full-time positions.

Contents

To our investors

Interview with the CEO 12
The Executive Board of RWE AG 16
Supervisory Board report 18
RWE on the capital market 24

1 Combined review of operations 27

1.1 Strategy 28
1.2 Innovation 33
1.3 Economic environment 37
1.4 Political environment 42
1.5 Major events 45
1.6 Notes on reporting 49
1.7 Business performance 51
1.8 Financial position and net worth 62
1.9 Notes to the financial statements of RWE AG (holding company) 67
1.10 Presentation of the RWE Group with innogy as a purely financial investment 69
1.11 Disclosure relating to German takeover law 70
1.12 Remuneration report 72
1.13 Development of risks and opportunities 84
1.14 Outlook 93

2 Responsibility statement 96

3 Consolidated financial statements 97

3.1 Income statement 98
3.2 Statement of comprehensive income 99
3.3 Balance sheet 100
3.4 Cash flow statement 101
3.5 Statement of changes in equity 102
3.6 Notes 104
3.7 List of shareholdings (part of the notes) 176
3.8 Boards (part of the notes) 207
3.9 Independent auditor's report 212
3.10 Information on the auditor 220

Further information

Five-year overview 221
Imprint 222
Financial calendar 223

"It will take a while for what the new RWE stands for to become engrained in the public mind."

Rolf Martin Schmitz on the 'new' RWE, the plans for growth in renewable energy, and Germany's planned lignite phaseout

Mr. Schmitz, RWE has gone through major changes since the company was founded 122 years ago. And now it's transforming itself yet again. What's different about the 'new' RWE?

Our company has always risen to new challenges and adapted to the expectations of society. So what we are doing today is no different. One of the major challenges of our time is climate change. And the greatest expectation that society has of us is that we move quickly to play our part in combating it. We have therefore positioned our business to tackle climate change head on. So the 'new' RWE is a company that is staying true to itself.

Assuming that you had to give an elevator pitch to describe the new RWE …

… I could put it in a nutshell fairly quickly. By executing a clever asset swap with E.ON, RWE has become a world-leading producer of electricity from renewables. The transaction has given us a business characterised by attractive returns, reliable framework conditions and wide public acceptance. RWE has returned to being a growth company in which the concept of being international has been expanded from being European to being global. And we have set ourselves a goal that places our actions in a much broader context than the world of economics, as we want our electricity generation to be carbon neutral by 2040. In other words, our business will stop adding to CO_2 in the atmosphere by then. So, as you can see, I can finish describing the new RWE even before the end of the elevator ride.

Becoming carbon neutral by 2040 sounds like a very ambitious target. The EU has given itself ten years longer to accomplish this.

It is indeed ambitious. You can't become carbon neutral overnight. It requires a lot of hard work and suitable framework conditions. Our message is clear: we are ready to do the heavy lifting and will go the extra mile to meet the target.

Is that credible?

I'm sure that some people are distrustful or feel that change simply doesn't happen quickly enough. But I would

like to remind them of what we have accomplished already. In the last seven years, RWE has cut its carbon dioxide emissions in half. I don't know of any other company that can say this. Germany's accelerated coal phaseout will contribute to ensuring that our emissions in 2030 will be just a quarter of what they were in 2012. And ten years after that, we should have achieved our goal of generating all our electricity from renewables or hydrogen produced without carbon dioxide. If we do end up still using fossil fuels like natural gas to ensure security of supply, we will take countermeasures to offset these emissions, for example through forestation.

RWE has to invest huge sums in order to generate most of its electricity from renewables. Do you have the necessary funds?
I don't believe we will have any difficulty with financing. It's important that we find enough attractive projects that meet our return expectations. I'm confident that we can, especially given that we have set our sights beyond European borders. We will invest 1.5 to 2 billion euros to expand renewable energy every year. As this is a net figure, it will be topped up by funds contributed by project partners. By the end of 2022, we intend to increase our wind and solar generation capacity from nine to over thirteen gigawatts. A large share of the new capacity is already being built, including the wind farms Triton Knoll in the British North Sea and Big Raymond in Texas. On top of that, we hope to soon put Limondale online in Australia, which will be the largest solar farm on the continent.

Now that RWE is becoming more international, people might be minded to recall the company's failed venture into the US water business, although that lies far in the past. What do you plan to do differently this time around?
I can only speculate on what went wrong, as I wasn't at RWE in those days. My impression is that RWE was still a very German company back then. They acquired companies abroad and thought that it would be business as usual, the only difference being that everything was under the umbrella of a new parent company. But that simply isn't how things work.

Does that mean that you want to keep a tighter rein on the business outside Germany?
We have to manage it so that everyone understands that each and every asset is important to us, be it a wind farm in Ohio or in the North Sea. This means that we have to be on site, understand every single detail of the business and contribute to shaping it. Naturally, we will be more successful in some regions than others. This is why it is so important that we determine exactly where we want to go.

When it comes to renewables, nearly every country in the world has viable locations. But the fact is that many of these markets lack suitable framework conditions or are simply out of the question because our competitors have cultural advantages. This applies to most countries in Latin America, for example.

Renewable energy is really being hyped up now. Companies like RWE are the hot tickets on the stock market. Are you afraid of dashing the hopes of investors?
We will do everything we can to make sure that this doesn't happen. Subsidy conditions for wind turbines and solar panels are much worse now than they were ten years ago. What's more, tenders have become more competitive. At the same time, there has been an incredible amount of technological progress since then. This has made generation assets much more affordable and efficient. As a result, despite the reduction in payments, renewable energy is an attractive business …

… which – as you said – is becoming ever more competitive.
That's right. Unlike with lignite, when it comes to renewable energy, we no longer have our own fuel to set us apart from the competition. In addition, the number of players competing for project subsidies is rising. Cost advantages and good project management are the key success factors in this business. On top of that, we must become a leader in technological innovations.

Hold on: you want to turn RWE into a tech company?
To a certain degree, yes. What I would ask of our project developers and engineers is, "Always keep up with the pace of technology." This is because renewables are in an era where the best technology decides who is successful. And this also applies to energy storage. We simply have to lead from the front. Take floating platforms for wind turbines for instance. They would enable offshore wind farms to be built even in very deep water. This could be done in the Mediterranean or off the steep coasts of Asia and the Americas. We're working on intelligent and cost-effective variants of such platforms. If our efforts prove successful, this could set us apart from the competition.

RWE's new purpose is 'Our energy for a sustainable life'. Last year, more than 40 percent of the company's electricity generation was from coal. How can this be reconciled?
Let me start with the facts: we will stop generating electricity from coal early, by no later than 2038. We agreed a lignite phaseout roadmap with the federal government, according to which RWE will bear almost all of the initial burden. Quickly discarding a carbon-intensive generation technology while expanding renewable energy will make a very large contribution to ensuring a sustainable life.

RWE will receive 2.6 billion euros in compensation for the early coal phaseout. However, the actual burdens are much higher. Why did you go along with this?
That's right – we will foot part of the bill for the exit from coal. And it's true that this will take us to the limits of what is feasible. However, the fact that we found a compromise after months of negotiating with policymakers is also worth something. The agreed exit path gives us a reliable framework for our plans and optimisation measures. Most of all, however, it protects the interests of our 10,000 employees in the Rhenish lignite mining region. They will receive adjustment allowances from the state so that they are not left in the lurch. If we hadn't reached this compromise, we would have been stuck in a legal tug of war for years, with an uncertain outcome. Now we can look to the future and focus entirely on implementing the lignite phaseout smoothly, efficiently and in a socially acceptable manner.

Do the miners in the Rhenish region also feel the same way?
I'm sure not all of them do. But I think that the miners have less of an issue with RWE than they do with people who protest against lignite, some of whom violate the rules of common decency and the law in every respect. Many feel abandoned by the state and some perhaps also by RWE. I think that's completely understandable. But we mustn't forget that lignite-fuelled electricity generation would have ended by the middle of this century anyway. Change is happening in nearly every sector – take the auto industry, for example. I've known the utility sector for decades. My motto is "Every energy has its time, and every time has its energy." Perhaps the time has come to recognise the coal miners for all they have done for Germany in the past. They were instrumental to the economic miracle and the resulting prosperity of millions of people. We should pay our dues to this old power production technology by bidding it farewell in style and with dignity. And as far as RWE is concerned, I would like to add that our early investments in renewable energy were made with the money we earned with our lignite and nuclear power stations.

This brings us to the business performance in 2019. You made two upward adjustments to the EBITDA outlook during the year and nearly exceeded the last forecast.
We had originally forecast adjusted EBITDA for 2019 coming in between 1.4 and 1.7 billion euros. We ended up achieving a figure of 2.5 billion euros. This was mainly due to the outstanding trading performance. Another positive factor which we had not considered from the outset was the resumption of payments from the British capacity market. Furthermore, we benefited from the asset swap with E.ON. After receiving approval from the European Commission, we largely executed the transaction in September. Consequently, the renewable energy business that we received from E.ON contributed to our Group earnings for three-and-a-half months.

You signed the asset swap agreement with E.ON two years ago. When will the deal finally be completed?
Fairly soon, I hope. Basically, the remaining steps are formalities: the legal transfer of the innogy operations to us, particularly the renewables business. However, these activities are already included in our books. This means that the 2020 consolidated financial statements already fully reflect the new RWE.

You anticipate adjusted EBITDA of 2.7 to 3.0 billion euros for the current fiscal year. That would be even more than in 2019.
The rise will largely result from the inclusion in our earnings of E.ON's renewable energy business for a full twelve months. The continued expansion of our wind and solar generation capacity will also have a positive impact. However, we cannot expect to repeat the exceptional performance of our energy trading business, from which we benefited in 2019, anytime soon.

RWE's financial reporting will be presented in a new segment structure from 2020 onwards. Your newly defined core business excludes coal and nuclear energy. Why?
We simply asked ourselves what parts of our business will have a role to play in the energy world of tomorrow and should therefore become a fixture in our portfolio. Renewables definitely fit the bill. Gas-fired power stations will also be needed in the foreseeable future to meet demand during periods of insufficient electricity generation from wind and solar farms. Of course, the same applies to pumped storage. In addition, we can continue operating our Amer 9 and Eemshaven hard coal-fired power plants in the Netherlands after the established end dates for coal if we fully convert them to biomass. And, our trading subsidiary RWE Supply & Trading, which is the Group's commercial hub, is indispensable in terms of optimising our generation portfolio. All of these activities form our core business. Our German hard coal, lignite and nuclear power stations are not part of our core business, because clear exit paths have been defined for them. And we will not build any new coal-fired power plants, not even in countries where they would be widely accepted by the public.

What growth prospects do you see for the new core business?
The prospects for operating earnings growth are good, especially thanks to renewables. We expect to grow adjusted EBITDA by an average of eight percent in the next two years. And we also want our shareholders to benefit from this. We envisage paying a dividend of €0.85 per share for fiscal 2020, which would be five cents more than the dividend planned for 2019. After that, we intend to continually increase the dividend in line with the development of earnings in our core business.

One last question: at the end of September 2019, you launched the new RWE brand. Is the company's image already benefiting from it?
In some areas, yes. But it will take a while for what the new RWE stands for to become ingrained in the public mind. The capital markets were the first to understand the transformation that RWE is going through. In the two years since the announcement of the deal with E.ON, our share price has basically only moved in one direction: up. Conversely, when I speak with politicians, they are often surprised that we're pulling in the same direction when it comes to renewables. As regards the general public, we still have a lot of work ahead of us. In discussion forums and debates, I hear time and again that many haven't even realised how much we have changed. But sometimes I feel as if people are now friendlier when they greet me. And that's a good start.

This interview was conducted by Burkhard Pahnke and Jérôme Hördemann.

The Executive Board of RWE AG

Dr. Rolf Martin Schmitz
Chief Executive Officer

Born in 1957 in Mönchengladbach; doctorate in engineering; Planning Engineer at STEAG AG from 1986 to 1988; various positions, including Head of Corporate Development and Economic Policy, at VEBA AG from 1988 to 1998; Member of the Executive Board of rhenag Rheinische Energie AG from 1998 to 2001; Member of the Board of Management of Thüga AG from 2001 to 2004; Chairman of the Board of Directors of E.ON Kraftwerke GmbH from 2004 to 2005; Chairman of the Executive Board of RheinEnergie AG and Managing Director of Stadtwerke Köln from 2006 to 2009; Chief Operating Officer National of RWE AG from May 2009 to September 2010; Chief Operating Officer of RWE AG from October 2010 to October 2016 and Deputy Chairman of the Executive Board of RWE AG from July 2012 to October 2016; Chairman of the Executive Board and Chief Executive Officer of RWE AG since October 2016; concurrently Labour Director of RWE AG since May 2017.

Group-level responsibilities

- Corporate Transformation
- Internal Audit & Compliance
- Group Communications & Public Affairs
- Group Strategy
- Human Resources
- Legal & Insurance
- Corporate Business Development

Dr. Markus Krebber
Chief Financial Officer

Born in 1973 in Kleve; Banker; doctorate in economics; Management Consultant at McKinsey & Company from 2000 to 2005; various management positions at Commerzbank AG from 2005 to 2012; Managing Director and Chief Financial Officer of RWE Supply & Trading GmbH from November 2012 to August 2016; Chief Executive Officer of RWE Supply & Trading GmbH from March 2015 to May 2017; Chief Financial Officer of RWE AG since October 2016.

Group-level responsibilities

- Business Services
- Controlling & Risk Management
- Finance & Credit Risk
- Investor Relations
- IT
- Portfolio Management/Mergers & Acquisitions
- Accounting
- Tax

Supervisory Board report

"Our shareholders benefit from a renewed RWE becoming the pacesetter of the energy transition. But most importantly, this benefits all of society and therefore all of us."

Dear Shareholders,
Ladies and Gentlemen

Mahatma Ghandi once said, "Be the change you want to see in the world." At RWE, we have taken this to heart. As a result of the asset swap agreed with E.ON in March 2018, the company has become one of the world's leading producers of electricity from renewables. In the process, the company is supporting climate protection policies and opening itself up to promising prospects. Fiscal 2019 was a pivotal year for the 'new' RWE. On 17 September, the European Commission gave the go-ahead to the asset swap, which the company began to implement the day after. E.ON received a majority stake in innogy, and RWE received E.ON's renewable energy business soon thereafter. These and several other transactions have since been completed. The final step involves the legal transfer of some innogy operations to RWE, including the renewable energy business. This is scheduled to happen as soon as possible this year.

Management announced the future course of the new RWE in September 2019. The key message was that the company wants to have converted enough of its electricity generation to achieve its goal of being carbon neutral by 2040, ten years earlier than envisaged by the EU. Playing on Ghandi's quote, our company is changing faster than the world around it. This holds true not only for the future, as demonstrated by the following comparison: in the last seven years, RWE has reduced its carbon emissions by 51 %. This is roughly twice as much as what Europe has accomplished since 1990.

RWE will expand its renewable energy production rapidly with a view to becoming carbon neutral. The second building block of our emission reduction strategy is an accelerated coal phaseout. Until recently, the German government and industry have been negotiating the details of this exit intensively. The starting point was the concept presented by the Growth, Structural Change and Employment Commission ('Structural Change Commission' for short) in January 2019, which envisages gradually putting an end to electricity generation from coal by 2038. It was clear early on that the initial burdens of the lignite phaseout would primarily be shouldered by RWE. After months of talks with policymakers, an agreement was reached in January 2020 on the roadmap for the power plant closures and the level of compensation. However, the compensation of €2.6 billion pledged by the government will not be enough to fully offset RWE's burdens. At short notice, we convened a Supervisory Board meeting at which the Executive Board provided us with information on the compromise reached. What is important is that we now have clarity and the people affected know what they are up against. First and

foremost, this makes me think of the 10,000 people working in the Rhenish lignite mining region: they now have certainty and can rest assured that the coal phaseout will not put them at a loss.

Now let me go into the work we did on the Supervisory Board last year. Once again, we fulfilled all of the duties imposed on us by German law and the Articles of Incorporation. We advised the Executive Board on running the company and monitored its actions attentively. Moreover, we were consulted on all fundamental decisions. The Executive Board informed us of all material aspects of business developments, the earnings situation as well as the risks and the management thereof both verbally and in writing. This was done regularly, extensively and in a timely fashion. Decisions were taken on the basis of detailed reports and draft resolutions submitted by the Executive Board. The Supervisory Board had ample opportunity to concern itself with these in its plenary sessions and its committees. We were also informed by the Executive Board of projects and transactions of special importance or urgency in several extraordinary meetings as well as in between meetings. We passed the resolutions required of us by German law or the Articles of Incorporation. Occasionally, we did so by circular. As Chairman of the Supervisory Board, I was constantly in touch with the Executive Board, allowing us to discuss major developments without delay.

Main points of debate of the Supervisory Board meetings. Last year, the Supervisory Board convened for five ordinary and two extraordinary meetings, the subject matter of which I will outline in more detail later on. In our sessions, we were informed by the Executive Board in great detail of current affairs of significance to RWE. We also discussed matters in the absence of the Executive Board. The shareholder and the employee representatives on the Supervisory Board always met separately before these meetings, so that they had the opportunity to consult on agenda items and establish joint positions where necessary in advance of the plenary sessions.

Our consultations centred on the recommendations of the Structural Change Commission and the talks between government and industry on implementing them in the Rhenish lignite mining area. The legislative process regarding the Dutch coal phaseout, the uphill battle for an orderly Brexit and the events concerning the British capacity market were also among the issues on which we concentrated. The asset swap with E.ON also drew the Supervisory Board's special attention. We followed the approval procedure and the steps taken to execute the deal very closely. In addition, we discussed the RWE Group's future strategy and its ambitious climate-protection goals.

The following issues were discussed at our meetings:

- Last year, our first meeting took place on 5 February. After the Structural Change Commission published its recommendations regarding Germany's coal phaseout, we convened an extraordinary session in which we discussed the recommendations and their potential effects on RWE and the people working in the Rhenish lignite mining region. The compensation for RWE and the measures for a socially acceptable redundancy scheme were among the issues addressed.

- At our ordinary meeting on 8 March 2019, we discussed and approved the 2018 financial statements of RWE AG, the consolidated financial statements, and the separate consolidated non-financial report. Furthermore, we adopted the agenda of the Annual General Meeting of 3 May 2019, at which a resolution was passed to convert RWE preferred shares to common shares. As the conversion required the convocation of a Preferred Shareholders Meeting, we also had to approve the agenda of that meeting. In our March session, we again discussed the final report of the Structural Change Commission. Moreover, I reported on the talks on corporate governance matters that I regularly conduct with major institutional investors. The last exchanges of this kind occurred at the end of 2018 and the beginning of 2019. Executive Board remuneration, the composition of the Executive Board and the Supervisory Board as well as succession planning were among the topics discussed.

- The ordinary meeting on 3 May 2019 centred on the last steps to prepare the Annual General Meeting and the Preferred Shareholders Meeting held on the same day, which I mentioned earlier.

- At our ordinary meeting on 11 July 2019, we decided to subject the work of the Supervisory Board to an efficiency audit with the help of the business consultants Russell Reynolds Associates. In addition, we informed ourselves of how the most recent amendments to the German Corporate Governance Code (GCGC) will affect the system of remunerating RWE's Executive Board. Furthermore, we debated the succession planning for the Executive Board and the Group's position on completion of the asset swap with E.ON.

- On 6 September 2019, we convened for another extraordinary meeting because a tender procedure for Polish offshore wind projects was about to be held and RWE's participation was subject to Supervisory Board approval. Although other companies placed the winning bids on this occasion, the Group succeeded in entering the Polish offshore wind market in 2019, securing a project pipeline in the Baltic Sea with a total installed capacity of more than 1.5 GW.

- Two weeks later, on 20 September, we met at an ordinary Supervisory Board meeting where we again discussed the succession plan for the Executive Board. One of the issues addressed was the general procedure followed in selecting and appointing new Executive Board members. We decided to seek the assistance of an external consultant in the future. RWE's new strategy and new brand appearance were highlights of our deliberations. In addition, the Executive Board kept us abreast of the developments relating to the asset swap with E.ON.

- We reviewed and adopted the company's planning for fiscal 2020 at our ordinary meeting on 18 December 2019. We also dealt in depth with the new version of the GCGC. Together with the Executive Board, we approved an updated statement of compliance as well as the corporate governance declaration along with the Corporate Governance Report. Another topic of discussion was the German law on the implementation of the Second Shareholder Rights Directive (ARUG II), which entered into force on 1 January 2020 and introduces a series of new regulations affecting management board compensation, transactions with related parties, and the transparency duties of institutional investors, among other things. We analysed the outcome of the efficiency audit of our work that began in July in great depth and debated how Supervisory Board work can be even more effective in the future. I will report on this in more detail later on.

Supervisory Board committees. Last year, the Supervisory Board had six standing committees, the members of which are listed on page 210. These committees are charged with preparing topics and resolutions for plenary sessions. Occasionally, they exercise decision-making powers conferred on them by the Supervisory Board. The Supervisory Board is informed of the work of the committees by their chairs at every ordinary meeting. In the year under review, a total of 14 committee meetings were held, about which I would now like to inform you.

- The **Executive Committee** convened three times. In two extraordinary sessions, it discussed details concerning the execution of the asset swap with E.ON, which it had been authorised to do by the Supervisory Board in March 2018. As usual, the Committee discussed the company's planning for fiscal 2020 as well as the outlook for the two subsequent years at its December meeting.

- The **Audit Committee** was in session four times. It concerned itself in particular with the financial statements of RWE AG and the Group, together with the combined review of operations, the report for the first half of the year, the quarterly statements and the consolidated non-financial report. The Committee discussed the financial statements with the Executive Board before they were published and received reports on the outcome of the audits and audit-like reviews from the independent auditors. In doing so, it also paid attention to the quality of the financial statement audits. Furthermore, the body submitted a recommendation to the Supervisory Board regarding the election of the independent auditors for fiscal 2019, prepared the grant of the audit award to the independent auditors including the fee agreement, and set the priorities of the audit. As usual, the Committee was informed of the effectiveness of the accounting-related Internal Control System (ICS). This did not reveal any issues that would call the effectiveness of the ICS into question. Moreover, the Committee discussed the spot check performed by the German Financial Reporting Enforcement Panel on the financial

statements of RWE AG and the Group for fiscal 2018, which did not reveal any errors. Furthermore, the Committee dealt with the planning and findings of the internal audit, the RWE Group's exposure to risk pursuant to the German Corporate Control and Transparency Act, data security, compliance matters as well as legal and tax issues. The independent auditors attended all of the Audit Committee meetings and also exchanged information with the Committee Chairman in between meetings. In-house experts were consulted when necessary.

- The **Personnel Affairs Committee** held four meetings during the year being reviewed. The debates focused on the level of Executive Board compensation and the design of the Executive Board's remuneration system as well as the future effects of ARUG II and the new GCGC on said system. In addition, the Committee concerned itself with planning for the successor to the CEO Rolf Martin Schmitz, whose contract expires in the middle of 2021.

- The **Nomination Committee** convened twice in 2019. Both meetings focused on the new elections of the shareholder representatives to the Supervisory Board scheduled for 2021. A key issue, which I will revisit in more detail later on, was the requirement and skills matrix of the Supervisory Board, which is considered when selecting candidates. Another topic of discussion was the consequences of the German law on the implementation of ARUG II and the new GCGC recommendations for the elections. The Committee thoroughly debated whether to shorten and stagger the tenures of the shareholder representatives. The Nomination Committee and the Supervisory Board endorse this. So far, as is customary in Germany, RWE's shareholder representatives have been elected simultaneously for five years at a time. We will make a case for limiting their tenures to a maximum of three years covering various periods. This will result in a certain degree of fluctuation every year. The advantage of this is that the Supervisory Board's staffing could be adapted more rapidly to new requirements. This would also prevent too many people from leaving the Committee at the same time, resulting in a loss of valuable experience.

- The members of the **Strategy Committee** held one session. This meeting focused on RWE's earnings prospects and growth opportunities in renewable energy.

- The **Mediation Committee** pursuant to Section 27, Paragraph 3 of the German Co-Determination Act did not have to meet in 2019.

Conflicts of interest. The members of the Supervisory Board are obliged by law and the GCGC to immediately disclose any conflicts of interest they have. In March 2018, Monika Krebber and Erhard Schipporeit, who sat on the Supervisory Board of both RWE AG and innogy SE, filed notifications of conflicts of interest in respect of the decisions regarding the envisaged asset swap with E.ON. These conflicts of interest remained in 2019. Therefore, Ms. Krebber and Mr. Schipporeit did not receive any of the preparatory documents in relation to the relevant agenda items and did not participate in the relevant consultations or passing of resolutions. Monika Krebber also had a conflict of interest as it became apparent to her that she would transfer to E.ON due to the sale of the shareholding in innogy. Therefore, she requested not to be informed about RWE's plans to reduce its financial investment in E.ON in September 2019.

Efficiency audit. The Supervisory Board is obligated to review the efficiency of its work on a regular basis. This is mandated by the GCGC. We conducted such an audit in 2019 with the assistance of Russell Reynolds Associates. One of the aspects scrutinised was whether we as a body possess the expertise required to effectively monitor the new RWE. The efficiency audit found that, on the whole, our work procedures are goal-oriented and effective. The same applies to our co-operation with the Executive Board. However, certain measures were established to help us further improve the quality of our work on the Supervisory Board, which is already high. For example, we will expand the requirement matrix that will be applied when new candidates are selected for the Supervisory Board to include certain skills, in particular relating to technology and digitisation, as well as international experience. Furthermore, we want to place greater emphasis on know-how in the energy business, in particular with regard to renewable energy.

Attendance. The table below contains an overview of Supervisory Board member attendance at the meetings of this corporate body and its committees. As the Mediation Committee did not convene in 2019, it has been omitted from this table. Here is an example of how to interpret the numbers: '3/4' means that the individual attended three of a body's meetings although their tenure on the body would have allowed them to attend four of them. As can be seen from the overview, absences were an exception, and the rare cases of absence were for good reasons (e. g. a conflict of interest).

Attendance at meetings in fiscal 2019 by Supervisory Board member	Supervisory Board	Executive Committee	Audit Committee	Personnel Affairs Committee	Nomination Committee	Strategy Committee
Dr. Werner Brandt, Chairman	7/7	3/3	4/4[1]	4/4	2/2	1/1
Frank Bsirske, Deputy Chairman	7/7	3/3		4/4		1/1
Michael Bochinsky	7/7		4/4			
Reiner Böhle (until 18 Sep 19)	5/5			2/2		
Sandra Bossemeyer	7/7	3/3				
Martin Bröker	7/7					
Anja Dubbert (since 27 Sep 19)	1/1					
Matthias Dürbaum (since 27 Sep 19)	1/1					
Ute Gerbaulet	7/7					
Prof. Dr. Hans-Peter Keitel	6/7	3/3			2/2	1/1
Dr. h. c. Monika Kircher	7/7		3/3[2]			
Monika Krebber (until 18 Sep 19)	4/5	0/2[3]				
Harald Louis	7/7			4/4		
Dagmar Mühlenfeld	7/7	3/3				
Peter Ottmann	7/7			4/4	2/2	
Günther Schartz	7/7					1/1
Dr. Erhard Schipporeit	6/7		4/4			
Dr. Wolfgang Schüssel	7/7	3/3	1/1[4]	3/4		
Ullrich Sierau	6/7		3/4			
Ralf Sikorski	7/7		2/4			1/1
Marion Weckes	7/7		4/4			
Leonhard Zubrowski	7/7	3/3				1/1

1 Dr. Werner Brandt attended meetings of the Audit Committee as a guest.
2 Dr. Monika Kircher has been a member of the Audit Committee since 1 April 2019.
3 Monika Krebber did not attend either of the meetings of the Executive Committee during her tenure due to potential conflicts of interest.
4 Dr. Wolfgang Schüssel resigned from the Audit Committee as of the end of 31 March 2019.

Personnel matters. There were two changes in personnel on the Supervisory Board in the year under review: Monika Krebber and Reiner Böhle, both of whom were employee representatives, resigned from the Board on 18 September. Given that they are innogy employees, they left the Group when the company was acquired by E.ON, which forbade them by German law from remaining on the Supervisory Board of RWE AG. Anja Dubbert and Matthias Dürbaum were appointed their successors by the Essen District Court on 27 September. On behalf of the Supervisory Board, I thank Ms. Krebber and Mr. Böhle for their valuable work and for their commitment to RWE.

The staffing of some of our committees also changed. Wolfgang Schüssel resigned the mandate he held on the Audit Committee effective at the close of 31 March. Monika Kircher was appointed his successor per a Supervisory Board resolution dated 8 March. The resignations of Monika Krebber and Reiner Böhle from the Supervisory Board also required their seats on the Executive Committee and the Personnel Affairs Committee to be filled. In addition, Leonhard Zubrowski resigned from the Executive Committee at the close of 17 December. In its session on 18 December, the Supervisory Board elected Anja Dubbert and Matthias Dürbaum to the Executive Committee and Leonhard Zubrowski to the Personnel Affairs Committee.

Financial statements for fiscal 2019. PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft audited and issued an unqualified auditor's opinion on the 2019 financial statements of RWE AG, which were prepared by the Executive Board in compliance with the German Commercial Code, the financial statements of the Group, the combined review of operations for RWE AG and the Group, and the accounts, which were prepared pursuant to Section 315a of the German Commercial Code in compliance with International Financial Reporting Standards (IFRS). In addition, PricewaterhouseCoopers found that the Executive Board had established an appropriate early risk detection system. The company had been elected independent auditor by the Annual General Meeting on 3 May 2019 and commissioned by the Supervisory Board to audit the financial statements of RWE AG and the Group.

The 2019 Annual Report and the audit reports as well as documents supporting the annual financial statements were submitted to the members of the Supervisory Board in good time. Furthermore, the Executive Board commented on the documents in the Supervisory Board's balance sheet meeting of 6 March 2020. The independent auditors reported at this meeting on the material results of the audit and were available to provide supplementary information. The Audit Committee had previously concerned itself in depth with the financial statements of RWE AG and the Group, as well as audit reports, during its meeting on 5 March 2020, with the auditors present. It recommended that the Supervisory Board approve the financial statements as well as the appropriation of profits proposed by the Executive Board.

The Supervisory Board reviewed the financial statements of RWE AG and the Group, the combined review of operations, the Executive Board's proposal regarding the appropriation of distributable profit, and the consolidated non-financial report. No objections were raised as a result of this review. As recommended by the Audit Committee, the Supervisory Board approved the results of the audits of the financial statements of RWE AG and the Group and approved both financial statements. The 2019 financial statements are therefore adopted. The Supervisory Board concurs with the Executive Board's proposal regarding the appropriation of profits, which envisages paying a dividend of €0.80 per share.

Thanks to the employees of RWE. The changes we are experiencing at RWE present everyone involved with huge challenges which demand courage and tenacity as well as flexibility and creativity. RWE's employees demonstrated that they can adapt to change, even if it has serious consequences for them. They therefore deserve the utmost respect. I would like to take this opportunity to express my sincere gratitude to them for this on behalf of the entire Supervisory Board. I have absolutely no doubt that RWE is on the right path. Proof of this can be found on the stock market: an investment in RWE common shares at the end of 2017 yielded a total return of over 100 % by the end of January 2020. Our shareholders benefit from a renewed RWE becoming the pacesetter of the energy transition. But most importantly, this benefits all of society and therefore all of us. With this motivation, we will also rise to the challenges that will inevitably arise in the future.

On behalf of the Supervisory Board

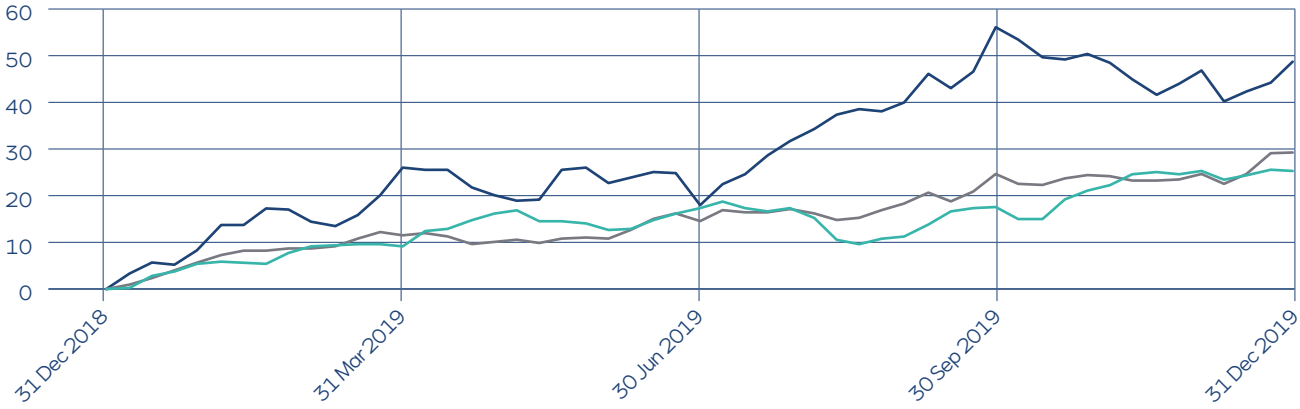
Werner Brandt
Chairman

Essen, 6 March 2020

RWE on the capital market

The stock markets had a good year in 2019. Germany's blue chip index, the DAX, rose by 25 %, more than offsetting its weak performance in 2018. The biggest stimulus was provided by the expansionary monetary policy of leading central banks. Our share actually outperformed the DAX: it yielded a total return of 49 %, closing the year far above the sector average. This proves that the capital market rewarded us in particular for the progress made in implementing our asset swap with E.ON, which has transformed us into one of the leading producers of electricity from renewables.

Total return of the RWE common share compared with the DAX and STOXX Europe 600 Utilities
% (average weekly figures)



Source: Bloomberg.

Stock market on the rise despite economic cooldown. Equity investors were able to celebrate high returns in 2019 after a weak year on stock markets in 2018. Germany's leading index, the DAX, rose by 25 % to 13,249 points, the biggest increase since 2013 when it rose by exactly the same percentage. This development came as a surprise to some experts, as the trade conflict between the USA and China and the Brexit saga caused considerable uncertainty among investors. However, the DAX benefited from the fact that the European Central Bank further relaxed its monetary policy in the face of negative economic signals. Zero interest rates and partly negative yields on government bonds are attracting more and more investors to the stock market.

RWE common share posts total return of 49 %. Fiscal 2019 was a particularly good year on the stock market for RWE shareholders. Our common share rose from €18.97 to €27.35. Including the dividend of €0.70 paid in May, this resulted in a total return of 49 %, thereby clearly outperforming the DAX for the third time running and displaying much better development than the sector index STOXX Europe 600 Utilities (+ 30 %). The main reason for RWE's strong performance was the progress made in the asset swap with E.ON. Large parts of the transaction have been finalised, a move that will see RWE become a world leading producer of electricity from renewable sources. Many investors and analysts see this as being a considerable value driver for the RWE share. RWE's successful business performance together with the reinstatement of the British capacity market had a positive effect on our share price, whilst the continued uncertainty concerning the framework conditions of the German coal phaseout had a negative impact. After the Growth, Structural Change and Employment Commission appointed by the government made specific proposals and recommended appropriate compensation for the power producers concerned in January 2019, the subsequent negotiations on the implementation between the government, states and industry ran through to 2020 (see pages 42 et seqq.).

RWE share indicators		2019	2018	2017	2016	2015
Earnings per share[1]	€	13.82	0.54	3.09	-9.29	-0.28
Cash flows from operating activities of continuing operations per share[1]	€	-1.59	7.50	-6.13	3.83	5.43
Dividend per common share	€	0.80[2]	0.70	1.50	-	-
Dividend per preferred share[3]	€	-	0.70	1.50	0.13	0.13
Dividend payment	€ million	492[2]	430	922	5	5
Common share price						
End of fiscal year	€	27.35	18.97	17.00	11.82	11.71
Highest closing price	€	28.69	22.48	23.14	15.95	25.68
Lowest closing price	€	18.97	15.10	11.80	10.17	9.20
Common share dividend yield[4]	%	2.9	3.7	8.8	-	-
Number of shares outstanding (annual average)	thousands	614,745	614,745	614,745	614,745	614,745
Market capitalisation at the end of the year	€ billion	16.8	11.7	10.3	7.1	7.1

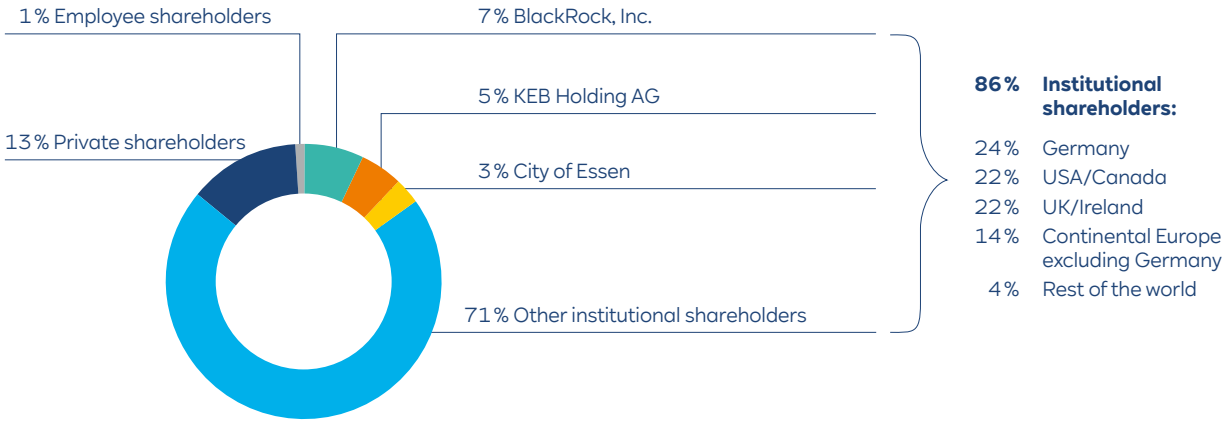
1 In relation to the annual average number of shares outstanding.
2 Dividend proposal for RWE AG's 2019 fiscal year, subject to the passing of a resolution by the 28 April 2020 Annual General Meeting.
3 RWE preferred shares were converted to common shares in mid-2019 (see commentary below).
4 Ratio of the dividend per share to the share price at the end of the fiscal year.

RWE converts preferred shares into common shares. In mid-2019, we converted all 39 million RWE preferred shares into voting common shares, thereby securing equal rights for every RWE shareholder. The conversion occurred 1:1 without any payments. The corresponding resolution was passed on 3 May 2019 by the Group's Annual General Meeting and Preferred Shareholders Meeting, acting on the proposal of the Executive Board and the Supervisory Board. On 28 June 2019, the required amendment to the Articles of Incorporation was entered in the Commercial Register at the Essen District Court and, after the close of trading, the preferred shares were delisted. In early July, the custodians reclassified the RWE preferred shares of their customers as RWE common shares. This increased the total number of common shares to 614.7 million. Institutional investors favour the 'one share - one vote' principle, which RWE is now honouring.

Dividend proposal for fiscal 2019. The Supervisory Board and the Executive Board of RWE AG will propose to the Annual General Meeting on 28 April 2020 a dividend of €0.80 per share for the past fiscal year, a €0.10 gain on the previous year. The dividend proposal reflects RWE's strong earnings.

Broad international shareholder base. Based on our latest survey, at the beginning of 2020, an estimated 86 % of the total of 614.7 million RWE shares were held by institutional investors and 14 % were owned by individuals (including employees). Institutional investors from Germany owned 24 % of RWE (previous year: 25 %). In other countries in Continental Europe, this investor group held 14 % of RWE's subscribed capital (previous year: 15 %). In North America, the United Kingdom and Ireland, it accounted for a combined 44 % (previous year: 43 %). At the start of the year, RWE AG's single-largest shareholder was the US asset management company BlackRock, which owned 7 % of our subscribed capital. KEB Holding, which is backed by the City of Dortmund, was in second place with just under 5 %, followed by the City of Essen in third place, with 3 %.

Shareholder structure of RWE AG[1]



1 As of 1 January 2020; percentages reflect shares in subscribed capital.
Sources: RWE data and notifications from shareholders in accordance with the German Securities Trading Act.

The free float of our common shares considered by Deutsche Börse in terms of index weighting was 100 % when this report went to print. Normally, shares held by investors accounting for at least a cumulative 5 % of the capital stock are not included in the free float. However, a higher threshold of 25 % applies to asset management companies like BlackRock.

About 1 % of our stock is owned by our current and former staff members. We enable the personnel of our German and British subsidiaries to take shares in the company on preferential terms through employee share ownership plans. Last year, over 5,852 people, representing 36 % of all qualifying staff members, made use of this offer. They bought a total of 333,000 common shares. We spent €2,503,000 on the preferential terms and the administration of the programme.

RWE represented on numerous stock markets.
RWE shares are traded on the Frankfurt Stock Exchange and other stock exchanges in Germany, as well as via electronic platforms such as Xetra. They are also available on stock markets in the rest of Europe. In the USA, instead of our shares being traded, RWE is represented via American Depositary Receipts (ADRs) in a Level 1 ADR programme. ADRs are share certificates issued by US depositary banks, representing a certain number of a foreign company's deposited shares. Under RWE's programme, one ADR represents one common share.

Ticker symbols of RWE common share	
Reuters: Xetra	RWEG.DE
Reuters: Frankfurt Stock Exchange	RWEG.F
Bloomberg: Xetra	RWE GY
Bloomberg: Frankfurt Stock Exchange	RWE GR
German Securities Identification Number	703712
International Securities Identification Number (ISIN)	DE0007037129
American Depositary Receipt (CUSIP Number)	74975E303

Combined
review of operations

01

1.1 Strategy

Last year saw the launch of the new RWE: our asset swap with E.ON has turned us into one of the world's leading renewable energy companies. We are now an all-rounder in electricity generation and are leading the field in the creation of a sustainable energy system. For as long as necessary, we will ensure security of supply with our flexible power plants. Sustainable power production must be carbon neutral. We intend to meet this ambition as early as 2040. To this end, every year, we will invest billions in wind and solar power as well as in energy storage. And, we will play our part by exiting from coal-based electricity generation early in a socially acceptable manner.

The new RWE: focus on sustainable power generation and energy trading. Our company has repositioned itself fundamentally over the last few years. At the beginning of this transformation process, RWE was still an integrated utility, which was active along the entire energy value chain. Now, we are a company specialising in power production and energy trading that wants to make a contribution to the substantial transformation of the energy sector on the strength of almost carbon-free electricity generation that is both secure and affordable.

The road to the new RWE began in 2016 when we pooled the Renewables, Grid & Infrastructure and Retail divisions in a new subsidiary called innogy and took it to the stock market. One-and-a-half years later, in early 2018, we agreed an extensive asset swap with E.ON, which has since largely been completed. As part of the transaction, we sold our 76.8 % investment in innogy in September 2019 and received in return E.ON's renewable energy business, a 16.67 % stake in E.ON, and the minority interests in our nuclear power stations Gundremmigen (25 %) and Emsland (12.5 %) held by the E.ON subsidiary PreussenElektra. The final step will be the legal transfer of certain innogy operations back to RWE: the renewable energy business, the German and Czech gas storage facilities, and a 37.9 % stake in the Austrian energy utility Kelag. They have been recognised in the item 'innogy – continuing operations' in the consolidated financial statements. We provide detailed commentary on the asset swap with E.ON on page 45.

Outstanding starting position in renewable energy. The renewable energy operations of E.ON and innogy under the RWE umbrella have turned us into a world leading producer of electricity from renewable sources. At the end of 2019, we had a renewable energy portfolio with a total capacity of 9.9 GW. This is the generation capacity allocable to us on a prorated basis, i. e. in accordance with the stakes that we hold. Onshore and offshore wind farms account for the largest share of this: 8.6 GW. We are the world No. 2 in offshore wind. In addition to existing assets, we have acquired a large number of growth projects in various stages of development. Here again, the focus is on wind, followed by photovoltaics. Electricity production from renewables will clearly be our strongest income generator. It will account for more than half of our adjusted EBITDA as early as 2020.

Our goal by 2040: RWE will become carbon neutral. We continued to develop our strategy concurrently to the implementation of the asset swap with E.ON and set ourselves ambitious goals in terms of lowering our greenhouse gas emissions. RWE reduced its annual carbon dioxide emissions by 51 % from 2012 to 2019. By 2030, we plan to have lowered them by 75 %. The phaseout of electricity generation from coal will play a central role. By 2040, we want to have converted enough of our power plant portfolio to achieve our goal of being carbon neutral. To this end, we will rapidly expand renewable energy, make more use of storage technologies and use CO_2-neutral fuel to produce electricity. This strategic alignment is also reflected in RWE's brand. Our purpose, 'Our energy for a sustainable life', is an expression of the determination of the RWE Group and its approximately 20,000 employees to ensure a sustainable energy system.

Fast growth in wind and solar power. The most important element of our strategy is shifting our focus to make increased use of renewable energy sources. The asset swap with E.ON gives us an excellent starting position, which we will strengthen rapidly. We want to increase our wind and solar capacity, which totalled 8.7 GW (pro-rata) at the end of 2019, to over 13 GW by the end of 2022. We plan to invest a net €1.5 billion to €2.0 billion on this every year. Reinvesting proceeds from the sale of stakes in projects could actually cause the gross expenditure to be much higher. Our technological focus rests on wind energy and photovoltaics. Geographically, we will concentrate on markets in Europe, the Americas and the Asia-Pacific region.

At present, our largest construction project is the 860 MW Triton Knoll offshore wind farm off the eastern coast of England, for which innogy secured a guaranteed payment of £74.75/MWh. We are also building huge onshore wind farms, e. g. Big Raymond and Cranell in the US state of Texas, which will have total capacities of 440 MW and 220 MW, respectively. In 2020, we want to commission our Limondale solar farm in New South Wales, Australia. With an installed capacity of 349 MWp, it will be the most powerful installation of its kind in the country. We will maintain the integrated business model pursued by innogy and E.ON to date, meaning that our new projects will cover the entire value chain from development to construction and operation wherever possible.

High-capacity storage: prerequisite for 100 % electricity generation from renewables. Expanding renewable energy is not enough. Electricity generated by 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 it actually has to be throttled. Consequently, storage technologies are increasingly coming to the fore as renewable energy continues to be expanded. They do not yet meet the technical and economic requirements for large-scale use to secure supply. But we are working on changing the situation. 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. For example, we joined forces with gas network operators and industrial enterprises in the Get H_2 initiative to put the production, storage, transport and use of hydrogen to the test on an industrial scale at our power plant site in Lingen (see page 36). 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.

Conventional electricity generation: growing significance of gas as a source of energy. Building the storage infrastructure required for a nationwide supply of green electricity is a task that will take decades, not years to accomplish. Therefore, power stations capable of offsetting fluctuating wind and solar power feed-ins will remain necessary for the foreseeable future. With our conventional generation capacity, we are making an indispensable contribution to the reliable and tailored supply of electricity in our core markets in Germany, the United Kingdom and the Benelux region. Our gas-fired power stations, most of which are state-of-the-art, are especially well suited to partner with renewable energy because they emit little carbon dioxide and their output can be adapted to load fluctuations in the grid very quickly. In terms of generation capacity, gas is already our major conventional source of energy, and its share of our power plant portfolio is expected to increase further. However, we believe the greatest potential for growth is currently harboured by the acquisition of existing stations. New builds are usually unprofitable at present, unless the assets receive guaranteed payments under the German Combined Heat and Power Act or as a result of invitations to tender from the network operators.

Conversely, coal and nuclear power stations will increasingly lose importance within our generation portfolio. In Germany, nuclear energy is subject to a phaseout roadmap, which stipulates a latest possible shutdown date for every single plant. Two RWE nuclear power stations are still online: Gundremmingen C and Emsland. We can operate these assets until the end of 2021 and the end of 2022, respectively, after which they must be closed. Thereafter, our nuclear operations will largely be limited to safe and efficient dismantling. In addition, we are exploring how to continue to make use of the locations of our power plants in the energy business.

Permission to use coal as a source of energy is also likely to end in the foreseeable future. All three countries in which RWE has coal-fired power stations already have concrete phaseout roadmaps. The United Kingdom has set its sights on the earliest exit year, which is 2024. Aberthaw B, the last RWE hard coal-fired power plant in operation there, was taken offline in December 2019 so that it can be decommissioned early.

The Netherlands intend to phase out coal by the end of 2029. This has been enshrined in law since last year. We currently have two hard coal-fired power plants there, Amer 9 and Eemshaven, which will have to be converted to run on alternative fuels or shut down after 2024 and 2029, respectively. Thanks to state subsidies, we have begun to co-fire biomass in both these stations. Moreover, we will explore whether we can run them solely on this energy fuel in the long run.

At the beginning of 2020, the German government presented a draft law on the country's exit from coal, which orients itself towards the recommendations of the Growth, Structural Change and Employment Commission. The roadmap envisages the country gradually reducing the number of coal power plants to zero by 2038. The draft law also mandates the early closure of lignite-fired power stations in the Rhenish coal mining region, on which we reached an agreement with the government following lengthy negotiations. Detailed information can be found on pages 42 et seqq. The exit roadmap makes it possible to have a reliable regulatory framework, within which we can work towards carbon-neutral electricity generation by 2040. However, it also poses major social and operational challenges, mainly relating to our lignite business in the Rhineland. For example, we have to end our opencast mining activities in Hambach early, which will be extremely expensive as this will involve maintaining Hambach Forest. Furthermore, we are forced to implement major layoffs and redundancy programmes for the affected employees. We managed to negotiate a total of €2.6 billion in compensation with the government, but we will have to cover some of the additional costs ourselves.

Germany's coal phaseout will accelerate structural change in the Rhenish lignite mining region substantially. We intend to play an active role in shaping this change and help to ensure that the energy industry continues to prosper in the region. Some recultivation land is very well suited for the expansion of renewable energy. Three innogy onshore wind farms are already located there. We also intend to continue developing our power plant sites. For example, there are plans to build an innovation, technology and commercial park in Frimmersdorf and the surrounding area. We will perform test drillings at the Weisweiler site within the scope of an EU project in order to determine whether the location's geothermal activity is suitable for generating district heat (see pages 34 et seq.). In addition, we will thoroughly explore Power-to-Gas technology at the Niederaussem Innovation Centre, where we have been operating an electrolyser for producing hydrogen since 2013.

Supply & Trading – commercial hub for the generation business. Energy trading is part of RWE's core business. It forms the economic link between the elements of our value chain, the regional markets and the various energy commodities. It is overseen by the Group company RWE Supply & Trading, which focuses on trading electricity, gas, coal, oil, biomass, and CO_2 certificates. RWE Supply & Trading mainly conducts these activities from Europe as well as via subsidiaries in New York, Singapore and Beijing. Another of the Group company's activities consists of marketing the electricity from RWE power stations and procuring the fuel and emission allowances required to produce it. The objective here is to limit price risks. On top of that, RWE Supply & Trading is in charge of the commercial optimisation of our power plant dispatch. However, the generation segments are entitled to the resulting earnings, which is why we report them in those segments. Companies outside of the RWE Group can also benefit from the expertise of our trading business. They are offered a wide range of products and services, running the gamut from traditional energy supply contracts and comprehensive energy management solutions to sophisticated risk management concepts. In addition, RWE Supply & Trading makes minor investments in energy assets or energy companies, for which value-enhancing measures can be taken in order to realise high returns upon resale (referred to as principal investments). At the end of 2019, RWE Supply & Trading had a portfolio of seven principal investments, four of which are in the USA.

Intermediary trading and storage of gas harbour additional earnings potential. Another string to RWE Supply & Trading's bow is the gas business. This is an area in which the company aims to establish itself as a leading European intermediary. The company already supplies gas to numerous companies inside and outside of the RWE Group. To this end, it enters into long-term supply agreements with producers, organises gas transportation by booking pipelines and optimises the timing of deliveries using leased gas storage facilities. The greater the size and diversification of the procurement and supply portfolios, the greater the chances to commercially optimise them. RWE Supply & Trading also concludes transactions involving liquefied natural gas (LNG). The main objective is to take advantage of differences in price between regional gas markets which are not connected via pipelines.

The asset swap with E.ON further expands our gas business. We will receive eleven gas storage facilities from our former subsidiary innogy: five in Germany with a total capacity of 1.6 billion cubic metres and six in the Czech Republic with a total capacity of 2.7 billion cubic metres. In 2020, we will start reporting income from the management of these assets in the Supply & Trading segment. Due to regulatory restrictions these storage facilities will not be owned by RWE Supply & Trading, but by legally independent Group companies, which lease them to companies such as RWE Supply & Trading. The lessees use the storage facilities for timing arbitrage transactions. They are filled in the warm months, when little gas is needed to heat buildings, and gradually emptied in the cold season, when demand is high. The income achieved through such arbitrage transactions and, in turn, storage capacity auctions depends on the seasonal differences in gas prices. The differences in price between summer and winter gas are much smaller today than they have been in the past. This applies above all to the German market, which currently has an oversupply of storage capacity. A recovery of margins is not in sight. However, we believe that periods of scarcity and price spikes will become more frequent again in the long run, in part due to rising demand for gas used to generate electricity. This is something from which we would benefit two-fold, both as user and as owner of the storage facilities.

Attractive investment portfolio increases financial strength. RWE's business operations are supplemented by a portfolio of financial investments in energy companies, which we believe will be a reliable source of substantial income. The largest position is the stake in E.ON, which we received as part of the asset swap. It amounted to 16.7 % when it was acquired in September 2019. We reduced it to 15 % shortly thereafter. Our investment portfolio also includes a 25.1 % share of the German transmission system operator Amprion and the 37.9 % interest in the Austrian utility Kelag mentioned earlier, which is part of the continuing innogy operations. Kelag's strong position in hydroelectric power makes the company a perfect fit for our renewable energy strategy.

New Group structure: coal and nuclear pooled in single segment. We will present the RWE Group in a new structure from 2020 onwards. One major change compared to 2019 is that we will dissolve the interim 'innogy – continuing operations' and 'acquired E.ON operations' segments and break down the generation business solely by energy source. We have pooled our German lignite, hard coal and nuclear power stations in a single segment. As these technologies are subject to exit roadmaps mandated by the state, plant dismantling and opencast mine recultivation will gain importance relative to electricity generation. Additional information on the new segment breakdown can be found on pages 94 et seq. The old structure, which forms the basis for our financial reporting on fiscal 2019, is set out on pages 49 et seq.

RWE AG's management system. Ensuring sustainable growth in shareholder value is at the heart of our business policy. To manage the Group's activities, RWE AG deploys a groupwide planning and controlling system, which ensures that resources are used efficiently, and provides timely, detailed insight into the current and prospective development of the company's assets, financial position and net worth. Based on the targets set by the Executive Board and management's expectations regarding the development of the business, once a year we formulate our medium-term plan, in which we forecast the development of key financial indicators. This plan contains the budget figures for the following fiscal year and planned figures for the years thereafter. The Executive Board submits the plan to the Supervisory Board, which reviews and approves it. The Supervisory Board occasionally requests adjustments to be made prior to giving its approval. During the fiscal year, we produce internal forecasts linked to the budget. The Executive Boards 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. We also immediately notify the capital market if published forecasts need to be modified.

Important key performance indicators used in managing our business are adjusted EBITDA, adjusted EBIT, adjusted net income, and net debt. EBITDA is defined as earnings before interest, taxes, depreciation and amortisation. In order to improve its explanatory power in relation to the development of ordinary activities, we remove non-operating or aperiodic effects: capital gains or losses, temporary effects from the fair valuation of derivatives, impairments and other material special items are shown in the non-operating result. Subtracting operating depreciation and amortisation from adjusted EBITDA yields adjusted EBIT. Net income corrected to exclude all major special items (adjusted net income), is another key operating indicator.

Until 2019, for management purposes, we also used key figures reflecting innogy as a purely financial investment in accounting terms. innogy was considered on the income statement only with the dividend due RWE. This approach, which deviates from IFRS consolidation principles, is explained in further detail on page 69. It enabled us to present innogy's role adequately. Another advantage of the greater independence of accounting regulations was that we did not have to make any methodological adjustments when implementing the asset swap with E.ON. Therefore, this approach was also applied to determine the key earnings figures forming the basis of the Executive Board's variable remuneration.

We primarily use the internal rate of return for evaluating the attractiveness of investment projects. The Group's financial position is analysed using cash flows from operating activities, amongst other things. We also attach special importance to the development of free cash flow. It is the result of deducting capital expenditure from cash flows from operating activities and adding to them proceeds from divestments and asset disposals. Net debt is another indicator of RWE's financial strength. The starting point for calculating it is RWE's net financial position, to which provisions for pensions and similar obligations, for nuclear waste management, for mining damage (e. g. the recultivation of opencast mining sites) and for the dismantling of wind farms are added. However, we will stop including provisions for mining damage and the financial assets used to cover them in net debt from fiscal 2020 onwards. In managing our indebtedness, we orientate ourselves towards the leverage factor, the ratio of net debt to adjusted EBITDA. In the future, we will calculate this ratio solely based on income achieved in our core business, the definition of which is provided on pages 94 et seq.

Sustainable management – more than just reducing emissions. We can only succeed over the long term if we ensure society's acceptance by embracing our corporate responsibility (CR). Today, CR is a top priority. It relates to multifaceted environmental, economic and social matters and therefore goes far beyond the reduction of greenhouse gas emissions. To optimise our assessment of the expectations which society has of us, we constantly seek to engage in dialogue with stakeholder groups. These are primarily shareholders, employees, politicians, associations, non-government organisations and civic initiatives. The stimulus we receive by interacting with our stakeholders helps us to determine the focal points of our CR activities. In addition to reducing our emissions, we take a number of further matters very seriously. These include the health of our staff, biodiversity at our sites, the diversity of our workforce and the attractiveness of RWE as an employer. We have set ourselves specific goals in respect of numerous CR issues and measure the degree to which we achieve them using KPIs. In so doing, we create transparency while making our sustainability strategy more binding. This is also achieved by the fact that the degree to which CR targets are met has a direct effect on the remuneration of the Executive Board of RWE AG (see page 80).

Further information on our goals and measures in relation to CR can be found in our separate consolidated non-financial report in accordance with Section 315b, Paragraph 3 of the German Commercial Code, which will be published separately from the combined review of operations as part of our CR Report in April 2020. The CR Report is entitled 'Our responsibility' and can be accessed on the internet at www.rwe.com/cr-report.

1.2 Innovation

Few other industrial sectors are in the throes of as great a transformation as that affecting the energy industry. Armed with innovative spirit, curiosity and drive, we are helping to shape this change, prompting us to have launched or helped progress 190 innovation projects this past year alone. A total of 370 employees and numerous industrial and research partners were involved in these projects. And as varied as they may be, they have one goal in common: overcoming the technical and economic challenges of the energy transition.

With around 290 inventions, we are amongst the pioneers of European utilities. 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 propelling this transition. With the help of our innovation projects, we are looking to develop solutions that help us advance power generation from renewable sources and harness the potential of our conventional power plants in order to facilitate a successful energy transition.

With 1,070 patents and patent applications, based on close to 290 inventions, we are in the leading pack of European utilities. Last year, we worked on approximately 190 projects in the field of research and development (R&D). About 370 of our staff were solely dedicated to these activities or contributed to them in addition to performing their normal tasks. In most R&D projects, we co-operate with other companies or research institutions, meaning we generally only bear a portion of the project costs. In 2019, the RWE Group's operating R&D spending amounted to €21 million (previous year: €18 million). innogy is only included in all of these figures based on the operations we are continuing.

In the following we present a small selection of current innovation projects. They illustrate the range of challenges we are facing in light of the energy transition and signify the creativity with which we are tackling these issues.

The floating TetraSpar turbine: new solution for offshore wind expansion. RWE is the world No. 2 in offshore wind power production. Traditional offshore wind turbines have one thing in common: they are firmly secured to the seabed and therefore located in waters with a maximum depth of 50 metres, with 70 metres likely to be possible in the medium term. The reason for this limitation is that the need for building materials increases in tandem with the need to make stronger structures which can withstand wind and waves in much deeper waters. The associated construction costs would be considerable, rendering the wind farms uneconomical. However, in order to harness the potential of wind power more effectively, companies are currently working on concepts for floating wind turbines, which can be secured to the seabed using anchor chains. This opens up the possibility of utilising deeper waters as sites for turbines, making completely new regions available for wind power, such as the Mediterranean and steeply sloping coasts in Asia and America in particular. According to WindEurope, the European wind industry association, in about 80% of all areas where wind speeds are suitable for electricity generation, the sea is simply too deep for conventional forms of offshore wind.

Floating technology is still in its infancy. Commercially available turbines are usually used, but the floating foundations are custom-made and expensive. Together with oil company Shell and Danish company Stiesdal Offshore Technologies (SOT), innogy is currently testing a modular concept called TetraSpar, which the project partners believe will enable considerable cost savings. SOT has developed a tubular steel support structure which is kept stable in the water by a keel. As it has a modular design, the individual parts of the support structure can be prefabricated at different locations. One advantage this technology holds over other floating concepts is that it is possible to construct the floating base and mount a turbine to it – all within the harbour.

The project team's model-scale tests on a floating installation, conducted in wind and wave tunnels, have largely been completed and production of individual test installation components is already under way. In 2020, the first TetraSpar base is due to be assembled and launched in the Danish port of Grenaa, before a 3.6 MW wind turbine is mounted upon it. Tugboats will then take the entire installation to the test site ten kilometres off the Norwegian coast near Stavanger, where it will be attached to the seabed 200 metres below with three anchor chains, before finally being connected to the power grid via a cable. The floating turbine will be equipped with a large number of sensors to measure whether its behaviour in real life conditions is in line with our predictions based on calculations and tests. In TetraSpar, we hope to have found a concept that will allow us to venture into entirely new wind power territories using floating technology.

Weatherproofing wind farms: lower repair costs thanks to rotor blade coating. Wind turbine blades are constantly exposed to the elements. This applies in particular to the leading edge of the blades where dust, water droplets and, at offshore sites, even sea salt strike the coating and, over time, permeate to the layers below. The damage caused by the erosion must regularly be repaired at great expense. This is precisely where we want to make a change, true to the saying "Prevention is better than cure."

For some time now, manufacturers have been making materials that can be applied to the edges of the blades to protect them from erosion. Three types of material are available for this purpose: special paints, adhesive strips and precast foams – all of which have already been tested in our laboratory, using products from ten manufacturers. At the offshore wind farms Gwynt y Môr off the coast of Wales and Rödsand 2 near Lolland in Denmark, these investigations are being continued under real life conditions. In offshore locations, the number, size and salt content of water droplets in the air is particularly high, making these material tests even more crucial. The main objective is to establish how easily these materials can be applied under marine weather conditions and how they might affect the aerodynamics of the turbines.

Testing is expected to continue until 2021, by which time we want to have identified the material with the best cost-benefit ratio. We could then apply it to rotor blades during regular maintenance, avoiding unneccessary downtime. In addition, when building wind farms, we will make sure that the blades are precoated with the ideal protective layer.

Wind turbines under observation: condition monitoring systems. Once a wind turbine has been installed, it must be regularly serviced and maintained. Damage should be detected, assessed and repaired as quickly as possible to prevent turbine downtime. In order to ensure a safe and ideally seamless operation of a given wind farm, we use condition monitoring systems. The systems use sensors to record rotation speeds, vibrations, ambient temperatures and much more. Measurements are taken around the clock, and that information is stored, so that software can evaluate the data later.

As part of our R&D activities, we are working on improving the interaction between the sensors (hardware) and the analysis methods (software). We are exploring which hardware is particularly well suited for data acquisition, for example. We improve the software using machine learning approaches, among other things. Engineers and IT specialists teach the software to work autonomously and distinguish between normal and irregular wind turbine behaviour based on existing data sets. The ideal combination of hardware and software will then be installed in individual turbine models or even entire onshore and offshore fleets. With the help of our condition monitoring systems, we have already been able to considerably reduce the number of unplanned maintenance outages.

Heat from under the ground: new tasks for our Weisweiler site. One regenerative energy source simply brimming with promise is deep geothermal energy. Not only does it offer promising prospects for energy supply, but possibly also for the future of the Rhenish lignite mining region. As part of an R&D initiative under the umbrella of EU funding project INTERREG, we are currently researching whether and how we can extract geothermal energy, stored deep in the ground under our Weisweiler power station to the east of Aachen. In concrete terms, the objective is to pump hot water from deep underneath the earth's crust to the surface. The heat could then be captured by a heat exchanger and fed into the Aachen district heating network, while the thermal water would be pumped back into the ground via a second borehole. This would make it possible to supply Greater Aachen with green energy from the Rhenish coal mining region and Weisweiler to maintain its place as a key location for the energy industry. It would also offer the workforce secure prospects, even once the planned phaseout of lignite-fired electricity generation is complete.

Ten partners have come together as part of our DGE Rollout NWE project (development of deep geothermal energy in north-western Europe) under the direction of North Rhine-Westphalia's Geological Service. RWE Power is contributing the on-site energy infrastructure at Weisweiler, and the know-how of its employees to the project. District heating pipelines already run from our power plant to Aachen, some 20 kilometres away. The first project phase will be dedicated to the underground exploration of the conditions in Weisweiler. In the second half of 2020, we want to use a test well to reach a depth of more than 1,000 metres. If it then transpires that the use of geothermal energy is economically viable, this would mark the birth of a Weisweiler geothermal energy site. The state of North Rhine-Westphalia has set itself the goal of ensuring that a 2038 phaseout of coal-fired electricity generation coincides with a massive expansion of renewable energy capacity. It is envisaged that the Rhenish region will serve as a model for how a region in Europe can best transform its energy system into a modern, innovative and climate-friendly one.

Geothermal energy is of particular interest in this regard because it is available around the clock, regardless of weather conditions. With its mining traditions and its high professional and technical standards, North Rhine-Westphalia ticks all the necessary boxes to create a successful geothermal energy hub. In Belgium and the Netherlands, district heating networks, greenhouses, industrial plants and thermal baths already benefit from this environmentally friendly energy stored below the earth's crust.

StoreToPower: converting coal-fired power stations into thermal storage power plants. StoreToPower is another project aimed at tackling the impending structural change in the Rhenish lignite mining region whilst also securing the area as a key location for the energy industry. As the name implies, the focus is on electricity storage. One of the major challenges of the energy transition is that wind turbines and solar panels are not reliable sources of electricity. The more these systems replace conventional power plants, the more urgently we need storage solutions that make it possible to reconcile the considerable fluctuations of electricity generated from renewable sources with demand profiles.

How we transition from phasing out coal to phasing in energy storage solutions is the key question when it comes to StoreToPower. As part of this initiative, we are looking to use a lignite-fired power station as a thermal storage power plant. This will not involve a complete redesign of the plant: in coal-fired power stations, heat is generated by burning coal. This heat is used to produce steam. Under high pressure, the steam drives a turbine, which produces electricity via a generator. In a coal-fired power station which has been converted into a heat storage power plant, the heat needed for steam generation can be produced with alternatives to coal, namely wind and solar power. Whenever excess amounts of green electricity are available, they could be used to heat a thermal storage tank. Later, when wind and solar power is in short supply, the stored heat can be used to generate steam to drive the turbine. The modules of the thermal storage system can be gradually built next to existing power plant units. In this way, the steam generated in the green storage plant can progressively be used to replace large portions of the steam otherwise generated using lignite. This continues until the power station operates exclusively as a thermal storage power plant using renewable energy sources once the phaseout of coal-fired power generation has been completed.

As part of the StoreToPower project, RWE has joined forces with the German Aerospace Centre and the Aachen University of Applied Sciences. Together, the partners are seeking to retrofit a thermal storage module as a test facility on the premises of a large lignite-fired power plant unit in the Rhenish region, thus proving the technical viability of the concept. The state of North Rhine-Westphalia is already backing the planning work financially and has included StoreToPower as a key project in its programme of urgent operations called 'The Rhenish region of the future'. In July 2019, the project cleared an important hurdle: the Federal Ministry of Economics and Energy listed it as one of 20 projects that are eligible to apply for funding within the scope of the ideas competition entitled 'Real Laboratories of the Energy Transition'. The contest is aimed at ensuring that sustainable energy technologies can be tested under real life conditions and on an industrial scale.

Innovative CO_2 application: synthetic fuel from carbon dioxide. For some time now, we have been working on various processes that allow us to separate carbon dioxide from power plant flue gases (CO_2 scrubbing). At our innovation centre in Niederaussem in the Rhenish lignite mining region, we have developed one of the world's pioneering technologies in this field together with BASF and Linde. Our CO_2 scrubbing pilot plant has already proven its capabilities over years of extensive testing. Since 2009, it has completed more than 80,000 operating hours, achieving CO_2 scrubbing efficiencies of 90 %. We use carbon dioxide from the pilot plant to produce synthetic fuel and feedstock for the chemical industry, which can be used to replace fossil fuels such as crude oil and natural gas. To this end, we have initiated five projects, all of which qualify for EU funding. Two examples are presented below.

As part of the first project, MefCO_2 (Methanol from CO_2), which has already been completed, we produced methanol from carbon dioxide and hydrogen. The hydrogen in turn was produced by electrolysis using water and electricity. A wide variety of chemical products are based on methanol, one of the most commonly manufactured chemicals in the world. It is also suitable as a long-term storage medium for renewable energy, provided the hydrogen used to generate it is produced using green electricity and the methanol itself is subsequently used to generate electricity.

A second project, ALIGN-CCUS, has been under way at Niederaussem since 2017. Backing is provided by both the EU and the German Ministry for Economic Affairs and Energy. A total of 30 industrial enterprises and research institutions from five European countries are involved in the project. They are looking to show that it is possible to create an entire value chain, from carbon capture to its use and storage. The project involves converting carbon dioxide and hydrogen into dimethyl ether (DME), which can be used as a low-carbon, low-nitrogen-oxide diesel substitute. Our pilot plant in Niederaussem became operational in early 2020. Every day, we produce up to 50 kilogrammes of DME from carbon dioxide and hydrogen, which is used as a fuel for the production of peak-load electricity in a stationary diesel generator at Niederaussem. ALIGN-CCUS is another example of how generation shortages from renewable energy could be cushioned moving forward. All CO_2 conversion projects serve to further our understanding of new technologies and products whilst gaining experience with new partners, thus laying the groundwork for the next step: the construction and operation of a demonstration plant where the processes can be tested on an industrial scale.

GET H_2: blueprint for entry into the hydrogen business. As demonstrated by the MefCO_2 and ALIGN-CCUS projects, hydrogen plays a key role in using carbon dioxide. However, its importance for the energy industry goes far beyond this application. After all, hydrogen (H_2) can be used in a myriad of ways, for instance to generate electricity and heat, as a fuel to power cars, or as a commodity for industry. Another advantage of hydrogen is that it can be obtained by electrolysis from electricity and water and is therefore a candidate for renewable energy storage. Producing, transporting and using hydrogen take centre stage in the GET H_2 initiative, for which we joined forces with numerous industrial and research partners. The objective of GET H_2 is to build a nationwide hydrogen infrastructure in Germany. This initiative will kick off with a project at our power plant site in Lingen, where we intend to produce green hydrogen for industrial processes on a large scale. Furthermore, there are plans to repurpose an existing gas pipeline from Lingen to the Ruhr region to transport hydrogen. This undertaking is still in the planning stage and is subject to economic feasibility.

Lignite-fired power plants: lower mercury emissions thanks to rotary hearth furnace coke. In our efforts to generate electricity with ever lower emissions, we are not only targeting the greenhouse gas carbon dioxide but also pollutants such as mercury. We are already able to successfully separate and extract most of the mercury contained within flue gases, meaning our plants are already well below the current legal emission thresholds. However, new EU regulations will impose much stricter limits on our lignite-fired power plants from summer 2021 onwards. So, the fact that we have been working intensively for years now on ways to further reduce mercury emissions cost-effectively very much works in our favour. We have specifically been giving much consideration to a process which makes use of furnace coke extracted from lignite. We are already using this substance to extract mercury at our refining plants, where we process lignite into briquettes or lignite dust for the cement and lime industry. Tests carried out in 2018 at a pilot plant at the Niederaussem Innovation Centre demonstrated that furnace coke can also be used to reduce emissions from power plants. In Niederaussem, we injected furnace coke into the smokestack of a lignite block. The result showed that the mercury attached itself to the fine furnace coke particles so that both materials could be extracted by the electrostatic precipitator and subsequently disposed of. The experiments led to a significant reduction in mercury emissions, which encouraged us to apply the method on a large scale and under real life conditions. To this end, we built a demonstration plant, which is also connected to one of the power station units at Niederaussem. During an extensive series of tests between February and July 2019, the method proved its value and effectiveness once again. We now plan to install it in further lignite units, which would otherwise not be able to comply with the impending new limitations. In the meantime, we are using the demonstration plant to explore ways in which we can further perfect the technology.

Detailed information on these projects and our other R&D ventures can be found at www.rwe.com/innovation and at www.innogy.com/innovation > Renewable Energy.

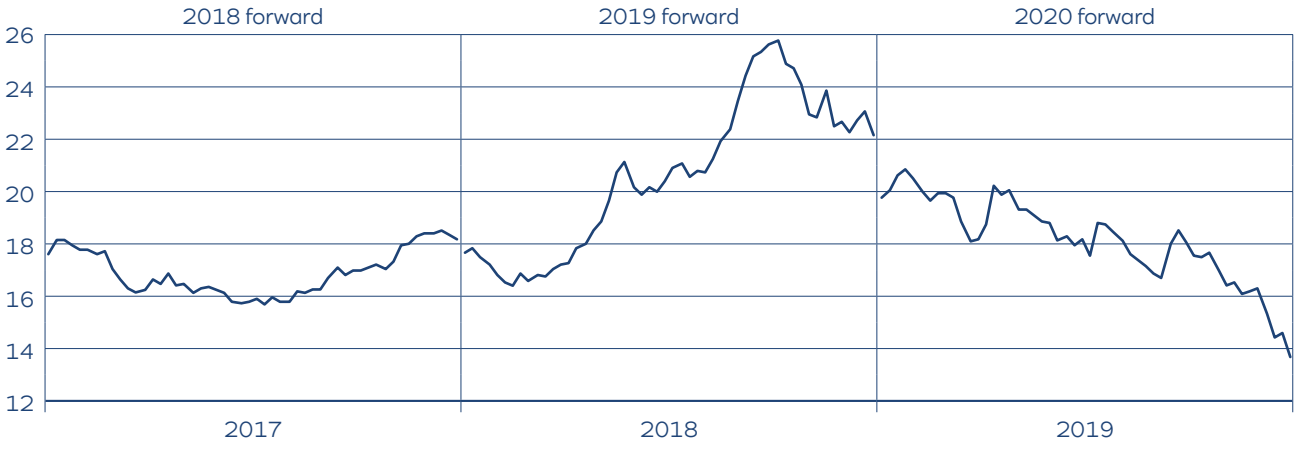
1.3 Economic environment

World economic growth slowed in 2019. Initial estimates have German GDP posting a marginal rise, with industrial output on the decline, resulting in a drop in electricity consumption. Following a multi-year upturn, prices of thermal coal and natural gas dropped on international markets. Despite this, average electricity forward prices in Germany and the Netherlands were higher than in 2018. A major factor was the rise in the price of CO_2 emission allowances witnessed since 2017. This was also a major reason why the margins of low-emission gas power plants improved, whereas those of hard coal-fired power stations worsened.

Eurozone posts only slight growth. The economy experienced a tangible cool-down in the past fiscal year. Based on preliminary estimates, global economic output rose by 2.5 %, which was less than in 2018 (3.3 %). The Eurozone may well have posted just over 1 % economic growth, with Germany recording a gain of merely 0.6 %. Due to its dependency on exports, the country, which is the largest economy in the currency area, is significantly affected by international trade conflicts. By contrast, the Netherlands, recording an estimated increase of 1.7 %, occupied one of the top spots among Eurozone countries. In the United Kingdom, our most important market outside of the currency union, the economy displayed robust development, despite the UK's exit from the EU with effect from 31 January 2020. Based on the latest figures, the country's GDP rose by more than 1 %. Since the acquisition of E.ON's renewables business, the USA has also become one of RWE's core markets. Economic research institutes estimate that the US economy expanded by more than 2 %.

Decrease in demand for electricity in Germany. Electricity consumption trends largely depend on the economic cycle, which weakened significantly in our European markets. Furthermore, less electricity was needed for heating due to the weather. Preliminary data from the German Association of Energy and Water Industries (BDEW) indicate that electricity consumption in Germany was down 2 % in 2019. Expert estimates for the UK have the country recording a decline of a similar order, whereas there was apparently no major change versus 2018 in the Netherlands. Power usage in the USA is likely to have dropped by more than 2 %, despite the country's robust economy. This was in part because the summer temperatures were below the unusually high level recorded in the preceding year, resulting in a commensurate decline in electricity consumption for air conditioning.

One-year forward prices of gas on the TTF wholesale market
€/MWh (average weekly figures)

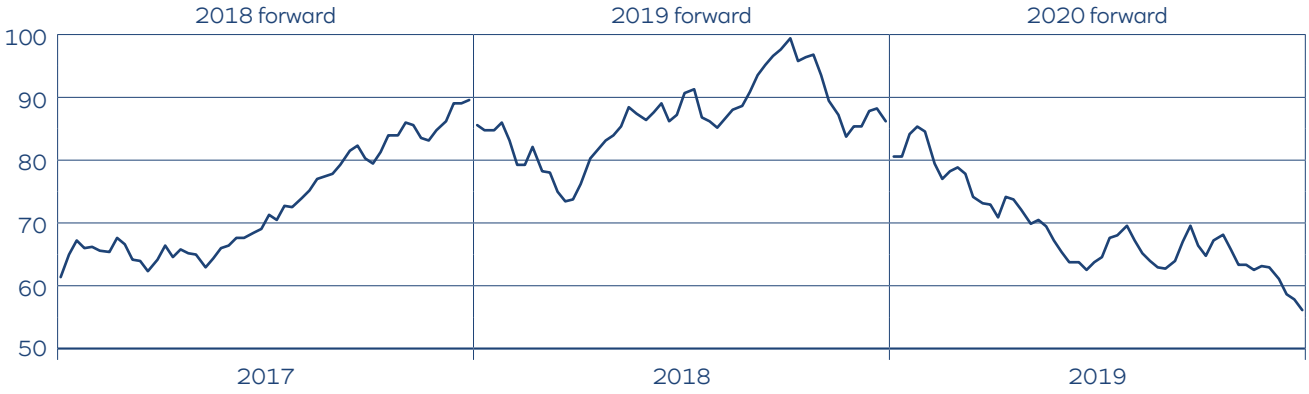


Source: Bloomberg.

Mild weather causes natural gas spot prices to collapse. The utilisation and earnings of our power plants are heavily dependent on how fuel and emission allowance prices develop. Natural gas, our most important tradable energy source, was characterised by extremely low spot prices in 2019. Quotations at the Title Transfer Facility (TTF) – the Continental European trading hub – averaged €14/MWh, €9 less than a year before. Unusually low demand for heating gas caused by the mild 2018/2019 winter played an important role. Moreover, the European market was flooded with liquefied natural gas (LNG), putting even more pressure on prices. Increased gas consumption due to the improved capacity utilisation of gas-fired power stations was unable to offset this. Gas forward prices also dropped, although not to the same extent. In the year under review, the 2020 TTF forward cost €18/MWh compared to the €21/MWh paid for the 2019 forward in 2018.

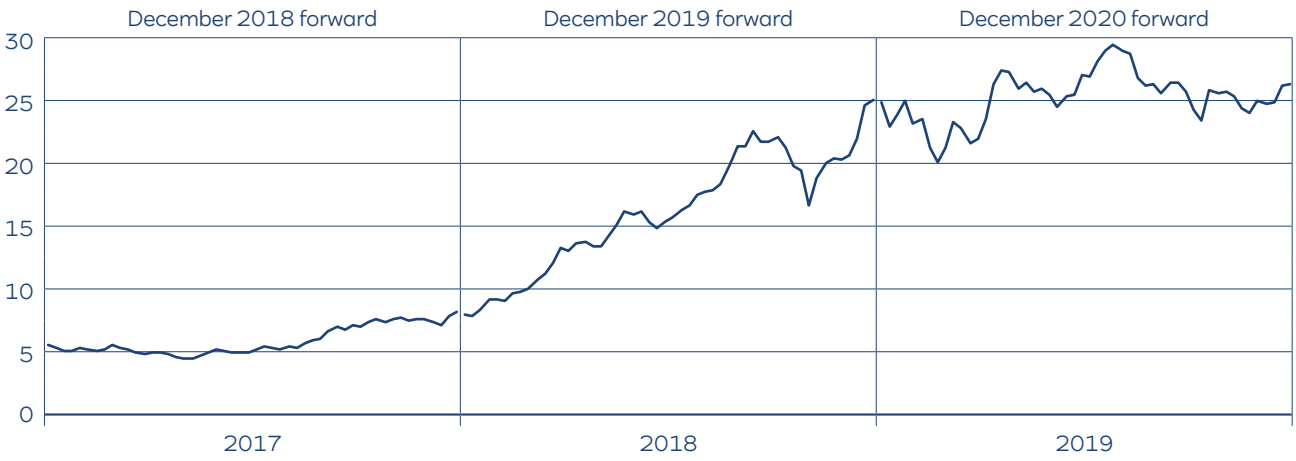
Declining demand curbs hard coal prices. Spot prices paid for hard coal used in power plants (steam coal) also declined substantially. Deliveries to the ARA ports (ARA = Amsterdam, Rotterdam, Antwerp) including freight and insurance were settled for an average of US$61/metric ton (€54), US$31 less than in the previous year. The background to this is that little use was made of coal-fired power stations in Europe, leading to a corresponding reduction of steam coal consumption. Furthermore, import restrictions in China and the reactivation of Japanese nuclear power plants curtailed demand from Asia. Quotations on the forward market also dropped owing to the aforementioned factors. In 2019, the one-year forward (API 2 Index) cost an average of US$70/metric ton (€62), US$17 less than in the preceding year.

One-year forward prices of hard coal deliveries to Amsterdam/Rotterdam/Antwerp
US$/metric ton (average weekly figures)



Source: RWE Supply & Trading.

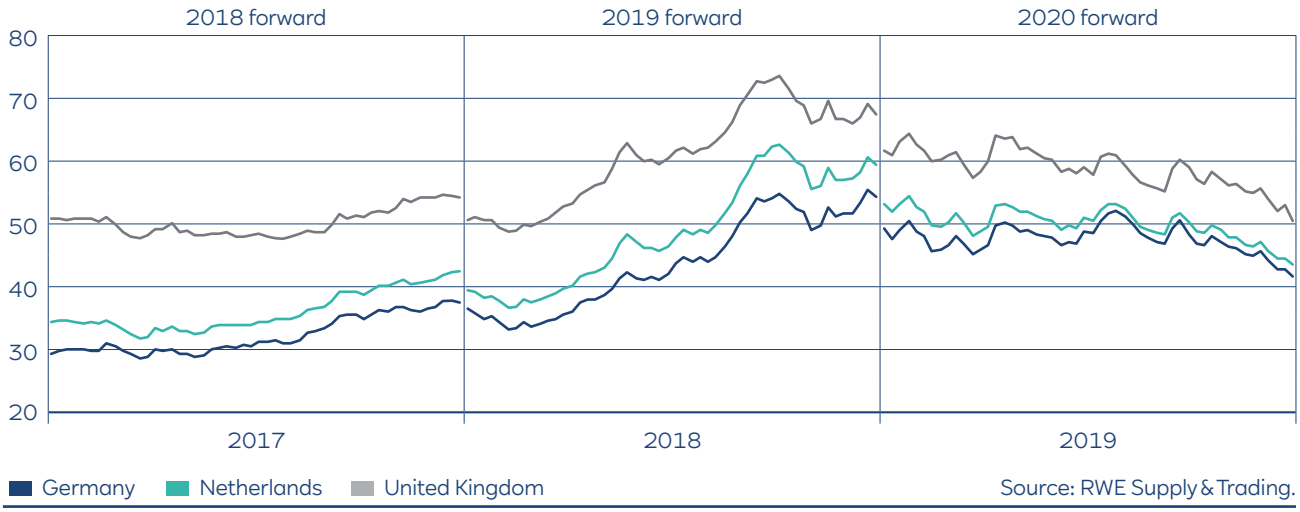
Forward prices of CO_2 emission allowances (European Union Allowances)
€/metric ton of CO_2 (average weekly figures)



Source: RWE Supply & Trading.

Reform of European Emissions Trading System causes rapid increase in CO_2 certificate prices. An important cost factor of electricity generation from fossil fuel-fired power stations is the procurement of CO_2 emission allowances, which have increased substantially in price since the middle of 2017. An EU Allowance (EUA), which confers the right to emit one metric ton of carbon dioxide, cost €25 on average, €9 more than in 2018. These figures relate to contracts for delivery that mature in December of the following year. The considerable rise in price is due to the fundamental reform of the EU Emissions Trading System. The new regulations, some of which have started having an impact at the beginning of 2019, should result in a gradual reduction of the oversupply of emission allowances on the market. Many participants in emissions trading therefore expect a shortage of available EUAs and made early purchases. This resulted in a massive surge in prices even before the reform package was implemented.

One-year forward prices of base-load electricity on the wholesale market
€/MWh (average weekly figures)

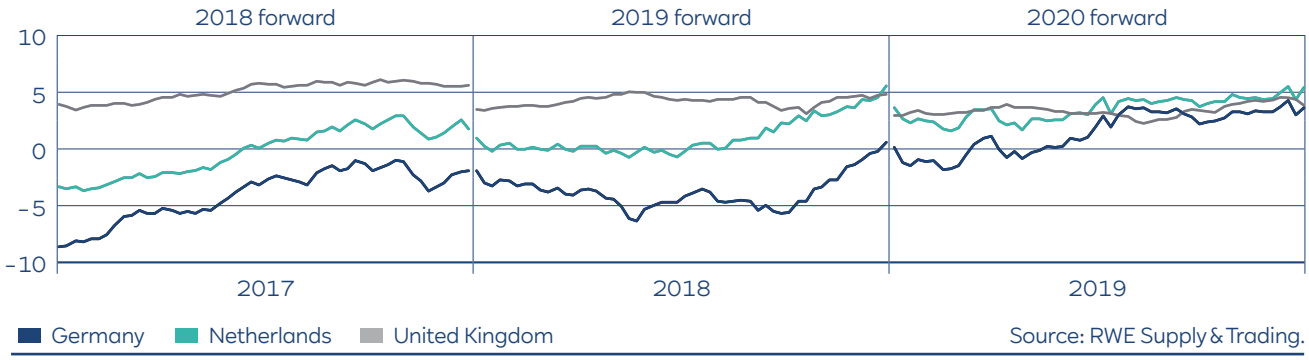


Source: RWE Supply & Trading.

Significant decline in electricity spot prices. The drop in the price of coal and gas weighed on quotations on wholesale electricity markets, whereas the rise in the price of emission allowances had a counteracting effect. Base-load power traded for an average of €38/MWh on the German spot market, €6 less than in the previous year. Spot prices declined by £14 to £43/MWh (€49) in the UK and by €12 to €41/MWh in the Netherlands. The situation on forward markets was as follows: the German 2020 base-load forward cost an average of €48/MWh, €4 more than what was paid for the 2019 forward in the previous year. The Netherlands recorded a slight increase in the price of the one-year forward of €1 to €50/MWh, with the UK recording a decrease of £2 to £52/MWh (€59).

Rise in price of CO_2 emission allowances puts coal power plant margins under pressure. Power plant margins are calculated by taking the price per unit of electricity generated and deducting the costs of the fuel and CO_2 emission allowances required for said electricity generation. As a rule, we procure the fuel for our hard coal and gas-fired power stations in liquid markets at prevailing conditions. The generation costs of the plants can therefore fluctuate considerably. In the case of gas-fired power stations, margins are known as clean spark spreads and when it comes to hard coal-fired plants, they are referred to as clean dark spreads.

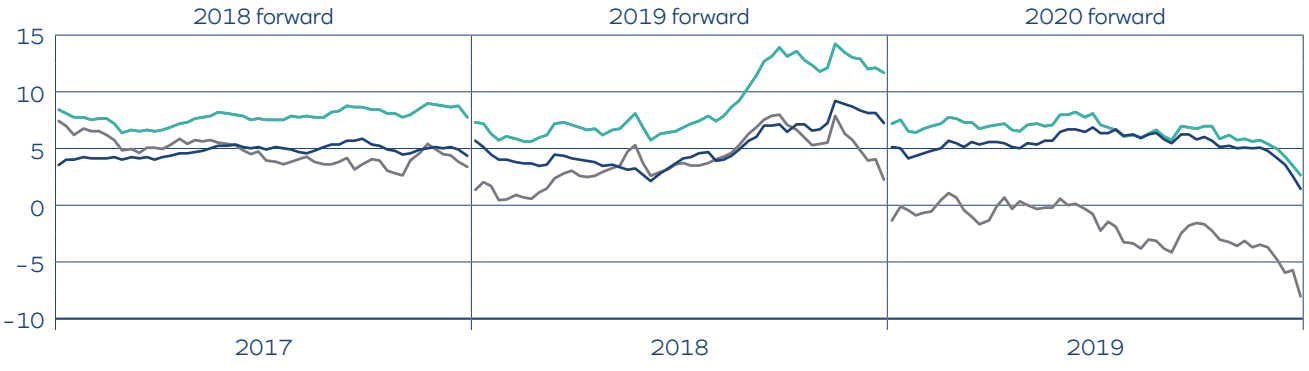
Clean spark spreads[1] forward trading
€/MWh (average weekly figures)



Source: RWE Supply & Trading.

1 Price of base-load electricity minus the cost of gas and CO_2 emission allowances based on a power plant efficiency of 50%; including CO_2 tax in the UK.

Clean dark spreads[1] forward trading
€/MWh (average weekly figures)



Source: RWE Supply & Trading.

1 Price of base-load electricity minus the cost of hard coal and CO_2 emission allowances based on a power plant efficiency of 40%; including CO_2 tax in the UK.

The graphs on page 40 illustrate the development of the aforementioned spreads in our main generation markets since 2017, based on the respective year-forward transactions. In 2019, clean spark spreads in Germany and the Netherlands were above the previous year's average, whereas they remained slightly below it in the UK. The UK and the Netherlands saw significant declines in clean dark spreads versus 2018, with Germany recording a slight increase.

Fuel costs for lignite-fired and nuclear power stations are generally more stable as we obtain lignite from our own opencast mines and source uranium via long-term contracts at firm conditions. The rise in German wholesale electricity prices caused realisable nuclear energy margins to improve. As regards lignite-fired power stations, the positive price effect was contrasted by substantial additional costs resulting from more expensive CO_2 emission allowances.

RWE: slightly higher margins of base-load forward contracts for 2019. We sell forward most of the output of our power stations and secure the prices of the required fuel and emission allowances in order to reduce short-term volume and price risks. Therefore, our generation margins in the year under review strongly depended on the conditions at which we concluded forward contracts for 2019 in earlier years. For electricity from lignite and nuclear power stations, we realised marginally higher prices with such transactions. In sum, this led to slightly better margins than with the transactions for 2018. Forward sales of electricity from gas and hard coal-fired power stations are typically concluded with less lead time. Therefore, the electricity prices realised for 2019 were higher, but there were also cost increases due to the notable fuel price hike which had an affect until 2018. In addition, the rise in the price of emission allowances also left its mark. The margins on electricity sales for 2019 of our gas-fired power stations in Germany, the UK and the Netherlands improved year on year despite these burdens. By contrast, our hard coal-fired power plants recorded declining margins in all the markets mentioned.

Wind conditions better than in 2018. The availability and profitability of plants that produce electricity from renewable energy sources greatly depend on weather conditions. This is why wind speeds are extremely important to us. In 2019, they occasionally exceeded the long-term average at our production sites in Poland, Spain and Italy, whereas they remained below it at most of our UK and some of our US locations. Wind speeds in the other regions in which we are active were largely normal. Compared to 2018, by and large, wind speeds measured at our locations in 2019 were similar or higher. Only in parts of the USA and Sweden was a decline recorded. The utilisation of run-of-river power stations strongly depends on precipitation and melt water volumes. In Germany, where most of our run-of-river power plants are located, these volumes were slightly below the long-term average. However, they were marginally higher than in 2018.

1.4 Political environment

Climate protection remains at the top of the political agenda. The European Commission presented the 'Green Deal', a package of measures aiming for a significant reduction of greenhouse gas emissions across all sectors. The ultimate goal is to make the EU climate neutral by 2050. Policymakers in our home market, Germany, are also spurring climate protection. In January 2020, the federal government submitted a draft law on the exit from coal, which envisages gradually phasing out electricity generation from coal by 2038. The draft requires our lignite power stations and opencast mines to be closed ahead of schedule. The compensation that we would receive in exchange would clearly fall short of offsetting the actual burden. However, we welcome the fact that the framework conditions for our power plants will become more reliable and that the necessary redundancies will be mitigated in a socially acceptable manner.

EU Commission presents 'Green Deal': Europe to become carbon neutral by 2050. The new European Commission under President Ursula von der Leyen put forward its 'European Green Deal' on 11 December 2019. The programme contains a list of measures to lower greenhouse gas emissions across various sectors. The Commission is pursuing two goals with the Green Deal: the first sees Europe becoming carbon neutral by 2050. The second goal focuses on 2030, the deadline by which the EU should have decreased its greenhouse gas emissions by 50–55 % compared to 1990. Previously, the aim was to reduce emissions by 40 %. The new targets are set to be achieved through far-reaching reforms to industry, energy supply, transport and agriculture. The EU Commission is planning comprehensive legislative changes and a number of different programmes in order to provide for the accelerated expansion of renewable energy, a new strategy for the industrial sector, import barriers for goods produced using processes that are harmful to the climate as well as a strategy for clean transport, among other things. Regions which are most affected by these measures will be supported by way of a 'Just Transition Fund'. The EU wants to enshrine the goal of becoming carbon neutral by 2050 in law. This will be followed by the legislative process to increase the target for 2030, which will most likely begin this summer. Depending on the outcome, the rules of the European Emissions Trading System would then have to be revised and the number of certificates placed on the market would have to be reduced.

EU limits participation of coal-fired power plants in capacity mechanisms. The European Parliament and the Council of Ministers passed a reform of EU electricity market legislation in March and May 2019, respectively. Some of the new rules took effect from 1 January 2020 (Electricity Market Regulation). Other provisions (Electricity Market Directive) will have to be transposed into national law by the member states by the end of 2020. One core component of the reform is guidelines on designing capacity market mechanisms. The new Electricity Market Regulation envisages that power stations with CO_2 emissions of more than 550 g/kWh will only be allowed to participate in such mechanisms to a very limited degree. One prerequisite for this is that they do not emit more than 350 kg of CO_2 per kilowatt of installed capacity per year. Consequently, coal-fired power plants can no longer participate in a general capacity market with full utilisation, but can participate in reserve schemes which only involve a low number of operating hours. The emission caps for new power stations entered into effect on 1 January 2020. Transitional regulations apply to existing generation facilities until the middle of 2025. Existing capacity agreements will remain unaffected by the threshold values.

German coal phaseout plan: RWE to shoulder the lion's share of initial burdens in exchange for €2.6 billion in compensation. In Germany, our main electricity generation market, the stage is now set for an early phaseout of coal-fired power production. In January 2019, the Growth, Structural Change and Employment Commission (Structural Change Commission), which was appointed by the federal government, made a concrete proposal to achieve climate protection goals within the energy sector. The panel, made up of representatives from industry, trade unions, science, associations, citizen groups and environmental organisations, called for a coal phaseout by no later than 2038. In addition, the Commission presented a roadmap for plant closures and voted in favour of power plant operators being allocated appropriate compensation. The amount of compensation is either to be determined by auction (hard coal) or via negotiations (lignite). Redundancies for operational reasons as well as inappropriate social and economic disadvantages to employees are to be avoided as much as possible. The Commission also requested that the Hambach Forest be preserved. We published a detailed overview of the panel's recommendations on page 33 of our 2018 Annual Report.

The suggestions of the Structural Change Commission were predominantly well-received by politicians and other stakeholders. After they were published, the government, the affected federal states and the power plant and opencast mine operators started negotiating the implementation of the recommendations in the lignite

industry. These talks led to a consensus in early 2020. On this basis, the Federal Cabinet published a draft Coal Phaseout Act on 29 January 2020, thus launching the parliamentary procedure. Once it has been completed, the government will be authorised to conclude public-law contracts with operators of lignite assets which protect their legitimate interests.

According to the draft law, RWE will shoulder the lion's share of the initial burdens of the lignite phaseout. It envisages an additional 3 GW of lignite-fired generation capacity being taken off the market by 2022, with around 2.8 GW of this total figure being allocable to us. According to the draft law, the first 300 MW block will be decommissioned in the Rhenish lignite mining area as early as the end of 2020, followed closely by three additional 300 MW units in the following year, and another 300 MW facility as well as two 600 MW blocks in 2022. The power stations in Neurath and Niederaussem will be most heavily affected by these plans, along with Weisweiler, albeit to a lesser extent. We will also be ceasing production of lignite briquettes at the Frechen site, thus decommissioning 120 MW of electricty generation capacity.

We will gradually reduce our lignite-fired generation capacity even further until the end of the decade, by which time it will have dropped considerably. In 2025, a 300 MW block will be taken off the grid in Weisweiler. The two on-site 600 MW units will then follow suit in 2028 and 2029, respectively. The Inden opencast mine, which exclusively supplies Weisweiler with coal, will then also be decommissioned. One of the two remaining 600 MW blocks is set to be shut down at the end of 2029, with the other being placed on security standby for four years starting on 1 January 2030. From 2030 onwards, this will only leave our three most modern lignite units at 1,000 MW apiece on the market. They will most likely remain operational until the end of 2038.

The closures will have considerable consequences for the opencast mines. More than half of the lignite reserves, i. e. 1.1 billion metric tons, which had been approved for mining, will now remain underground. In addition, at the behest of the Structural Change Commission and politicians, Hambach Forest will be preserved. Of our three opencast mines in the Rhenish lignite mining region – Inden, Hambach and Garzweiler – only the latter will remain operational from 2030 onwards to supply the remaining assets with fuel. This will mean a complete overhaul of our opencast mining operations and recultivation activities, especially in Hambach. We will initiate the necessary steps as agreed with the North Rhine-Westphalian state government. The energy industry's need for the Garzweiler opencast mine to remain operational should be reflected in the Coal Phaseout Act.

The lignite phaseout will place a considerable financial burden on our company. The draft law envisages RWE receiving €2.6 billion compensation over the next 15 years. We recognised the entire amount as an asset in the 2019 consolidated financial statements. The federal government is of the opinion that this satisfies all our claims. However, the damage we will actually incur will clearly exceed €2.6 billion. A large part of the expected burden is reflected in the consolidated financial statements. We have transferred €2,022 million to our mining provisions to cover the additional operating costs and the earlier recultivation (including interest effects). Impairments of our lignite power stations and opencast mines have resulted in burdens totalling €527 million. Moreover, we have set aside €347 million for socially acceptable redundancy schemes. Future outlays ensuring the continued operation of our power plants and opencast mines under these new conditions are only partially considered in our consolidated financial statements.

Intended recipients of state compensation in addition to RWE include the affected workforce. According to current figures, over 3,000 of the 10,000 jobs in our lignite business will be cut in the short term; by 2030, this figure could increase to around 6,000. Among other things, the proposed legislation provides for an adjustment allowance and compensation for any disadvantages concerning statutory pensions. It is envisaged that these be paid by the state.

The draft legislation also regulates the details of the hard coal phaseout. The federal government is of the opinion that auctions should decide which hard coal capacities are taken off the grid and how much their operators receive in compensation. The draft law envisages annual tender procedures from 2020 to 2026. However, operator bids will be subject to specific caps which are set to be lowered from €165,000/MW to €49,000/MW during the aforementioned period. Thereafter, the proposed legislation provides for closures without compensation. If the tenders do not result in enough capacity being decommissioned, starting in 2024, power plant operators could be ordered to shut down stations without compensation. Company representatives, trade unions and numerous federal states have levelled criticism at this draft legislation and demand that it be amended, in particular with regard to combined heat and power generation.

The legislative process for the coal phaseout is expected to last until mid-2020. Furthermore, we will be concluding a

public-law contract with the German government on the basis of the Act, which will protect our interests with regard to the regulations made. Thereafter, the compensation has to be approved by the European Commission under state aid law.

German government seeks to provide coal regions with up to €40 billion in subsidies. In August 2019, the Federal Cabinet adopted a draft law to strengthen the coal regions structurally. However, the Lower House and the Upper House postponed their consultation in order to discuss the planned legislation in conjunction with the Coal Phaseout Act. The draft of the Structural Reinforcement Act envisages the federal government providing up to €14 billion in financial support to the lignite mining regions for investments of particular importance through to 2038, with 37 % going to the Rhenish coal mining region. The funds can be used by the states, e. g. to invest in industrial infrastructure and public transport. The government intends to flank this by supporting the regions through its own measures. A total of €26 billion has been budgeted for this and earmarked for measures such as the expansion of the rail and road networks and the creation of research hubs.

German government presents Climate Protection Programme 2030 and adopts Climate Protection Act. October saw the Federal Cabinet adopt the Climate Protection Programme 2030. In the same month, it passed the draft of a nationwide climate protection law, which was adopted by the Lower House and Upper House in December following several amendments. The objective of the Climate Protection Programme and the Climate Protection Act is to ensure that the national emission reduction goals for 2030 are achieved. These targets will be enshrined in law for the first time in the Climate Protection Act. The Climate Protection Programme 2030 describes the tools and measures with which these goals should be achieved. For example, the government plans to introduce CO_2 pricing in sectors which are not covered by the European Emissions Trading System (e. g. transportation and heating). This will first be introduced at the national level starting in 2021. Going forward, the government wants to push for the introduction of an EU-wide, cross-sector emissions trading scheme with a moderate price floor. The idea is to offset CO_2 surcharges paid by consumers on petrol, diesel and other combustibles by providing relief in other areas through measures such as the increase in commuter allowances, which will come into effect in 2021. The Climate Protection Programme contains a number of measures in the areas of building, transportation, agriculture, forestry, industry and energy. Measures in the energy sector involve the accelerated expansion of offshore wind power: the federal government is now aiming for a total capacity of 20 GW by 2030 instead of the 15 GW targeted originally. The Programme envisages that municipalities in which wind turbines are built receive additional financial benefits. In addition, there are plans to abolish the subsidy cap on new photovoltaic installations. Based on the current rules, such assets will stop receiving feed-in payments once the country has built 52 GW in solar capacity.

Netherlands wants to phase out coal-fired electricity generation by 2030. In 2019, the Dutch Lower and Upper House passed a law envisaging the end of the country's electricity production from coal in this decade. According to the law, by 2025 at the latest, coal may no longer be used as fuel in power stations built in the 1990s. For plants constructed later than this, the ban would come into effect in 2030. Compensation payments for the power utilities affected are not foreseen in the law. At present, there are five hard coal-fired power stations still operating in the Netherlands. Two of these belong to us: Amer 9 and Eemshaven, which have a net installed capacity of 631 MW and 1,554 MW. They would have to stop firing coal at the end of 2024 and 2029 according to the law. After that, these stations could only be operated with other fuels. After taking the first retrofitting measures, we have started co-firing with biomass in both plants. We are receiving subsidies for this to finance the capital expenditure and additional costs incurred to purchase fuel. Conversion to 100 % biomass-firing would involve significant additional expenses. However, the government refuses to provide further subsidies. We believe that our ownership rights are being violated by the Dutch coal phaseout due to the lack of compensation. Therefore, we are considering taking legal action.

1.5 Major events

The past fiscal year took us a major step closer to the 'new' RWE. In mid-September, the EU gave us the go-ahead for our asset swap with E.ON. Major parts of the transaction were executed soon thereafter. Further highlights in 2019 were the tender won for the subsidisation of the Sofia offshore wind project in the UK and the European Commission's reapproval of the British capacity market. In this chapter, we present the major events that occurred in 2019 and the beginning of 2020. We focus on events that have not been commented on in detail elsewhere in this report.

Events in the fiscal year

Asset swap with E.ON largely executed: RWE transfers stake in innogy and receives renewables business from E.ON. In September 2019, RWE and E.ON completed major parts of the asset swap agreed in March 2018. The prerequisite for this was the final approval of the transaction by the European Commission, which was granted on 17 September. E.ON received our 76.8 % interest in innogy on the following day and conducted a capital increase in exchange for contributions in kind immediately thereafter. The approximately 440 million newly created shares were issued to RWE. This gave us a 16.7 % stake in E.ON, but by late September/early October we reduced it to 15.0 % by selling off shares. In addition, as of the end of 30 September, E.ON transferred its renewable energy activities and minority interests in the RWE nuclear power plants Gundremmingen (25 %) and Emsland (12.5 %) from its subsidiary PreussenElektra to us. We paid E.ON €1.5 billion as financial consideration also at the end of September. The transaction will be fully implemented once E.ON transfers back to us parts of the innogy portfolio which are already assigned to our operations commercially and are recognised in our Group figures: the renewable energy business, the German and Czech gas storage facilities, and a 37.9 % stake in the Austrian energy utility Kelag. This transfer shall take place as soon as possible in the current year.

The asset swap also envisaged RWE acquiring the majority stake in the Czech gas network operator innogy Grid Holding (IGH) from innogy and transferring it to E.ON thereafter. We acquired the 50.04 % shareholding in February 2019. However, the co-owner of IGH, the consortium managed by the Australian financial service provider and infrastructure investor Macquarie, MIRA, exercised its right of first refusal. We therefore transferred the shares in IGH to MIRA and not to E.ON. This sale was completed with effect from 30 September. The price totalled about €1.8 billion and therefore matched the conditions at which we had purchased the stake from innogy. Therefore, on the whole, the IGH transaction was neutral for us in financial terms.

Also as part of the asset swap, in August 2019, RWE acquired innogy's 49 % stake in VSE, the energy utility based in Košice, Slovakia. We plan to transfer the shareholding to E.ON at the conditions at which we acquired it. The purchase price payable by E.ON was considered when netting the payment claims from the asset swap in September. The stake in VSE is still included in our Group figures: we state it as a 'discontinued operation'.

When settling the financial receivables and liabilities from the asset swap, a loan was considered, which we had granted innogy in the run-up to the IPO in October 2016. It amounted to €700 million and would have come due in October 2020. By netting it against other payment claims, E.ON refunded us the principal with accrued interest early.

The asset swap with E.ON had substantial effects on our financial position, net worth and earnings in the past fiscal year, which we present on pages 51 et seqq. In addition, the acquisition of E.ON's renewable energy business changed the structure of our financial reporting. Details on this can be found on pages 49 et seq.

European Commission gives go-ahead to reinstate British capacity market. After a thorough investigation, in October 2019 the European Commission reapproved the British capacity market. This established the prerequisite for payments to be resumed following a lengthy suspension and for postponed capacity auctions to be held. The Commission holds the view that the capacity market rules comply with EU state aid regulations. It had originally reached this conclusion in July 2014, but the Court of the European Union found that the review conducted at the time had not been extensive enough. Therefore, the judges had declared the first approval invalid in November 2018. Thereafter, the British capacity market was suspended, with the participating power generators not receiving any payments. This caused RWE to temporarily forego contractually secured capacity payments of around €50 million for 2018 and about €180 million for 2019. We were paid these amounts retrospectively in January 2020 and recognised them in our earnings for the 2019 fiscal year.

In mid-2019, i. e. whilst the capacity market was still on hold, British grid operator National Grid held a capacity auction for the delivery period from 1 October 2019 to 30 September 2020. Power plants with a total capacity of 3.6 GW qualified for a very low payment of £0.77/kW. An invitation to tender for the same delivery period had already taken place at the end of 2015. At this auction, stations with a combined 46.4 GW, including 8.0 GW belonging to RWE, won a contract for a payment of £18/kW. The second auction was held to close remaining capacity gaps. Two small RWE power plants submitted bids, but will not receive any payments.

Large-scale project in the UK North Sea: innogy secures contract for Sofia wind farm. Our offshore wind growth prospects continued to improve in 2019. innogy was awarded a remuneration contract for the Sofia project in an auction in September. This venture involves building wind turbines in the UK North Sea with a total capacity of 1.4 GW. The investment volume is an estimated £3 billion, including the grid connection. The state will guarantee £39.65/MWh plus adjustments for inflation. The contract period extends over 15 years. Sofia's location on Dogger Bank nearly 200 kilometres from the English coast has very good wind conditions and moderate water depths. All of the approvals required for the wind farm have been obtained and the final investment decision is expected to be reached in 2020. Based on current planning, the first wind turbines could be commissioned in 2024/2025. The wind farm would then be fully operational in 2026.

In the United Kingdom, renewable energy has been supported via contracts for difference (CfDs) since April 2015. If the price realised by the plant operators on the wholesale market is below the feed-in tariff, they are paid the difference. If it exceeds the tariff, the operators are obliged to make a payment. Projects receiving CfDs are selected as follows: if the budget set aside for a certain generation technology is big enough, all applicants receive a CfD. If it is too small, a tender process decides which bidders win a contract. The September 2019 auction was the third since the introduction of the CfD scheme in the United Kingdom.

Entry into the Polish offshore wind business. In the future, we will also invest in Polish offshore wind farms. Our subsidiary RWE Renewables International purchased a project pipeline with a total capacity of over 1.5 GW from several private owners and developers. The four projects are set to be implemented on the Słupsk Sandbank in the Baltic Sea. We already operate several onshore wind farms in Poland.

Neurath C lignite unit placed on security standby. At the end of September, we took the 300 MW Unit C of the Neurath lignite-fired power plant offline, placing it on legally mandated security standby. This was mainly for environmental reasons. The German Electricity Market Act obliged the country's energy sector to take a total of eight lignite units with a combined capacity of 2.7 GW off the system between 2016 and 2019. However, these blocks are to serve as the last resort to ensure security of supply for four years each, after which they will be shut down for good. RWE is participating in the lignite security standby scheme with five 300 MW units. By the end of September 2017, we had already shut down units P and Q of the Frimmersdorf power plant, with Niederaussem E and F following suit a year later.

Decision on Hambach Forest: Cologne Administrative Court rejects lawsuit by BUND. On 12 March 2019, the Cologne Administrative Court ruled that Hambach Forest is not a potential special area of conservation according to the EU Directive on the conservation of natural habitats and of wild fauna and flora. Consequently, the lawsuit filed by the environmental activist group Bund für Umwelt und Naturschutz Deutschland e. V. (BUND) was rejected. In the opinion of the judges, the approval of the 2018–2020 main operational plan for the Hambach opencast mine by the Arnsberg District Council was legal. This plan includes the clearance of Hambach Forest. However, its admissibility must be confirmed by the Münster Higher Administrative Court, which in October 2018 had ordered that clearance be suspended. Meanwhile, it looks likely that Hambach Forest will be preserved. As explained on pages 42 et seqq., we agreed with the German government on an accelerated phaseout of electricity generation from lignite and an early closure of the Hambach opencast mine.

RWE ends hard coal firing in Bergkamen, Werne and Aberthaw. Last year, we discontinued a number of hard coal operations. Firstly, we sold our 51 % shareholding in the Bergkamen power station to Essen-based energy utility STEAG. The buyer previously owned 49 % of the plant and exercised a contractual purchase option. The transaction entered into effect on 1 January 2019. The Bergkamen hard coal-fired power station has been in operation since 1981, with a net capacity of 720 MW. RWE was responsible for the commercial management of this plant, while STEAG handled technical operations. The disposal of the stake goes hand in hand with the termination of a contract that obliged us to purchase electricity produced by the station.

At the end of March 2019, we decommissioned the hard coal-fired part of the combined Unit K at the Gersteinwerk station in Werne (Westphalia). The shutdown was motivated by upcoming maintenance work, which would not have been cost-effective. Unit K consists of a topping gas turbine (K1) with a net capacity of 112 MW and the (now decommissioned) steam turbine (K2), which ran on steam generated by firing hard coal and had a capacity of 620 MW. Electricity is still being produced at Gersteinwerk, albeit only from gas. The station's current available capacity amounts to 965 MW.

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. Its obligations from the British capacity market through to the end of September 2021 were transferred to third parties with a small proportion being transferred to other units within RWE's power plant fleet. Aberthaw B was commissioned in 1971 and has thus contributed to security of supply in the United Kingdom for nearly half a century. The closure will bring RWE's electricity generation from coal in the United Kingdom to an end.

RWE sells Belgian CHP station. At the end of February 2019, we sold the Inesco CHP station in Belgium to the UK chemicals group INEOS. This gas-fired power plant is located in a chemical park operated by INEOS near Antwerp and has a generation capacity of 133 MW. In addition to electricity, it also supplies steam and demineralised water to the companies in the chemical park. One of the reasons for our decision to sell the station was its tight integration in the business activities of INEOS.

German government takes over interim storage for highly radioactive waste from RWE. As of 1 January 2019, our interim storage facilities for highly radioactive waste on the sites of our Emsland, Biblis and Gundremmingen nuclear power plants were transferred to BGZ, the state-owned company responsible for interim storage. A year later, with effect from 1 January 2020, BGZ took over another two interim storage facilities for low- and intermediate-level radioactive waste in Biblis. The legal basis for this is the law on the reassignment of responsibility for nuclear waste disposal, which was passed at the end of 2016, pursuant to which the government took charge of processing and financing interim and final nuclear waste storage. In exchange, German power plant operators gave the government €24.1 billion in 2017, which was paid into a public-law fund for financing nuclear waste disposal. Responsibility for shutting down and safely dismantling the stations remains with the companies. They are also accountable for packing the radioactive waste properly before it is handed over to BGZ.

Events after the close of the fiscal year

German cabinet submits draft coal phaseout law. In late January 2020, the German cabinet adopted a draft law on the reduction and end of electricity generation from coal. In this document, the government specifies how it intends to implement the recommendations of the Growth, Structural Change and Employment Commission regarding the German coal phaseout. As proposed by the Commission, it is envisaged that Germany gradually stop generating electricity from coal by 2038. The draft law contains a timeline for this. There is also a roadmap for shutting down lignite-fired power stations, which the government agreed with the affected states and energy companies beforehand. We have been awarded €2.6 billion in compensation for the early closure of power plants and opencast mines in the Rhenish lignite mining region. However, we estimate that our actual financial burdens will be much higher. The draft law stipulates that hard coal power plants participate in calls for tenders in which their operators can apply for compensation for early closures of their stations. Detailed information on this topic can be found on pages 42 et seqq.

RWE acquires state-of-the-art gas-fired power plant in the east of England. We cemented our position as a leading generator of electricity from gas in the UK. In mid-February 2020, we bought the King's Lynn gas-fired power station in Norfolk (eastern England) from the British energy utility Centrica for £101 million. The station has a net installed capacity of 382 MW and boasts a high efficiency of 57 %. Its operating mode can be adapted flexibly in response to demand. A remuneration contract secures fixed capacity payments for King's Lynn from October 2020 to September 2035. Recently, the power plant was modernised extensively and equipped with a new gas turbine.

British capacity market auction for 2022/2023: RWE secures payments for 6.5 GW in generation capacity. Early 2020 saw several auctions for the British capacity market. The first round of bids, which took place at the end of January, related to the delivery period from 1 October 2022 to 30 September 2023. With the exception of some small generation assets, all RWE power stations represented in the auction qualified for a capacity payment. Together, they have a secured capacity of 6.5 GW. However, at £6.44/kW (before being adjusted for inflation), the capacity payment established in the auction lagged behind the market's expectations.

At the beginning of February, a second auction was held, which related to the delivery period from 1 October 2020 to 30 September 2021. An earlier auction for this delivery period had already taken place in December 2016, at which RWE stations with a total capacity of 8.0 GW (including Aberthaw) qualified for a payment of £22.50/kW. Contracts for an additional 1.0 GW in generation capacity for a payment of £1.00/kW were won at the recent auction. RWE entered a small asset, which did not submit a successful bid.

The British government has scheduled a further auction for early March 2020, in order to secure the generation capacity needed for the period from 1 October 2023 to 30 September 2024. The results were not known when the review of operations was prepared.

1.6 Notes on reporting

We executed major parts of our asset swap with E.ON in September 2019. This affected both our key financials as well as our financial reporting. The renewable energy business we received from E.ON has been included in our consolidated financial statements as a new segment. Therefore, the presentation of our business performance in 2019 is based on a Group structure with five segments, which we describe in detail in this chapter.

Effects of the asset swap with E.ON on our financial reporting. In September 2019, we executed a large part of our asset swap with E.ON, on which we provide detailed information on page 45. We present how the transaction is reflected in our financial reporting on the past fiscal year below:

- innogy's grid and retail businesses remaining with E.ON for good and the 50.04 % stake in the Czech gas network operator IGH sold to the MIRA consortium were deconsolidated as of 18 and 30 September, respectively. These activities were recognised in the items 'discontinued operations' in the income statement and 'assets/liabilities held for sale' on the balance sheet. As such, our figures also include the 49 % interest in the Slovak energy utility VSE, which we intend to transfer to E.ON.

- The innogy operations we are continuing – encompassing the renewable energy business, the German and Czech gas storage facilities and the 37.9 % shareholding in the Austrian energy utility Kelag – legally belong to E.ON for the time being, but are assigned to us in our financial reporting. Therefore, they continue to contribute to RWE's earnings, cash flows and debt. We will receive these activities from E.ON in 2020 as soon as the formal requirements for this have been met.

- We present the renewable energy business received from E.ON at the end of September in the newly established segment 'Operations acquired from E.ON'. We started including it in our Group figures on 18 September 2019 although it was legally transferred on a different date. We started recognising the stakes in the Gundremmingen and Emsland nuclear power plants we received from the E.ON subsidiary PreussenElektra in the Lignite & Nuclear segment with effect from 30 September 2019.

Fiscal 2019: Group structure featuring five segments. In our 2019 financial reporting, we divide the RWE Group into the following five segments: (1) Lignite & Nuclear, (2) European Power, (3) Supply & Trading, (4) innogy – continuing operations, and (5) Operations acquired from E.ON. The individual segments are as follows:

- Lignite & Nuclear: This segment encompasses our German electricity generation from lignite and nuclear power as well as our lignite production in the Rhineland. Operating responsibility for these activities lies with RWE Power. The segment also includes our investments in the Dutch nuclear power plant operator EPZ (30 %) and the German company URANIT (50 %), which holds a 33 % stake in Urenco, a uranium enrichment specialist.

- European Power: This is where we report on our electricity production from gas, hard coal and biomass, which focuses on Germany, the United Kingdom and the Benelux region. The segment also includes our 70 % stake in the Turkish gas-fired power station Denizli, some hydroelectric power plants in Germany and Luxembourg, and RWE Technology International, which specialises in project management and engineering services. All of these activities are overseen by RWE Generation.

- Supply & Trading: This division encompasses the operations of RWE Supply & Trading, the business activities of which are presented on pages 30 et seq. The company specialises in independent commodity trading, acts as an intermediary for gas, and supplies large industrial and corporate customers with energy. Furthermore, it markets the electricity of our generation companies and optimises the Group's power plant dispatch commercially; however, earnings achieved through the latter activities are reported in the Lignite & Nuclear and European Power segments.

- innogy – continuing operations: The main element in this segment is innogy's renewable energy business. The company ranks among the leading producers of electricity from renewable sources, with a strong focus on Europe – in particular Germany and the United Kingdom – and with footholds in North America and Australia. The focus in terms of energy sources rests on wind, followed by hydro and solar. This segment also includes the German and Czech gas storage facilities as well as the 37.9 % interest in the Austria-based energy utility Kelag.

- Operations acquired from E.ON: This is where we present the renewable energy operations we received from E.ON. Its geographical focus is on North America and Europe. By far its main source of energy is wind, supplemented by smaller solar and energy storage activities. After their acquisition in September 2019, we pooled these operations in RWE Renewables GmbH, which was founded in 2018.

Group companies with cross-segment tasks like the Group holding company RWE AG are stated under 'other, consolidation'. This item also includes our 25.1 % stake in the German transmission system operator Amprion and consolidation effects.

Adoption of IFRS 16: higher net debt, higher depreciation. We began applying the new accounting standard IFRS 16 Leases in fiscal 2019. Consequently, leases are now reported on the balance sheet, unless they are short-term (up to twelve months) or relate to low-value assets. The lessee must recognise a right-of-use asset and a corresponding lease liability in the amount of the present value of the future lease payments. Further details on this can be found on page 115 in the Notes. This methodological change leads to an increase in the balance-sheet total and net debt. On the income statement, depreciation increases and the financial result declines, but these effects are offset by fairly similar changes in adjusted EBITDA, leaving net income almost unchanged. Prior-year figures were not adjusted.

Forward-looking statements. This annual report contains forward-looking statements regarding the future development of the RWE Group and its companies as well as of the economic and political environment. These statements are assessments that we have made based on information available to us at the time this document was prepared. In the event that the underlying assumptions do not materialise or unforeseen risks arise, actual developments can deviate from the developments expected at present. Therefore, we cannot assume responsibility for the correctness of these statements.

References to the internet. The contents of pages on the internet and publications to which we refer in the review of operations are not part of the review of operations and are merely intended to provide additional information. The corporate governance declaration in accordance with Section 289f as well as Section 315d of the German Commercial Code is an exception.

1.7 Business performance

Business in 2019 was so successful that we made substantial upward corrections to our earnings forecast during the year. We closed the year with an adjusted EBITDA of €2.5 billion, far above the previous year's level. The main driver was our exceptionally strong trading performance. In addition, we benefited from the acquisition of E.ON's renewable energy business and the resumption of the capacity payments for our British power stations. Besides recording a substantial increase in our earnings position, we saw a significant decrease in our carbon footprint, which shrank by one quarter compared to 2018.

Business performance in 2019: what we forecast and what we accomplished

Outlook vs. actual € million	2018 actual	Original forecast for 2019[1]	Adjusted forecast for 2019[1]	2019 actual	Forecast fulfilled?
Adjusted EBITDA	1,538	1,400 – 1,700	2,200 – 2,500	2,489	√
Lignite & Nuclear	356	300 – 400	300 – 400	374	√
European Power	334	250 – 350	450 – 550	453	√
Supply & Trading	183	100 – 300	Significantly above 300	702	√
innogy – continuing operations	699	800 – 900	800 – 900	833	√
Operations acquired from E.ON	–	–	200 – 300	253	√

1 We announced our original forecast for 2019 on pages 83 et seq. of the 2018 Annual Report, which was published on 14 March 2019. The forecast was updated twice thereafter. The column 'Adjusted forecast for 2019' reflects the latest update; see page 16 of the interim statement on the first three quarters of 2019, which was published on 14 November 2019.

Electricity generation 13 % down on previous year. In the financial year that just came to a close, the RWE Group produced 153.2 billion kWh of electricity, of which 33 % was from gas, 32 % from lignite, 9 % from hard coal, 14 % from nuclear, and 11 % from renewables. Our electricity production was 13 % lower than in the previous year. We recorded the steepest decrease at our lignite-fired power stations (– 18.9 billion kWh). Market conditions and overhauls played a role in the reduction in operating hours of stations, as did the preliminary halt to the clearance of Hambach Forest, which limited our lignite production. Moreover, we switched off Niederaussem Units E and F at the end of September 2018 (295 MW and 299 MW, respectively) followed by Neurath's Unit C (292 MW) a year later, and put them into the statutory security standby scheme. Furthermore, the Hungary-based power producer Mátra stopped contributing to our generation, because we sold our 51 % stake in the company in 2018. Electricity generation from hard coal also experienced a substantial drop (– 13.2 billion kWh), with unfavourable market conditions and power plant outages for overhauls also coming to bear here. Further declines in volume resulted from the sale of our majority interest in the Bergkamen power station and the end of production from coal at Gersteinwerk in Werne (see page 47). Downtime caused by overhauls led to a drop in nuclear energy generation (– 0.6 billion kWh). By contrast, gas-fired power plants produced more electricity (+ 3.6 billion kWh), benefiting from improved market conditions. We posted an even bigger gain in renewable energy (+ 6.5 billion kWh), which was primarily attributable to the E.ON operations we acquired in September 2019. They produced 4.5 billion kWh of electricity in the three-and-half months during which they belonged to the RWE Group. In addition, we started biomass co-firing at our Dutch Amer 9 and Eemshaven hard coal power stations. At innogy, the commissioning of new wind turbines had a positive effect, while more favourable weather conditions improved the use of existing capacity.

In addition to our in-house generation, we procure electricity from suppliers outside of the Group. In the year being reviewed, these purchases totalled 46.4 billion kWh (previous year: 49.0 billion kWh). In-house generation and power purchases combined for 199.6 billion kWh (previous year: 225.0 billion kWh).

Power generation	Renewables		Pumped storage, batteries		Gas		Lignite		Hard coal		Nuclear		Total[1]	
Billion kWh	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Lignite & Nuclear	–	–	–	–	0.2	–	48.3	67.2	–	–	21.2	21.8	70.1	89.2
European Power	2.2	1.1	1.8	2.1	50.6	47.2	–	–	14.2	27.4	–	–	68.9	78.0
of which:														
Germany[2]	0.2	0.7	1.8	2.1	7.8	5.5	–	–	4.7	13.0	–	–	14.6	21.5
United Kingdom	0.4	0.4	–	–	33.5	33.2	–	–	0.7	0.5	–	–	34.6	34.1
Netherlands/Belgium	1.6	–	–	–	6.6	5.5	–	–	8.8	13.9	–	–	17.0	19.4
Turkey	–	–	–	–	2.7	3.0	–	–	–	–	–	–	2.7	3.0
innogy – continuing operations	9.7	8.8	–	–	–	–	–	–	–	–	–	–	9.7	8.8
Operations acquired from E.ON	4.5	–	–	–	–	–	–	–	–	–	–	–	4.5	–
RWE Group	**16.4**	**9.9**	**1.8**	**2.1**	**50.8**	**47.2**	**48.3**	**67.2**	**14.2**	**27.4**	**21.2**	**21.8**	**153.2**	**176.0**

1 Including capacity not attributable to any of the energy sources mentioned (e.g. oil-fired power stations).
2 Including electricity from generation assets not owned by RWE that we can deploy at our discretion on the basis of long-term use agreements. In 2019, 3.6 billion kWh were purchased (previous year: 5.0 billion kWh), of which 1.5 billion kWh were from hard coal-fired power stations (previous year: 2.3 billion kWh).

Rise in generation capacity thanks to asset swap with E.ON. At the end of 2019, we had a total installed power generation capacity of 42.9 GW, giving us a leading market position in Europe. This figure includes power plants that we took offline temporarily for economic reasons and the five lignite units we put into security standby. Our generation capacity grew by 1.9 GW over the course of the past year. This was attributable to renewables, which accounted for an installed capacity of 9.2 GW at the end of 2019. This figure was calculated applying IFRS consolidation principles, which explains why it deviates from the disclosure on page 28. It was 5.3 GW higher than the previous year's figure, above all due to the acquisition of E.ON's renewable energy business. In addition, we converted the Dutch Amer 9 and Eemshaven hard coal-fired power stations to co-fire biomass and commissioned new wind turbines. Conversely, we recorded a significant drop in hard coal-fired capacity, which declined by 3.2 GW. This was mainly due to the shutdown of Aberthaw B in Wales and parts of Gersteinwerk as well as the sale of our 51 % stake in the Bergkamen power plant (see page 47). The aforementioned retrofits of Amer 9 and Eemshaven for biomass co-firing also contributed to the reduction in installed hard coal-fired capacity.

In terms of generation capacity, gas is our major source of energy. At the end of 2019, it accounted for 33 %. Lignite was in second place with 24 %, followed by renewables with 21 %. Disregarding the five lignite units we placed in security stand-by, renewables, consisting of wind, hydro, biomass and photovoltaics, are already in second place in the RWE Group. A detailed overview of our generation capacity based on renewables is provided on the next page.

The geographic focus of our generation business is Germany, where 55 % of our installed capacity is located. The United Kingdom and the Netherlands follow, accounting for shares of 21 % and 12 %, respectively. As a result of the acquisition of E.ON's renewable energy business, the USA has become our fourth most important generation site. Nearly half of our onshore wind turbines are situated there, making the USA our single-largest market for renewable energy.

Power generation capacity As of 31 Dec 2019, in MW	Renewables	Pumped storage, batteries	Gas	Lignite	Hard coal	Nuclear	Total[1]	Total[1] 31 Dec 2018
Lignite & Nuclear	7	–	400	10,255	–	2,770	13,459	13,459
European Power	670	2,336	13,553	–	3,977	–	20,879	23,906
of which:								
Germany[2]	55	2,336	3,767	–	2,341	–	8,538	9,872
United Kingdom	55	–	6,676	–	–	–	7,035	8,595
Netherlands/Belgium	560	–	2,323	–	1,636	–	4,519	4,652
Turkey	–	–	787	–	–	–	787	787
innogy – continuing operations	3,639	–	–	–	–	–	3,639	3,571
Operations acquired from E.ON	4,864	20	–	–	–	–	4,884	–
RWE Group	**9,180**	**2,358[3]**	**13,953**	**10,255**	**3,977**	**2,770**	**42,863[3]**	**40,937[3]**

1 Including capacity not attributable to any of the energy sources mentioned (e.g. oil-fired power stations).
2 Including capacity not owned by RWE that we can deploy at our discretion on the basis of long-term use agreements. As of the end of 2019, as in the previous year, it amounted to a net 2,986 MW, including hard coal-fired power stations with a total capacity of 783 MW.
3 Including insignificant capacity at RWE Supply & Trading.

Generation capacity based on renewables As of 31 Dec 2019, in MW	Offshore wind	Onshore wind	Solar	Hydro	Biomass	Total	Total 31 Dec 2018
Germany	597	666	2	435	6	1,706	1,366
United Kingdom	1,272	706	–	82	55	2,115	1,165
Netherlands	–	295	–	11	549	855	517
Poland	–	385	1	–	–	386	242
Spain	–	447	–	12	–	459	459
Italy	–	475	–	–	–	475	90
USA	–	2,824	125	–	–	2,949	–
Others	48	126	–	61	–	235	73
RWE Group	**1,917**	**5,924**	**128**	**601**	**610**	**9,180**	**3,912**

Significant decline in CO_2 emissions. Last year, our power stations emitted 88.1 million metric tons of carbon dioxide. This was 29.9 million metric tons, or 25 %, less than in 2018. The main reason for the decline was the substantial reduction in electricity generation from lignite and hard coal last year. We posted a decline not only in our absolute but also our specific emissions, i.e. carbon dioxide emissions per megawatt hour of electricity generated, which dropped from 0.67 to 0.58 metric tons.

We purchase nearly all of the emission allowances we need on the market. Since the beginning of the third emissions trading period, which started on 1 January 2013, the countries of Western Europe have only allocated free CO_2 certificates to energy utilities in exceptional cases. Of our emissions in EU countries (87.1 million metric tons) in the year being reviewed, we were only able to cover 1.1 million metric tons with such state allocations.

Emissions balance	CO_2 emissions		Free allocation of CO_2 certificates		Shortage of CO_2 certificates	
Million metric tons of CO_2	2019	2018	2019	2018	2019	2018
Lignite & Nuclear	57.7	79.4	0.6	0.7	57.1	78.7
European Power	30.4	38.6	0.5	0.6	28.9	36.9
of which:						
Germany[1]	7.4	13.0	0.5	0.6	6.9	12.4
United Kingdom	12.9	12.4	–	–	12.9	12.4
Netherlands/Belgium	9.1	12.1	–	–	9.1	12.1
Turkey[2]	1.0	1.1	–	–	–	–
innogy – continuing operations	–	–	–	–	–	–
Operations acquired from E.ON	–	–	–	–	–	–
RWE Group	**88.1**	**118.0**	**1.1**	**1.3**	**86.0**	**115.6**

1 Including figures relating to generation capacity not owned by RWE that we can deploy at our discretion on the basis of long-term use agreements. In 2019, these stations emitted a total of 1.3 million metric tons of CO_2 (previous year: 2.0 million metric tons).
2 As Turkey does not participate in European emissions trading, we do not need emission allowances to cover CO_2 emissions in that country.

64.8 million metric tons of lignite produced. Our generation companies procure the fuel used by their power stations either directly on the market or via RWE Supply & Trading. We source lignite from proprietary opencast mines. In our Rhenish mining area west of Cologne, we produced 64.8 million metric tons of lignite last year. This was 21.5 million metric tons less than in the preceding year, in part due to the halt to the clearance of Hambach Forest and the resulting curtailment of our opencast mining activities. We used the lion's share, or 53.8 million metric tons, of lignite to generate electricity. The remainder was used to manufacture refined products (e. g. lignite briquettes) and, to a limited extent, to generate process steam and district heat.

Electricity and gas sales down year on year. Last year, we sold 192.0 billion kWh of electricity and 56.6 billion kWh of gas. In 2018, these figures stood at 216.1 billion kWh and 67.0 billion kWh, respectively. Most of these transactions were concluded in the Supply & Trading segment. Electricity sales experienced a drop of 11 %, largely due to declining in-house production, which resulted in a drop in electricity from RWE power stations sold by RWE Supply & Trading on the wholesale market. Gas deliveries were down 16 %. This was mainly because we now classify gas sales by RWE Supply & Trading in the Czech Republic merely as pure trading transactions. The change in accounting occurred with effect from 1 July 2019. Since then, the affected transactions have no longer been considered in our sales volume or revenue.

External revenue[1] € million	2019	2018	+/–
Lignite & Nuclear	1,003	1,132	–129
European Power	1,062	925	137
Supply & Trading	9,514	10,208	–694
innogy – continuing operations	1,164	1,124	40
Operations acquired from E.ON	374	–	374
Other, consolidation	8	17	–9
RWE Group (excluding natural gas tax/electricity tax)	**13,125**	**13,406**	**–281**
Natural gas tax/electricity tax	152	141	11
RWE Group	**13,277**	**13,547**	**–270**

1 Some prior-year figures have been adjusted, mainly due to changes in the recognition of revenue from derivative transactions (see page 98 in the Notes).

External revenue by product[1] € million	2019	2018	+/–
Electricity revenue	**10,272**	**10,121**	**151**
of which:			
Lignite & Nuclear	282	303	–21
European Power	620	542	78
Supply & Trading	8,259	8,478	–219
innogy – continuing operations	869	799	70
Operations acquired from E.ON	242	–	242
Gas revenue	**1,156**	**1,547**	**–391**
of which:			
European Power	12	17	–5
Supply & Trading	1,094	1,484	–390
innogy – continuing operations	50	47	3
Other revenue	**1,697**	**1,738**	**–41**
RWE Group (excluding natural gas tax/electricity tax)	**13,125**	**13,406**	**–281**

1 Some prior-year figures have been adjusted, mainly due to changes in the recognition of revenue from derivative transactions (see page 98 in the Notes). Immaterial electricity revenue in the 'other, consolidation' item is not stated separately.

External revenue marginally down. In 2019, the RWE Group's external revenue declined by 2% to €13,125 million (excluding natural gas tax and electricity tax). The drop was primarily due to the 25% decline in gas revenue to €1,156 million. As mentioned earlier, since 1 July 2019 gas sales by RWE Supply & Trading in the Czech Republic have been recognised as pure trading transactions and are therefore no longer considered in revenue. We recorded €10,272 million in revenue from our main product, electricity, corresponding to a marginal gain year on year. The backdrop to this is that RWE Supply & Trading realised higher prices for electricity on the wholesale market, whereas the reduction in sales volume had a counteracting effect.

Adjusted EBITDA € million	2019	2018	+/–
Lignite & Nuclear	374	356	18
European Power[1]	453	334	119
Supply & Trading	702	183	519
innogy – continuing operations	833	699	134
Operations acquired from E.ON	253	–	253
Other, consolidation	–126	–34	–92
RWE Group	**2,489**	**1,538**	**951**

1 In the period under review, €368 million was attributable to the UK (previous year: €102 million).

Adjusted EBITDA jumps 62 %. Our adjusted earnings before interest, taxes, depreciation and amortisation (adjusted EBITDA) amounted to €2,489 million. This was at the upper end of the range of €2.2 billion to €2.5 billion we forecast in November 2019 (see page 16 of the interim statement on the first three quarters of 2019). Our March 2019 forecast envisaged adjusted EBITDA of €1.4 billion to €1.7 billion (see pages 83 et seq. of the 2018 Annual Report). We clearly exceeded this expectation. Our exceptional trading performance played a major role. Furthermore, we benefited from the reinstatement of the British capacity market and the acquisition of E.ON's renewable energy business, neither of which had been considered in our first forecast. Our adjusted EBITDA rose by 62 % compared to the previous year, largely driven by the aforementioned factors. In addition, earnings from the continuing innogy operations were significantly higher year on year, as we had expected.

The following developments were observed in the segments:

- Lignite & Nuclear: This division's adjusted EBITDA totalled €374 million, which is within the forecast range of €300 million to €400 million. It represents an increase of 5 % compared to the previous year. A positive effect was felt from our realisation of slightly higher wholesale prices for the generation from our lignite-fired and nuclear power stations than in 2018. We had already sold forward nearly all of the production of these plants in earlier years. The acquisition of the minority interests in the Gundremmingen and Emsland power plants also contributed to the rise in earnings. This was contrasted by the negative effects of power plant outages for maintenance and the preliminary halt to the clearance of Hambach Forest.

- European Power: We recorded €453 million in adjusted EBITDA in this segment. This clearly exceeded the range of €250 million to €350 million forecast in March 2019. The reinstatement of the British capacity market came to bear here, which resulted in retrospective payments being made that had been withheld during the suspension of the capacity market. Although we received the payments at the beginning of 2020, the reimbursement was reflected in earnings in the year being reviewed. We had not planned for this in our original outlook for 2019. The reimbursement was the main reason why the segment's adjusted EBITDA was 36 % up year on year. However, there were also some negative effects, e. g. from a signifcant drop in the margins and utilisation of our hard coal-fired power stations.

- Supply & Trading: Here, adjusted EBITDA totalled €702 million, which was substantially above the originally forecast range of €100 million to €300 million. The previous year's figure (€183 million) was also clearly exceeded. The exceptional trading performance was the main driver. The gas and LNG business of RWE Supply & Trading also displayed encouraging development. Furthermore, a burden experienced in 2018 resulting from a value adjustment recognised for an equity stake did not recur.

- innogy – continuing operations: Adjusted EBITDA posted by the innogy business remaining with RWE amounted to €833 million, which was within the anticipated range of €800 million to €900 million. It was 19 % higher than in 2018. The overall increase in the use of innogy wind farms due to the weather played a role. In addition, income from renewable energy assets that do not receive fixed feed-in subsidises rose, driven by an increase in realised electricity prices. The continued expansion of wind power capacity also had a positive impact on earnings.

- Operations acquired from E.ON: We included the renewable energy business transferred from E.ON to RWE in our consolidated financial statements as of 18 September 2019. In the last three-and-a-half months of the year, it posted €253 million in adjusted EBITDA. This confirmed our November 2019 forecast, which envisaged a range of €200 million to €300 million. Our March 2019 outlook did not consider the acquisition of the E.ON business.

Adjusted EBIT € million	2019	2018	+/–
Lignite & Nuclear	12	77	–65
European Power[1]	132	37	95
Supply & Trading	691	177	514
innogy – continuing operations	443	349	94
Operations acquired from E.ON	116	–	116
Other, consolidation	–127	–21	–106
RWE Group	**1,267**	**619**	**648**

1 In the year under review, €198 million was attributable to the UK (previous year: –€48 million).

Adjusted EBIT more than twice as high as in 2018. Adjusted EBITDA minus operating depreciation and amortisation results in adjusted EBIT which, at €1,267 million, was within the range of €1.1 billion to €1.4 billion forecast in November 2019. The originally anticipated range of €0.4 billion to €0.7 billion was clearly exceeded. The deviation was caused by the same factors that came to bear on adjusted EBITDA. Adjusted EBIT more than doubled versus 2018 (€619 million).

Reconciliation to net income: positive one-off effect due to asset swap with E.ON. The reconciliation from adjusted EBIT to net income was greatly affected by the asset swap with E.ON. A €8.3 billion book gain on the deconsolidation of innogy's grid and retail business and the stake in IGH came to bear in particular. It was the reason why we closed fiscal 2019 with unusually high net income.

Non-operating result € million	2019	2018	+/–
Disposal result	48	–25	73
Impact of derivatives on earnings	81	–146	227
Other	–1,210	10	–1,220
Non-operating result	**–1,081**	**–161**	**–920**

The non-operating result, in which we recognise certain effects that are not related to operations or to the period being reviewed, totalled –€1,081 million, which was much less than in 2018 (previous year: –€161 million). Its components were as follows:

- Disposals of investments and assets resulted in earnings of €48 million (previous year: –€25 million). This was largely due to the book gains on the sale of the Belgian gas-fired power plant Inesco and property that was no longer needed.

- The valuation of derivatives had an effect of €81 million (previous year: –€146 million). However, such effects on earnings are temporary and are due 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 transactions which are hedged with them are only recognised as a profit or loss when they are realised.

- Income stated under 'other' totalled –€1,210 million (previous year: €10 million). This reflects a large portion of the curtailments that will result from the German lignite phaseout. Impairments recognised for power plants and opencast mines as well as transfers to provisions for mining damage reduced income by €2,087 million. Furthermore, a €347 million provision was formed for redundancy schemes. A counteracting effect came from our €2.6 billion claim for damages from the government,

which we also recognised in the non-operating result. The expected early decommissioning of German hard coal-fired power stations required additions to provisions and impairments totalling €432 million. However, these were contrasted by write-ups on gas-fired power plants and a pumped storage power station of €363 million. The Dutch coal phaseout, which has been enshrined in law, was taken into account by recognising power plant impairments of €693 million. Another impairment loss related to the German Nordsee Ost offshore wind farm, which was subjected to an impairment test because the insolvency of a service provider required the maintenance concept to be revised fundamentally. The test led to an impairment of €225 million. This took account of the fact that the wind farm, which was completed in 2015, is being subsidised according to the acceleration model. This model envisages a very high starting payment, which is limited to eight years. This is why the fair value of the wind farm declines faster than what the straight-line depreciation pursuant to IFRS reflects.

Financial result € million	2019	2018	+/–
Interest income	185	166	19
Interest expenses	–258	–180	–78
Net interest	**–73**	**–14**	**–59**
Interest accretion to non-current provisions	–881	–264	–617
Other financial result	16	–131	147
Financial result	**–938**	**–409**	**–529**

Our financial result totalled – €938 million, deteriorating by €529 million compared to 2018. Its components changed as follows:

- Net interest declined by €59 million to – €73 million due to higher interest expenses, in part as a result of the initial application of IFRS 16 (see page 50). Furthermore, the interest expenses include fees paid to top up our credit line in 2019.

- The interest accretion to non-current provisions reduced the result by €881 million, much more than in the previous year (– €264 million). The main reason for this is that the real discount rate used to calculate provisions for mining damage had to be lowered and the associated rise in the present value of obligations was partially recognised as an expense in the interest accretion. The reason for the interest adjustment is the expected premature end to electricity generation from lignite within the scope of the German coal phaseout.

- The 'other financial result' improved to €16 million (previous year: – €131 million) in part thanks to gains on our portfolio of securities after losses in the previous year.

Owing to the curtailments of the non-operating result and the financial result, we are stating earnings before taxes from our continuing operations of – €752 million (previous year: €49 million). This goes hand in hand with €92 million in tax income, which is less than what could have been expected based on the (theoretically) normal effective tax rate. This is because we did not capitalise any deferred taxes in the RWE AG tax group unless they were offset by deferred tax liabilities, because we will probably not be able to use the deferred tax claims in the foreseeable future. A counteracting effect came from a reduction of our tax risk provision. After taxes, our continuing operations generated income of – €660 million (previous year: – €54 million).

Income from discontinued operations, which encompass innogy's grid and retail businesses as well as the stakes in IGH and VSE, amounted to €9,816 million (previous year: €1,127 million). The high figure is due to our sale of these activities, except for the interest in VSE, in September 2019, which resulted in a deconsolidation gain of €8,258 million. The assets we sold had been recognised on the consolidated balance sheet at their historic carrying amounts, whereas the purchase prices were derived from their fair values, most of which were much higher. Income from operating

Reconciliation to net income € million	2019	2018	+/–
Adjusted EBITDA	**2,489**	**1,538**	**951**
Operating depreciation, amortisation and impairment losses	–1,222	–919	–303
Adjusted EBIT	**1,267**	**619**	**648**
Non-operating result	–1,081	–161	–920
Financial result	–938	–409	–529
Income from continuing operations before taxes	**–752**	**49**	**–801**
Taxes on income	92	–103	195
Income from continuing operations	**–660**	**–54**	**–606**
Income from discontinued operations	9,816	1,127	8,689
Income	**9,156**	**1,073**	**8,083**
of which:			
Non-controlling interests	643	679	–36
RWE AG hybrid capital investors' interest	15	59	–44
Net income/income attributable to RWE AG shareholders	**8,498**	**335**	**8,163**

activities of discontinued operations totalled €1,558 million, rising substantially year on year although only VSE contributed to Group earnings for all twelve months of 2019. The increase was due to IFRS accounting policies, which stipulate that no depreciation or amortisation may be recognised for discontinued operations since they were stated separately as of 30 June 2018.

Non-controlling interests in income declined by €36 million to €643 million. The main reason for this is that post-tax income from continuing innogy operations declined, driving down the share in income allocable to the minority shareholders of these activities.

The portion of earnings attributable to RWE hybrid capital investors amounted to €15 million (previous year: €59 million). This sum corresponds to the finance costs related to our £750 million hybrid bond, which was called on 20 March 2019. As this bond did not have a predefined maturity, the proceeds we recorded from it were classified as equity pursuant to IFRS. RWE's other hybrid capital is classified as debt, and we recognise the interest accrued on it in the financial result.

Due to the aforementioned developments, we closed the year with exceptionally high net income, which amounted to €8,498 million (previous year: €335 million). Based on the 614.7 million RWE shares outstanding, this corresponds to earnings per share of €13.82 (previous year: €0.54).

Capital expenditure on property, plant and equipment and on intangible assets € million	2019	2018	+/–
Lignite & Nuclear	342	230	112
European Power	252	245	7
Supply & Trading	11	13	–2
innogy – continuing operations	1,215	592	623
Operations acquired from E.ON	267	–	267
Other, consolidation	3	–1	4
RWE Group	**2,090**	**1,079**	**1,011**

Capital expenditure on financial assets € million	2019	2018	+/–
Lignite & Nuclear	78	–	78
European Power	2	4	–2
Supply & Trading	68	37	31
innogy – continuing operations	23	141	–118
Operations acquired from E.ON	20	–	20
Other, consolidation	7,557	–1	7,558
RWE Group	**7,748**	**181**	**7,567**

Significant rise in capital expenditure due to asset swap with E.ON. At €9,838 million, our capital expenditure was exceptionally high (previous year: €1,260 million). This was primarily due to the asset swap with E.ON. As a result, our capital spending on financial assets amounted to €7,748 million (previous year: €181 million). €4.0 billion of this sum was attributable to the purchase of the 16.7% stake in E.ON, while €3.6 billion was allocable to the acquisition of its renewable energy business. As expected, our capital expenditure on property, plant and equipment also grew substantially. Totalling €2,090 million, it was nearly twice as high as in 2018. Among other things, this can be traced back to the construction of the British offshore wind farm Triton Knoll and the Australian solar farm Limondale. Further details on these two large-scale projects can be found on page 38 of the 2018 Annual Report. The inclusion of E.ON's renewable energy business and power plant maintenance also contributed to the increase in capital expenditure on property, plant and equipment. Furthermore, the adoption of IFRS 16 came to bear, as it resulted in the capitalisation of rights of use for leased assets.

Workforce[1]	31 Dec 2019	31 Dec 2018	+/–
Lignite & Nuclear	11,150	11,292	– 142
European Power	2,927	2,738	189
Supply & Trading	1,337	1,267	70
innogy – continuing operations	2,505	2,192	313
Operations acquired from E.ON	1,559	–	1,559
Other[2]	314	259	55
RWE Group	**19,792**	**17,748**	**2,044**

1 Converted to full-time positions.
2 This item exclusively comprises employees of the holding company RWE AG.

Much higher headcount due to acquisition of E.ON renewable energy business. As of 31 December 2019, the RWE Group's continuing operations had 19,792 people on the payroll, of which 15,056 were employed in Germany and 4,736 worked at locations abroad. Part-time positions were calculated in these figures on a pro-rata basis. Compared to the end of 2018, the workforce expanded by 2,044 staff members. This was predominantly due to the acquisition of E.ON's renewable energy business, which added 1,559 employees, 763 of whom are in the USA. In purely operating terms, i. e. disregarding the effects of acquisitions and disposals, our headcount rose by 485, with the expansion of innogy's offshore wind capacity being a major factor. Personnel figures do not include apprentices or trainees. At the end of 2019, 701 young adults were learning a profession at RWE, compared to 666 in the previous year.

1.8 Financial position and net worth

The asset swap with E.ON made RWE more financially robust. Due to the deconsolidation of innogy's grid and retail activities, our net debt in 2019 more than halved to €9.3 billion. The asset swap also had a positive effect on the equity ratio, which rose by 9.4 percentage points to 27.2 %. Our solid financial and asset positions are reflected in the ratings issued by Moody's and Fitch, with both agencies classifying our creditworthiness as investment grade.

Responsibility for procuring funds. RWE AG regained sole responsibility for financing within the RWE Group when we sold our investment in innogy. Although we held a majority stake in innogy, the company was operationally independent and therefore took care of the financing of the activities for which it was responsible. As the parent company, RWE AG is responsible for acquiring funds from banks or the money and capital market. Subsidiaries only raise debt capital directly in specific cases, for example if it is advantageous economically to make use of local credit and capital markets. RWE AG also acts as a co-ordinator when subsidiaries assume contingent liabilities. This allows for central management and monitoring of financial risks. Moreover, it strengthens our position when negotiating with banks, business partners, suppliers and customers.

Tools for raising debt capital. We cover a major portion of our financing needs with earnings from our operating activities. In addition, we have a wide range of tools to procure debt capital.

- Our Debt Issuance Programme (DIP) gives us latitude in procuring debt capital for the long term. A DIP is a framework prospectus for the flexible issuance of bonds. Our current programme allows us to make issuances with a total nominal value of €10 billion. However, RWE AG has not issued a bond since 2015.

- We have a Commercial Paper Programme for short-term refinancing that enables us to raise funds equivalent to up to US$5 billion on the money market. We only used a portion of these funds in the past fiscal year. At times, a maximum of €3.4 billion in commercial paper was outstanding.

- Furthermore, we have access to a syndicated credit line, which serves to secure liquidity. We increased our credit line from €3 billion to €5 billion in April 2019 by concluding a new agreement. This was prompted by the transaction with E.ON, because it increased the operating activities for which we are responsible. The new credit line was granted to us by a consortium of 27 international banks. It consists of two tranches: one tranche of €3 billion with a tenor of five years and one of €2 billion with a tenor of two years. With the agreement of the banks, the former tranche can be extended twice for one year at a time. The latter tranche can be extended once, for one year, without requiring approval from the banks. So far, RWE has not used the syndicated credit line.

Bond volume drops to €1.1 billion. As of 31 December 2019, RWE bonds with a total value of €1.1 billion were outstanding. Essentially, these were three hybrid bonds: one of €539 million (2.75 % coupon; earliest possible redemption in October 2020), one of €282 million (3.5 %; April 2025) and one of US$317 million (6.625 %; March 2026). Due to early buybacks in October 2017, the amounts are lower than the issue volumes (€700 million, €550 million and US$500 million). A fourth hybrid bond with a coupon of 7 % and a nominal value of £750 million was redeemed at the first call date, on 20 March 2019, without replacing it with new hybrid capital. Therefore, the volume of RWE AG bonds as of the balance-sheet date was notably lower than at the end of 2018 (€1.9 billion).

Credit rating of RWE AG (as of 31 Dec 2019)	Moody's	Fitch
Non-current financial liabilities		
Senior debt	Baa3	BBB
Subordinated debt (hybrid bonds)	Ba2	BB+
Current financial liabilities	P-3	F2
Outlook	Stable	Stable

Borrowing costs down to 1.4 %. In 2019, the cost of debt for RWE was 1.4 %. It was calculated for our average liabilities from bonds, commercial paper and bank loans held during the year. The £750 million bond redeemed in March 2019 was not considered, as it was classified as equity pursuant to IFRS. The cost of debt declined considerably compared to 2018 (2.9 %). This was because we made more use of commercial paper with favourable interest rates to refinance our business in the reporting year.

Solid investment grade rating. The level of our borrowing costs partially depends on the rating agencies' assessment of our creditworthiness. We have commissioned Moody's and Fitch to provide such credit ratings. Moody's gives our long-term creditworthiness a rating of 'Baa3', which was confirmed in October 2019 after an extensive review. Fitch rates us one grade better at 'BBB'. Both agencies thus attest to our investment grade creditworthiness – each with a stable rating outlook.

Cash flow statement[1] € million	2019	2018	+/-
Funds from operations	1,809	138	1,671
Change in working capital	-2,786	4,473	-7,259
Cash flows from operating activities of continuing operations	**-977**	**4,611**	**-5,588**
Cash flows from investing activities of continuing operations	**474**	**-2,999**	**3,473**
Cash flows from financing activities of continuing operations	**189**	**-1,559**	**1,748**
Effects of changes in foreign exchange rates and other changes in value on cash and cash equivalents	13	13	-
Total net changes in cash and cash equivalents	**-301**	**66**	**-367**
Cash flows from operating activities of continuing operations	-977	4,611	-5,588
Minus capital expenditure[2]	-1,771	-1,246	-525
Plus proceeds from divestitures/asset disposals[2]	695	74	621
Free cash flow	**-2,053**	**3,439**	**-5,492**

1 All items relate solely to continuing operations.
2 This item solely relates to transactions with an effect on cash.

Operating cash flows: high outflows from the realisation of commodity forward transactions. Despite a significant improvement in our funds from operations, our cash flows from operating activities of continuing operations declined to – €977 million (previous year: €4,611 million). This was mainly due to transactions reflected in the change in net working capital. For example, there were substantial cash outflows in the period under review from the realisation of commodity forward transactions, for which we had received high variation margins before 2019. Variation margins are payments with which transaction partners offset profit and loss positions resulting from the daily revaluation of active contracts. However, their influence on cash flows is temporary and ends once the forward transactions are realised.

Investing activities of continuing operations resulted in a net cash inflow of €474 million. This was mainly due to income from the sale of securities, whereas capital expenditure on property, plant and equipment and financial assets had a counteracting effect. In the previous year, we recorded a cash outflow of €2,999 million in part due to substantial purchases of securities.

Cash flows from financing activities of continuing operations amounted to €189 million (previous year: – €1,559 million). In the year under review, we took on more financial debt than we repaid. This resulted in a net inflow of €1,678 million which was contrasted by the redemption of the £750 million hybrid bond not included in financial liabilities, which led to an outflow of €869 million. On top of that, we made dividend payments to RWE shareholders, hybrid investors and co-owners of fully consolidated RWE companies amounting to €560 million.

On balance, the aforementioned cash flows from operating, investing and financing activities decreased our cash and cash equivalents by €301 million.

Our free cash flow amounted to – €2,053 million. This was far below the previous year's level (€3,439 million), primarily due to declining operating cash flows.

Net debt € million	31 Dec 2019	31 Dec 2018	+/–
Cash and cash equivalents	3,192	3,523	– 331
Marketable securities	3,523	3,863	– 340
Other financial assets	4,983	2,809	2,174
Financial assets	**11,698**	**10,195**	**1,503**
Bonds, other notes payable, bank debt, commercial paper	2,466	1,657	809
Hedging of bond currency risk	7	12	– 5
Other financial liabilities	3,268	1,107	2,161
Financial liabilities	**5,741**	**2,776**	**2,965**
Correction of hybrid capital	– 562	– 88	– 474
Plus 50 % of the hybrid capital stated as equity	–	470	– 470
Minus 50 % of the hybrid capital stated as debt	– 562	– 558	– 4
Net financial assets (including correction of hybrid capital)	**6,519**	**7,507**	**– 988**
Provisions for pensions and similar obligations	3,446	3,287	159
Surplus of plan assets over benefit obligations	– 153	– 213	60
Provisions for nuclear waste management	6,723	5,944	779
Provisions for mining damage	4,618	2,516	2,102
Provisions for dismantling wind farms	951	362	589
Net debt of continuing operations	**9,066**	**4,389**	**4,677**
Net debt of discontinued operations	**232**	**14,950**	**– 14,718**
Net debt	**9,298**	**19,339**	**– 10,041**

Notable debt reduction due to deconsolidation of innogy's grid and retail businesses. As of 31 December 2019, our net debt amounted to €9.3 billion. This represents a decline of €10.0 billion compared to the end of the previous year. The asset swap with E.ON played a major role.

Net debt of discontinued operations dropped by €14.7 billion to €0.2 billion. This was due to the deconsolidation of innogy's grid and retail businesses, which were sold to E.ON, and of the 50.04 % stake in Czech gas network operator IGH, which we sold to the MIRA consortium. The remainder was attributable to our stake in Slovakian energy provider VSE, which we acquired from innogy in 2019 and plan to sell on to E.ON.

Conversely, as expected, net debt of continuing operations rose considerably, by €4.7 billion to €9.1 billion. The negative free cash flow came to bear here. Effects from the asset swap with E.ON factored in at €3.0 billion, of which €1.5 billion was attributable to the net debt which we assumed from E.ON's renewable energy business, €0.7 billion was attributable to additional nuclear provisions and another €0.7 billion to the purchase price for VSE paid to innogy. The German coal phaseout also affected net debt. It was the main reason why provisions for mining damage rose by €2.1 billion. We are claiming €2.6 billion in compensation from the government, which should cover the majority of the financial damage we will suffer from the coal phaseout. This is recognised in other financial assets and had a counteracting effect. The adoption of IFRS 16 drove up net debt by €0.4 billion. Another €0.4 billion stems from our redemption of the £750 million hybrid bond, eliminating the advantage of classifying half of it as equity. However, at the same time, innogy repaid a loan to us which was about as high as the redemption amount. This resulted from an agreement that our former subsidiary had reached with us prior to its IPO in 2016 (see page 52 of the 2016 Annual Report).

Slightly lower off-balance-sheet obligations from electricity and fuel. Net debt does not include our off-balance-sheet obligations, which largely stem from long-term fuel and electricity purchase agreements. As of the balance-sheet date, payment obligations from material procurement contracts amounted to €27.1 billion for fuel (previous year: €27.9 billion) and €7.1 billion for electricity (previous year: €7.8 billion). These figures are based on assumptions regarding the prospective development of commodity prices. For further information on our off-balance-sheet obligations, please see page 168 in the Notes.

Group balance sheet: equity ratio increased to 27.2 %. The asset swap with E.ON had a notable impact on the Group balance sheet. This was the main reason why the balance-sheet total decreased by €15.9 billion to €64.2 billion compared to the end of 2018. Due to the deconsolidation of the innogy operations continued by E.ON and the stake in IGH, assets held for sale dropped from €40.5 billion to €1.3 billion and liabilities held for sale fell from €32.8 billion to €0.5 billion. By contrast, the first-time consolidation of the acquired E.ON activities inflated the balance sheet by €12.2 billion. The RWE Group's equity increased by €3.2 billion. As of the cut-off date for the financial statements, its share in the balance-sheet total (equity ratio) was 27.2 %, 9.4 percentage points higher than at the end of the previous year. The main reason was the substantial gain on the deconsolidation of innogy's grid and retail businesses. This was counteracted by the fact that the non-controlling interests decreased. Our dividend payments and the redemption of the £750 million hybrid bond also contributed to the reduction in equity.

Group balance-sheet structure	31 Dec 2019		31 Dec 2018	
	€ million	%	€ million	%
Assets				
Non-current assets	35,951	56.0	18,595	23.2
of which:				
Intangible assets	4,809	7.5	2,193	2.7
Property, plant and equipment	19,097	29.7	12,409	15.5
Current assets	28,241	44.0	61,513	76.8
of which:				
Trade accounts receivable	3,621	5.6	1,963	2.5
Receivables and other assets	15,311	23.9	10,291	12.8
Marketable securities	3,258	5.1	3,609	4.5
Assets held for sale	1,274	2.0	40,496	50.6
Total	**64,192**	**100.0**	**80,108**	**100.0**
Equity and liabilities				
Equity	17,448	27.2	14,257	17.8
Non-current liabilities	27,018	42.1	20,007	25.0
of which:				
Provisions[1]	18,936	29.5	14,366	17.9
Financial liabilities	3,924	6.1	1,998	2.5
Current liabilities	19,726	30.7	45,844	57.2
of which:				
Provisions[1]	2,638	4.1	2,572	3.2
Financial liabilities	1,810	2.8	766	1.0
Trade accounts payable	2,987	4.7	2,429	3.0
Other liabilities	11,781	18.4	7,281	9.1
Liabilities held for sale	510	0.8	32,796	40.9
Total	**64,192**	**100.0**	**80,108**	**100.0**

1 Prior-year figures adjusted: see commentary on page 116 in the Notes.

1.9 Notes to the financial statements of RWE AG (holding company)

The financial statements of RWE AG primarily reflect the business performance of its subsidiaries. Thanks to its strong trading performance, RWE Supply & Trading contributed in particular to the Group parent's earnings last year. However, there were also some burdens, for example as a result of impairments triggered by the Dutch coal phaseout. At €514 million, RWE AG's net profit was slightly higher than in 2018. We intend to raise the dividend and therefore propose a payment of €0.80 per share to the Annual General Meeting taking place in April 2020.

Financial statements. RWE AG prepares its financial statements in compliance with the rules set out in the German Commercial Code and the German Stock Corporation Act. The financial statements are submitted to Bundesanzeiger Verlag GmbH, located in Cologne, Germany, which publishes them in the Federal Gazette. The financial statements of RWE AG can be ordered directly from us and are also available on the internet at www.rwe.com/reports.

Balance sheet of RWE AG (abridged) € million	31 Dec 2019	31 Dec 2018
Assets		
Financial assets	20,628	25,166
Accounts receivable from affiliated companies	10,233	3,669
Other accounts receivable and other assets	6,056	479
Marketable securities and cash and cash equivalents	2,929	4,864
Total assets	**39,846**	**34,178**
Equity and liabilities		
Equity	5,738	5,654
Provisions	2,237	2,700
Accounts payable to affiliated companies	29,213	23,169
Other liabilities	2,658	2,655
Total equity and liabilities	**39,846**	**34,178**

Income statement of RWE AG (abridged) € million	2019	2018
Income from financial assets	1,758	1,091
Net interest	31	-391
Other income and expenses	-1,550	-227
Taxes on income	275	-1
Net profit	**514**	**472**
Transfer to other retained earnings	-22	-42
Distributable profit	**492**	**430**

Assets. RWE AG had €39.8 billion in total assets as of 31 December 2019, compared to €34.2 billion in the prior year. This is mainly due to the effects of the asset swap with E.ON. For example, RWE transferred the renewable energy business received from E.ON to a subsidiary, resulting in a corresponding account receivable from that company. Conversely, the sale of the stake in innogy held by another subsidiary led to a liability vis-à-vis that company. However, some developments reduced the balance-sheet total. Among other things, securities and cash and cash equivalents were down. Here, the cash outflows from the realisation of commodity forwards relating to RWE Supply & Trading set out on page 63 came to bear. At the end of 2019, the equity ratio was 14.4 %. Due to the rise in total assets, it was lower than in the previous year (16.5 %).

Financial position. RWE AG is set up solidly in economic terms and has a number of financing tools at its disposal that it can use flexibly. This is reflected in our credit ratings, which are investment grade. A detailed presentation of RWE's financial position and financing activity in the year under review has been made on pages 62 et seqq.

Earnings position. RWE AG's earnings position improved slightly compared to 2018. The main items on the income statement developed as follows:

- Income from financial assets rose by €667 million to €1,758 million. The exceptional energy trading performance was a major driver. In addition, the business activities received from E.ON contributed to earnings for the first time. However, there were also some curtailing factors such as the significant deterioration of market conditions for hard coal-fired power plants faced by RWE Generation.

- Net interest also improved considerably, advancing by €422 million to €31 million. This was due to substantial capital gains from pension fund management.

- The 'other income and expenses' line item deteriorated by €1,323 million to – €1,550 million. The main reason for this was an impairment recognised for financial accounts receivable from a Dutch subsidiary, the earnings prospects of which deteriorated considerably due to the coal phaseout mandated by law. Furthermore, IT projects drove up expenses at RWE AG.

- In the year under review, we recorded tax income of €275 million, largely because we reduced our tax risk provision and received tax refunds for earlier years. RWE AG had recorded a tax expense of €1 million in 2018.

- The presented earnings figures lead to net profit of €514 million. This represents an improvement of €42 million compared to 2018.

- The distributable profit of €492 million corresponds to the planned payment of a dividend of €0.80 per share to our shareholders.

Outlook for 2020. RWE AG's earnings prospects will largely depend on the business performance of its subsidiaries. Our current assessment makes us confident of being able to achieve a net profit in 2020 that is slightly higher than in 2019.

Corporate governance declaration in accordance with Section 289f and Section 315d of the German Commercial Code. On 14 February 2020, the Executive Board and the Supervisory Board of RWE AG issued a corporate governance declaration in accordance with Section 289f and Section 315d of the German Commercial Code. The declaration contains the Corporate Governance Report for the first time and has been published on the internet at www.rwe.com/corporate-governance-declaration.

1.10 Presentation of the RWE Group with innogy as a purely financial investment

For fiscal 2019, we are also presenting Group figures reflecting our former subsidiary innogy as a purely financial investment for the last time. We do not apply the principles of consolidation pursuant to IFRS to determine these figures. In doing so, we do not consider innogy based on its earnings, but on the dividend we are paid. Applying this method leads to adjusted EBITDA of €2.1 billion and adjusted net income of €1.2 billion for the Group. This is much more than we had predicted originally. The main reasons for this were our strong trading performance and the reinstatement of the British capacity market.

Former subsidiary innogy: full consolidation of limited informational value. International Financial Reporting Standards (IFRS) stipulate that we fully consolidate companies that are directly or indirectly controlled by RWE AG in the Group's financial statements. This means that the revenue, expenses, cash flows, assets, liabilities, etc. of the affected activities are included in the Group's figures. This approach also had to be applied to innogy. However, it did not reflect the way in which we managed our former subsidiary. We held innogy as a purely financial investment, which was allowed to operate as an independent business entity.

Adjusted figures. Therefore, we applied a second method, which deviated from IFRS consolidation principles, to calculate the figures for the Group, which reflected the status of our subsidiary more accurately. In doing so, the stake in innogy was recognised on the balance sheet under 'other financial assets'. In RWE's earnings figures, innogy was considered only with the dividend payable to us. We treated the transactions of the rest of the Group with innogy as transactions with third parties. Since we sold our stake in innogy to E.ON in September 2019, we have stopped preparing balance sheets applying the above method, but we applied it one last time to calculate earnings for 2019. This largely disregards the effects of the asset swap with E.ON (e.g. the acquisition of the renewable energy business). Therefore, the figures give some insight into the business trend that is virtually untainted by the exceptional effects of the transaction. We also use these figures to measure performance in determining Executive Board remuneration.

Adjusted EBITDA and adjusted net income higher than forecast. The overview below presents some key earnings figures that were calculated applying the method described above. The figure determined for adjusted EBITDA in 2019 was €2,106 million (previous year: €1,521 million) and adjusted net income amounted to €1,210 million (previous year: €591 million). Our outlook of November 2019 envisaged ranges of €1.8 billion to €2.1 billion and €0.9 billion to €1.2 billion, respectively (see page 16 of the interim statement on the first three quarters of 2019) . In our first earnings forecast of March 2019, we had envisaged adjusted EBITDA of €1.2 billion to €1.5 billion and adjusted net income of €0.3 billion to €0.6 billion (see page 84 of the 2018 Annual Report). We clearly exceeded these expectations. This was primarily due to the exceptional trading performance of RWE Supply & Trading and the effect on earnings of the reinstatement of the British capacity market.

Key figures for the RWE Group including innogy as a financial investment that is not fully consolidated[1] € million	2019	2018	+/–
Adjusted EBITDA	2,106	1,521	585
Adjusted EBIT	1,412	953	459
Adjusted net income	1,210	591	619

1 Figures not calculated in compliance with IFRS. In addition to the issues mentioned above, this relates to the following items, amongst others: all supply and service agreements of the Group with innogy have been accounted for as pending transactions, even if they would have had to be recognised at fair value. Provisions for impending losses from these transactions have not been formed. Supply and service agreements with external third parties and associated provisions have been accounted for as in the IFRS consolidated financial statements. The same applies to the accounting effects of hedges and deferred taxes. Earnings for 2019 do not contain the actual innogy dividend of €1.40 per share, but include the theoretical value of €1.64, which was the basis for the conditions of the asset swap with E.ON.

1.11 Disclosure relating to German takeover law

The following disclosure is in accordance with Section 315a, Paragraph 1 and Section 289a, Paragraph 1 of the German Commercial Code as well as with Section 176, Paragraph 1, Sentence 1 of the German Stock Corporation Act. The information relates to company-specific regulations, for example relating to adjustments to the capital structure by the Executive Board or a change of control of the company. At RWE, these provisions are in line with the standards of German listed companies.

Composition of subscribed capital. RWE AG's capital stock amounts to €1,573,748,744.44 and is divided among 614,745,499 no-par-value common shares in the name of the bearer. As set out on page 25, our 39,000,000 preferred shares were converted to common shares in the middle of 2019. Since then, all RWE shares have granted their bearer the same rights.

Shares in capital accounting for more than 10% of voting rights. As of 31 December 2019, no holding in RWE AG exceeded 10% of the voting rights.

Limitation of share transfers. Within the scope of the employee share plan of RWE AG, 305,216 RWE common shares were issued to staff in Germany in the financial year that just ended. The securities must be held until 31 December 2020.

We also have employee stock purchase plans in the UK. Staff members of RWE Generation UK plc, RWE Technology UK Limited and RWE Supply & Trading GmbH UK Branch qualify for them. The shares are subject to a five-year holding period starting from their respective issue dates. A total of 27,742 RWE common shares were purchased under the UK plans.

Appointment and dismissal of Executive Board members/amendments to the Articles of Incorporation. Executive Board members are appointed and dismissed in accordance with Section 84 et seq. of the German Stock Corporation Act in conjunction with Section 31 of the German Co-Determination Act. Amendments to the Articles of Incorporation are made pursuant to Section 179 et seqq. of the German Stock Corporation Act in conjunction with Article 16, Paragraph 5 of the Articles of Incorporation of RWE AG. According to the aforementioned provision in the Articles of Incorporation, unless otherwise required by law or the Articles of Incorporation, the Annual General Meeting shall adopt all resolutions by a simple majority of the votes cast or – if a capital majority is required – by the simple majority of the capital stock represented when the resolution is passed. Pursuant to Article 10, Paragraph 9 of the Articles of Incorporation, the Supervisory Board is authorised to pass resolutions in favour of amendments to the Articles of Incorporation that only concern the wording without changing the content.

RWE AG authorisation to implement share buybacks. Pursuant to a resolution passed by the Annual General Meeting on 26 April 2018, RWE AG is authorised until 25 April 2023 to conduct share buybacks accounting for up to 10% of the capital stock as of the effective date of the resolution or as of the exercise date of the authorisation if the capital stock is lower on this date. At the Executive Board's discretion, the acquisition can be made on the stock exchange or via a public purchase offer.

Shares purchased in this way may then be cancelled. Furthermore, they may be transferred to third parties or sold otherwise in connection with mergers or acquisitions of companies, parts of companies, operations, or of stakes in companies. Shares that are not sold on the stock exchange or through a tender to all shareholders may only be sold for cash. Moreover, in such cases, the sale price may not be significantly lower than the price at which the shares are listed on the stock market. The company may transfer shares bought back to the holders of option or convertible bonds and also use the shares to fulfil its obligations resulting from employee share schemes. In the aforementioned cases, shareholder subscription rights are waived. These authorisations may be exercised in full or in part, or once or several times for partial amounts.

Executive Board authorisation to issue new shares. Pursuant to the resolution passed by the Annual General Meeting on 26 April 2018, the Executive Board is authorised to increase the company's capital stock, subject to the Supervisory Board's approval, by up to €314,749,693.44 until 25 April 2023, through the issuance of up to 122,949,099 new bearer common shares in return for contributions in cash or in kind (authorised capital). These authorisations may be exercised in full or in part, or once or several times for partial amounts.

In principle, shareholders are entitled to subscription rights. However, subject to the approval of the Supervisory Board, the Executive Board may waive them in the following cases:

- They may be waived in order to prevent the number of shares allocated from the subscription resulting in fractional amounts (fractions of shares).
- Subscription rights may be waived in order to issue shares in exchange for contributions in kind for the purposes of mergers or acquisitions of companies, parts of companies, operations, or of stakes in companies.
- Subscription rights may be waived in the event of a cash capital increase if the price at which the new shares are issued is not significantly lower than the price at which shares are quoted on the stock market and the portion of the capital stock accounted for by the new shares, for which subscription rights are waived, does not exceed 10% in total.
- Furthermore, subscription rights may be waived in order to offer shares to potential holders of convertible or option bonds commensurate to the rights to which they would be entitled on conversion of the bond or on exercise of the option.

The Executive Board is authorised, subject to the approval of the Supervisory Board, to determine the further details and conditions of the share issuance.

In sum, the capital stock may not be increased by more than 20% through the issuance of new shares waiving subscription rights.

Effects of a change of control on debt financing. Our debt financing instruments often contain clauses that take effect in the event of a change of control. The following rule applies to a small residual amount of a senior bond remaining with us, which was the only bond that could not be fully transferred to innogy in 2016: in the event of a change of control in conjunction with a drop in RWE AG's credit rating below investment-grade status, creditors may demand immediate redemption. In such cases, RWE AG has the right to cancel its subordinated hybrid bonds within the defined change of control period; if this does not occur, the annual compensation payable on the hybrid bonds increases by 500 basis points.

RWE AG's €5 billion syndicated credit line also includes a change-of-control clause, which essentially has the following content: in the event of a change of control or majority at RWE, drawings are suspended until further notice. The lenders shall enter into negotiations with us on a continuation of the credit line. Should we fail to reach an agreement with the majority of them within 30 days from such a change of control, the lenders may cancel the line of credit.

Effects of a change of control on Executive Board and executive remuneration. Members of the Executive Board of RWE AG have the special right to terminate their employment contract in the event that shareholders or third parties obtain control over the company and this would be linked to significant disadvantages for the Executive Board members. In such a case, they are free to resign for cause from their position within six months of the change of control by giving three months' notice. In addition, they can request the termination of their employment contract and receive a one-off payment.

The amount of the one-off payment shall correspond to the compensation that would have been due until the end of the contractually agreed term of service, but no more than three times the total contractual annual remuneration. Share-based payment is not included in this. This is in line with the recommendations of the German Corporate Governance Code applicable to the year under review.

The Strategic Performance Plan presented on page 75 et seq. stipulates for the Executive Board and executives of RWE AG and subordinated associated companies that in the event of a change of control the granted performance shares, which have already been finally determined but not yet paid out, shall be paid out early. The payout amount shall correspond to the number of performance shares multiplied by the sum of the average closing price of the RWE common share on the last 30 trading days prior to the announcement of the change of control and the amount of dividend paid out per share until then, calculated starting from the time when the number of performance shares was finally granted. All performance shares granted on a preliminary basis at the time of the change of control shall expire without replacement or compensation.

1.12 Remuneration report

The capital market expects companies to have performance-linked remuneration systems which bring the interests of management in line with those of the company's owners. Another demand is that Executive Board members be rewarded if their company applies the principles of sustainable development and takes its responsibility vis-à-vis society seriously. RWE's remuneration system meets these requirements. Despite this, we want to refine it and have already worked closely with investors to this end. This year, the Supervisory Board of RWE AG will finalise the new rules and present them to the 2021 Annual General Meeting for a vote.

Structure of Supervisory Board remuneration

The remuneration of the Supervisory Board is governed by the provisions of the Articles of Incorporation of RWE AG. Accordingly, the Chairman of the Supervisory Board receives fixed remuneration of €300,000 per fiscal year. His Deputy receives €200,000 per fiscal year. The other members of the Supervisory Board receive fixed remuneration of €100,000 and additional compensation for committee mandates according to the following rules.

Members of the Audit Committee receive additional remuneration of €40,000. This payment is increased to €80,000 for the Chair of this committee. With the exception of the Nomination Committee, the members of which do not receive additional remuneration, the members and the Chairs of all the other Supervisory Board committees receive an additional €20,000 and €40,000 in remuneration, respectively. Remuneration for a committee mandate is only paid if the committee is active at least once in the fiscal year.

Supervisory Board members who concurrently hold several offices in this body only receive compensation for the highest-paid position. Remuneration is prorated if a Supervisory Board member only performs a function for part of a fiscal year.

In addition to the remuneration paid, out-of-pocket expenses are refunded to the members of the Supervisory Board. Some Supervisory Board members also receive income from the exercise of Supervisory Board mandates at subsidiaries of RWE AG.

The members of the Supervisory Board imposed on themselves the obligation, subject to any commitment to relinquish their pay, to use 25 % of the total annual compensation (before taxes) to buy RWE shares and to hold them for the duration of their membership of the Supervisory Board of RWE AG. Last year, all of the members who do not relinquish their compensation met this self-imposed obligation for their compensation for 2018. For the new members who joined the Board in 2019, this self-imposed obligation begins when the remuneration for fiscal 2019 is paid at the beginning of 2020.

Level of Supervisory Board remuneration

In total, the remuneration of the Supervisory Board (excluding out-of-pocket expenses) amounted to €3,304,000 in fiscal 2019 (previous year: €3,480,000). Of this sum, €465,000 (previous year: €460,000) was remuneration paid for mandates on committees of the Supervisory Board and €543,000 (previous year: €720,000) was remuneration paid for mandates at subsidiaries.

The remuneration of all individuals who have served on the Supervisory Board in 2018 and/or 2019 is shown in the following table.

Supervisory Board remuneration[1]	Fixed remuneration		Remuneration for committee offices		Remuneration for mandates at subsidiaries[2]		Total remuneration[3]	
€ '000	2019	2018	2019	2018	2019	2018	2019	2018
Dr. Werner Brandt, Chairman	300	300	–	–	–	–	300	300
Frank Bsirske, Deputy Chairman	200	200	–	–	143	200	343	400
Michael Bochinsky (since 1 Aug 2018)	100	42	40	17	–	–	140	59
Reiner Böhle (until 18 Sep 2019)	72	100	14	20	–	–	86	120
Sandra Bossemeyer	100	100	20	20	–	–	120	120
Martin Bröker (since 1 Sep 2018)	100	33	–	–	–	–	100	33
Anja Dubbert (since 27 Sep 2019)	26	–	1	–	–	–	27	–
Matthias Dürbaum (since 27 Sep 2019)	26	–	1	–	–	–	27	–
Ute Gerbaulet	100	100	–	–	–	–	100	100
Reinhold Gispert (until 31 Jul 2018)	–	58	–	23	–	–	–	81
Andreas Henrich (until 31 Aug 2018)	–	67	–	–	–	–	–	67
Prof. Dr. Hans-Peter Keitel	100	100	20	20	–	–	120	120
Dr. h. c. Monika Kircher	100	100	30	–	–	–	130	100
Monika Krebber (until 18 Sep 2019)	72	100	14	20	86	120	172	240
Harald Louis	100	100	20	20	20	20	140	140
Dagmar Mühlenfeld	100	100	20	20	–	–	120	120
Peter Ottmann	100	100	20	20	–	–	120	120
Günther Schartz	100	100	20	20	–	–	120	120
Dr. Erhard Schipporeit	100	100	80	80	215	300	395	480
Dr. Wolfgang Schüssel	100	100	25	40	–	–	125	140
Ullrich Sierau	100	100	40	40	–	–	140	140
Ralf Sikorski	100	100	40	40	50	50	190	190
Marion Weckes	100	100	40	40	–	–	140	140
Leonhard Zubrowski	100	100	20	20	30	30	150	150
Total[3]	**2,296**	**2,300**	**465**	**460**	**543**	**720**	**3,304**	**3,480**

1 Supervisory Board members who joined or retired from the corporate body during the year receive prorated remuneration.
2 Remuneration for exercising mandates at subsidiaries is only included for periods of membership of the Supervisory Board of RWE AG.
3 The commercial rounding of certain figures can result in inaccurate sum totals.

Structure of Executive Board remuneration

Fundamentals. 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. The remuneration system described in the following has been applied since 1 October 2016. It is made up of non-performance-based and performance-based components. The former consists of the fixed salary, the pension instalment as well as fringe benefits. The performance-based components include the bonus and a share-based payment, the latter of which is a long-term compensation component.

Recipients of Executive Board remuneration. In the financial year that just ended, Rolf Martin Schmitz and Markus Krebber received compensation for their work on the Executive Board of RWE AG. Rolf Martin Schmitz has been a member of the Executive Board since 1 May 2009 and its Chairman since 15 October 2016. His contract expires on 30 June 2021. Markus Krebber was appointed to this corporate body with effect from 1 October 2016 and has been in charge of finance since 15 October 2016. His tenure on the Executive Board runs through to 30 September 2024.

Non-performance-based Executive Board remuneration

Fixed compensation and pension instalments. The members of the Executive Board of RWE AG receive a fixed annual salary, which is paid in twelve monthly instalments. As a second fixed remuneration component, they are entitled to a pension instalment for every year of service, which is determined on an individual basis, unless – as is the case with Rolf Martin Schmitz – they belonged to the Executive Board before the pension instalment was introduced and have therefore received a pension commitment (see page 78).

The pension instalment is paid in cash or retained in part or in full in exchange for a pension commitment of equal value through a gross compensation conversion. RWE has concluded a reinsurance policy to finance the pension commitment. The accumulated capital may be drawn upon on retirement, but not before the Executive Board member turns 62. Members of the Executive Board of RWE reach the established age limit when they are 63 years old. They can be reappointed for one year at a time thereafter, but may not hold office beyond their 65th birthday.

When retiring, Executive Board members can choose a one-time payment or a maximum of nine instalments. They and their surviving dependants do not receive any further benefits. Vested retirement benefits from earlier activities within the RWE Group remain unaffected by this.

Fringe benefits. Non-performance-based compensation components also include fringe benefits, primarily consisting of company cars and accident insurance premiums.

Performance-based Executive Board remuneration

Bonus. 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 starting point for calculating the bonus is what is referred to as the 'company bonus', which depends on the level of EBIT of relevance to remuneration in the relevant fiscal year. The basis for determining this figure is adjusted EBIT (EBIT minus the non-operating result). We calculated adjusted EBIT for 2019 and the preceding year using the method set out on page 69. This means that innogy, the subsidiary acquired by E.ON in September 2019, is considered only in terms of the dividend payment it owes to RWE. The rules of Executive Board remuneration stipulate that the Supervisory Board may modify adjusted EBIT to make this figure more suitable for measuring performance. Such adjustments can relate to gains on disposals, changes in provisions, as well as impairments and their consequences. This converts adjusted EBIT to EBIT of relevance to remuneration.

The company bonus is determined as follows: the Supervisory Board sets a target as well as a floor and a ceiling for EBIT of relevance to remuneration at the beginning of every fiscal year. After the end of the fiscal year, the actual level of adjusted EBIT and EBIT of relevance to remuneration resulting from the modifications explained earlier are determined. If the latter is identical to the EBIT target, the target achievement is 100%. In this case, the company bonus equals the contractually agreed baseline bonus. If EBIT of relevance to remuneration is exactly at the pre-defined floor, target achievement is 50%; if it is at the ceiling, target achievement is 150%. Target achievement is adjusted linearly between the two limits. If EBIT of relevance to remuneration is below the floor, no company bonus is paid. If the ceiling is exceeded, the maximum target achievement remains 150%.

To calculate the individual bonus, the company bonus is multiplied by a factor reflecting the personal performance of the Executive Board member in question. This 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. The aforementioned target categories are each weighted by one-third. Degrees of achievement can range between 0% and 200%. However, the derivable performance factor is limited to between 80% and 120%. This means that the performance factor for an Executive Board member with a 150% target achievement is only 120%.

After the end of every fiscal year, the Supervisory Board evaluates the individual performance of the Executive Board members relative to the three categories above and determines their individual performance factor. This is done in line with the binding goals and targets which it sets at the beginning of the financial year. The bonus determined in this manner is paid out in full to the Executive Board members after the end of the fiscal year.

Share-based payment. Executive Board members are granted a payment under the Strategic Performance Plan (SPP), which rewards the achievement of long-term goals. The key determinant of success is the total return of the RWE common share, which is made up of the share price and the dividend (performance). The link between compensation and the performance of the share price over the long term motivates the Executive Board to consider the interests of the company's owners when taking decisions. Another of the SPP's success factors is net income of relevance to remuneration of the fiscal year in question. This key figure is derived from adjusted net income, which is arrived at by deducting the non-operating result and other exceptional items including their effects on income taxes from net income. Like adjusted EBIT, we calculated it using the method described on page 69, with innogy being considered only in terms of the dividend payment it owes RWE. The conditions of the SPP allow the Supervisory Board to make limited modifications to adjusted net income in predefined cases in order to arrive at net income of relevance to remuneration. Such modifications may be made as long as they reflect the impact of unforeseeable events such as capital measures, acquisitions, sales and regulatory changes.

The SPP is based on performance shares with a term (vesting period) made up of the fiscal year to which they relate and the three subsequent years. The Executive Board members receive a grant letter for each tranche, in which they are informed of their personal gross allocation amount. The preliminary number of performance shares is calculated by dividing the grant amount by the average closing quotation of the RWE share over the last 30 days of trading on Xetra before the grant.

Only after the end of the fiscal year is the number of fully granted performance shares determined. It depends on the net income of relevance to remuneration in the fiscal year in question. The actual figure is compared to a pre-defined target figure. The procedure is similar to the approach taken when determining the company bonus. The Supervisory Board pre-defines a target, a floor and a ceiling for net income of relevance to remuneration, orienting itself towards the approved medium-term plan in doing so. If the target figure is achieved exactly, 100% of the conditionally granted performance shares is fully allocated. If net income of relevance to remuneration is exactly at the floor, 50% of the conditionally granted performance shares is fully allocated; if it is at the ceiling, the final grant amounts to 150%. At a level below the floor, all of the conditionally granted performance shares from the tranche lapse. If the ceiling is exceeded, the maximum grant remains 150%.

The finally granted performance shares are fully paid out in cash to the Executive Board member after the end of the four-year vesting period. The level of the payment depends on the performance of the RWE common share. It corresponds to the final number of performance shares multiplied by the sum of the average closing quotation of the RWE common share over the 30 days of trading on Xetra leading to the end of the vesting period and the dividends accumulated in the last three years. However, a cap applies in this case as well: even in the event of an extremely good share performance, the payment is limited to a maximum of 200 % of the initial gross grant amount.

The members of the Executive Board are obliged to reinvest 25 % of the payment (after taxes) in RWE shares. The shares must be held until at least the end of the third year after conclusion of the vesting period.

The performance shares remain unaffected after an Executive Board member leaves the body at the end of their contract and are paid out as planned at the end of the vesting period. If an Executive Board member voluntarily leaves the company early or is dismissed with good cause, all performance shares which have not yet reached the end of the vesting period lapse. The SPP also contains a provision which gives the Supervisory Board the power to punish infractions by Executive Board members, for example serious violations of the company's Code of Conduct, by reducing or completely voiding ongoing SPP tranches.

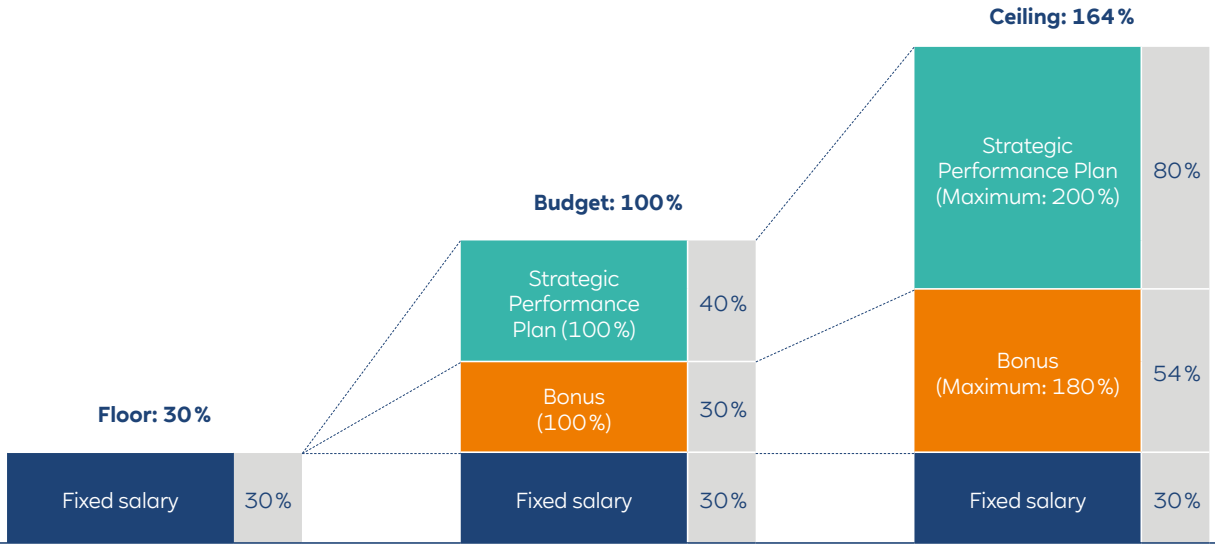
When the SPP was introduced in 2016, the Supervisory Board established a transitional tranche for 2016 and three further regular tranches for 2017, 2018 and 2019. In doing so, it also determined target figures for adjusted net income and the aforementioned ceilings and floors. The SPP conditions stipulate that the Supervisory Board may retrospectively adjust the target and threshold values only to a very limited extent in precisely defined cases. Such adjustments are permissible if they take account of the effects of capital measures, acquisitions, divestments and regulatory changes, which were not yet known or unforeseeable when the figures were determined. One major modification was made relating to the 2018 and 2019 tranches: instead of deriving adjusted net income from net income according to IFRS, it was calculated using the method explained earlier, with innogy being considered only in terms of the dividend it owes RWE. Accordingly, the target figures for the ceiling and floor of net income of relevance to remuneration were also adjusted retrospectively.

Remuneration for exercising mandates. During the past fiscal year, members of the RWE AG Executive Board were paid to exercise supervisory board mandates at affiliates. This income is deducted from the bonus and therefore does not increase the total remuneration.

Remuneration broken down by component. Assuming that both the company and the Executive Board members achieve their performance targets to a degree of 100 %, the compensation structure roughly breaks down as follows: the base salary accounts for around 30 % of total remuneration. Approximately 30 % is allocable to short-term variable remuneration, i. e. the bonus. As a long-term compensation component, the SPP accounts for about 40 % of total remuneration.

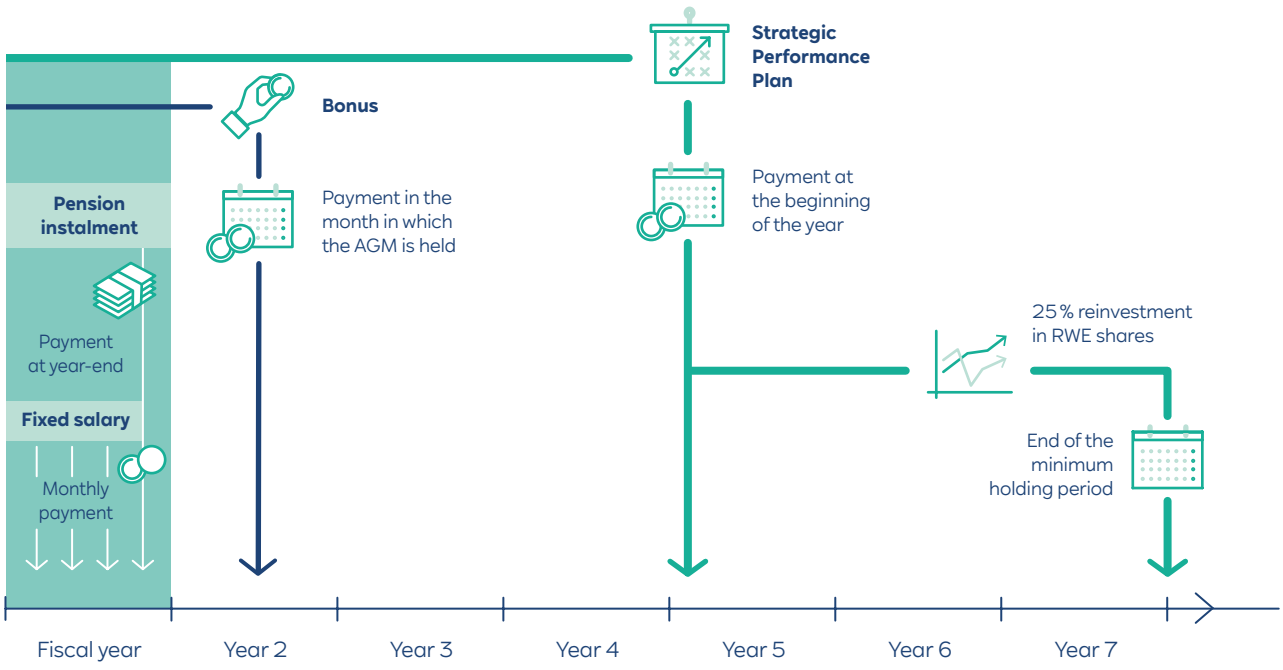
Limitation of Executive Board remuneration. As set out earlier, the level of variable compensation components is limited. The company bonus amounts to a maximum of 150 % of the contractually agreed bonus budget. Multiplying this by the individual performance factor (80 % to 120 %), it is possible to reach a maximum of 180 % of the bonus budget. With regard to share-based payment under the SPP, payout of the performance shares after the completion of the vesting period is limited to a maximum of 200 % of the grant budget. Due to the above maximum values, there is also a cap on total compensation (see the diagram on the next page).

Range of Executive Board remuneration



Payment dates. Executive Board members receive their fixed salary in twelve monthly instalments. The pension instalment is paid out at the end of the year, insofar as it is not converted into a pension commitment. After the fiscal year, the Supervisory Board determines the target achievement for the company bonus and the individual performance factor. The bonus is paid out in the month of the Annual General Meeting (AGM) which attends to the financial statements of RWE AG. After the end of the vesting period, the performance shares from the SPP are paid out during the month of the Annual General Meeting held in the following year. As explained earlier, Executive Board members must invest 25 % of the payment in RWE common shares and may not sell these shares until after three additional calendar years have passed from completion of the four-year vesting period. As a result, it takes a total of seven years for Executive Board members to obtain the full amount of their compensation.

Executive Board remuneration payment timeline for a fiscal year



Pension scheme. Until the introduction of the pension instalment as of 1 January 2011 described earlier, pension benefits were granted to the members of the Executive Board. Of the Executive Board members in 2019, this only applies to Rolf Martin Schmitz; the pension commitment made to him in 2009 will remain unchanged. It entitles him to life-long retirement benefits in the event of retirement from the Executive Board of RWE AG upon turning 59, permanent disability, early termination or non-extension of his employment contract by the company. In the event of death, his surviving dependants are entitled to benefits. The amount of Rolf Martin Schmitz's qualifying income and the level of benefits determined by the duration of service are taken as a basis for his individual pension and surviving dependants' benefits.

Change of control. If shareholders or third parties obtain control over the company and this results in major disadvantages for the Executive Board members, they have a special right of termination. They have the right to resign from the Executive Board and to request that their employment contract be terminated in combination with a one-off payment within six months of the change of control.

A change of control as defined by this provision occurs when one or several shareholders or third parties acting jointly account for at least 30 % of the voting rights in the company, or if any of the aforementioned can exert a controlling influence on the company in another manner. A change of control also occurs if the company is merged with another legal entity, unless the value of the other legal entity is less than 50 % of the value of RWE AG.

On termination of their employment contract, Executive Board members receive a one-off payment equalling the compensation due until the end of the term of their contract. However, this amount will not be higher than three times their total contractual annual remuneration. The share-based payments under the SPP are not included in this payment.

In the event of a change of control, all of the fully granted performance shares under the SPP that have not been paid out are paid out early. All performance shares granted under the SPP on a preliminary basis lapse on the date of the change of control.

Early termination of Executive Board mandate and severance cap. Following a recommendation of the German Corporate Governance Code (GCGC), the Executive Board's employment contracts include a provision stipulating that if an Executive Board mandate is otherwise terminated early without due cause, a severance payment of no more than the remuneration due until the end of the employment contract and no more than two total annual compensations including fringe benefits is made (severance cap).

Refinement of the remuneration system planned. Last year, we discussed ways to refine the Executive Board's remuneration system with representatives of institutional investors. One of the objectives was to meet the demands of the world's capital markets, which have become more exigent over time. With the help of investor feedback, we started revising major parts of the system. However, we have maintained its basic structure. The new features are set to be approved by the Supervisory Board of RWE AG this year and applied to all new employment contracts thereafter. Furthermore, we intend to put them up for a vote at the 2021 Annual General Meeting.

The Supervisory Board passed a resolution to continue the Strategic Performance Plan, which used to encompass tranches only for 2016 to 2019 without any changes for the time being. Accordingly, new target ceilings and floors have been established for net income of relevance to remuneration.

Level of Executive Board remuneration

The remuneration of the Executive Board of RWE AG is calculated in compliance with the rules set out in the German Commercial Code. The members of the Executive Board received €7,571 ,000 in total remuneration for their work in fiscal 2019.

The previous year's figure was €6,880,000. The remuneration components are shown in the following table.

Level of Executive Board remuneration (according to HGB) € '000	Dr. Rolf Martin Schmitz		Dr. Markus Krebber		Total	
	2019	2018	2019	2018	2019	2018
Non-performance-based	**1,183**	**1,180**	**1,085**	**1,066**	**2,268**	**2,246**
of which:						
Fixed remuneration	1,160	1,160	763	750	1,923	1,910
Pension instalments[1]	–	–	300	300	300	300
Fringe benefits	23	20	22	16	45	36
Performance-based	**3,032**	**2,636**	**2,271**	**1,998**	**5,303**	**4,634**
Bonus (short-term)	1,782	1,386	1,171	898	2,953	2,284
of which: credited remuneration for mandates[2]	115	115	146	180	261	295
Value of performance shares at grant[3] (long-term)	1,250	1,250	1,100	1,100	2,350	2,350
Total remuneration	**4,215**	**3,816**	**3,356**	**3,064**	**7,571**	**6,880**

1 The pension instalment paid to Markus Krebber is part of his remuneration under the German Commercial Code (HGB), but this does not apply to the annual service cost of the pension commitment to Rolf Martin Schmitz.
2 Income from the exercise of Supervisory Board offices within the Group are fully deducted from the bonus.
3 The German Commercial Code mandates the statement of the value of the grant at the beginning of the fiscal year.

EBIT of relevance to remuneration, the basis for calculating the bonus, amounted to €1,207 million in the fiscal year that just ended. It differs from adjusted EBIT (€1,412 million) in that we make certain modifications to it to neutralise effects that are not considered in the target figures. For example, when determining the target figure, we did not consider any income from the potential reinstatement of the British capacity market. The effect on income of the delayed capacity payments for 2018 and 2019 was therefore eliminated from the actual figure. The EBIT target derived from the medium-term plan was €786 million (target achievement of 100 %), with a floor of €186 million (target achievement of 50 %) and a ceiling of €1,386 million (target achievement of 150 %). These figures result in a target achievement of 135 % for 2019. This means that the company bonus was 35 % higher than the bonus budget established at the beginning of the year.

Calculation of the 2019 company bonus	2019 € million	Target achievement %
Adjusted EBIT	1,412	–
Adjustments[1]	–205	–
EBIT of relevance to remuneration	**1,207**	**135**
Target	786	100
Ceiling	1,386	150
Floor	186	50

1 See commentary above.

The Supervisory Board found that the Executive Board overachieved the individual and collective targets. The main success factors were the rapid implementation of the asset swap with E.ON and the progress made in transforming RWE into a leading renewable energy company. The compromise reached with the German government on the lignite phaseout and the Executive Board's further development of RWE's strategy to reflect the future of renewable energy and electricity generation from coal were also rewarded. The above-average performance of the RWE share and investor feedback demonstrated that the capital market welcomes the new strategy. Requirements in relation to employee motivation, which is regularly measured using internal surveys, were also met to a degree of at least 100%. With one exception, this also applies to the CR targets, which primarily related to the CO_2 intensity of the generation portfolio, occupational safety, and adherence to compliance, environmental and social standards. The only target that was missed concerned the number of work-related accidents which, at 2.1 for every one million hours worked, exceeded the predefined upper limit of 1.9.

Each of the Executive Board members had a target achievement of 153%. Due to the cap, the individual performance factor was 120%. Multiplying this figure by the company bonus (135%) results in a factor of 162%. The latter translates into the individual bonus, which amounted to €1,782,000 for Rolf Martin Schmitz and €1,171,000 for Markus Krebber. These sums correspond to 1.62 times the predetermined budgeted figures of €1,100,000 (Schmitz) and €723,000 (Krebber).

Calculation of the 2019 tranche of the Strategic Performance Plan	2019 € million	Target achievement %
Adjusted net income	1,210	–
Adjustments[1]	-363	–
Net income of relevance to remuneration	**847**	**150**
Target	51	100
Ceiling	351	150
Floor	-249	50

1 See commentary.

The German Commercial Code stipulates that the long-term performance-based remuneration component is the value of the performance shares granted on a preliminary basis at the beginning of a fiscal year. As set out on page 75, the level of the full grant depends on the development of net income of relevance to remuneration in the fiscal year compared to a predefined target. The latter was set by the Supervisory Board at €51 million for 2019 (grant of 100%). The floor was -€249 million (grant of 50%) and the ceiling was €351 million (grant of 150%). The amount actually achieved was €847 million (after modifications), which corresponds to a target achievement of 150%. This means that the final grant of performance shares for 2019 was 50% higher than the preliminary grant.

Net income of relevance to remuneration is adjusted net income (€1,210 million) minus several exceptional items. For example, we recognised significant impairments for power stations in the 2016 consolidated financial statements, which had not yet been included in the medium-term plan at the time and cause depreciation and amortisation to be much lower now. We eliminated this effect on depreciation and amortisation. The same applies to the income we received in the British generation business due to the retroactive capacity payments we received for 2018.

Long-term incentive payment: Strategic Performance Plan		Dr. Rolf Martin Schmitz			
Tranche	Year	2019	2018	2017	2016
Grant date		1 Jan 2019	1 Jan 2018	1 Jan 2017	1 Jan 2016
Fair value at grant date	€ '000	1,250	1,250	1,250	769
Share price (average)	€	19.10	18.80	11.62	13.78
Number of performance shares allocated on a provisional basis		**65,445**	**66,489**	**107,573**	**55,787**
Measurement date of performance conditions		31 Dec 2019	31 Dec 2018	31 Dec 2017	31 Dec 2017
Target achievement in relation to net income of relevance to remuneration	%	150	123	115	115
Final number of fully granted performance shares		98,168	81,781	123,709	64,155
End of vesting period		31 Dec 2022	31 Dec 2021	31 Dec 2020	31 Dec 2019

Long-term incentive payment: Strategic Performance Plan		Dr. Markus Krebber			
Tranche	Year	2019	2018	2017	2016
Grant date		1 Jan 2019	1 Jan 2018	1 Jan 2017	1 Jan 2016
Fair value at grant date	€ '000	1,100	1,100	988	247
Share price (average)	€	19.10	18.80	11.62	13.78
Number of performance shares allocated on a provisional basis		**57,592**	**58,511**	**84,983**	**17,915**
Measurement date of performance conditions		31 Dec 2019	31 Dec 2018	31 Dec 2017	31 Dec 2017
Target achievement in relation to net income of relevance to remuneration	%	150	123	115	115
Final number of fully granted performance shares		86,388	71,969	97,730	20,602
End of the vesting period		31 Dec 2022	31 Dec 2021	31 Dec 2020	31 Dec 2019

The table below shows the increase in provisions to cover obligations from share-based payments under the SPP.

Addition of provisions for long-term share-based incentive payments € '000	2019	2018
Dr. Rolf Martin Schmitz	2,726	1,413
Dr. Markus Krebber	1,982	934
Total	**4,708**	**2,347**

Obligations under the former pension scheme. The service cost of pension obligations to Rolf Martin Schmitz amounted to €554,000 in 2019 (previous year: €536,000). This is not a remuneration component in accordance with the German Commercial Code. As of year-end, the net present value of the defined benefit obligation determined in accordance with IFRS amounted to €14,997,000 (previous year: €13,370,000). The present value of the pension obligation determined according to the German Commercial Code totalled €11,894,000 (previous year: €10,534,000). The pension obligation for 2019 increased by €1,360,000 (previous year: €1,248,000).

Based on the emoluments qualifying for a pension as of 31 December 2019, the projected annual pension of Rolf Martin Schmitz on retiring from the company as of the expiry of his appointment amounted to €556,000 (same as in the previous year). This includes vested pension benefits due from former employers transferred to RWE AG.

Recommendations of the German Corporate Governance Code

In presenting the remuneration system, we also follow the recommendations of the version of the GCGC applicable to 2019, which was published on 7 February 2017. In line with the GCGC, the total remuneration of management board members comprises the monetary compensation elements, pension commitments, other awards, fringe benefits of all kinds and benefits from third parties which were granted or paid in the financial year with regard to management board work. Item 4.2.5, Paragraph 3 of the Code lists the compensation components that should be disclosed. Unlike German commercial law, the GCGC stipulates that the annual service cost of pension benefits is also part of total remuneration.

The GCGC provides specific examples for the recommended presentation of management board compensation based on model tables, which distinguishes between 'benefits granted' and 'benefits received'.

- According to the GCGC, benefits or compensation are granted when a binding commitment to such is made to the management board member. In deviation from German commercial law, it is not relevant to what extent the management board member has already provided the services being remunerated.
- The term 'benefits received' defines the extent to which the management board member has already received payments. In this regard, the relevant aspect is the time at which the amount being paid is sufficiently certain and not the actual time of the payment.

This distinction made in the Code can be illustrated with the example of the bonus: the contractually agreed and promised budgeted bonus for the fiscal year in question is considered 'granted'. Conversely, the benefits received table shows the bonus level which will actually be paid with a high degree of probability. In this regard, it is irrelevant that the payment will not be made until the following year. The payment date is deemed to have been reached when the indicators and results needed to determine target achievement (and therefore the bonus) are known with sufficient certainty. The Code assumes that this is already the case at the end of the year. As a result, the Executive Board bonuses are stated in the reporting year in the benefits received table.

In the following, we present the compensation of the Executive Board of RWE AG based on the sample tables recommended by the GCGC.

Benefits granted	Dr. Rolf Martin Schmitz Chief Executive Officer since 15 October 2016				Dr. Markus Krebber Chief Financial Officer since 15 October 2016			
€ '000	2019 (Min.)	2019 (Max.)	2019	2018	2019 (Min.)	2019 (Max.)	2019	2018
Fixed remuneration	1,160	1,160	1,160	1,160	763	763	763	750
Pension instalment	–	–	–	–	300	300	300	300
Fringe benefits	23	23	23	20	22	22	22	16
Total fixed remuneration	**1,183**	**1,183**	**1,183**	**1,180**	**1,085**	**1,085**	**1,085**	**1,066**
One-year variable remuneration (bonus)	**0**	**1,980**	**1,782**	**1,386**	**0**	**1,302**	**1,171**	**898**
Multi-year variable remuneration (SPP)	**0**	**2,500**	**1,250**	**1,250**	**0**	**2,200**	**1,100**	**1,100**
2018 tranche (term: 2018 – 2021)	–	–	–	1,250	–	–	–	1,100
2019 tranche (term: 2019 – 2022)	0	2,500	1,250	–	0	2,200	1,100	–
Total variable remuneration	**0**	**4,480**	**3,032**	**2,636**	**0**	**3,502**	**2,271**	**1,998**
Total variable and fixed remuneration	**1,183**	**5,663**	**4,215**	**3,816**	**1,085**	**4,587**	**3,356**	**3,064**
Service cost	554	554	554	536	–	–	–	–
Total remuneration	**1,737**	**6,217**	**4,769**	**4,352**	**1,085**	**4,587**	**3,356**	**3,064**

Benefits received	Dr. Rolf Martin Schmitz Chief Executive Officer since 15 October 2016		Dr. Markus Krebber Chief Financial Officer since 15 October 2016	
€ '000	2019	2018	2019	2018
Fixed remuneration	1,160	1,160	763	750
Pension instalment	–	–	300	300
Fringe benefits	23	20	22	16
Total fixed remuneration	**1,183**	**1,180**	**1,085**	**1,066**
One-year variable remuneration (bonus)	**1,782**	**1,386**	**1,171**	**898**
Multi-year variable remuneration (SPP)	**1,538**	**–**	**494**	**–**
Payment from the 2016 tranche	1,538	–	494	–
Total variable remuneration	**3,320**	**1,386**	**1,665**	**898**
Total variable and fixed remuneration	**4,503**	**2,566**	**2,750**	**1,964**
Service cost	554	536	–	–
Total remuneration	**5,057**	**3,102**	**2,750**	**1,964**

1.13 Development of risks and opportunities

RWE's risk exposure continued to improve in 2019. It was important to us that the European Commission gave the go-ahead for the asset swap with E.ON. The renewable energy business gives us a new operating mainstay with a high level of regulated income. This makes us more profitable and crisis-proof. Despite this, RWE remains exposed to risks. For example, the adverse effects of the German coal phaseout may be more significant than expected. This and further material risks are identified, assessed and managed using our proven Group risk management system, which helps us to keep RWE on course despite the persistent uncertainties in our business.

Distribution of risk management tasks at RWE.
Responsibility for Group risk management lies with RWE AG. The parent company's Executive Board monitors and manages the overall risk of the RWE Group. In addition, it determines the general risk appetite of RWE and defines upper limits for single risk positions. At the level below the Executive Board, the Controlling & Risk Management Department has the task of applying and developing the risk management system. It derives detailed limits for the individual business fields and operating units from the risk caps set by the Executive Board. Its tasks also include checking the identified risks for completeness and plausibility and aggregating them. In so doing, it receives support from the Risk Management Committee, which is composed of the heads of the following five RWE AG departments: Controlling & Risk Management (Chair), Finance & Credit Risk, Accounting, Legal & Insurance, and Corporate Business Development. 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.

A number of additional organisational units and committees have been entrusted with risk management tasks:

- Financial risks and credit risks are managed by the Finance & Credit Risk Department, which reports directly to the CFO of RWE AG.

- The Accounting Department, which also reports to the CFO, sees to it that financial reporting is free of material misstatements. It has an accounting-related internal control system for this purpose. A committee consisting of officers from Accounting and other departments of relevance to accounting assists in securing the quality of financial reporting. More detailed information can be found on page 92.

- The Internal Audit & Compliance Department monitors compliance with RWE's Code of Conduct, focusing on avoiding corruption. It reports to the CEO of RWE AG or, if members of the Executive Board are affected, directly to the Chairman of the Supervisory Board and the Chairman of the Audit Committee.

- Risks from changes in commodity prices are monitored by RWE Supply & Trading in so far as they relate to the conventional electricity generation, energy trading and gas businesses.

- Strategies to limit market risks in conventional electricity generation must be approved by the Commodity Management Committee. The members of this expert panel are the CFO of RWE AG, individuals from the management team of RWE Supply & Trading and a representative of the Controlling & Risk Management Department.

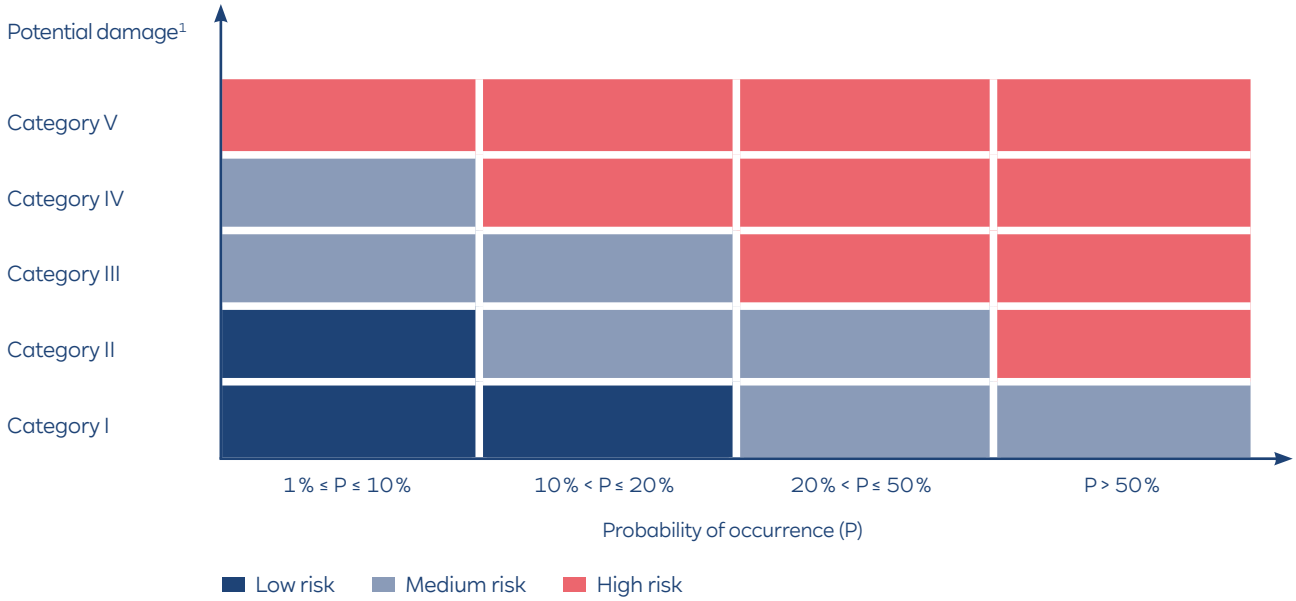
- In October 2019, we also set up such a committee for market risks associated with renewable energy. The Renewables Commodity Management Committee consists of the CFO of RWE AG, members of the management of RWE Renewables GmbH and a representative of the Controlling & Risk Management Department.

- The strategic guidelines for the management of financial assets (including the funds of RWE Pensionstreuhand e. V.) are determined by the Asset Management Committee. The following individuals belong to it: the CFO of RWE AG, the Managing Director in charge of finance at RWE Supply & Trading, the heads of the following departments: Controlling & Risk Management, Finance & Credit Risk, Portfolio Management/ Mergers & Acquisitions and – from the last department in the list – the head of Financial Asset Management.

Under the expert management of the aforementioned organisational units, RWE AG and its operating subsidiaries are responsible for identifying risks early, assessing them correctly and managing them in compliance with corporate standards. Internal Audit regularly assesses the quality and functionality of our risk management system.

Risk management as a continuous process. 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.

RWE AG risk matrix



Potential damage[1] € million	**Earnings risks** Potential impact on net income[2]	**Indebtedness/equity risks** Potential impact on net debt[2] and equity[2]
Category V	≥ 8,000	≥ 8,000
Category IV	≥ 1,500 and < 8,000	≥ 4,000 and < 8,000
Category III	≥ 600 and < 1,500	≥ 2,000 and < 4,000
Category II	≥ 300 and < 600	≥ 1,000 and < 2,000
Category I	< 300	< 1,000

1 Aggregated for 2020 to 2022.
2 Since the sale of innogy, we have returned to the definition of net income, net debt and equity according to IFRS consolidation principles. These figures were previously determined using the method presented on page 69, with innogy being recognised as a purely financial investment.

Our risk analysis normally covers the three-year horizon of our medium-term plan, but can extend beyond that in individual cases. We measure the potential damage based on the possible effects on net income, net debt and equity. Hedging measures are considered. We define the potential damage as the deviation from the budgeted figure in question, accumulated over the three-year planning horizon. We analyse the material risks using a matrix (see chart on the preceding page) in which they are categorised by potential damage and probability of occurrence. Risks that share the same cause are aggregated to a single risk if possible. To clearly assign them to the matrix fields, we have established thresholds for net income, net debt and equity, which are oriented towards the RWE Group's ability to bear risks. They are presented in the table below the matrix. Depending on their position in the matrix, we distinguish between low, medium and high risks. Based on this systematic risk identification, we determine whether there is a need for action and initiate measures to mitigate the risks if necessary.

Risk classes	Classification of the highest single risk	
	31 Dec 2019	31 Dec 2018
Market risks	Medium	Medium
Regulatory and political risks	High	High
Legal risks	Low	Medium
Operational risks	Medium	Medium
Financial risks	Medium	Medium
Creditworthiness of business partners	Medium	Medium
Other risks	Low	High

Main risks for the RWE Group. Depending on their causes, our risks can be classified into seven groups, which are shown in the table above. The highest individual risk determines the classification of the risk of the entire risk class. Only the regulatory and political risks are currently classified as 'high'. They primarily result from the coal phaseout in Germany. It is already apparent that the compensation we have been awarded will not fully cover the financial damage we will sustain as a result of the early closure of lignite power plants and opencast mines. In fact, the difference between the compensation and the actual damage could increase if the burdens are greater than planned. Furthermore, regulatory pressure on our lignite business may continue to rise despite the exit agreement. We no longer see any high risks in the 'other risks' category. In the previous year, we had factored in the potential failure of the asset swap with E.ON. Since the transaction was approved and implemented to a substantial extent, 'other risks' are now classified as 'low'.

In this section, we provide commentary on the main risks and opportunities and explain what measures have been taken to counter the threat of negative developments.

- **Market risks.** 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 from the 1,055 MW Datteln 4 hard coal-fired power plant in 2005 and 2006. Based on the

estimates of its operator Uniper, the station will go online in the summer of 2020, ten years later than planned. We intend to adapt or cancel the purchase agreements and have therefore taken legal recourse.

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 CO_2 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 CO_2 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-balance-sheet hedges. More detailed information on this can be found on pages 113 et seqq. in the Notes.

RWE Supply & Trading plays a central role when it comes to managing commodity price risks. It functions as the Group's interface to the global wholesale markets for electricity and energy commodities. On behalf of our power plant companies, RWE Supply & Trading markets large portions of our generation position and purchases the fuel and CO_2 certificates needed to produce electricity. The role of RWE Supply & Trading as internal transaction partner makes it easier for us to limit the risks associated with price volatility on energy markets. However, the trading transactions are not exclusively intended to reduce risks. In compliance with risk thresholds, the company also takes commodity positions to achieve a profit.

Our risk management system for energy trading is firmly aligned with best practice as applied to the trading businesses of banks. As part of this, transactions with third parties are concluded only if the associated risks are within approved limits. There are guidelines governing the treatment of commodity price risks and associated credit risks. Our subsidiaries constantly monitor their commodity positions. Risks associated with trades conducted by RWE Supply & Trading for its own account are monitored daily.

The Value at Risk (VaR) is of central importance for risk measurement in energy trading. It specifies the maximum loss from a risk position not exceeded with a predetermined probability over a predefined period of time. The VaR figures within the RWE Group are based on a confidence interval of 95 %. The assumed holding period for a position is one day. This means that, with a probability of 95 %, the daily loss will not exceed the VaR.

The VaR for the price risks of commodity positions in the trading business of RWE Supply & Trading may not rise above €40 million. In the past financial year, it averaged €12 million, and the daily maximum was €22 million. In addition, limits derived from the aforementioned VaR thresholds have been set for every trading desk. Furthermore, we develop extreme scenarios and factor them into stress tests, determine their consequences for earnings, and take countermeasures if we deem the risks to be too high.

The management of our gas portfolio and the liquefied natural gas (LNG) business is pooled in a new organisational unit at RWE Supply & Trading. We established a VaR cap of €14 million for these activities. The average VaR in 2019 was €6 million, and the daily maximum was €8 million.

We also apply the VaR concept to measure the extent to which the commodity price risks that we are exposed to outside the trading business can affect the RWE Group's adjusted EBITDA. To this end, we calculate the overall risk for the Group on the basis of the commodity risk positions of the individual companies; this overall risk mainly stems from power generation. As the majority of our generation position is already fully hedged for 2020, only minor market price risks remain for this year. Opportunities for additional profits arise, because we are able to flexibly adapt our power plant deployment to short-term market developments.

In the UK generation business, our earnings not only depend on the development of the price of electricity, fuel and emission allowances, but also on the level of the payments we receive for participating in the national capacity market. The payments are determined in annual auctions and fluctuate depending on supply and demand.

We are also exposed to market risks in the gas storage business, which has gained importance for us as a result of the transaction with E.ON. As set out on page 31, the realisable margins depend significantly on the seasonal differences in the price of gas. If the price differences are large, they can be taken advantage of to generate substantial income. The German gas storage business is currently characterised by overcapacity and substantial pressure on margins. However, we are confident that market conditions will improve in the long run.

Our biggest market risks remain unchanged in the 'medium' category.

- **Regulatory and political risks.** Energy supply is a long-term business and companies involved in this industry are dependent on a stable, reliable framework, which has recently ceased to exist especially in conventional electricity generation. Ambitious emission reduction targets have caused the governments in our core markets to intervene in the energy sector repeatedly. The most recent examples of this are the decisions to phase out coal-fired power generation in Germany and the Netherlands, on which we provide detailed information on pages 42 et seqq. After intense negotiations, we reached an agreement with the government on the early closure of our lignite-fired power plants and opencast mines. In exchange, we were promised compensation, but it will not fully cover our expected financial burdens. Furthermore, there is a risk of the actual burdens being more substantial than planned, and, in turn, the earnings shortfalls as well. Legislation on the coal phaseout in the Netherlands does not provide for compensating the affected power producers at all. Despite this, we are pushing for compensation for our financial disadvantages and will take legal recourse if necessary.

As much as the most recent decisions to phase out coal place a burden on us, they can contribute to de-escalating the dispute over coal-based electricity generation, thereby increasing the planning security of power plant operators. However, the risk of regulatory pressure rising despite this remains, for example through the introduction of price floors for carbon dioxide or the determination of extremely restrictive pollutant emission limits.

We are also exposed to risks in the field of nuclear energy, albeit to a much lesser extent than in the past. Since we made contributions to the German nuclear energy fund in the middle of 2017, the state has assumed complete responsibility for the interim and final storage of our radioactive waste. However, we are still exposed to cost risks associated with disposal tasks which remain within our remit. For example, it cannot be ruled out that the dismantling of nuclear power stations will be more expensive than estimated and we will therefore have to establish higher provisions. However, we also see the opportunity to leverage synergies and cut costs.

Our risk exposure in the British capacity market also improved. The market had been suspended in November 2018, because the Court of the European Union had declared its approval issued by the European Commission in 2014 null and void. Following an extensive review, the Commission reapproved the capacity market in October 2019. This meant that capacity payments could be resumed and the retained payments could be made retrospectively.

Even in the present political environment, we are exposed to risks associated with, for instance, approvals when building and operating production facilities. This particularly affects our opencast mines and power stations. The danger here is that approvals are granted late or not at all and that granted approvals are withdrawn temporarily or for good. One example is the preliminary halt to the clearance of Hambach Forest ordered by the Münster Higher Administrative Court in October 2018, which curtailed the continued operation of the Hambach opencast mine. However, the suit pending before the Münster Higher Administrative Court should lose importance as we have reached an agreement on the preservation of the forest with the government.

In Germany, we do not have to pay an apportionment under the Renewable Energy Act (EEG) for electricity that we consume ourselves in our power stations and opencast mines. However, the legal situation surrounding the own electricity privilege is vague and requires clarification on certain points from the country's highest court, for example with regard to the EEG exemption of leased assets. There is a danger that the options to benefit from the own electricity privilege may be limited and that back payments may even have to be made for previous years.

By acquiring the renewable energy businesses of E.ON and innogy, we are positioning ourselves in an area of the energy sector that is characterised by fairly stable framework conditions and wide public acceptance. However, there are regulatory risks in this area as well. Adjustments to state subsidy schemes can lead to reductions in payments and new projects losing their appeal. This can lead to investment undertakings being broken off. It is also conceivable that firmly pledged state payments may be cut retrospectively. In the dialogue we maintain with policymakers, we point out that reliable framework conditions are the basic precondition for companies to invest in building sustainable, climate-friendly energy infrastructure.

Although our exposure to regulatory and political risks has decreased, we continue to classify them as 'high'. We ascribe the greatest importance to the burdens resulting from the German coal phaseout, which cannot be offset by compensatory payments from the state.

- **Legal risks.** Individual RWE Group companies are involved in litigation and arbitration proceedings due to their operations or the acquisition of companies. 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. At the end of 2019, a claim for damages filed against us due to a failed joint venture with the Russian Sintez Group was dismissed. This eliminated our sole legal risk in the 'medium' category.

- **Operational risks.** RWE operates technologically complex, interconnected production facilities such as conventional power stations, opencast mines and large-scale onshore and offshore wind farms. Damage and outages can result in substantial lost earnings. During their construction and modernisation, delays and cost increases can occur, for example due to accidents, material defects, late deliveries or time-consuming approval processes. Furthermore, renewable energy assets run the risk of delayed commissioning being disadvantageous to subsidisation. We counter the described risks through diligent plant and project management as well as high safety standards. We also regularly inspect and maintain our facilities. If economically viable, we take out insurance policies.

  In relation to capital expenditure, there is a risk that the return may fall short of expectations and prices paid for acquisitions may retrospectively prove to be too high. Before we take investment decisions, we conduct extensive analyses to try and map the financial and strategic effects as realistically as possible. Moreover, RWE has specific accountability provisions and approval processes in place to prepare and implement the decisions.

  Our business processes are supported by secure data processing systems. Nevertheless, we cannot rule out a lack of availability of IT infrastructure or a breach in data security. Our high security standards are designed to prevent this. In addition, we regularly invest in hardware and software upgrades.

  As in the previous year, our operating risks are classified as 'medium'.

- **Financial risks.** Market interest rates, currency exchange rates, share prices and collateral pledged for forward transactions can have a substantial effect on our financial position. We are exposed to various interest rate risks. For example, rises in interest rates can lead to reductions in the price of the securities we hold. This primarily relates to fixed-interest bonds. Last year, the VaR for the interest rate-related price risk of capital investments was €5 million on average at RWE AG.

  Moreover, increases in interest rates cause our financing costs to rise. We measure this risk using the Cash Flow at Risk (CFaR), applying a confidence level of 95 % and a holding period of one year. Our average CFaR at RWE AG in 2019 was €18 million.

  Furthermore, market interest rates have an effect on our provisions, as they are the point of reference for the discount rates used for determining the net present values of obligations. This means that, all other things being equal, provisions rise when market interest rates fall and vice versa. On pages 144 et seqq. of the Notes, we present the effects of changes in interest rates on the net present values of our pension obligations and on the nuclear and mining provisions.

  We are exposed to foreign exchange risks primarily owing to our business activities in the UK and the USA. Furthermore, energy commodities such as coal and oil are traded in US dollars. Companies which are overseen by RWE AG have their currency risks managed by the parent company. RWE AG aggregates the risks to a net financial position for each currency and hedges it if necessary. In the year being reviewed, the average VaR for RWE AG's foreign currency position was €2 million.

  The securities we hold in our portfolio include shares. The single-largest position is currently the 15 % stake in E.ON, which had a fair value of €3.8 billion as of the end of 2019. Substantial changes in the quotation of the E.ON share can affect our financial power significantly. Besides the stake in E.ON, our assets under management include other substantial shareholdings. In 2019, the average VaR for the share price risk of these equities (without the stake in E.ON) was €5 million.

  Collateral pledged for forward transactions can have a significant effect on our liquidity. Its level is determined by the extent to which the contractually agreed prices deviate from market quotations as of the respective cut-off date. These differences can be substantial, especially on volatile markets. In recent times, the prices of commodities of importance to us have fluctuated considerably, in particular those of CO_2 emission allowances. This development exposes us to risks. However, this also increases the probability of receiving substantial collateral from contracting parties, resulting in a temporary increase in our equity.

  Risks and opportunities from changes in the price of securities are controlled by a professional fund management system. Range of action, responsibilities and controls are set out in internal guidelines which the Group companies are obliged to adhere to when concluding financial transactions. All financial transactions are recorded using special software and are monitored by RWE AG.

  The conditions at which we can finance our business on the debt capital market are in part dependent on the credit ratings we receive from international rating agencies. As set out on page 63, Moody's and Fitch place our creditworthiness in the investment grade category with a stable outlook. However, the agencies may change their assessments and lower our credit rating, which can result in additional costs if we have to raise debt capital. This would probably also increase the liquidity requirement when pledging collateral for forward transactions.

  Our growth strategy in the renewables business envisages annual spending of €1.5 billion to €2.0 billion plus proceeds from the sale of shares in projects. This exposes us to the risk of a timing offset between fund procurement and fund usage: we are often bound to firm time frames when spending capital, but the divestments necessary to refinance them can be delayed or fail. In such cases, our net debt would rise – at least temporarily.

  As in the previous year, we classify our financial risks as 'medium'.

- **Creditworthiness of business partners.** Our business relations with key accounts, suppliers, trading partners and financial institutions expose us to credit risks. Therefore, we track the creditworthiness of our transaction partners closely and assess their credit standing based on internal ratings, both before and during the business relationship. Transactions that exceed certain approval thresholds and all trading transactions are subject to credit limits, which we determine before the transaction is concluded and adjust if necessary, for instance in the event of a change in creditworthiness. At times, we request cash collateral or bank guarantees. In the trading and financing business, credit risks and the utilisation of the limits are measured daily.

  We agree on collateral when concluding over-the-counter trading transactions. Furthermore, we enter into framework agreements, e. g. those of the European Federation of Energy Traders (EFET). For financial derivatives, we make use of the German master agreement for forward financial transactions or the master agreement of the International Swaps and Derivatives Association (ISDA).

  As in the past, our risks stemming from the creditworthiness of our business partners do not exceed the category 'medium'.

- **Other risks.** This risk class includes reputation risks and risks associated with non-compliance and criminal offences. Until September 2019, this category covered the possibility of a failure of the asset swap with E.ON. This risk, which we had classified as 'high' due to its huge potential damage, has since been eliminated. As a result, the overall risk in this category is now 'low'.

RWE's risks and opportunities: general assessment by management. As demonstrated by the commentary in this chapter, RWE's overall risk exposure improved. The risk of our asset swap with E.ON failing has been eliminated and our operating activities will become more stable and crisis-proof thanks to the large contribution to earnings made by renewable energy. The reinstatement of the British capacity market is also having a positive effect. Nevertheless, we remain exposed to substantial risks.

Germany's coal phaseout in particular has negative consequences for us. The state compensation that we have been offered does not fully cover the foreseeable damage. This discrepancy could become more significant if the burdens we actually experience exceed our expectations. We welcome the planning security gained due to the exit roadmap. In the renewable energy business, we are also exposed to regulatory risks, albeit to a lesser extent. Cuts in state subsidies could cause investment projects to stop being worthwhile. Retrospective intervention in the subsidy scheme could even render existing assets unprofitable. We have not identified any further material regulatory risks for the time being. Brexit is also highly unlikely to have a substantial impact on our business.

Besides the regulatory environment, market conditions can also change substantially. This exposes us to risks in particular in power production. Decreases in wholesale electricity prices can shrink our margins. However, prices and margins can also display positive development. In Germany, our main market, we could benefit from temporary price spikes, which may become more frequent given the expected shortage of conventional generation capacity.

Through extensive restructuring, ambitious efficiency-enhancing measures and strict investing discipline, we have established a solid financial foundation for the RWE Group. By analysing the effects of risks on our liquidity and pursuing a conservative financing strategy, we ensure that we can meet our payment obligations punctually. We have considerable liquid funds and great leeway in terms of debt financing, thanks to the Debt Issuance Programme, the Commercial Paper Programme and the syndicated credit line. We budget our liquidity with foresight, based on the short, medium and long-term funding needs of our Group companies, and have a significant amount of minimum liquidity on a daily basis.

Thanks to our comprehensive risk management system and the measures for safeguarding our financial and earning power described earlier, we are confident that we can manage the current risks to RWE. At the same time, we are establishing the prerequisites for ensuring that this remains the case in the future.

Accounting-related internal control system: statements in accordance with Section 289, Paragraph 4, and Section 315, Paragraph 4 of the German Commercial Code. Risks associated with financial reporting reflect the fact that our annual, consolidated and interim financial statements may contain misrepresentations that could have a significant influence on the decisions made by their addressees. For example, stated earnings that are too high could cause capital investors to invest in the company. Our accounting-related Internal Control System (ICS) aims to detect potential errors and misrepresentations that result from non-compliance with accounting standards. The foundations of the ICS are our basic principles – which are set out in RWE's Code of Conduct and, first and foremost, include our ambition to provide complete, objective, correct, clear and timely information – as well as our groupwide guidelines. Building on this, minimum requirements for the accounting-related IT systems are designed to ensure the reliability of data collection and processing.

RWE AG is responsible for the design and monitoring of the ICS. These tasks are performed by our Accounting Department. In doing so, it can rely on a groupwide set of rules. On top of this, we created a committee, the objective of which is to ensure that the ICS is applied throughout the Group following uniform principles and meeting high ambitions in terms of correctness and transparency. The ICS Committee consists of representatives from the Accounting, Controlling & Risk Management and Internal Audit & Compliance departments, along with officers from the areas of human resources, procurement, trading, finance, taxes and IT, all of whom play an important role in accounting.

We subject the ICS to a comprehensive review every year. As a first step, we examine whether the risk situation is presented appropriately and whether suitable controls are in place for the identified risks. In a second step, we test the effectiveness of the controls. If the ICS reviews pertain to accounting-related processes, e. g., the preparation of financial statements or consolidation, they are conducted by employees from the Accounting Department. The appropriateness and effectiveness of the controls are certified by an accounting firm for processes handled by service centres on our behalf, for example invoice processing. The representatives of the finance, human resources, procurement, trading and IT functions document whether the agreed ICS quality standards are adhered to by their respective areas. Our Internal Audit Department is also involved in the ICS reviews. The results of the reviews are documented in a report to the Executive Board of RWE AG.

The review conducted in 2019 once again demonstrated that the ICS is effective. The tests related to RWE without innogy. However, our subsidiary, which has been sold in the meantime, applied the audit procedure described above analogously. The results obtained were considered in the assessment of the ICS of RWE.

Within the scope of external reporting, the members of the Executive Board of RWE AG take a half-year and full-year balance-sheet oath, confirming that the prescribed accounting standards have been adhered to and that the financial statements give a true and fair view of the net worth, financial position and earnings. When in session, the Supervisory Board's Audit Committee regularly concerns itself with the effectiveness of the ICS. Once a year, the Executive Board of RWE AG submits a report on this to the Committee.

1.14 Outlook

Our earnings forecast for 2020 already reflects the new RWE entirely. The renewable energy business that we acquired from E.ON in September 2019 is now contributing to the Group's earnings for a full year for the first time. This will have a positive impact on adjusted EBITDA, which we estimate will amount to between €2.7 billion and €3.0 billion. This would be substantially above the €2.5 billion achieved last year. Here, we will benefit from the progressive expansion of our wind and solar power capacity. By contrast, we will probably not match the extraordinarily good energy trading performance achieved in 2019.

Experts predict steady growth. Initial forecasts see the world economy expanding by about 2.5 % in 2020, roughly as much as last year. The economic outlook for the Eurozone is also similar to the development in 2019, with estimated growth of some 1 %. Experts anticipate a similar gain in Germany, whereas growth in the Netherlands may well once again exceed the average of the Eurozone countries. The UK's prospects largely depend on whether the country manages to maintain its close economic relations with the EU after Brexit. If so, UK GDP could post an increase of 1 %. The US economy is expected to expand by some 2 %.

Power consumption expected to stagnate. Our expectations regarding this year's electricity usage are based on the above economic outlooks. If the German economy grows as expected, demand for electricity in our home country should be flat relative to 2019. The precondition for this is that the decline in industrial output witnessed in 2019 comes to a halt. However, as in other RWE markets, Germany is also expected to feel the dampening effects of energy savings. Electricity usage in the UK should also be on a par year on year, whereas it will probably post a slight rise in the Netherlands due to the country's more dynamic economy. Despite the favourable growth forecast for the USA, we anticipate that the country's demand for electricity will stagnate because we expect the need for energy for air conditioning to decline further. This is based on the assumption that summer temperatures will be normal and therefore slightly lower than in 2019.

Electricity production for 2020 nearly completely sold forward. The development of commodity prices will depend on a number of factors that are very difficult to predict. However, it will only have a minor impact on our earnings in the current year, because we have sold forward nearly all our electricity generation for 2020 and have secured the prices of the required fuel and CO_2 emission allowances. These transactions have been concluded up to three years in advance. Therefore, the realised electricity prices can differ from the current market quotations significantly. The price realised for the electricity generated by our German lignite-fired and nuclear power stations, which we sold forward with long lead times, was higher for 2020 than for 2019.

Focus on completing the asset swap with E.ON and the agreement on the lignite phaseout. This year, we want to bring the asset swap with E.ON to a rapid conclusion. Once the continuing operations have been transferred to us, the new RWE will also be complete in legal terms. The German coal phaseout will remain a central topic. Now that we have reached an agreement with the federal government on the exit conditions for our lignite power stations and opencast mines, the next step is to convert this agreement into a public law contract. This is the only way to give our Rhenish lignite business and its 10,000 workers certainty.

Financial reporting for 2020 reflects the new RWE. This year's financial reporting reflects the new RWE from the outset. The renewable energy business transferred from E.ON to RWE in September 2019 and the minority interests in our Gundremmingen and Emsland nuclear power stations we received in the same month will contribute to the Group's earnings for a full year in 2020 for the first time. The innogy operations which we will continue remain included in our figures although, legally, they still belong to the E.ON Group for the time being.

Earnings forecast[1] € million	2019 actual	Outlook for 2020
Adjusted EBITDA	2,489	2,700 – 3,000
of which:		
Core business	2,183	2,150 – 2,450
of which:		
Offshore Wind	614	900 – 1,100
Onshore Wind / Solar	295	500 – 600
Hydro / Biomass / Gas	671	550 – 650
Supply & Trading	731	150 – 350
Coal / Nuclear	307	500 – 600
Adjusted EBIT	1,267	1,200 – 1,500
Adjusted net income	–	850 – 1,150

1 New segment structure; prior-year figures adjusted.

Starting in 2020, we have a new segment structure. We eliminated the provisional items 'innogy – continuing operations' and 'acquired E.ON operations' and reassigned the generation activities based on energy source. Going forward, we will distribute our business among the following five segments: (1) Offshore Wind, (2) Onshore Wind / Solar, (3) Hydro / Biomass / Gas, (4) Supply & Trading and (5) Coal / Nuclear. Segments (1) to (4) represent our core business. In (5), we have pooled our German electricity generation from lignite, hard coal and nuclear fuel. These technologies must follow exit paths established by the government, as a result of which plant dismantling and opencast mine recultivation will gain importance relative to power production. Figures for 2019 will be adapted to the new segment structure to enable comparability.

Adjusted EBITDA for fiscal 2020 forecast between €2.7 billion and €3.0 billion. Our operating result should continue to improve. We expect adjusted EBITDA for 2020 in the order of €2,700 million to €3,000 million (previous year: €2,489 million), with around €2,150 million to €2,450 million coming from the core business. Including anticipated operating depreciation and amortisation of about €1,500 million, the Group's adjusted EBIT is estimated to total between €1,200 million and €1,500 million (previous year: €1,267 million). The earnings figures do not include the income from our 15 % shareholding in E.ON, which we recognise in the financial result.

We anticipate adjusted net income of €850 million to €1,150 million. This figure differs from net income according to IFRS in that the non-operating result, which reflects exceptional items, and other major non-recurrent effects as well as the applicable taxes are deducted from it. We did not calculate adjusted net income for the last two years because this figure would have been of limited informational value due to the significant one-off effects of the asset swap with E.ON.

The positive earnings trend is primarily due to the renewable energy business acquired from E.ON. As we have been including it in our figures since 18 September 2019, it will contribute a full twelve months of earnings to our Group in 2020 for the first time. By contrast, RWE Supply & Trading will probably not be able to match the exceptional trading performance posted last year.

Our outlook broken down by segment is as follows:

- Offshore Wind: We anticipate that our offshore wind farm business in 2020 will post adjusted EBITDA of €900 million to €1,100 million. This would represent a significant increase over last year's figure (€614 million), which only considered three-and-a-half months of the acquired E.ON operations.

- Onshore Wind / Solar: Adjusted EBITDA recorded by our onshore wind power and photovoltaic activities is expected to total between €500 million and €600 million, clearly exceeding last year's figure (€295 million). In addition to the full-year inclusion of the E.ON business for the first time, the commissioning of new generation capacity will also contribute to the rise in earnings.

- Hydro / Biomass / Gas: This segment encompasses our run-of-river, pumped storage, biomass and gas power stations. It also includes the Dutch Amer 9 and Eemshaven hard coal power plants, because we are increasingly co-firing them with biomass. Furthermore, the Aberthaw hard coal-fired power station, which was decommissioned at the end of 2019, is still considered in this segment. Our 37.9 % stake in Kelag, the Austrian energy utility specialising in hydroelectric power, is also reported here. We expect adjusted EBITDA generated in this segment to total between €550 million and €650 million in 2020. This would represent a decline compared to 2019 (€671 million). Lower payments from the British capacity market are the main reason. Last year, we benefited from retrospective capacity payments for 2018.

- Supply & Trading: Starting in 2020, this segment also includes innogy's German and Czech gas storage facilities. We expect Supply & Trading to achieve annual average adjusted EBITDA in the order of €250 million over the long term. This figure should usually range between €150 million and €350 million. Following the exceptionally strong earnings posted in 2019 (€731 million), we anticipate a figure within the aforementioned range in 2020.

- Coal / Nuclear: Our German lignite, hard coal and nuclear power stations as well as lignite production in the Rhenish coal mining region are subsumed here. We expect adjusted EBITDA in this segment to amount to €500 million to €600 million, clearly surpassing the figure achieved last year (€307 million). This is due to higher generation margins and the full-year impact on earnings of the acquired minority stakes in the Gundremmingen and Emsland nuclear power plants.

Capital expenditure on property, plant and equipment markedly up on previous year. Capital expenditure on property, plant and equipment and intangible assets is estimated to be much higher than in 2019 (€2,090 million). The full-year inclusion of the renewable energy business received from E.ON will come to bear here. However, capital expenditure on property, plant and equipment in our core business will probably increase even without this effect, because we are building several large-scale wind farms, for example, Triton Knoll in the British North Sea and Big Raymond in Texas. We plan to spend €200 million to €300 million outside of the core business in the Coal / Nuclear segment. These funds are primarily being used to maintain our power plants and opencast mines.

Net debt not to exceed three times EBITDA. One of our key management parameters is the ratio of net debt to adjusted EBITDA of the core business, also referred to as the leverage factor. This key figure is more indicative than total liabilities because it also reflects earning power and therefore our ability to meet our debt obligations. We set the upper limit for the leverage factor at 3.0, which we intend to comply with over the long term. This involves a new definition of net debt: in the future, it will no longer contain our provisions for mining damage, which essentially cover our obligations to recultivate opencast mining areas. The same applies to the assets we use to cover these provisions. These assets include our 15 % stake in E.ON and the €2.6 billion claim for damages from the lignite phaseout, which was recognised in net debt in 2019.

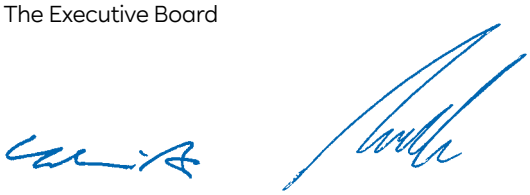
Dividend for 2020. RWE AG's dividend policy will remain in line with the principle of economic sustainability. The Executive Board intends to pay a dividend of €0.85 per share for fiscal 2020, which is slightly higher than for 2019. It is envisaged that the dividend payment will continue rising steadily in line with the development of our core business in the following years.

2 Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group review of operations includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Essen, 27 February 2020

The Executive Board



Schmitz Krebber

Consolidated financial statements

03

3.1 Income statement

€ million	Note	2019	2018[1]
Revenue (including natural gas tax/electricity tax)	(1)	**13,277**	**13,547**
Natural gas tax/electricity tax	(1)	152	141
Revenue	(1)	**13,125**	**13,406**
Other operating income	(2)	4,756	630
Cost of materials	(3)	9,078	9,998
Staff costs	(4)	2,526	1,895
Depreciation, amortisation and impairment losses	(5), (10)	3,166	948
Other operating expenses	(6)	3,254	906
Income from investments accounted for using the equity method	(7), (12)	321	211
Other income from investments	(7)	8	-42
Financial income	(8)	688	472
Finance costs	(8)	1,626	881
Income from continuing operations before tax		**-752**	**49**
Taxes on income	(9)	-92	103
Income from continuing operations		**-660**	**-54**
Income from discontinued operations		9,816	1,127
Income		**9,156**	**1,073**
of which: non-controlling interests		643	679
of which: RWE AG hybrid capital investors' interest		15	59
of which: net income/income attributable to RWE AG shareholders		**8,498**	**335**
Basic and diluted earnings per share in €	(26)	**13.82**	**0.54**
of which: from continuing operations in €		-1.13	-0.32
of which: from discontinued operations in €		14.95	0.86

1 Figures restated: Due to changes in the recognition of revenue and the cost of materials, which primarily related to derivative transactions, these two items decreased by €90 million each in the 2018 reporting period. Furthermore, the implementation of the failed own use IFRS IC agenda decision drove up revenue by €108 million and drove down the cost of materials by €149 million. This did not affect earnings because other operating expenses and other operating income declined by €44 million and €301 million in this context.

3.2 Statement of comprehensive income

Figures stated after taxes – € million	Note	2019	2018
Income		**9,156**	**1,073**
Actuarial gains and losses of defined benefit pension plans and similar obligations		-639	-1,183
Income and expenses of investments accounted for using the equity method (pro rata)	(12)	130	13
Fair valuation of equity instruments		279	-105
Income and expenses recognised in equity, not to be reclassified through profit or loss		**-230**	**-1,275**
Currency translation adjustment	(20)	1,060	-8
Fair valuation of debt instruments		27	-18
Fair valuation of financial instruments used for hedging purposes	(27)	479	3,170
Income and expenses of investments accounted for using the equity method (pro rata)	(12), (20)	-15	-1
Income and expenses recognised in equity, to be reclassified through profit or loss in the future		**1,551**	**3,143**
Other comprehensive income		**1,321**	**1,868**
Total comprehensive income		**10,477**	**2,941**
of which: attributable to RWE AG shareholders		9,687	2,350
of which: attributable to RWE AG hybrid capital investors		15	59
of which: attributable to non-controlling interests		775	532

3.3 Balance sheet

Assets € million	Note	31 Dec 2019	31 Dec 2018
Non-current assets			
Intangible assets	(10)	4,809	2,193
Property, plant and equipment	(11)	19,097	12,409
Investments accounted for using the equity method	(12)	3,236	1,467
Other non-current financial assets	(13)	4,391	400
Financial receivables	(14)	128	110
Other receivables and other assets	(15)	3,320	946
Income tax assets		264	246
Deferred taxes	(16)	706	824
		35,951	**18,595**
Current assets			
Inventories	(17)	1,585	1,631
Financial receivables	(14)	2,359	2,782
Trade accounts receivable		3,621	1,963
Other receivables and other assets	(15)	12,756	7,408
Income tax assets		196	101
Marketable securities	(18)	3,258	3,609
Cash and cash equivalents	(19)	3,192	3,523
Assets held for sale		1,274	40,496
		28,241	**61,513**
		64,192	**80,108**

Equity and liabilities € million	Note	31 Dec 2019	31 Dec 2018
Equity	(20)		
RWE AG shareholders' interest		16,945	8,736
RWE AG hybrid capital investors' interest			940
Non-controlling interests		503	4,581
		17,448	**14,257**
Non-current liabilities			
Provisions	(22)	18,936	14,366[1]
Financial liabilities	(23)	3,924	1,998
Income tax liabilities	(24)	1,050	1,497[1]
Other liabilities	(25)	849	508
Deferred taxes	(16)	2,259	1,638
		27,018	**20,007**
Current liabilities			
Provisions	(22)	2,638	2,572[1]
Financial liabilities	(23)	1,810	766
Trade accounts payable		2,987	2,429
Income tax liabilities	(24)	193	81[1]
Other liabilities	(25)	11,588	7,200
Liabilities held for sale		510	32,796
		19,726	**45,844**
		64,192	**80,108**

1 Figures restated: Due to the IFRS IC agenda decision of September 2019, tax balances previously stated as tax provisions are now recognised in income tax liabilities.

3.4 Cash flow statement

€ million	Note (30)	2019	2018
Income		-660	-54
Depreciation, amortisation, impairment losses/write-backs		2,754	958
Changes in provisions		2,825	-418
Changes in deferred taxes		44	-97
Income from disposal of non-current assets and marketable securities		-77	-6
Other non-cash income/expenses		-3,077	-245
Changes in working capital		-2,786	4,473
Cash flows from operating activities of continuing operations		**-977**	**4,611**
Cash flows from operating activities of discontinued operations		-546	2,037
Cash flows from operating activities		**-1,523**	**6,648**
Intangible assets/property, plant and equipment			
Capital expenditure		-1,767	-1,050
Proceeds from disposal of assets		72	35
Acquisitions, investments			
Capital expenditure		-4	-196
Proceeds from disposal of assets/divestitures		623	39
Changes in marketable securities and cash investments		1,592	-1,704
Cash flows from investing activities of continuing operations (before initial/subsequent transfer to plan assets)		**516**	**-2,876**
Initial/subsequent transfer to plan assets		-42	-123
Cash flows from investing activities of continuing operations (after initial/subsequent transfer to plan assets)		**474**	**-2,999**
Cash flows from investing activities of discontinued operations		-1,203	-1,405
Cash flows from investing activities (after initial/subsequent transfer to plan assets)		**-729**	**-4,404**
Net change in equity (incl. non-controlling interests)		-60	721
Changes in hybrid capital		-869	
Dividends paid to RWE AG shareholders and non-controlling interests		-560	-1,025
Issuance of financial debt		15,876	1,580
Repayment of financial debt		-14,198	-2,835
Cash flows from financing activities of continuing operations		**189**	**-1,559**
Cash flows from financing activities of discontinued operations		35	569
Cash flows from financing activities		**224**	**-990**
Net cash change in cash and cash equivalents		-2,028	1,254
Effects of changes in foreign exchange rates and other changes in value on cash and cash equivalents		15	13
Net change in cash and cash equivalents		**-2,013**	**1,267**
Cash and cash equivalents at beginning of the reporting period		5,225	3,958
of which: reported as 'Assets held for sale'		1,702	25
Cash and cash equivalents at beginning of the reporting period as per the consolidated balance sheet		3,523	3,933
Cash and cash equivalents at the end of the reporting period		3,212	5,225
of which: reported as 'Assets held for sale'		20	1,702
Cash and cash equivalents at end of the reporting period as per the consolidated balance sheet		**3,192**	**3,523**

3.5 Statement of changes in equity

Statement of changes in equity € million	Subscribed capital of RWE AG	Additional paid-in capital of RWE AG	Retained earnings and distributable profit	
Note (20)				
Balance at 1 Jan 2018	**1,574**	**2,385**	**2,393**	
Capital paid out				
Dividends paid[1]			-922	
Income			335	
Other comprehensive income			-1,126	
Total comprehensive income			-791	
Other changes			459	
Balance at 31 Dec 2018	**1,574**	**2,385**	**1,139**	
Capital paid out/paid in				
Dividends paid[1]			-430	
Income			8,498	
Other comprehensive income			-125	
Total comprehensive income			8,373	
Other changes			-174	
Balance at 31 Dec 2019	**1,574**	**2,385**	**8,908**	

1 Following reclassification of non-controlling interests to liabilities held for sale as per IAS 32.

	Accumulated other comprehensive Income			**RWE AG shareholders' interest**	RWE AG hybrid capital investors' interest	Non-controlling interests	**Total**
	Currency translation adjustments	Fair value measurement of financial instruments					
		Debt instruments measured at fair value through other comprehensive income	Used for hedging purposes				
	304	**31**	**36**	**6,723**	**940**	**4,283**	**11,946**
						-29	-29
				-922	-60	-506	-1,488
				335	59	679	1,073
	-19	-14	3,174	2,015		-147	1,868
	-19	-14	3,174	2,350	59	532	2,941
			126	585	1	301	887
	285	**17**	**3,336**	**8,736**	**940**	**4,581**	**14,257**
					-869	6	-863
				-430	-61	-460	-951
				8,498	15	643	9,156
	793	28	493	1,189		132	1,321
	793	28	493	9,687	15	775	10,477
			-874	-1,048	-25	-4,399	-5,472
	1,078	**45**	**2,955**	**16,945**		**503**	**17,448**

3.6 Notes

Basis of presentation

RWE AG, headquartered at Altenessener Straße 35 in 45141 Essen, Germany, is the parent company of the RWE Group ('RWE' or 'Group'). RWE is a producer of power using renewable and conventional technologies operating mainly in Europe and the USA.

The consolidated financial statements for the period ended 31 December 2019 were approved for publication on 27 February 2020 by the Executive Board of RWE AG. The statements were prepared in accordance with the International Financial Reporting Standards (IFRSs) applicable in the European Union (EU), as well as in accordance with the supplementary accounting regulations applicable pursuant to Sec. 315e, Para. 1 of the German Commercial Code (HGB). The previous year's figures were calculated according to the same principles.

A statement of changes in equity has been disclosed in addition to the income statement, the statement of comprehensive income, the balance sheet and the cash flow statement. The Notes also include segment reporting.

Several balance sheet and income statement items have been combined in the interests of clarity. These items are stated and explained separately in the Notes to the financial statements. The income statement is structured according to the nature of expense method.

The consolidated financial statements have been prepared in euros. Unless specified otherwise, all amounts are stated in millions of euros (€ million). Due to calculation procedures, rounding differences may occur.

These consolidated financial statements were prepared for the fiscal year from 1 January to 31 December 2019.

The Executive Board of RWE AG is responsible for the preparation, completeness and accuracy of the consolidated financial statements and the Group review of operations, which is combined with the review of operations of RWE AG.

We employ internal control systems, uniform groupwide directives, and programmes for basic and advanced staff training to ensure that the consolidated financial statements and combined review of operations are adequately prepared. Compliance with legal regulations and the internal guidelines as well as the reliability and viability of the control systems are continuously monitored throughout the Group.

In line with the requirements of the German Corporate Control and Transparency Act (KonTraG), the Group's risk management system enables the Executive Board to identify risks at an early stage and take countermeasures, if necessary.

The consolidated financial statements, the combined review of operations, and the independent auditors' report are discussed in detail by the Audit Committee and at the Supervisory Board's meeting on financial statements with the independent auditors present. The results of the Supervisory Board's examination are presented in the report of the Supervisory Board on page 20 et seqq.

Scope of consolidation

In addition to RWE AG, the consolidated financial statements contain all material German and foreign companies which RWE AG controls directly or indirectly. In determining whether there is control, in addition to voting rights, other rights in the company contracts or articles of incorporation and potential voting rights are also taken into consideration.

Material associates are accounted for using the equity method, and principal joint arrangements are accounted for using the equity method or as joint operations.

Associates are companies on which RWE AG exercises a significant influence on the basis of voting rights between 20 % and 50 % or on the basis of contractual agreements. In classifying joint arrangements which are structured as independent vehicles, as joint operations or as joint ventures, other facts and circumstances – in particular delivery relationships between the independent vehicle and the parties participating in such – are taken into consideration, in addition to the legal form and contractual agreements.

Investments in subsidiaries, joint ventures, joint operations or associates which are of secondary importance from a Group perspective are accounted for in accordance with IFRS 9.

The list of Group shareholdings pursuant to Sec. 313, Para. 2 of the German Commercial Code (HGB) is presented on page 176 et seqq.

The following summaries show the changes in the number of fully consolidated companies and joint ventures and investments accounted for using the equity method:

Number of fully consolidated companies	Germany	Abroad	Total
1 Jan 2019	**141**	**215**	**356**
First-time consolidation	7	105	112
Deconsolidation	–90	–115	–205
Mergers		–4	–4
31 Dec 2019	**58**	**201**	**259**

Number of companies accounted for using the equity method	Germany	Abroad	Total
1 Jan 2019	**9**	**12**	**21**
Acquisitions	2	8	10
31 Dec 2019	**11**	**20**	**31**

The number of fully consolidated companies changed compared to the previous year, primarily due to the acquisition of the E.ON operations that were taken over (first-time consolidations) and the disposal of the discontinued innogy operations (deconsolidations).

The number of companies accounted for using the equity method decreased in fiscal 2018 due to the asset swap agreed upon with E.ON and the associated assignment to discontinuing operations.

Furthermore, two companies are presented as joint operations (previous year: six). Of these, Greater Gabbard Offshore Winds Limited, UK, is a material joint operation of the RWE Group. Greater Gabbard holds a 500 MW offshore wind farm, which the continued innogy operations operate together with Scottish and Southern Energy (SSE) Renewables Holdings. Innogy Renewables UK owns 50 % of the shares and receives 50 % of the power generated (including green power certificates). The wind farm is a key element in the offshore portfolio of the segment innogy – continuing operations.

First-time consolidation and deconsolidation generally take place when control is obtained or lost.

Sales of shares which led to a change of control resulted in sales proceeds from disposals amounting to €18 million, which were reported in other operating income (previous year: –€46 million). Furthermore, the €8,258 million deconsolidation gain on the sale of the discontinued innogy operations was recognised in the 'income from discontinued operations' line item on the income statement.

Within the framework of purchases and sales of subsidiaries and other business units which resulted in a change of control, purchase prices amounted to €3,592 million (previous year: €27 million) and sales prices amounted to €14,296 million (previous year: €13 million). The sales prices were paid using equity interests (previous year: solely cash) and offset against other payments within the scope of the transaction agreed with E.ON. The latter also applies to the purchase prices with the exception of €25 million which was paid in cash and cash equivalents (in the previous year, all purchase prices were paid in cash). In relation to this, cash and cash equivalents (excluding assets held for sale) were acquired in the amount of €113 million (previous year: €0 million) and were disposed of in the amount of €1,250 million (previous year: €0 million).

Acquisitions

Acquired E.ON operations

On 18 September 2019, as part of the extensive asset swap agreed upon with E.ON SE on 12 March 2018, RWE gained control of major parts of E.ON's former renewable energy business. The acquired operations are active in onshore and offshore wind as well as in the photovoltaic business in Europe and the USA.

The assets and liabilities acquired within the scope of the transaction are presented in the following table:

Balance-sheet items € million	IFRS carrying amounts (fair value) at initial consolidation
Non-current assets	**10,292**
Intangible assets	1,951
Property, plant and equipment	6,332
Other non-current assets	2,009
Current assets	**1,886**
Non-current liabilities	**3,979**
Provisions	613
Financial liabilities	2,447
Other non-current liabilities	919
Current liabilities	**5,260**
Net assets	**2,939**
Purchase price	3,592
Goodwill	**653**

The fair value of the receivables included in non-current and current assets amounted to €1,663 million (of which €834 million were financial receivables and €829 million were trade accounts receivable) and corresponded to the gross amount of the receivables that are fully recoverable.

The acquired E.ON operations have contributed €374 million to the Group's revenue and €86 million to the Group's earnings since they were consolidated for the first time.

The purchase price amounted to €3,592 million. The payment of the purchase price was made using €25 million in cash and cash equivalents, with the remainder being offset against other payments within the scope of the transaction agreed upon with E.ON.

Goodwill is primarily based on expected future use and synergy effects.

The initial accounting of the business combination has not been finalised due to the complex structure and the size of the transaction, in particular because the material information could not be exchanged until the antitrust restrictions had been removed.

If all business combinations in the period under review had been effected as of 1 January 2019, the Group's adjusted EBITDA would have amounted to €2,982 million and the Group's revenue would have amounted to €13,904 million.

Disposals and discontinued operations

innogy – discontinued operations

On 18 September 2019, RWE sold the parts of innogy stated as 'innogy – discontinued operations' since 30 June 2018 to E.ON SE as part of the extensive asset swap contractually agreed upon with E.ON SE on 12 March 2018. This largely related to the lion's share of the grid and retail business.

The transaction also involved E.ON acquiring the stake in the Czech distribution system operator innogy Grid Holding (IGH) previously held by innogy. RWE had acquired innogy SE's majority interest in IGH in the middle of February 2019 to this end. The execution of the agreement with E.ON triggered a right of first refusal of IGH co-shareholder Macquarie Infrastructure and Real Assets (MIRA) managed consortium of investors. MIRA exercised this right of first refusal on 29 April 2019. As a result, MIRA purchased the 50.04 % stake at the terms and conditions at which it would have been sold by RWE to a third party, which in this case would have been E.ON. The sale to MIRA closed on 30 September 2019. Due to the unchanged overall plan to divest the grid and retail business, IGH was stated under 'innogy – discontinued operations' until it was deconsolidated on 30 September 2019.

In late August 2019, RWE acquired innogy's stake in the investment in the Slovak power and gas utility Východoslovenská energetika Holding a.s., (VSEH), which is fully consolidated and also stated as part of the discontinued operations the stake in VSEH was not yet transferred to E.ON on 18 September 2019. However, since the envisaged sale of the VSE Group is part of the overall plan to divest the grid and retail business, the VSE Group will continue to be stated under the discontinued operations as of 31 December 2019, the discontinued operations are thus solely comprised of the VSE Group.

The elimination bookings within the scope of the consolidation of expenses and income for the intragroup deliveries and services existing so far, which will be continuing either with innogy or with third parties after the deconsolidation of the innogy assets that are to be transferred, were fully assigned to the discontinued operations.

Major key figures of the activities of the discontinued operations are presented in the following tables:

Key figures of discontinued operations € million	31 Dec 2019	Disposals Q3 2019	31 Dec 2018
Non-current assets			
Intangible assets	405	10,434	10,716
Property, plant and equipment	734	14,147	14,000
Other non-current assets	8	5,085	5,363
	1,147	**29,666**	**30,079**
Current assets	**127**	**12,763**	**10,417**
Non-current liabilities			
Provisions	9	5,212	4,557
Financial liabilities	225	13,521	14,147
Other non-current liabilities	131	2,622	3,065
	365	**21,355**	**21,769**
Current liabilities	**145**	**13,443**	**11,027**

Key figures of discontinued operations € million	2019	2018
Revenue[1]	23,890	34,077
Other income[2]	1,518	1,503
Expenses[3]	23,214	33,877
Income of discontinued operations before tax	2,194	1,703
Taxes on income	636	576
Deconsolidation gain	8,258	
Income of discontinued operations	9,816	1,127

1 Including income with continuing operations in the amount of €1,402 million (previous year: €2,570 million).
2 Including income with continuing operations in the amount of €108 million (previous year: €266 million).
3 Including expenses with continuing operations in the amount of €9,772 million (previous year: €13,835 million).

The deconsolidation gain amounted to €8,258 million and is stated in the 'Income from discontinued operations' line item in the income statement. It includes a deconsolidation gain of €140 million from the sale of IGH.

In the previous year, accumulated other comprehensive income from discontinued operations amounted to –€773 million.

Of the share of total comprehensive income attributable to RWE AG shareholders, €218 million (previous year: €2,267 million) were allocable to continuing operations and €9,469 million (previous year: €83 million) were allocable to discontinued operations.

The impairment test performed for the discontinued operations as a whole in accordance with IFRS 5 as of 31 December 2019 did not reveal a need for impairment.

Due to contractual arrangements, RWE retains control of the main activities of the innogy operations remaining with RWE over the long term (the renewable energy business, the gas storage business and the stake in the Austrian power utility Kelag). Furthermore, RWE is entitled to the proceeds from the development of the value of these business activities since 1 January 2018. Therefore, they are still fully consolidated at RWE and stated as part of the 'innogy – continuing operations' segment.

Consolidation principles

The financial statements of German and foreign companies included in the scope of the Group's financial statements are prepared using uniform accounting policies. On principle, subsidiaries whose fiscal years do not end on the Group's balance-sheet date (31 December) prepare interim financial statements as of this date. Three subsidiaries have a different balance-sheet date of 31 March (previous year: three). Different fiscal years compared to the calendar year stem from tax-related reasons or country-specific regulations.

Business combinations are reported according to the acquisition method. This means that capital consolidation takes place by offsetting the purchase price, including the amount of the non-controlling interests, against the acquired subsidiary's revalued net assets at the time of acquisition. In doing so, the non-controlling interests can either be measured at the prorated value of the subsidiary's identifiable net assets or at fair value. The subsidiary's identifiable assets, liabilities and contingent liabilities are measured at full fair value, regardless of the amount of the non-controlling interests. Intangible assets are reported separately from goodwill if they are separable from the company or if they stem from a contractual or other right. In accordance with IFRS 3, no new restructuring provisions are recognised within the scope of the purchase price allocation. If the purchase price exceeds the revalued prorated net assets of the acquired subsidiary, the difference is capitalised as goodwill. If the purchase price is lower, the difference is included in income.

In the event of deconsolidation, the related goodwill is derecognised with an effect on income. Changes in the ownership share which do not alter the ability to control the subsidiary are recognised without an effect on income. By contrast, if there is a change in control, the remaining shares are revalued with an effect on income.

Expenses and income as well as receivables and payables between consolidated companies are eliminated; intra-group profits and losses are eliminated.

For investments accounted for using the equity method, goodwill is not reported separately, but rather included in the value recognised for the investment. In other respects, the consolidation principles described above apply analogously. If impairment losses on the equity value become necessary, we report such under income from investments accounted for using the equity method. The financial statements of investments accounted for using the equity method are prepared using uniform accounting policies.

Foreign currency translation

In their individual financial statements, the companies measure non-monetary foreign currency items at the balance-sheet date using the exchange rate in effect on the date they were initially recognised. Monetary items are converted using the exchange rate valid on the balance-sheet date. Exchange rate gains and losses from the measurement of monetary balance-sheet items in foreign currency occurring up to the balance-sheet date are recognised on the income statement.

Functional foreign currency translation is applied when converting the financial statements of companies outside of the Eurozone. As the principal foreign enterprises included in the consolidated financial statements conduct their business activities independently in their national currencies, their balance-sheet items are translated into euros in the consolidated financial statements using the average exchange rate prevailing on the balance-sheet date. This also applies for goodwill, which is viewed as an asset of the economically autonomous foreign entity. We report differences to previous-year translations in other comprehensive income without an effect on income. Expense and income items are translated using annual average exchange rates. When translating the adjusted equity of foreign companies accounted for using the equity method, we follow the same procedure.

The following exchange rates (among others) were used as a basis for foreign currency translations:

Exchange rates	Average		Year-end	
in €	2019	2018	31 Dec 2019	31 Dec 2018
1 US dollar	0.89	0.85	0.89	0.87
1 pound sterling	1.14	1.13	1.18	1.12
100 Czech korunas	3.90	3.89	3.94	3.89
1 Polish zloty	0.23	0.23	0.23	0.23
1 Danish crown	0.13	0.13	0.13	0.13
1 Swedish crown	0.09	0.10	0.10	0.10
1 Norwegian crown	0.10	0.10	0.10	0.10

Accounting policies

Intangible assets are accounted for at amortised cost. With the exception of goodwill, all intangible assets have finite useful lives and are amortised using the straight-line method. Useful lives and methods of amortisation are reviewed on an annual basis.

Software for commercial and technical applications is amortised over three to five years. 'Operating rights' refer to the entirety of the permits and approvals required for the operation of a power plant. Such rights are generally amortised over the economic life of the power plant, using the straight-line method. Capitalised customer relations are amortised over a maximum period of up to ten years.

Goodwill is not amortised; instead it is subjected to an impairment test once every year, or more frequently if there are indications of impairment.

Development costs are capitalised if a newly developed product or process can be clearly defined, is technically feasible and it is the company's intention to either use the product or process itself or market it. Furthermore, asset recognition requires that there be a sufficient level of certainty that the development costs lead to future cash inflows. Capitalised development costs are amortised over the period during which the products are expected to be sold. Research expenditures are recognised as expenses in the period in which they are incurred.

An impairment loss is recognised for an intangible asset if the recoverable amount of the asset is less than its carrying amount. A special regulation applies for cases when the asset is part of a cash-generating unit. Such units are defined as the smallest identifiable group of assets which generates cash inflows; these inflows must be largely independent of cash inflows from other assets or groups of asset. If the intangible asset is a part of a cash-generating unit, the impairment loss is calculated based on the recoverable amount of this unit. If goodwill was allocated to a cash-generating unit and the carrying amount of the unit exceeds the recoverable amount, the allocated goodwill is initially written down by the difference. Impairment losses which must be recognised in addition to this are taken into account by reducing the carrying amount of the other assets of the cash-generating unit on a prorated basis. If the reason for an impairment loss recognised in prior periods has ceased to exist, a write-back to intangible assets is performed. The increased carrying amount resulting from the write-back may not, however, exceed the amortised cost. Impairment losses on goodwill are not reversed.

Property, plant and equipment is stated at depreciated cost. Borrowing costs are capitalised as part of the asset's cost, if they are incurred directly in connection with the acquisition or production of a 'qualified asset'. What characterises a qualified asset is that a considerable period of time is required to prepare it for use or sale. If necessary, the cost of property, plant and equipment may contain the estimated expenses for the decommissioning of plants or site restoration. Maintenance and repair costs are recognised as expenses.

With the exception of land and leasehold rights, as a rule, property, plant and equipment is depreciated using the straight-line method, unless in exceptional cases another depreciation method is better suited to the usage pattern. The depreciation methods are reviewed annually. We calculate the depreciation of RWE's typical property, plant and equipment according to the following useful lives, which apply throughout the Group and are also reviewed annually:

Useful life in years	
Buildings	7 – 50
Technical plants	
Thermal power plants	6 – 40
Wind turbines	Up to 25
Gas and water storage facilities	10 – 60
Mining facilities	3 – 25
Mining developments	44 – 52
Other renewable generation facilities	5 – 50

Within the scope of the annual useful life review, the useful lives of wind turbines were adjusted to up to 25 years (previously up to 23 years). This change in estimate was made prospectively as of 1 October 2019. This resulted in a reduction of depreciation and amortisation of €4 million for 2019. Depreciation and amortisation are expected to be reduced by €17 million for 2020.

Property, plant and equipment also include right-of-use assets resulting from leases of which RWE is the lessee. These right-of-use assets are measured at cost. The cost results from the present value of the lease instalments, adjusted by advance payments, initial direct costs and potential dismantling obligations and corrected for received lease incentives. Right-of-use assets are depreciated using the straight-line method over the lease term or the expected useful life, whichever is shorter.

For short-term leases and leases for low-value assets, lease instalments are recognised as an expense over the lease term. For operating leases of which RWE is the lessor, the minimum lease instalments are recognised as income over the lease term.

Impairment losses and write-backs on property, plant and equipment are recognised according to the principles described for intangible assets.

Investments accounted for using the equity method are initially accounted for at cost and thereafter based on the carrying amount of their prorated net assets. The carrying amounts are increased or reduced annually by prorated profits or losses, dividends and all other changes in equity. Goodwill is not reported separately, but rather included in the recognised value of the investment. Goodwill is not amortised. An impairment loss is recognised for investments accounted for using the equity method, if the recoverable amount is less than the carrying amount.

The initial measurement of **other financial assets** occurs at the settlement date. Shares in non-consolidated subsidiaries and in associates or joint ventures are recognised at fair value through profit or loss as long as such can be determined reliably. Other investments are also recognised at fair value. The option to state changes in fair value in other comprehensive income is exercised for some of these equity instruments. Non-current securities are accounted for at fair value and changes in value are recognised through profit or loss or other comprehensive income depending on their classification. Gains and losses on sales of equity instruments, for which the option to state changes in fair value in other comprehensive income is exercised, remain in equity and are not reclassified to the income statement. An impairment in the amount of the expected credit losses is recognised through profit or loss for debt instruments that are recognised at fair value through other comprehensive income.

Receivables are comprised of **financial receivables, trade accounts receivable** and **other receivables.** Aside from financial derivatives, **receivables and other assets** are stated at amortised cost minus a risk provision in the amount of the expected losses.

Loans reported under financial receivables are stated at amortised cost minus a risk provision in the amount of the expected losses. Loans with interest rates common in the market are shown on the balance sheet at nominal value; as a rule, however, non-interest or low-interest loans are disclosed at their present value discounted using an interest rate commensurate with the risks involved.

CO_2 emission allowances and certificates for renewable energies are accounted for as intangible assets and reported under other assets. Allowances which are purchased and allowances allocated free of charge are both stated at cost and are not amortised.

Deferred taxes result from temporary differences in the carrying amount in the separate IFRS financial statements and tax bases, and from consolidation procedures. Deferred tax assets also include tax reduction claims resulting from the expected utilisation of existing loss carryforwards in subsequent years. Deferred taxes are capitalised if it is sufficiently certain that the related economic advantages can be used. Their amount is assessed with regard to the tax rates applicable or expected to be applicable in the specific country at the time of realisation. The tax regulations valid or adopted as of the balance-sheet date are key considerations in this regard. Deferred tax assets and deferred tax liabilities are netted out for each company and/or tax group.

Inventories are assets which are held for sale in the ordinary course of business (finished goods and goods for resale), which are in the process of production (work in progress – goods and services) or which are consumed in the production process or in the rendering of services (raw materials including nuclear fuel assemblies and excavated earth for lignite mining).

Insofar as inventories are not acquired primarily for the purpose of realising a profit on a short-term resale transaction, they are carried at the lower of cost or net realisable value. Production costs reflect the full costs directly related to production; they are determined based on normal capacity utilisation and, in addition to directly allocable costs, they also include adequate portions of required materials and production overheads. They also include production-related depreciation. Borrowing costs, however, are not capitalised as part of the cost. The determination of cost is generally based on average values. The usage of excavated earth for lignite mining is calculated using the 'first in – first out' method (FIFO).

If the net realisable value of inventories written down in earlier periods has increased, the reversal of the write-down is recognised as a reduction of the cost of materials.

Nuclear fuel assemblies are stated at depreciated cost. Depreciation is determined by operation and capacity, based on consumption and the reactor's useful life.

Inventories which are acquired primarily for the purpose of realising a profit on a short-term resale transaction are recognised at fair value less costs to sell. Changes in value are recognised with an effect on income.

Securities classified as current marketable securities essentially consist of marketable securities held in special funds as well as fixed-interest securities which have a maturity of more than three months and less than one year from the date of acquisition. Securities held in special funds are measured at fair value through profit or loss or at fair value through other comprehensive income. The transaction costs directly associated with the acquisition of these securities are included in the initial measurement, which occurs on their settlement date. Unrealised gains and losses are recognised through profit or loss or other comprehensive income, with due consideration of any deferred taxes depending on the underlying valuation category. An impairment in the amount of the expected credit losses is recognised through profit or loss for debt instruments that are stated at fair value through other comprehensive income. Changes included in other comprehensive income are recognised through profit or loss on disposal of such instruments.

Cash and cash equivalents consist of cash on hand, demand deposits and current fixed-interest securities with a maturity of three months or less from the date of acquisition.

Assets are stated under **Assets held for sale** if they can be sold in their present condition and their sale is highly probable within the next twelve months. Such assets may be certain non-current assets, asset groups ('disposal groups') or operations ('discontinued operations'). Liabilities intended to be sold in a transaction together with assets are a part of a disposal group or discontinued operations, and are reported separately under **Liabilities held for sale**.

Non-current assets held for sale are no longer depreciated or amortised. They are recognised at fair value less costs to sell, as long as this amount is lower than the carrying amount.

Gains or losses on the valuation of specific assets held for sale and of disposal groups are stated under income from continuing operations until final completion of the sale. Gains or losses on the valuation of discontinued operations and on certain assets of a discontinued operation, which are not subject to the valuation rules pursuant to IFRS 5, are stated under income from discontinued operations.

The stock option plans are accounted for as cash-settled **share-based payment**. At the balance-sheet date, a provision is recognised in the amount of the prorated fair value of the payment obligation. Changes in the fair value are recognised with an effect on income. The fair value of options is determined using generally accepted valuation methodologies.

Provisions are recognised for all legal or constructive obligations to third parties which exist on the balance-sheet date and stem from past events which will probably lead to an outflow of resources, and the amount of which can be reliably estimated. Provisions are carried at their prospective settlement amount and are not offset against reimbursement claims. If a provision involves a large number of items, the obligation is estimated by weighting all possible outcomes by their probability of occurrence (expected value method).

All non-current provisions are recognised at their prospective settlement amount, which is discounted as of the balance-sheet date. In the determination of the settlement amount, any cost increases likely to occur up until the time of settlement are taken into account.

If necessary, the cost of property, plant and equipment may contain the estimated expenses for the decommissioning of plants or site restoration. Decommissioning, restoration and similar provisions are recognised for these expenses. If changes in the discount rate or changes in the estimated timing or amount of the payments result in changes in the provisions, the carrying amount of the respective asset is increased or decreased by the corresponding amount. If the decrease in the provision exceeds the carrying amount, the excess is recognised immediately through profit or loss.

As a rule, releases of provisions are credited to the expense account on which the provision was originally recognised.

Provisions for pensions and similar obligations are recognised for defined benefit plans. These are obligations of the company to pay future and ongoing post-employment benefits to entitled current and former employees and their surviving dependents. In particular, the obligations refer to retirement pensions. Individual commitments are generally oriented to the employees' length of service and compensation.

Provisions for defined benefit plans are based on the actuarial present value of the respective obligation. This is measured using the projected unit credit method. This method not only takes into account the pension benefits and benefit entitlements known as of the balance-sheet date, but also anticipated future increases in salaries and pension benefits. The calculation is based on actuarial reports, taking into account appropriate biometric parameters (for Germany, in particular the 'Richttafeln 2018 G' by Klaus Heubeck, and the Standard SAPS Table S2PA of the current year for the United Kingdom, taking into consideration future changes in mortality rates). The provision derives from the balance of the actuarial present value of the obligations and the fair value of the plan assets. The service cost is disclosed in staff costs. Net interest is included in the financial result.

Gains and losses on the revaluation of net defined benefit liability or asset are fully recognised in the fiscal year in which they occur. They are reported outside of profit or loss, as a component of other comprehensive income in the statement of comprehensive income, and are immediately assigned to retained earnings. They remain outside profit or loss in subsequent periods as well.

In the case of defined contribution plans, the enterprise's obligation is limited to the amount it contributes to the plan. Contributions to the plan are reported under staff costs.

Waste management provisions in the nuclear energy sector are based on obligations under public law, in particular the German Atomic Energy Act, and on restrictions from operating licenses. These provisions are measured using estimates, which are based on and defined in contracts as well as on information from internal and external specialists (e. g. experts).

Obligations existing as of the balance-sheet date and identifiable when the balance sheet is being prepared are recognised as provisions for mining damage to cover land recultivation and remediation of mining damage that has already occurred or been caused. The provisions must be recognised due to obligations under public law, such as the German Federal Mining Act, and formulated, above all, in operating schedules and water law permits. Provisions are generally fully related to the degree of mining in question. Such provisions are measured at full expected cost or according to estimated compensation payments. Cost estimates are based on external expert opinions to a significant extent.

A provision is recognised to cover the obligation to submit CO_2 emission allowances and certificates for renewable energies to the respective authorities; this provision is primarily measured at the secured forward price of the CO_2 allowances or certificates for renewable energies. If a portion of the obligation is not covered with allowances that are available or have been purchased forward, the provision for this portion is measured using the market price of the emission allowances or certificates for renewable energies on the reporting date.

Liabilities consist of **financial liabilities, trade accounts payable, income tax liabilities** and **other liabilities**. Upon initial recognition, these are generally stated at fair value including transaction costs and are carried at amortised cost in the periods thereafter (except for derivative financial instruments). Lease liabilities are measured at the present value of the future lease payments. For subsequent measurements, the lease payments are divided into the financing costs and repayment portion of the outstanding debt. Financing costs are distributed over the lease term in such a manner that a steady interest rate is created for the outstanding debt. If uncertain income tax items are recognised in income tax liabilities because they are probable, the former are generally measured at the most likely amount. Measurement at expected value is only considered in exceptional cases.

Moreover, other liabilities also include contract liabilities. A contract liability is the obligation of the Group to transfer goods or services to a customer, for which we have already received consideration or for which the consideration is already due.

Derivative financial instruments are recognised as assets or liabilities and measured at fair value, regardless of their purpose. Changes in this value are recognised with an effect on income, unless the instruments are used for hedge accounting purposes. In such cases, recognition of changes in the fair value depends on the type of hedging transaction.

Fair value hedges are used to hedge assets or liabilities carried on the balance sheet against the risk of a change in their fair value. The following applies: changes in the fair value of the hedging instrument and the fair value of the respective underlying transactions are recognised in the same line item on the income statement. Hedges of unrecognised firm commitments are also recognised as fair value hedges. Changes in the fair value of the firm commitments with regard to the hedged risk result in the recognition of an asset or liability with an effect on income.

Cash flow hedges are used to hedge the risk of variability in future cash flows related to an asset or liability carried on the balance sheet or related to a highly probable forecast transaction. If a cash flow hedge exists, unrealised gains and losses from the hedging instrument are initially stated as other comprehensive income. Such gains or losses are only included on the income statement when the hedged underlying transaction has an effect on income. If forecast transactions are hedged and such transactions lead to the recognition of a financial asset or financial liability in subsequent periods, the amounts that were recognised in equity until this point in time are recognised on the income statement in the period during which the asset or liability affects the income statement. If the transactions result in the recognition of non-financial assets or liabilities, for example the acquisition of property, plant and equipment, the amounts recognised in equity without an effect on income are included in the initial cost of the asset or liability.

The purpose of hedges of a net investment in foreign operations (net investment hedges) is to hedge the currency risk from investments with foreign functional currencies. Unrealised gains and losses from such hedges are recognised in other comprehensive income until disposal of the foreign operation.

Hedging relationships must be documented in detail and meet the following effectiveness requirements:

- there is an economic relationship between the hedged item and the hedging instrument,
- the value change of hedging relationship is not dominated by the credit risk, and
- the hedge ratio is the same as that resulting from the quantities used within the scope of risk management.

Only the effective portion of a hedge is recognised in accordance with the preceding rules. The ineffective portion is recognised immediately on the income statement with an effect on income.

Contracts on the receipt or delivery of non-financial items in accordance with the company's expected purchase, sale or usage requirements (own-use contracts) are not accounted for as derivative financial instruments, but rather as executory contracts. If the contracts contain embedded derivatives, the derivatives are accounted separately from the host contract, insofar as the economic characteristics and risks of the embedded derivatives are not closely related to the economic characteristics and risks of the host contract. Written options to buy or sell a non-financial item which can be settled in cash are not own-use contracts.

Contingent liabilities are possible obligations to third parties or existing obligations which will probably not lead to an outflow of economic benefits or the amount of which cannot be measured reliably. Contingent liabilities are only recognised on the balance sheet if they were assumed within the framework of a business combination. The amounts disclosed in the Notes correspond to the exposure at the balance-sheet date.

Management judgements in the application of accounting policies. Management judgements are required in the application of accounting policies. In particular, this pertains to the following aspects:

- With regard to certain contracts, a decision must be made as to whether they are to be treated as derivatives or as so-called own-use contracts, and be accounted for as executory contracts.
- Financial assets are classified by contractual cash flows and applied business model. Whereas the contractual cash flows are determined by the characteristics of the financial instruments, the business model is based on the Group's internal requirements relating to the portfolios of financial instruments.
- With regard to assets held for sale, it must be determined if they can be sold in their current condition and if the sale of such is highly probable in the next twelve months. If both conditions apply, the assets and any related liabilities must be reported and measured as assets or liabilities held for sale, respectively.

Management estimates and judgements. Preparation of consolidated financial statements pursuant to IFRS requires assumptions and estimates to be made, which have an impact on the recognised value of the assets and liabilities carried on the balance sheet, on income and expenses and on the disclosure of contingent liabilities.

Amongst other things, these assumptions and estimates relate to the accounting and measurement of provisions. With regard to non-current provisions, the discount factor to be applied is an important estimate, in addition to the amount and timing of future cash flows. The discount factor for pension obligations is determined on the basis of yields on high-quality, fixed-rate corporate bonds on the financial markets as of the balance-sheet date.

The rules governing valuation allowances for financial assets under IFRS 9 stipulate that the expected credit losses must be determined. The valuation allowance is based on information from within and outside the Group.

The impairment test for goodwill and non-current assets is based on certain assumptions pertaining to the future, which are regularly adjusted. Property, plant and equipment is tested for indications of impairment on each cut-off date.

Power plants are grouped together as a cash-generating unit if their production capacity and fuel needs are centrally managed as part of a portfolio, and it is not possible to ascribe individual contracts and cash flows to the specific power plants.

Upon first-time consolidation of an acquired company, the identifiable assets, liabilities and contingent liabilities are recognised at fair value. Determination of the fair value is based on valuation methods which require a projection of anticipated future cash flows.

Deferred tax assets are recognised if realisation of future tax benefits is probable. Actual future development of income for tax purposes and hence the realisability of deferred tax assets, however, may deviate from the estimation made when the deferred taxes are capitalised.

Further information on the assumptions and estimates upon which these consolidated financial statements are based can be found in the explanations of the individual items.

All assumptions and estimates are based on the circumstances and forecasts prevailing on the balance-sheet date. Furthermore, as of the balance-sheet date, realistic assessments of overall economic conditions in the sectors and regions in which RWE conducts operations are taken into consideration with regard to the prospective development of business. Actual amounts may deviate from the estimated amounts if the overall conditions develop differently than expected. In such cases, the assumptions, and, if necessary, the carrying amounts of the affected assets and liabilities are adjusted.

As of the date of preparation of the consolidated financial statements, it is not presumed that there will be any material changes compared to the assumptions and estimates.

Capital management. The focus of RWE's financing policy is on ensuring uninterrupted access to the capital market. The goal is to be in a position to refinance maturing debts and finance the operating activities at all times. Maintaining a solid rating and a positive operating cash flow serve this purpose.

The management of RWE's capital structure is oriented towards net debt. It is calculated by adding material non-current provisions to and deducting the net assets of funded pension obligations from net financial debt. RWE's liabilities of relevance to net debt primarily consist of hybrid bonds and provisions for pensions, nuclear waste management, mining, and wind farms.

During the reporting period, RWE's capital structure changed significantly. This was in part due to the execution of the transaction with E.ON (see page 106 et seq.). In addition, the net debt of the continuing operations was greatly affected by the loss of variation margins on forward transactions with electricity, commodities and CO_2 certificates. Variation margins are payments with which transaction partners mutually collateralise profit and loss positions resulting from the daily revaluation of active contracts. However, their influence on cash flows is temporary and ends once the transactions are realised. Both of these effects resulted in a significant decrease in financial assets and contributed to a decline in net financial assets of continuing operations totalling €6.0 billion as of 31 December 2019 (previous year: €7.4 billion). Furthermore, net debt provisions rose by €3.7 billion to €15.6 billion (previous year: €11.9 billion). On average, provisions have a very long duration; their level is primarily determined by external factors such as the general level of interest rates. A precise calculation of net debt and net financial debt is presented on page 32 of the review of operations.

RWE's credit rating is influenced by a number of qualitative and quantitative factors. These include aspects such as the amount of cash flows and debt as well as market conditions, competition, and the political framework. Our hybrid bonds also have a positive effect on our rating. The leading rating agencies, Moody's and Fitch, classify part of hybrid capital as equity.

RWE's creditworthiness is currently rated 'Baa3' by Moody's and 'BBB' by Fitch. Our rating thus remains in the investment-grade range. The short-term credit ratings for RWE are 'P-3' and 'F2', respectively.

Changes in accounting regulations

The International Accounting Standards Board (IASB) and the IFRS Interpretations Committee (IFRS IC) have implemented new IFRSs and approved amendments of existing IFRSs and a new interpretation, which became effective for the RWE Group as of fiscal 2019:

IFRS 16 Leases (2016) replaces IAS 17 Leases and the related interpretations IFRIC 4, SIC-15 and SIC-27. RWE applied the modified retrospective method when applying the new lease accounting rules for the first time. Comparable information for fiscal 2018 was not adjusted. RWE maintained the existing lease assessment in accordance with IAS 17 and IFRIC 4 for existing contracts. Furthermore, RWE is making use of exemptions allowing for leases relating to short-term or low-value assets not to be recognised on the balance sheet as a right-of-use asset. The transition to IFRS 16 did not have an effect on equity.

The initial adoption of IFRS 16 had the following effects on the continued operations of the RWE Group: Right-of-use assets in the amount of €353 million and net debt-increasing lease liabilities in the same amount were stated as of 1 January 2019. Taking account of the discontinued operation which have been deconsolidated in the meantime, the initial adoption of IFRS 16 led to an increase in the balance-sheet total of €2,251 million. At the transition date, RWE did not apply the new rules to leases with a term expiring within the first twelve months from the date of first-time adoption. These contracts are accounted for as short-term leases and the lease payments are recognized in the current costs of the period. Likewise, initial direct costs are not considered in the initial measurement of the right-of-use asset. Pursuant to IFRS 16, right-of-use assets are recognised as property, plant and equipment and amortised over the shorter of the term of the lease or the useful life using the straight-line method. Obligations entered into within the scope of leases are measured at the present value of the future lease payments and recognised as financial liabilities. The lease payments are divided into principal and interest components using the effective interest method. In the period under review, as a result of the introduction of IFRS 16, depreciation and amortisation increased by €58 million and interest expenses increased by €17 million in the period under review. The discontinuation of the recognition of nominal lease payments as an expense provided adjusted EBITDA in the period under review with relief of roughly the same amount, as a result of which net income was not affected significantly.

The obligations from operating leases as of 31 December 2018 lead to the following reconciliation to the opening balance of lease liabilities as of 1 January 2019:

Initial application of IFRS 16: reconciliation	€ million
Obligations from operating leases as of 31 Dec 2018	**572**
Simplified application for short-term leases	– 10
Lease instalments related to contractually agreed leases that have not yet commenced	– 67
Other differences	– 3
Nominal value of lease liabilities as of 1 Jan 2019	492
Effect of discounting lease liabilities	– 139
Lease liabilities recognised as of 1 Jan 2019 due to the initial application of IFRS 16	**353**
Finance lease liabilities as of 31 Dec 2018	241
Total lease liabilities as of 1 Jan 2019	**594**

The 'Other differences' line item mainly consists of non-lease components exempted from recognition in the lease liabilities and differences due to changed term assessments pursuant to IFRS 16. Lease liabilities are discounted using the term and currency-specific incremental borrowing rate. The weighted average incremental borrowing rate was 3.7 % on the IFRS 16 initial application date.

The following amendments to standards and new interpretations mandatory for the RWE Group from fiscal 2019 onwards did not have any material effects on RWE's consolidated financial statements:

- Annual Improvements to IFRS Standards 2015–2017 Cycle (2017),
- Amendments to IFRS 9: Prepayment Features with Negative Compensation (2017),
- Amendments to IAS 28 Long-term Interests in Associates and Joint Ventures (2017),
- Amendments to IAS 19 Plan Amendment, Curtailment or Settlement (2018),
- IFRIC 23 Uncertainty over Income Tax Treatments (2017).

IFRS 9 Financial Instruments – Physical Settlement of Contracts to Buy or Sell a Non-financial Item (Own Use Contracts)
The IFRS IC found within the scope of an agenda decision in March 2019 that physically settled contracts for the purchase or sale of non-financial items must be recognised at the market price applicable at settlement, as long as such contracts are not covered by an own use scope exception according to IFRS 9 Financial Instruments (referred to as 'failed own-use contracts'). The practice customary thus far has been to recognise the contracts at their settlement amount.

This caused revenue for fiscal 2018 to rise by €108 million, with the cost of materials declining by €149 million. In sum, this did not have an effect on earnings, because other operating expenses and other operating income dropped by €44 million and €301 million in this context.

IAS 12/IFRIC 23 – Uncertainty over Income Tax Treatments
At its meeting in September 2019, the IFRS IC found within the scope of an agenda decision that uncertain income tax items must be recognised as current tax liabilities.

In RWE's consolidated financial statements, this causes amounts previously recognized as tax provisions in other provisions to be reclassified to income tax liabilities. Prior-year figures were adjusted accordingly.

New accounting policies

The IASB issued further standards and amendments to standards, which were not yet mandatory in the EU in fiscal 2019. These standards and amendments to standards, which are not expected to have any material effects on RWE's consolidated financial statements, are listed below:

- IFRS 17 Insurance Contracts (2017),
- Amendments to References to the Conceptual Framework in IFRS Standards (2018),
- Amendment to IFRS 3 Business Combinations (2018),
- Amendments to IAS 1 and IAS 8 Definition of Material (2018),
- Amendments to IFRS 9, IAS 39 and IFRS 7 Interest Rate Benchmark Reform (2019),
- Amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current (2020).

IFRS 16 – Determining the Lease Term
At its meeting in November 2019, the IFRS IC established that both contractual penalties and other financial incentives must be considered when determining the binding term of a lease. Consideration of financial incentives can generally result in longer lease terms and, in turn, higher amounts recognised for right-of-use assets and lease liabilities.

The effects of the IFRS IC agenda decision on the consolidated financial statements of RWE are currently being determined. We plan to implement the IFRS IC agenda decision at the end of the first half of 2020.

Notes to the Income Statement

(1) Revenue

Revenue is recorded when the customer has obtained control over goods or services.

We recognise income from the sale of our in-house generation and the consumer business in revenue. Revenue from in-house generation is based on the sale price achieved through commercial optimisation. Consumer revenue is reported on a gross basis.

In the year under review, RWE generated external revenue of €7,455 million with the innogy Group and €1,472 million with the Centrica Group (previous year: gross revenue of €13,752 million from discontinued innogy operations) in the Supply & Trading segment.

A breakdown of revenue by division, geographical region and product is contained in the segment reporting on page 169 et seqq.

The item 'Natural gas tax/electricity tax' comprises the taxes paid directly by Group companies.

Certain performance obligations of the RWE Group were not yet or not yet fully met by the end of the fiscal year. The €4,276 million in revenue due from these performance obligations (previous year: €4,650 million) is expected to be received over the following three years. The receipt of this revenue will depend on when these performance obligations to the customer are met. It does not include future revenue from contracts with an original contractual term of twelve months or less.

(2) Other operating income

Other operating income € million	2019	2018
Income from own work capitalised	67	45
Income from changes in product inventories	30	
Release of provisions	10	57
Cost allocations/refunds	116	63
Disposal and write-back of current assets (excluding marketable securities)		4
Disposal and write-back of non-current assets including income from deconsolidation	525	103
Income from derivative financial instruments	897	107[1]
Compensation and insurance benefits	34	26
Income from leases	16	20
Miscellaneous	3,061	205
	4,756	**630**

1 Figure restated: The implementation of the failed own use IFRS IC agenda decision caused income from derivative financial instruments to drop by €301 million.

In the year under review, write-backs of €71 million were recognised for the Scottish biomass-fired power station Markinch in the European Power segment (recoverable amount: €0.2 billion). This was predominantly due to changed assumptions regarding subsidies in the renewable energy business. The write-ups were fully allocated to property, plant and equipment.

Furthermore, write-backs of €363 million were recognised for the German Gas and Hydroelectric Power Plants cash-generating unit along with the associated power purchase agreements in the European Power segment (recoverable amount: €0.5 billion). This was largely due to the new definition of cash-generating units in the European Power segment presented on page 118 et seq. All of the write-backs were allocable to property, plant and equipment.

In the previous year, write-backs of €38 million were made for onshore wind farms in Poland in the innogy – continuing operations segment (recoverable amount: €0.2 billion). This was primarily due to the rise in the prices of electricity and of green electricity certificates. Of the write-backs, €36 million was allocable to property, plant and equipment and €2 milion was allocable to operating rights recognised as intangible assets.

Miscellaneous income contained the compensatory payments of €2,600 million for the early exit from our lignite business awarded by the German government.

Income from the disposal of non-current financial assets and loans is disclosed under income from investments if it relates to investments; otherwise it is recorded as part of the financial result as is the income from the disposal of current marketable securities.

To improve the presentation of the development of business, we state unrealised and realised income from contracts measured at fair value of the Supply & Trading segment as net amounts. The net amount totalled €258 million (previous year: €42 million).

(3) Cost of materials

Cost of materials € million	2019	2018[1]
Cost of raw materials and of goods for resale	7,663	8,615
Cost of purchased services	1,415	1,383
	9,078	**9,998**

1 Figure restated: due to changes in income recognition in relation to derivative transactions, the cost of materials decreased by €90 million. The implementation of the failed own use IFRS IC agenda decision caused it to drop by a further €149 million.

The cost of materials primarily includes expenses for the input materials of power plants. Expenses for coal of €195 million (previous year: €370 million) were recognised at the market price prevailing at settlement.

In the year under review, an impairment of €21 million (previous year: €4 million) was recognised for coal inventories due to a drop in market prices.

(4) Staff costs

Staff costs € million	2019	2018
Wages and salaries	2,124	1,487
Cost of social security, pensions and other benefits	402	408
	2,526	**1,895**

Number of employees	2019	2018
Employees covered by collective agreements and other employees	28,214	45,333
Employees not covered by collective agreements	9,868	13,108
	38,082	**58,441**

The number of employees is arrived at by conversion to full-time positions, meaning that part-time and fixed-term employment relationships are included in accordance with the ratio of the part-time work or the duration of the employment to the annual employment time.

The stated number of employees (average for the year) encompasses the continuing innogy operations, the acquired E.ON operations and – until and including Q2 2019 – the discontinued innogy operations. The discontinued innogy operations account for 14,663 wage earners and other personnel (previous year: 32,232) and 4,561 salaried staff (previous year: 8,614). On average, 1,280 trainees were employed (previous year: 2,031), of which 659 (previous year: 1,452) were assigned to the innogy – discontinued operations segment.

(5) Depreciation, amortisation and impairment losses

Depreciation, amortisation and impairment losses € million	2019	2018
Intangible assets	107	26
Property, plant and equipment	3,059	922
	3,166	**948**

Depreciation, amortisation and impairment losses contain the following impairments:

Impairments € million	2019	2018
Intangible assets	46	
Property, plant and equipment	1,922	47
	1,968	**47**

The legal steps to reduce and end electricity generation from lignite and hard coal in Germany that are materialising resulted in the split-up and spin-off of the two former Lignite & Nuclear and German Power Plant Portfolio cash-generating units in the European Power segment. In so doing, RWE is reacting to the changing regulatory environment and the resulting consequences for electricity sales.

The impairment test performed in the Lignite & Nuclear segment for this reason resulted in the recognition of an impairment loss of €400 million (recoverable amount: – €0.2 billion) for the new Hambach cash-generating unit, of €114 million for the new Inden cash-generating unit (recoverable amount: €0.0 billion) and of €253 million for the new Garzweiler cash-generating unit (recoverable amount: €1.3 billion). These effects are solely due to the agreement reached with the German government to phase out electricity generation from lignite early. The assets are distributed among the new cash-generating units based on their association with lignite or nuclear energy, with the lignite assets being further distinguished by their geographical, logistical and technical circumstances. €240 million in impairments are attributable to changes in provisions that were capitalised in the 'property, plant and equipment' item.

Moreover, the impairment test performed in the European Power segment led to reversals of write-downs of €363 million for the new Gas and Hydroelectric Power Plants cash-generating unit along with the associated power purchase agreements, which was recognised in other operating income (recoverable amount: €0.5 billion). For the first time, the recoverable amount was calculated separately for each of the assets in the hard coal business, owing to the changed regulatory environment. This resulted in impairment losses of €76 million (recoverable amount: €0.2 billion). These effects stem from the compensation lost due to the spin-off of the hard coal-fired power stations along with the associated power purchase agreements from the former cash-generating unit. The latter were also valued separately for the first time.

In addition, an impairment loss of €693 million (recoverable amount: €1.1 billion) was recognised for the Dutch Power Plant Portfolio cash-generating unit in the European Power segment. This was due to the early phase-out of electricity generation from hard coal in the Netherlands.

In the previous year, a €29 million impairment was recognised for the UK power station Staythorpe in the European Power segment (recoverable amount: €0.3 billion).

In the innogy – continuing operations segment, an impairment loss of €225 million was recognised for the Nordsee Ost offshore wind farm (recoverable amount: €0.6 billion). This primarily resulted from changed price and cost expectations.

Furthermore, an impairment loss of €69 million was recognised for gas storage facilities (of which €65 million for property, plant and equipment and €4 million for intangible assets) in the innogy – continuing operations segment, primarily due to changed price expectations (recoverable amount: €0.0 billion).

Other impairments on intangible assets and property, plant and equipment were recognised primarily on the basis of cost increases and changes in price expectations.

Recoverable amounts are generally determined on the basis of fair values less costs to sell; in the innogy – continuing operations segment, they are also determined on the basis of values in use. Fair values are determined using valuation models based on planned cash flows. In the fiscal year, the valuation models were based on discount rates (after taxes) in the range of 2.50 % to 4.75 %. In the innogy – continuing operations segment, they are based on discount rates (before taxes) of 3.90 % and 4.25 %. In the previous year, the valuation model for the UK power station Staythorpe used a discount rate of 4.75 %. Our key planning assumptions relate to the development of wholesale prices of electricity, crude oil, natural gas, coal and CO_2 emission allowances, retail prices of electricity and gas, market shares and regulatory framework conditions. Based on the use of internal planning assumptions, the determined fair values are assigned to Level 3 of the fair value hierarchy.

(6) Other operating expenses

Other operating expenses € million	2019	2018
Expenses associated with changes in product inventories		5
Maintenance and renewal obligations	505	465
Additions to provisions/reversals	1,814	–196
Structural and adaptation measures	151	33
Legal and other consulting and data processing services	273	166
Disposal of current assets and decreases in values (excluding decreases in the value of inventories and marketable securities)	4	8
Disposal of non-current assets including expenses from deconsolidation	24	56
Insurance, commissions, freight and similar distribution costs	61	59
General administration	65	56
Expenses from derivative financial instruments	70	[1]
Expenses from leases	42	48
Fees and membership dues	65	61
Exchange rate losses	1	3
Other taxes (primarily on property)	29	27
Miscellaneous	150	115
	3,254	**906**

1 Figure restated: The implementation of the failed own use IFRS IC agenda decision caused expenses from derivative financial instruments to drop by €44 million .

Additions to provisions in fiscal 2019 primarily relate to the nuclear energy and mining business (see commentary on page 146 et seqq.).

(7) Income from investments

Income from investments includes all income and expenses which have arisen in relation to operating investments. It is comprised of income from investments accounted for using the equity method and other income from investments.

Income from investments € million	2019	2018
Income from investments accounted for using the equity method	**321**	**211**
Income from non-consolidated subsidiaries	1	–45
Income from other investments	1	–6
Income from the disposal of investments	5	
Income from loans to investments	1	9
Other income from investments	**8**	**–42**
	329	**169**

(8) Financial result

Financial result € million	2019	2018
Interest and similar income	185	166
Other financial income	503	306
Financial income	**688**	**472**
Interest and similar expenses	258	180
Interest accretion to		
Provisions for pensions and similar obligations (including capitalised surplus of plan assets)	49	45
Provisions for nuclear waste management as well as to mining provisions	723	183
Other provisions	109	36
Other finance costs	487	437
Finance costs	**1,626**	**881**
	-938	**-409**

The financial result breaks down into net interest, interest accretion to provisions, other financial income and other finance costs.

Interest accretion to provisions contains the annual amounts of accrued interest. It is reduced by the imputed interest income on plan assets for the coverage of pension obligations. Due to the early end of electricity generation from lignite resulting from the German coal phase-out, the real discount rate used to calculate provisions for mining damage was reduced and the associated increase in the net present value of obligations of €463 million was recognised as an expense in the interest accretion to additions to provisions.Interest expenses incurred for lease liabilities amounted to €26 million in the year under review.

Net interest essentially includes interest income from interest-bearing securities and loans, income and expenses relating to marketable securities, and interest expenses.

In the year under review, €39 million in borrowing costs were capitalised as costs in connection with the acquisition, construction or production of qualifying assets (previous year: €9 million). The underlying capitalisation rate ranged from 3.7% to 4.0% (previous year: from 4.4% to 4.8%).

Net interest € million	2019	2018
Interest and similar income	185	166
Interest and similar expenses	258	180
	-73	**-14**

Net interest stems from financial assets and liabilities, which were allocated to the following measurement categories pursuant to IFRS 9:

Interest result by category € million	2019	2018
Debt instruments measured at amortised cost	123	108
Financial instruments measured at fair value through profit or loss	30	30
Debt instruments measured at fair value through other comprehensive income	16	14
Equity instruments measured at fair value through other comprehensive income	16	14
Financial liabilities measured at (amortised) cost	-258	-180
	-73	**-14**

Other financial income includes €19 million in gains realised from the disposal of marketable securities (previous year: €6 million). Of the other finance costs, €5 million (previous year: €13 million) stem from realised losses on the disposal of marketable securities.

(9) Taxes on income

Taxes on income € million	2019	2018
Current taxes on income	–136	122
Deferred taxes	44	–19
	–92	**103**

Of the deferred taxes, €29 million is related to temporary differences (previous year: –€2 million). In the year under review, changes in valuation allowances for deferred tax assets amounted to €572 million (previous year: –€73 million).

Current taxes on income contain €74 million in net tax income (previous year: expense of €30 million) relating to prior periods.

Due to the utilisation of tax loss carryforwards unrecognised in prior years, current taxes on income were reduced by €37 million (previous year: €28 million).

Income taxes recognised in other comprehensive income € million	2019	2018
Fair valuation of equity instruments	–3	
Fair valuation of debt instruments	–12	7
Fair valuation of financial instruments used for hedging purposes	–288	–1,442
Actuarial gains and losses of defined benefit pension plans and similar obligations[1]	176	410
	–127	**–1,025**

1 Including valuation allowances.

Taxes in the amount of €394 million (previous year: –€61 million) were offset directly against equity.

Tax reconciliation € million	2019	2018
Income before tax	**–752**	**49**
Theoretical tax expense	**–245**	**16**
Differences to foreign tax rates	–37	–28
Tax effects on		
Tax-free dividends	–49	–38
Other tax-free income	–10	–21
Expenses not deductible for tax purposes	30	42
Accounting for associates using the equity method (including impairment losses on associates' goodwill)	–55	–24
Unutilisable loss carryforwards, utilisation of unrecognised loss carryforwards, write-downs on loss carryforwards, recognition of loss carryforwards	175	–14
Income on the disposal of investments	–48	12
Changes in foreign tax rates	29	–3
Other allowances for deferred taxes in the RWE AG tax group	207	172
Other	–89	–11
Effective tax expense	**–92**	**103**
Effective tax rate in %	12.2	210.2

The theoretical tax expense is calculated using the tax rate for the RWE Group of 32.6% (previous year: 32.6%). This is derived from the prevailing 15% corporate tax rate, the solidarity surcharge of 5.5%, and the Group's average local trade tax rate.

Notes to the Balance Sheet

(10) Intangible assets

Intangible assets € million	Development costs	Concessions, patent rights, licences and similar rights	Customer relationships and similar assets	Goodwill	Prepayments	Total
Cost						
Balance at 1 Jan 2019	36	2,214	1	1,718	9	3,978
Additions/disposals due to changes in the scope of consolidation	1	1,601	295	653		2,550
Additions	2	22			2	26
Transfers	1	5			-5	1
Currency translation adjustments		80	5	15		100
Disposals		5				5
Balance at 31 Dec 2019	40	3,917	301	2,386	6	6,650
Accumulated amortisation/ impairment losses						
Balance at 1 Jan 2019	33	1,751	1			1,785
Additions/disposals due to changes in the scope of consolidation	-2	-57				-59
Amortisation/impairment losses in the reporting period	4	98	5			107
Currency translation adjustments	1	7				8
Balance at 31 Dec 2019	36	1,799	6			1,841
Carrying amounts						
Balance at 31 Dec 2019	4	2,118	295	2,386	6	4,809

Intangible assets € million	Development costs	Concessions, patent rights, licences and similar rights	Customer relationships and similar assets	Goodwill	Prepayments	Total
Cost						
Balance at 1 Jan 2018	837	3,054	2,810	11,671	31	18,403
Additions/disposals due to changes in the scope of consolidation	-821	-890	-2,812	-9,929	-3	-14,455
of which: stated as 'held for sale'	-821	-999	-2,812	-9,929	-3	-14,564
Additions	42	37			6	85
Transfers	2	29			-25	6
Currency translation adjustments	1	-15	3	-24		-35
Disposals	25	1				26
Balance at 31 Dec 2018	36	2,214	1	1,718	9	3,978
Accumulated amortisation/ impairment losses						
Balance at 1 Jan 2018	489	2,493	2,564	474		6,020
Additions/disposals due to changes in the scope of consolidation	-460	-792	-2,579	-475		-4,306
of which: stated as 'held for sale'	-460	-792	-2,579	-475		-4,306
Amortisation/impairment losses in the reporting period	29	63	13			105
Currency translation adjustments		-10	3	1		-6
Disposals	25	1				26
Write-ups		2				2
Balance at 31 Dec 2018	33	1,751	1			1,785
Carrying amounts						
Balance at 31 Dec 2018	3	463		1,718	9	2,193

In the reporting period, the RWE Group's total expenditures on research and development amounted to €25 million (previous year: €116 million).

Goodwill breaks down as follows:

Goodwill € million	31 Dec 2019	31 Dec 2018
Acquired E.ON operations	653	
innogy – continuing operations[1]	727	712
Supply & Trading	1,006	1,006
	2,386	**1,718**

1 Goodwill is solely allocable to the renewable energy activities recognised in ' innogy – continuing operations'.

In the year under review, goodwill increased by €653 million as a result of the first-time consolidation of the acquired E.ON operations. This goodwill passed the impairment test in the fourth quarter. In the previous year, goodwill increased by €0 million as a result of first-time consolidations.

In the third quarter of every fiscal year, an impairment test is performed to determine if there is any need to write down goodwill. In the course of this, goodwill is allocated to the cash-generating units.

The recoverable amount of the cash-generating unit is determined, which is defined as the higher of fair value less costs to sell or value in use. Fair value is the best estimate of the price that an independent third party would pay to purchase the cash-generating unit as of the balance-sheet date. Value in use reflects the present value of the future cash flows which are expected to be generated with the cash-generating unit.

Fair value less costs to sell is assessed from an external perspective and value in use from a company-internal perspective. Values are determined using a business valuation model, based on planned future cash flows. These cash flows, in turn, are based on the business plan, as approved by the Executive Board and valid at the time of the impairment test. They pertain to a detailed planning period of three years. In certain justifiable cases, a longer detailed planning period is taken as a basis, insofar as it is necessary due to economic or regulatory conditions. The cash flow plans are based on experience as well as on expected market trends in the future. If available, market transactions in the same sector or third-party valuations are taken as a basis for determining fair value. Based on the use of internal planning assumptions, the determined fair values are assigned to Level 3 of the fair value hierarchy.

Mid-term business plans are based on country-specific assumptions regarding the development of key economic indicators such as gross domestic product, consumer prices, interest rate levels and nominal wages. These estimates are, amongst others, derived from macro- economic and financial studies.

Our key planning assumptions for the business segments active in electricity and gas markets relate to the development of wholesale prices of electricity, crude oil, natural gas, coal and CO_2 emission allowances, retail prices of electricity and gas, market shares and regulatory framework conditions.

The discount rates used for business valuations are determined on the basis of market data. During the period under review, they were 5.50 % (previous year: 5.25 %) for the Supply & Trading and 4.00 % (previous year: 4.25 %) for the innogy – continuing operations cash-generating units.

We do not base the extrapolation of future cash flows going beyond the detailed planning period on growth rates. The growth rate for each division is generally derived from experience and expectations of the future and does not exceed the long-term average growth rates of the respective markets in which the Group companies are active. The annual cash flows assumed for the years after the detailed planning period include as a deduction capital expenditure in the amount necessary to maintain the scope of business.

As of the balance-sheet date, the recoverable amounts of the cash-generating units – determined as the fair value less costs to sell – were higher than their carrying amounts. The surpluses react especially sensitively to changes in the discount rate, the growth rate and cash flows in terminal value.

The Supply & Trading cash-generating unit exhibited the smallest surplus of recoverable amount over the carrying amounts. The recoverable amount was €1.4 billion higher than the carrying amount. Impairment would have been necessary if the calculations had used an after-tax discount rate increased by more than 3.2 percentage points to above 8.7 %, a growth rate decreased by more than 3.9 percentage points to below – 3.9 %, or cash flows reduced by more than €86 million in terminal value.

(11) Property, plant and equipment

Property, plant and equipment € million	Land, land rights and buildings incl. buildings on third-party land	Technical plant and machinery	Other equipment, factory and office equipment	Prepayments and plants under construction	Total
Cost					
Balance at 1 Jan 2019	4,868	43,733	934	2,061	51,596[1]
Additions/disposals due to changes in the scope of consolidation	282	3,863	19	1,450	5,614
Additions	300	1,153	66	1,077	2,596
Transfers	1	217	13	-239	-8
Currency translation adjustments	23	401	4	42	470
Disposals	151	683	47	14	895
Balance at 31 Dec 2019	5,323	48,684	989	4,377	59,373
Accumulated depreciation/impairment losses					
Balance at 1 Jan 2019	3,073	34,214	756	791	38,834
Additions/disposals due to changes in the scope of consolidation	-51	-640	-12		-703
Amortisation/impairment losses in the reporting period	222	2,685	64	88	3,059
Transfers	-6	-2	5	-1	-4
Currency translation adjustments	8	169	4		181
Disposals	91	509	47	5	652
Additions	27	412			439
Balance at 31 Dec 2019	3,128	35,505	770	873	40,276
Carrying amounts					
Balance at 31 Dec 2019	2,195	13,179	219	3,504	19,097

Property, plant and equipment € million	Land, land rights and buildings incl. buildings on third-party land	Technical plant and machinery	Other equipment, factory and office equipment	Prepayments and plants under construction	Total
Cost					
Balance at 1 Jan 2018	7,325	74,280	2,123	2,317	86,045
Additions/disposals due to changes in the scope of consolidation	-2,740	-30,747	-1,238	-845	-35,570
of which: stated as 'held for sale'	-2,738	-30,708	-1,238	-859	-35,543
Additions	65	665	74	1,014	1,818
Transfers	45	283	-2	-332	-6
Currency translation adjustments	-42	-294	-7	-10	-353
Disposals	109	478	35	69	691
Balance at 31 Dec 2018	4,544	43,709	915	2,075	51,243
Accumulated depreciation/impairment losses					
Balance at 1 Jan 2018	4,555	54,187	1,505	851	61,098
Additions/disposals due to changes in the scope of consolidation	-1,455	-20,646	-803	-1	-22,905
of which: stated as 'held for sale'	-1,453	-20,580	-803	-1	-22,837
Amortisation/impairment losses in the reporting period	66	1,209	93	7	1,375
Transfers	1	-1			
Currency translation adjustments	-20	-149	-4		-173
Disposals	69	352	35	65	521
Additions	5	34		1	40
Balance at 31 Dec 2018	3,073	34,214	756	791	38,834
Carrying amounts					
Balance at 31 Dec 2018	1,471	9,495	159	1,284	12,409

1 Including the effect of the initial adoption of IFRS 16 in the amount of €353 million.

Property, plant and equipment in the amount of €1,024 million (previous year: €504 million) were subject to restrictions from land charges, chattel mortgages or other restrictions. Disposals of property, plant and equipment resulted from sale or decommissioning.

Property, plant and equipment includes owned assets as well as right-of-use assets from leases of which RWE is the lessee.

These leases primarily comprise long-term rights of use to leased office buildings and land (e. g. leaseholds, properties for renewable energy production) and rights of use to leased assets relating to vehicle fleets and power plants.

The following table shows the development of right-of-use assets recognised in property, plant and equipment:

Right-of-use assets € million	Balance at: 1 Jan 2019	Additions	Depreciation, amortisation and impairments	Disposals	Other changes[1]	Balance at: 31 Dec 2019
Cost						
Buildings	51	30	12		1	70
Land	274	142	25	4	279	666
Technical plant and machinery	8	37	5	4	7	43
Pumped storage power stations	27	31	1		204	261
Vehicle fleet	8	7	6		9	18
Other plant, factory and office equipment	12	23	12			23
	380	**270**	**61**	**8**	**500**	**1,081**

1 Other changes comprise transfers, additions, currency translation adjustments as well as additions and disposals in the scope of consolidation.

Disclosure on the corresponding lease liabilities and interest expenses can be found in Notes (8) Financial result, (23) Financial liabilities and (27) Reporting on financial instruments.

In addition, leases had the following effect on the RWE Group's earnings and cash flows in the year under review:

Effects of leases on income and cash flows € million	2019
RWE as lessee	
Expenses from short-term leases	14
Expenses from variable lease payments not considered in the measurement of lease liabilities	18
Total cash outflows from leases	60
RWE as lessor	
Income from operating leases	13

Leases primarily relating to office buildings that have been contractually agreed, but not begun yet, lead to future lease payments of €195 million. Moreover, potential lease payments predominantly relating to leases of wind farm space were disregarded when valuing lease liabilities. This relates to €471 million in variable payments which may come due depending on generation volumes and €100 million in potential payments associated with extension and termination options.

In addition to right-of-use assets, property, plant and equipment also include land and buildings leased as operating leases by RWE as lessor. The carrying amount of these assets totalled €193 million as of 31 December 2019.

The following payment claims resulted from these operating leases:

Nominal Lease payments from operating leases € million	
Due in up to 1 year	4
Due in > 1 to 2 years	7
Due in > 2 to 3 years	6
Due in > 3 to 4 years	6
Due in > 4 to 5 years	6
Due after 5 years	55

(12) Investments accounted for using the equity method

Information on material and non-material investments in associates and joint ventures accounted for using the equity method is presented in the following summaries:

Material investments accounted for using the equity method	Amprion GmbH, Dortmund		KELAG-Kärntner Elektrizitäts-AG/ Kärntner Energieholding Beteiligungs GmbH (KEH), Klagenfurt (Austria)	
€ million	31 Dec 2019	31 Dec 2018	31 Dec 2019	31 Dec 2018
Balance sheet[1]				
Non-current assets	5,225	4,192	1,664	1,630
Current assets	1,825	2,906	383	373
Non-current liabilities	2,012	1,401	869	857
Current liabilities	2,496	3,555	285	276
Share of equity[2]	638	538	383	365
Goodwill			198	198
Carrying amounts	638	538	581	563
Statement of comprehensive income[1]				
Revenue	14,773	13,495	1,285	1,172
Income	523	372	93	79
Other comprehensive income	-22	-17	-15	-1
Total comprehensive income	501	355	78	78
Dividends (prorated)	25	25	15	15
RWE shareholding	25%	25%	49%	49%

1 Figures based on a shareholding of 100% in KEH.
2 Figures based on proportional share of equity in KEH and Kelag.

Amprion GmbH, headquartered in Dortmund, Germany, is a transmission system operator (TSO) for the electricity sector, pursuant to the German Energy Act (EnwG). Amprion's main shareholder is a consortium of financial investors led by Commerz Real, a subsidiary of Commerzbank.

KELAG-Kärntner Elektrizitäts-AG, headquartered in Klagenfurt, Austria, is a leading Austrian energy supplier in the fields of electricity, district heating and natural gas. RWE has an economic interest of 49% in Kärntner Energieholding Beteiligungs GmbH (KEH), which is Kelag's largest shareholder and is assigned to innogy – continuing operations.

Non-material investments accounted for using the equity method	Associates		Joint ventures	
€ million	31 Dec 2019	31 Dec 2018	31 Dec 2019	31 Dec 2018
Income (pro-rata)	58	27	88	56
Other comprehensive income	41	8	16	
Total comprehensive income	99	35	104	56
Carrying amounts	246	142	1,771	224

The RWE Group holds shares with a book value of €3 million (previous year: €3 million) in associates and joint ventures, which are subject to temporary restrictions or conditions in relation to their distributions of profits, due to provisions of loan agreements.

(13) Other non-current financial assets

Other financial assets encompass non-consolidated subsidiaries, other investments and non-current securities.

The rise in other financial assets in fiscal 2019 was primarily due to the addition of the stake in E.ON SE within the scope of the sale of discontinued innogy operations.

Non-current securities amounting to €29 million and €4 million (previous year: €31 million and €4 million) were deposited in a trust account for RWE AG and its subsidiaries, in order to cover credit balances stemming from the block model for pre-retirement part-time work, pursuant to Sec. 8a of the Pre-Retirement Part-Time Work Act (AltTZG) and from the management of long-term working hours accounts pursuant to Sec. 7e of the German Code of Social Law (SGB IV), respectively. This coverage applies to the employees of RWE AG as well as to the employees of Group companies.

(14) Financial receivables

Financial receivables	31 Dec 2019		31 Dec 2018	
€ million	Non-current	Current	Non-current	Current
Loans to non-consolidated subsidiaries and investments	103	1	82	1
Collateral for trading activities		1,638		2,458
Other financial receivables				
Accrued interest		39		89
Miscellaneous other financial receivables	25	681	28	234
	128	**2,359**	**110**	**2,782**

Companies of the RWE Group deposited collateral for the trading activities stated above for exchange-based and over-the-counter transactions. These are to guarantee that the obligations from the transactions are discharged even if the development of prices is not favourable for RWE. Regular replacement of the deposited collateral depends on the contractually agreed thresholds, above which collateral must be provided for the market value of the trading activities.

(15) Other receivables and other assets

Other receivables and other assets	31 Dec 2019		31 Dec 2018	
€ million	Non-current	Current	Non-current	Current
Derivatives	661	11,447	704	6,567
Capitalised surplus of plan assets over benefit obligations	153		213	
Prepayments for items other than inventories		144		137
CO_2 emission allowances		407		329
Miscellaneous other assets	2,506	758	29	375
	3,320	**12,756**	**946**	**7,408**
of which: financial assets	824	11,564	924	6,684
of which: non-financial assets	2,496	1,192	22	724

The financial instruments reported under miscellaneous other assets are measured at amortised cost. Derivative financial instruments are stated at fair value. The carrying values of exchange-traded derivatives with netting agreements are offset.

€2,600 million of the miscellaneous other assets comprise the compensatory payments for the early exit from our lignite business awarded by the German government.

Furthermore, €43 million of the miscellaneous other assets (previous year: €7 million in other liabilities) were allocable to government grants awarded in relation with co-firing biomass in two Dutch power plants.

(16) Deferred taxes

Deferred tax assets and liabilities principally stem from the fact that measurements in the IFRS statements differ from those in the tax bases. As of 31 December 2019, no deferred tax liabilities were recognised for the difference between net assets and the carrying value of the subsidiaries and associates for tax purposes (known as 'outside basis differences') in the amount of €969 million (previous year: €618 million), as it is neither probable that there will be any distributions in the foreseeable future, nor will the temporary differences reduce in the foreseeable future. €5,316 million and €6,166 million of the gross deferred tax assets and liabilities, respectively, will be realised within twelve months (previous year: €5,335 million and €6,254 million).

The following is a breakdown of deferred tax assets and liabilities by item:

Deferred taxes	31 Dec 2019		31 Dec 2018	
€ million	Assets	Liabilities	Assets	Liabilities
Non-current assets	1,157	2,506	815	938
Current assets	1,450	3,876	2,101	3,009
Exceptional tax items		47		58
Non-current liabilities				
Provisions for pensions	148	40	139	41
Other non-current liabilities	487	50	289	194
Current liabilities	3,866	2,290	3,234	3,245
	7,108	**8,809**	**6,578**	**7,485**
Tax loss carryforwards				
Corporate income tax (or comparable foreign income tax)	125		77	
Trade tax	23		16	
Gross total	**7,256**	**8,809**	**6,671**	**7,485**
Netting	-6,550	-6,550	-5,847	-5,847
Net total	**706**	**2,259**	**824**	**1,638**

As of 31 December 2019, RWE reported deferred tax claims which exceeded the deferred tax liabilities by €144 million (previous year: €56 million), in relation to companies which suffered a loss in the current or previous period. The basis for the recognition of deferred tax assets is the judgement of the management that it is likely that the companies in question will generate taxable earnings, against which unutilised tax losses and deductible temporary differences can be applied.

The capitalised tax reduction claims from loss carryforwards result from the expected utilisation of previously unused tax loss carryforwards in subsequent years.

It is sufficiently certain that these tax carryforwards will be realised. At the end of the reporting period, corporate income tax loss carryforwards and trade tax loss carryforwards for which no deferred tax claims have been recognised amounted to €1,492 million and €879 million, respectively (previous year: €1,463 million and €490 million).

€569 million in corporate income tax loss carryforwards for which no deferred tax claims have been recognised will apply to the following eight years. The other loss carryforwards do not have any time limits, but they are mostly not expected to be used.

As of 31 December 2019, temporary differences for which no deferred tax assets were recognised amounted to €12,791 million (previous year: €11,180 million).

In the year under review, a deferred tax expense of €14 million arising from the currency translation of foreign financial statements was offset against equity (previous year: €5 million).

(17) Inventories

Inventories € million	31 Dec 2019	31 Dec 2018
Raw materials, incl. nuclear fuel assemblies and earth excavated for lignite mining	728	723
Work in progress – goods/services	33	37
Finished goods and goods for resale	839	872
Prepayments	–15	–1
	1,585	**1,631**

The carrying amount of inventories acquired for resale purposes was €605 million (previous year: €33 million). In the year under review, the entire amount related to gas inventories (previous year: €29 million). In the previous year, €4 million of this sum was attributable to coal inventories.

The fair value of gas and coal inventories is determined every month on the basis of the current price curves of the relevant indices for gas (e. g. NCG) and coal (e. g. API#2). The valuations are based on prices which can be observed directly or indirectly (Level 2 of the fair value hierarchy). Differences between the fair value and the carrying value of inventories acquired for resale purposes are recognised on the income statement at the end of the month.

(18) Marketable securities

Of the current marketable securities, €2,809 million were fixed-interest marketable securities (previous year: €3,226 million) with a maturity of more than three months from the date of acquisition, and €449 million were stocks and profit-participation certificates (previous year: €383 million). Marketable securities are stated at fair value.

(19) Cash and cash equivalents

Cash and cash equivalents € million	31 Dec 2019	31 Dec 2018
Cash and demand deposits	3,192	3,521
Marketable securities and other cash investments (maturity less than three months from the date of acquisition)		2
	3,192	**3,523**

RWE keeps demand deposits exclusively for short-term cash positions. For cash investments, banks are selected on the basis of various creditworthiness criteria. Such criteria include their rating from one of the three renowned rating agencies – Moody's, Standard & Poor's and Fitch – as well as their equity capital and the prices for credit default swaps. As in the previous year, interest rates on cash and cash equivalents were at market levels in 2019.

(20) Equity

A breakdown of fully paid-up equity is shown on page 102 et seq.
The subscribed capital of RWE AG is structured as follows:

Subscribed capital	31 Dec 2019 Number of shares		31 Dec 2018 Number of shares		31 Dec 2019 Carrying amount	31 Dec 2018 Carrying amount
	in '000	in %	in '000	in %	€ million	€ million
Common shares	614,745	100.0	575,745	93.7	1,574	1,474
Preferred shares			39,000	6.3		100
	614,745	**100.0**	**614,745**	**100.0**	**1,574**	**1,574**

Pursuant to resolutions passed by the Annual General Meeting and the Preferred Shareholders Meeting on 3 May 2019 as well as the entry of the amendment to the Articles of Incorporation in the Commercial Register on 28 June 2019, all of the 39,000,000 non-voting preferred shares in RWE AG were converted to voting common shares. The conversion was effected at a 1:1 ratio without additional payment. The number of common shares thus rose from 575,745,499 to 614,745,499.

The common shares are no-par-value bearer share certificates.

Pursuant to a resolution passed by the Annual General Meeting on 26 April 2018, the Executive Board was authorised to increase the company's capital stock with the Supervisory Board's approval by up to €314,749,693.44 until 25 April 2023 through the issue of up to 122,949,099 bearer common shares in return for contributions in cash and/or in kind (approved capital). In certain cases, with the approval of the Supervisory Board, the subscription rights of shareholders can be excluded.

Pursuant to a resolution passed by the Annual General Meeting on 26 April 2018, the Company was further authorised until 25 April 2023 to acquire any kind of shares of the Company up to a volume of 10 % of the capital stock when the resolution on this authorisation was passed, or if the following is lower, when this authorisation is exercised. Based on the authorisation, the Executive Board is also authorised to cancel treasury shares without a further resolution by the Annual General Meeting. Moreover, the Executive Board is authorised to transfer or sell such shares to third parties under certain conditions and excluding shareholders' subscription rights.

Furthermore, treasury shares may be issued to holders of option or convertible bonds. The Executive Board is also authorised to use the treasury shares to discharge obligations from future employee share schemes; in this regard, shareholders' subscription rights shall be excluded.

No treasury shares were held as of 31 December 2019.

In fiscal 2019, RWE AG purchased a total of 305,216 RWE shares for a purchase price of €7,998,155.06 on the capital market. This is equivalent to €781,352.96 of the capital stock (0.05 % of subscribed capital). Employees of RWE AG and its subsidiaries received a total of 305,216 shares for capital formation under the employee share plan. This generated total proceeds of €7,924,538.24. The difference to the purchase price was offset against freely available retained earnings.

On 6 February 2019, RWE cancelled the hybrid bond issued by Group companies that was previously classified as equity pursuant to IAS 32. The redemption in the amount of €869 million was effected on 20 March 2019 without refinancing the hybrid bond with fresh hybrid capital. The hybrid bond had a 7 % coupon and a theoretically perpetual tenor.

As a result of equity capital transactions with subsidiary companies which did not lead to a change of control, the share of equity attributable to RWE AG's shareholders changed by a total of –€149 million (previous year: €491 million) and the share of equity attributable to other shareholders changed by a total of –€746 million (previous year: €258 million). This includes the effects of the acquisition of the 25 % and 12.5 % minority interests in the Gundremmingen and Emsland nuclear power stations operated by RWE held by the E.ON subsidiary Preussen Elektra (change in RWE AG shareholders' interest in Group equity of €58 million) and the effects of the acquisition of the 23.2 % minority interest in the continuing innogy operations (change in RWE AG shareholders' interest in Group equity of –€201 million).

Accumulated other comprehensive income reflects changes in the fair values of debt instruments measured at fair value through other comprehensive income, cash flow hedges and hedges of the net investment in foreign operations, as well as changes stemming from foreign currency translation adjustments from foreign financial statements.

As of 31 December 2019, the share of accumulated other comprehensive income attributable to investments accounted for using the equity method amounted to –€22 million (previous year: –€7 million).

During the reporting year, €523 million in differences from currency translation which had originally been recognised without an effect on income were realised as an expense (previous year: expense of €48 million).

Dividend proposal

We propose to the Annual General Meeting that RWE AG's distributable profit for fiscal 2019 be appropriated as follows:

Distribution of a dividend of €0.80 per share.

Dividend	€ 491,796,399.20
Profit carryforward	€ 61,201.42
Distributable profit	€ 491,857,600.62

Based on a resolution of RWE AG's Annual General Meeting on 3 May 2019, the dividend for fiscal 2018 amounted to €0.70 per dividend-bearing common and preferred share. The dividend payment to shareholders of RWE AG amounted to €430 million.

Non-controlling interests

The share ownership of third parties in Group entities is presented in this item.

The income and expenses recognised directly in equity (other comprehensive income – OCI) include the following non-controlling interests:

Non-controlling interests in OCI € million	2019	2018
Actuarial gains and losses of defined benefit pension plans and similar obligations	-138	-134
Pro-rata income and expenses of investments accounted for using the equity method	43	-2
Fair valuation of equity instruments	-10	-13
Income and expenses recognised directly in equity, not to be reclassified through profit or loss	**-105**	**-149**
Currency translation adjustment	267	11
Fair valuation of debt instruments	-3	-4
Fair valuation of financial instruments used for hedging purposes	-29	-5
Pro-rata income and expenses of investments accounted for using the equity method	2	
Income and expenses recognised directly in equity, to be reclassified through profit or loss in the future	**237**	**2**
	132	**-147**

(21) Share-based payment

For executives of RWE AG and innogy SE as well as of affiliated companies, Long Term Incentive Plans (LTIPs) are in place as share-based payment systems known as Strategic Performance Plans (SPPs) and the predecessor model Beat 2010, which is being phased out. The expenses associated with these are borne by the Group companies which employ the persons holding notional stocks.

The LTIP SPP was introduced in 2016. It uses an internal performance target (net income of relevance to remuneration) derived from the mid-term planning and takes into account the development of RWE AG's and innogy SE's share price. Executives receive conditionally granted virtual shares (performance shares). The final number of virtual shares in a tranche is determined based on the achievement of the adjusted net income target. Each of the issued LTIP SPP tranches has a term of four years before payment is possible. The prerequisite for participating in the plan was the renouncement of the options of the predecessor model Beat 2010 which had not yet lapsed. The large majority of the participants made such renouncement declarations. The plan has expired with the exception of some immaterial remaining components.

RWE AG SPP	2016 tranche	2017 tranche	2018 tranche	2019 tranche
Start of term	1 Jan 2016	1 Jan 2017	1 Jan 2018	1 Jan 2019
Number of conditionally granted performance shares	486,436	1,338,027	883,974	932,889
Term	4 years	4 years	4 years	4 years
Performance target	Adjusted net income	Adjusted net income	Adjusted net income	Adjusted net income
Cap/number of performance shares	150%	150%	150%	150%
Cap/payment amount	200%	200%	200%	200%
Determination of payment	The payment amount is calculated on the basis of the determined number of performance shares multiplied by the sum of a) the mathematical average of the closing share price of the RWE common share (ISIN DE 000703129), with all available decimal places, in Xetra trading of Deutsche Börse AG (or a successor trading system which subsequently takes the place of the Xetra system) for the last 30 trading days prior to the end of the vesting period rounded according to standard commercial practice to two decimal places, and b) the dividends paid per share for the fiscal years between the determination of the final number of performance shares and the end of the vesting period. Dividends do not bear interest and are not reinvested. If a dividend payment occurs during the 30-day period for calculating the share price in accordance with item a), the share prices of the trading days leading up to the payment (CUM share prices) are adjusted by the dividend, as the dividend would otherwise be considered twice. Payment amount = (number of finally granted performance shares) x (mathematical average of the share price + dividends paid) The payment amount calculated in this manner is limited to no more than 200% of the grant amount.			
Change in corporate control/merger	A change in corporate control ('change of control') shall occur if a) a shareholder gains control in accordance with Sec. 29 of the German Securities Acquisition and Takeover Act (WpÜG) by holding at least 30% of the voting rights including third-party voting rights attributable to it in accordance with Sec. 30 WpÜG, or b) a control agreement in accordance with Sec. 291 of the Stock Corporation Act (AktG) is concluded with RWE AG as the dependent company, or c) RWE AG is merged with another legal entity that does not belong to the Group in accordance with Sec. 2 of the German Company Transformation Act (UmwG), unless the value of the other legal entity is less than 50% of the value of RWE AG based on the agreed conversion rate; in such a case, item a) shall not apply. In the event of a change of control, all of the performance shares which have been fully granted and have not been paid out shall be paid out early. The payment amount is determined according to the exercise conditions, with the deviation that the last 30 trading days prior to the announcement of the change in control is to be used; plus the dividends paid per share in the fiscal years between the determination of the final number of performance shares and the time of the change in control. The payment amount calculated in this manner shall be paid to the plan participant together with his or her next salary payment. All conditionally granted performance shares as of the effective date of the change of control shall lapse without consideration.			
Form of settlement	Cash settlement	Cash settlement	Cash settlement	Cash settlement
Payment date	2020	2021	2022	2023

innogy SE SPP	2016 tranche	2017 tranche	2018 tranche	
Start of term	1 Jan 2016	1 Jan 2017	1 Jan 2018	
Number of conditionally granted performance shares	352,834	1,178,133	1,108,599	
Term	4 years	4 years	4 years	
Performance target	Adjusted net income	Adjusted net income	Adjusted net income	
Cap/number of performance shares	150%	150%	150%	
Cap/payment amount	200%	200%	200%	
Determination of payment	The payment amount is calculated on the basis of the determined number of finally granted performance shares multiplied by the sum of a) the mathematical average of the closing share price (including all available decimal places) of the innogy SE share (ISIN DE 000A2AADD2) in Deutsche Börse AG's Xetra trading (or a successor trading system which subsequently takes the place of the Xetra system) for the last 30 trading days prior to the end of the vesting period rounded to two decimal places according to standard commercial practice and b) the dividends paid per share for the fiscal years between the determination of the final number of performance shares and the end of the vesting period. Dividends do not bear interest and are not reinvested. If a dividend payment occurs during the 30-day period for calculating the share price in accordance with item a), the share prices of the trading days leading up to the payment (CUM share prices) are adjusted by the dividend, as the dividend would otherwise be considered twice. Payment amount = (number of finally granted performance shares) x (mathematical average of the share price + dividends paid) The payment amount calculated in this manner is limited to no more than 200% of the grant amount.			
Change in corporate control/merger	A change in corporate control ('change of control') shall occur if a) a shareholder obtains control in the sense of Sec. 29 of the German Securities Acquisition and Takeover Act (WpÜG) by acquiring at least 30% of the voting rights, including the voting rights of third parties which can be attributed to the shareholder pursuant to Sec. 30 of WpÜG, whereby RWE AG or an RWE Group company may no longer have control in the sense of Sec. 29 of WpÜG (30% of the voting rights), or b) a control agreement in accordance with Sec. 291 of the Stock Corporation Act (AktG) is concluded with a company which is not part of the RWE Group with innogy SE as the dependent company, or c) innogy SE is merged with another legal entity that does not belong to the Group in accordance with Sec. 2 of the German Company Transformation Act (UmwG), unless the value of the other legal entity is less than 50% of the value of innogy SE based on the agreed conversion rate; in such a case, item a) shall not apply. In the event of a change of control, all of the performance shares which have been fully granted and have not been paid out shall be paid out early. The payment amount is determined according to the exercise conditions, with the deviation that the last 30 trading days prior to the announcement of the change in control is to be used; plus the dividends paid per share in the fiscal years between the determination of the final number of performance shares and the time of the change in control. The payment amount calculated in this manner shall be paid to the plan participant together with his or her next salary payment. All conditionally granted performance shares as of the effective date of the change of control shall lapse without consideration.			
Form of settlement	Cash settlement	Cash settlement	Cash settlement	
Payment date	2020	2021	2022	

The fair value of the performance shares conditionally granted under SPP included the following sums on the grant date:

Performance Shares from the RWE AG SPP €	2016 tranche	2017 tranche	2018 tranche	2019 tranche
Fair value per share	13.78	11.62	18.80	19.10

Performance Shares from the innogy SE SPP €	2016 tranche	2017 tranche	2018 tranche	
Fair value per share	37.13	32.07	36.78	

The fair values of the tranches of the RWE AG SPP are based on RWE AG's and innogy SE's current share price plus the dividends per share which have already been paid to the shareholders during the term of the corresponding tranche. The limited payment per SPP was implemented via a sold call option. The option value calculated using the Black Scholes Model was deducted. The maximum payments per conditionally granted SPP (= option strike) established in the plan conditions, the discount rates relative to the remaining term as well as the volatilities and expected dividends of RWE AG and innogy SE were considered in determining the option price.

The fair values of the tranches of the innogy SE SPP are affected by the asset swap with E.ON announced in March 2018 because the rules set out earlier will be reflected in the valuation in the event of a change of control. The expected payout amount will be calculated on the basis of the average innogy share price on the 30 stock market trading days leading up to 11 March 2018 plus dividends paid. In line with the payout conditions in the event of a change of control, the amount was paid after the completion of the transaction.

The performance shares displayed the following development in the fiscal year that just came to a close:

Performance Shares from the RWE AG SPP	2016 tranche	2017 tranche	2018 tranche	2019 tranche
Outstanding at the start of the fiscal year	528,207	1,628,391	883,974	
Granted				932,889
Change (granted/expired)	306	3,737	207,021	
Paid out				
Outstanding at the end of the fiscal year	528,513	1,632,128	1,090,995	932,889
Payable at the end of the fiscal year	528,513			

Performance Shares from the innogy SE SPP	2016 tranche	2017 tranche	2018 tranche	
Outstanding at the start of the fiscal year	27,876	55,212	56,546	
Granted				
Change (granted/expired)	8,041	25,699	3,321	
Paid out	–35,917	–80,911	–59,867	
Outstanding at the end of the fiscal year				
Payable at the end of the fiscal year				

During the period under review, expenses for the share-based payment system totalled €34 million (previous year: €20 million). As of the balance-sheet date, provisions for cash-settled share-based payment programmes amounted to €60 million (previous year: €32 million).

(22) Provisions

Provisions € million	31 Dec 2019			31 Dec 2018		
	Non-current	Current	Total	Non-current	Current	Total
Provisions for pensions and similar obligations	3,446		3,446	3,287		3,287
Provisions for nuclear waste management	6,355	368	6,723	5,659	285	5,944
Provisions for mining damage	4,559	59	4,618	2,460	56	2,516
	14,360	**427**	**14,787**	**11,406**	**341**	**11,747**
Other provisions[1]						
Staff-related obligations (excluding restructuring)	361	622	983	378	446	824
Restructuring obligations	591	31	622	109	23	132
Purchase and sales obligations	1,390	116	1,506	905	92	997
Provisions for dismantling wind farms	948	4	952	358	4	362
Other dismantling and retrofitting obligations	557	77	634	528	52	580
Environmental protection obligations	78	2	80	90	7	97
Interest payment obligations	281		281	261	1	262
Obligations to deliver CO_2 emission allowances/ certificates for renewable energies		771	771		885	885
Miscellaneous other provisions	370	588	958	331	721	1,052
	4,576	**2,211**	**6,787**	**2,960**	**2,231**	**5,191**
	18,936	**2,638**	**21,574**	**14,366**	**2,572**	**16,938**

1 Prior-year figures restated: Due to the IFRS IC agenda decision of September 2019, tax balances previously stated as tax provisions are now recognised in income tax liabilities.

Provisions for pensions and similar obligations. The company pension plan consists of defined contribution and defined benefit plans. The defined benefit commitments mainly relate to pension benefits based on final salary. These are exposed to the typical risks of longevity, inflation and salary increases.

In the reporting period, €24 million (previous year: €23 million) was paid into defined contribution plans. This includes payments made by RWE for a benefit plan in the Netherlands which covers the commitments of various employers. This fund does not provide the participating companies with information allowing for the pro-rata allocation of defined benefit obligations, plan assets and service cost. In the consolidated financial statements, the contributions are thus recognised analogously to a defined contribution plan, although this is a defined benefit plan. The pension plan for employees in the Netherlands is administered by Stichting Pensioenfonds ABP (see www.abp.nl). Contributions to the pension plan are calculated as a percentage rate of employees' salaries and are paid by the employees and employers. The rate of the contributions is determined by ABP. There are no minimum funding obligations. Approximately €9 million in employer contributions are expected to be paid to the ABP pension fund in fiscal 2020 (previous year: €8 million). The contributions are used for all of the beneficiaries. If ABP's funds are insufficient, it can either curtail pension benefits and future post-employment benefits, or increase the contributions of the employer and employees. In the event that RWE terminates the ABP pension plan, ABP will charge a termination fee. Amongst other things, its level depends on the number of participants in the plan, the amount of salary and the age structure of the participants. As of 31 December 2019, we had around 600 active participants in the plan (previous year: approximately 600).

RWE transferred assets to RWE Pensionstreuhand e.V. within the framework of a contractual trust arrangement (CTA) in order to finance the pension commitments of German Group companies. There is no obligation to provide further funds. From the assets held in trust, funds were transferred to RWE Pensionsfonds AG to cover pension commitments to most of the employees who have already retired. RWE Pensionsfonds AG falls under the scope of the Act on the Supervision of Insurance Undertakings and oversight by the Federal Financial Supervisory Agency (BaFin). Insofar as a regulatory deficit occurs in the pension fund, supplementary payment shall be requested from the employer. Independently of the aforementioned rules, the liability of the employer shall remain in place. The boards of RWE Pensionstreuhand e.V. and RWE Pensionsfonds AG are responsible for ensuring that the funds under management are used in compliance with the contract and thus fulfil the requirements for recognition as plan assets.

In the United Kingdom, it is legally mandated that defined benefit plans are provided with adequate and suitable assets to cover pension obligations. The corporate pension system is managed by the sector-wide Electricity Supply Pension Scheme (ESPS), in which RWE and the continuing innogy operations each have their own dedicated independent sections. The sections are managed by trustees which are elected by members of the pension plans or appointed by the sponsoring employers. The trustees are responsible for managing the pension plans. This includes investments, pension payments and financing plans. The pension plans comprise the benefit obligations and plan assets for the subsidiaries of the RWE Group and the continuing innogy operations. It is required by law to assess the required financing of the pension plans once every three years. This involves measuring pension obligations on the basis of conservative assumptions, which deviate from the requirements imposed by IFRS. The underlying actuarial assumptions primarily include the projected life expectancies of the members of the pension plans as well as assumptions relating to inflation, imputed interest rates and the market returns on the plan assets.

The last funding valuations of the ESPS sections were carried out on 31 March 2019. They showed that the RWE section had a financing deficit of £44.3 million. RWE will rectify this deficit with a payment of £48.3 million as of 31 March 2020. A technical financing deficit of £103.4 million was revealed for the section of the continuing innogy operations. innogy and the trustees subsequently agreed to rectify this deficit with annual payments of £37.5 million, £36.3 million, £17.0 million and £17.0 million from 2020 to 2023. The next valuations have to occur by 31 March 2022. From this point in time, the company and the trustees have 15 months to approve the funding valuation.

The payments to settle the deficit are charged to the participating companies on the basis of a contractual agreement. Above and beyond this, payments are regularly made to finance the newly arising benefit obligations of active employees which increase the pension claims.

Provisions for defined benefit plans are determined using actuarial methods. We apply the following assumptions:

Calculation assumptions	31 Dec 2019		31 Dec 2018	
in %	Germany	Foreign[1]	Germany	Foreign[1]
Discount rate	1.20	2.00	1.70	2.70
Wage and salary growth rate	2.35	3.00	2.35	3.30
Pension increase rate	1.00, 1.60 and 1.75	1.90 and 2.80	1.00, 1.60 and 1.75	2.20 and 3.10

1 Pertains to benefit commitments to employees of the RWE Group in the UK.

Composition of plan assets (fair value)	31 Dec 2019				31 Dec 2018			
€ million	Germany[1]	Of which: Level 1 pursuant to IFRS 13	Foreign[2]	Of which: Level 1 pursuant to IFRS 13	Germany[1]	Of which: Level 1 pursuant to IFRS 13	Foreign[2]	Of which: Level 1 pursuant to IFRS 13
Equity instruments, exchange-traded funds	1,539	1,519	468	131	1,396	1,375	469	208
Interest-bearing instruments	3,620	91	3,502	33	3,245	4	3,720	1,641
Real estate	3				4			
Mixed funds[3]	705	375	1,539	160	613	229	613	324
Alternative investments	685	438	661		689	406	784	2
Other[4]	64	30	407	69	72	68	308	7
	6,616	**2,453**	**6,577**	**393**	**6,019**	**2,082**	**5,894**	**2,182**

1 Plan assets in Germany primarily pertain to assets of RWE AG and other Group companies which are managed by RWE Pensionstreuhand e.V. as a trust, as well as to assets of RWE Pensionsfonds AG.
2 Foreign plan assets pertain to the assets of two UK pension funds for covering benefit commitments to employees of the RWE Group in the UK.
3 Includes equity and interest-bearing instruments.
4 Includes reinsurance claims against insurance companies and other fund assets of provident funds.

Our investment policy in Germany is based on a detailed analysis of the plan assets and the pension commitments and the relation of these two items to each other, in order to determine the best possible investment strategy (Asset Liability Management Study). Using an optimisation process, portfolios are identified which can earn the best targeted results at a defined level of risk. One of these efficient portfolios is selected and the strategic asset allocation is determined; furthermore, the related risks are analysed in detail.

The focus of RWE's strategic investment policy is on domestic and foreign government bonds. In order to increase the average yield, corporate bonds with a higher yield are also included in the portfolio. The ratio of equities in the portfolio is lower than that of bonds. Investment occurs in various regions. The investment position in equities is intended to earn a risk premium over bond investments over the long term. Furthermore, in order to achieve consistently high returns, there is also investment in products which are more likely to offer relatively regular positive returns over time. This involves products with returns which fluctuate like those of bond investments, but which achieve an additional return over the medium term, such as so-called absolute return products (including funds of hedge funds).

In the United Kingdom, our capital investment takes account of the structure of the pension obligations as well as liquidity and risk matters. The goal of the investment strategy in this context is to maintain the level of pension plan funding and ensure the full financing of the pension plans over time. To reduce financing costs and earn surplus returns, we also include higher-risk investments in our portfolio. The capital investment focusses on government and corporate bonds.

Pension provisions for pension commitments changed as follows:

Changes in pension provisions € million	Present value of pension commitments	Fair value of plan assets	Capitalised surplus of plan assets	Total
Balance at 1 Jan 2019	**14,987**	**11,913**	**213**	**3,287**
Current service cost	123			123
Interest cost/income	312	262		50
Return on fund assets less interest components		1,096		–1,096
Gain/loss on change in demographic assumptions	–49			–49
Gain/loss on change in financial assumptions	1,272			1,272
Experience-based gains/losses	43			43
Currency translation adjustments	308	315	10	3
Employee contributions	6	6		
Employer contributions [1]		157		–157
Benefits paid [2]	–718	–694		–24
Changes in the scope of consolidation/transfers	209	145		64
Past service cost	–7			–7
General administration expenses		–7		7
Change in capitalised surplus of plan assets			–70	–70
Balance at 31 Dec 2019	**16,486**	**13,193**	**153**	**3,446**
of which: domestic	10,041	6,616		3,425
of which: foreign	6,445	6,577	153	21

1 Of which: €42 million from initial and subsequent transfers to plan assets and €115 million in cash flows from operating activities.
2 Contained in cash flows from operating activities.

Changes in pension provisions € million	Present value of pension commitments	Fair value of plan assets	Capitalised surplus of plan assets	Total
Balance at 1 Jan 2018	**25,316**	**19,999**	**103**	**5,420**
Current service cost	210			210
Interest cost/income	413	340		73
Return on fund assets less interest components		–788		788
Gain/loss on change in demographic assumptions	44			44
Gain/loss on change in financial assumptions	380			380
Experience-based gains/losses	–71			–71
Currency translation adjustments	–45	–46	–1	
Employee contributions	8	8		
Employer contributions[1]		259		–259
Benefits paid [2]	–907	–852		–55
Changes in the scope of consolidation	–10,376	–7,001	–106	–3,481
of which: stated as "held for sale"	–10,461	–7,005	–106	–3,562
Past service cost	15			15
General administration expenses		–6		6
Change in capitalised surplus of plan assets			217	217
Balance at 31 Dec 2018	**14,987**	**11,913**	**213**	**3,287**
of which: domestic	9,208	6,019		3,189
of which: foreign	5,779	5,894	213	98

1 Of which: €138 million from initial and subsequent transfers to plan assets and €121 million in cash flows from operating activities.
2 Contained in cash flows from operating activities.

Changes in the actuarial assumptions would lead to the following changes in the present value of the defined benefit obligations:

Sensitivity analysis of pension provisions	Changes in the present value of defined benefit obligations			
€ million	31 Dec 2019		31 Dec 2018	
Change in the discount rate by +50/–50 basis points				
– Domestic	–734	833	–644	728
– Foreign	–433	489	–373	420
Change in the wage and salary growth rate by –50/+50 basis points				
– Domestic	–55	57	–49	51
– Foreign	–35	41	–29	32
Change in the pension increase rate by –50/+50 basis points				
– Domestic	–489	537	–442	484
– Foreign	–300	407	–267	298
Increase of one year in life expectancy				
– Domestic		482		425
– Foreign		259		202

The sensitivity analyses are based on the change of one assumption each, with all other assumptions remaining unchanged. Actual developments will probably be different than this. The methods of calculating the aforementioned sensitivities and for calculating the pension provisions are in agreement. The dependence of pension provisions on market interest rates is limited by an opposite effect. The background of this is that the commitments stemming from company pension plans are primarily covered by funds, and mostly plan assets exhibit negative correlation with the market yields of fixed-interest securities. Consequently, declines in market interest rates are typically reflected in an increase in plan assets, whereas rising market interest rates are typically reflected in a reduction in plan assets.

The present value of pension obligations, less the fair value of the plan assets, equals the net amount of funded and unfunded pension obligations.

As of the balance-sheet date, the recognised amount of pension provisions totalled €2,889 million for funded pension plans (previous year: €2,826 million) and €557 million for unfunded pension plans (previous year: €461 million).

In fiscal 2019, a substantial portion of the past service cost related to effects in connection with restructuring measures in Germany and severance payments in Great Britain. In the previous year, the past service cost predominantly consisted of pension commitments in the United Kingdom due to a ruling on the equalisation of minimum pension entitlements through the consideration of gender-specific factors and due to severance payments. Furthermore, employee rights to compensation for disadvantages were remeasured in some cases in German pre-retirement regulations.

Domestic company pensions are subject to an obligation to review for adjustment every three years pursuant to the Act on the Improvement of Company Pensions (Sec 16 of the German Company Pension Act (BetrAVG)). Additionally, some commitments grant annual adjustments of pensions, which may exceed the adjustments in compliance with the legally mandated adjustment obligation.

Some domestic pension plans guarantee a certain pension level, taking into account the statutory pension (total retirement earnings schemes). As a result, future reductions in the statutory pension can result in higher pension payments by RWE.

The weighted average duration of the pension obligations was 16 years in Germany (previous year: 15 years) and 15 years outside of Germany (previous year: 14 years).

In fiscal 2020, RWE expects to make €275 million in payments for defined benefit plans of continuing operations (previous-year target: €220 million), as direct benefits and contributions to plan assets.

Provisions for nuclear energy and mining € million	Balance at 1 Jan 2019	Additions	Unused amounts released	Interest accretion	Changes in the scope of consolidation, currency adjustments, transfers	Amounts used	Balance at 31 Dec 2019
Provisions for nuclear waste management	5,944	800		227	–3	–245	6,723
Provisions for mining damage	2,516	1,384	–9	765		–38	4,618
	8,460	**2,184**	**–9**	**992**	**–3**	**–283**	**11,341**

Provisions for nuclear waste management are recognised in the full amount for the nuclear power plants Biblis A and B, Mülheim-Kärlich, Emsland, Lingen and Gundremmingen A, B and C. Provisions for waste disposal for the Dutch nuclear power plant Borssele are included at a rate of 30%, in line with RWE's stake.

Provisions for nuclear waste disposal are almost exclusively reported as non-current provisions, and their settlement amount is discounted to the balance-sheet date. Based on the current state of planning, we will use most of these provisions by the beginning of the 2040s. The discount rate calculated on the basis of the current level of market interest rates for no-risk cash investments was 0.0% as of the balance-sheet date (previous year: 0.4%). The escalation rate based on expectations with regard to general increases in wages and prices and productivity growth was 1.5% (previous year: 1.5%). As a result, the real discount rate used for nuclear waste management purposes, which is the difference between the discount rate and the escalation rate, amounted to – 1.5% (previous year: – 1.1%). An increase (decrease) in this rate by 0.1 percentage point would reduce (increase) the present value of the provision by roughly €50 million.

Excluding the interest accretion, additions to provisions for nuclear waste management amount to €800 million. €719 million of this sum is allocable to the nuclear energy obligations assumed from the E.ON subsidiary PreußenElektra within the scope of the acquisition of the minority interests in the Gundremmingen nuclear power plant units. Besides quantity-related increases in the provisions, the other additions to provisions are due to the fact that the current estimates resulted in a net increase in the anticipated nuclear waste management costs. Of the changes in provisions, – €51 million was offset against the corresponding costs of nuclear power plants still in operation and the fuel elements. Prepayments for services in the amount of €8 million were deducted from these provisions. In the reporting period, we also used provisions of €193 million for the decommissioning of nuclear power plants. Decommissioning and dismantling costs had originally been capitalised in a corresponding amount and reported under the cost of the respective nuclear power plants.

The provisions of the law on the reassignment of responsibility for nuclear waste disposal stipulates that accountability for the shutdown and dismantling of the assets as well as for packaging radioactive waste remains with the companies. The shutdown and dismantling process encompasses all activities following the final termination of production by the nuclear power plant until the plant site is removed from the regulatory scope of the Nuclear Energy Act. A request to decommission and dismantle the nuclear power plant will be filed with the nuclear licensing authority during its operating period so that the decommissioning and dismantling work can be performed in time after the expiry of the operating permit. Dismantling operations essentially consist of dismantling and removal of the radioactive contamination from the facilities and structures, radiation protection, and regulatory monitoring of the dismantling measures and residual operations.

We thus subdivide our provisions for nuclear waste management into the residual operation of nuclear power plants, the dismantling of nuclear power station facilities as well as the cost of residual material processing and radioactive waste treatment facilities.

Provisions for nuclear waste management € million	31 Dec 2019	31 Dec 2018
Residual operation	2,840	2,515
Dismantling	2,086	1,810
Processing of residual material and waste management	1,797	1,619
	6,723	**5,944**

Provisions for the residual operation of nuclear power station facilities cover all steps that must be taken largely independent of dismantling and disposal but are necessary to ensure that the assets are safe and in compliance with permits or are required by the authorities. In addition to works monitoring and facility protection, these mainly include service, recurrent audits, maintenance, radiation and fire protection as well as infrastructural adjustments.

Provisions for the dismantling of nuclear power plant facilities include all work done to dismantle plants, parts of plants, systems and components as well as on buildings that must be dismantled to comply with the Nuclear Energy Act. They also consider the conventional dismantling of nuclear power plant facilities to fulfil legal or other obligations.

Provisions for residual material processing and waste management include the costs of processing radioactive residual material for non-hazardous recycling and the costs of treating radioactive waste produced during the plant's service life and dismantling operations. This includes the various processes for conditioning, proper packaging of the low-level and intermediate-level radioactive waste in suitable containers and the transportation of such waste to BGZ Gesellschaft für Zwischenlagerung mbH (BGZ), which has been commissioned by the Federal government for intermediate storage. This item also contains the cost of transporting the waste produced by recycling and the cost of the proper packaging of spent nuclear fuel elements, i.e. the cost of loading and procuring freight and interim storage containers.

Commissioned by the plant operator, the internationally renowned company NIS Ingenieurgesellschaft mbH (NIS), Alzenau, assesses the prospective residual operation and dismantling costs for the nuclear power plants on an annual basis. The costs are determined specifically for each facility and take into consideration the current state of the art, regulatory requirements and previous practical experience from ongoing and completed dismantling projects. Additionally, current developments are also incorporated into the cost calculations. They also include the cost of conditioning and packaging radioactive waste generated during dismantling operations and the transportation of such waste to BGZ, which has been commissioned by the Federal government for intermediate storage. Further cost estimates for the disposal of radioactive waste are based on contracts with foreign reprocessing companies and other disposal companies. Furthermore, they are based on plans by internal and external experts, in particular GNS Gesellschaft für Nuklear-Service mbH, (GNS) Essen.

In terms of their contractual definition, provisions for nuclear waste management break down as follows:

Provisions for nuclear waste management € million	31 Dec 2019	31 Dec 2018
Provisions for nuclear obligations, not yet contractually defined	4,849	4,462
Provisions for nuclear obligations, contractually defined	1,874	1,482
	6,723	**5,944**

The provision for obligations which are not yet contractually defined covers the costs of the remaining operational phase of the operating plants, the costs of dismantling as well as the residual material processing and waste treatment costs incurred in connection with waste produced as a result of shut-downs.

Provisions for contractually defined nuclear obligations relate to all obligations the value of which is specified in contracts under civil law. The obligations include the anticipated residual costs of reprocessing and returning the resulting radioactive waste. These costs stem from existing contracts with foreign reprocessing companies and with GNS. Moreover, these provisions also include the costs for transport and intermediate storage containers for and the loading of spent fuel assemblies within the framework of final direct storage. Furthermore, this item also includes the amounts for the professional packaging of radioactive operational waste as well as the in-house personnel costs incurred for the residual operation of plants which are permanently decommissioned.

Provisions for mining damage also consist almost entirely of non-current provisions and fully covered the volume of obligations as of the balance-sheet date. They are reported at their settlement amount discounted to the balance-sheet date. Provisions for mining damage also contain the expected additional cost of restoring the opencast lignite mines associated with the phase-out of electricity generation from lignite by 2038. In addition to continuous recultivation of opencast mine sites a large part of the claims for site restoration of lignite opencast mining areas is expected through to 2050. The cost estimates are to a great extent based on external expert opinions.

So far, due to the long-term nature of the obligations, both the escalation rate and the discount rate have been determined as the average values for a longer period in the past. Since the development of inflation has an impact both on the fulfilment amounts and the level of interest rates, this approach resulted in a consistent real discount rate of 1.3 % specific to the provisions, as the difference between the discount rate of 4.1 % and the escalation rate of 2.8 %. Since a major portion of the amounts used will now occur in the next 30 years due to the early phase-out of electricity generation from lignite and the associated additional cost of restoring the opencast lignite mines, it became necessary to adjust the calculation of the discount rate and the escalation rate. In discounting the amounts used in the coming 30 years, we have oriented ourselves towards the current market interest rates for risk-free cash investments. Since no market interest rates are available for later periods, a sustainable, long-term interest rate is used to discount the amounts used after the next 30 years. In sum, this results in an average discount rate of 1.99 %. The escalation rate used (1.5 %) is also lower than in the previous year (2.8 %). The escalation rate reflects currently expected price and cost increases. The real discount rate applied for mining purposes, which is the difference between the discount rate and the escalation rate, is thus 0.49 % (previous year: 1.3 %). An increase (decline) in the real discount rate by 0.1 percentage point would reduce (increase) the present value of the provision by around €140 million.

Excluding the interest accretion, €1,384 million was added to provisions for mining damage. This includes the cost of the quantity-induced increase in the obligatory volume and the cost of restoring the opencast lignite mines due to the phase-out of electricity generation from lignite by 2038. €258 million of the changes in provisions was capitalised under 'Property, plant and equipment'.

Other provisions € million	Balance at 1 Jan 2019	Additions	Unused amounts released	Interest accretion	Changes in the scope of consolidation, currency adjustments, transfers	Amounts used	Balance at 31 Dec 2019
Staff-related obligations (excluding restructuring)	824	541	-17	6	39	-410	983
Restructuring obligations	132	537	-23	7	-28	-3	622
Purchase and sales obligations	997	367	-178	32	378	-90	1,506
Provisions for dismantling wind farms	362	62	-21	-45	594		952
Other dismantling and retrofitting obligations	580	29	-41	83		-17	634
Environmental protection obligations	97	7	-19	3	2	-10	80
Interest payment obligations	262	91	-5			-67	281
Obligations to deliver CO_2 emission allowances/ certificates for renewable energies	885	775	-11		9	-887	771
Miscellaneous other provisions	1,052	605	-24	28	-355	-348	958
	5,191[1]	**3,014**	**-339**	**114**	**639**	**-1,832**	**6,787**

1 Figure restated: Due to the IFRS IC agenda decision of September 2019, tax balances previously stated as tax provisions are now recognised in income tax liabilities.

Provisions for staff-related obligations mainly consist of provisions for pre-retirement part-time work arrangements, severance, outstanding vacation and service jubilees and performance-based pay components. Based on current estimates, we expect most of these to be used from 2020 to 2025.

Provisions for restructuring obligations pertain mainly to measures for socially acceptable payroll downsizing. We currently expect most of these to be used from 2020 to 2030. In so doing, sums ear-marked for personnel measures are reclassified from provisions for restructuring obligations to provisions for staff-related obligations as soon as the underlying restructuring measure has been specified. This is the case if individual contracts governing socially acceptable payroll downsizing are signed by affected employees.

Provisions for purchase and sales obligations primarily relate to contingent losses from pending transactions.

From the current perspective, we expect that the majority of the **provisions for the dismantling of wind farms** will be used from 2020 to 2045, and the **other dismantling and retrofitting obligations** will be used from 2020 to 2060.

(23) Financial liabilities

Financial liabilities	31 Dec 2019		31 Dec 2018	
€ million	Non-current	Current	Non-current	Current
Bonds payable[1]	1,110		1,103	
Bank debt	965	391	473	81
Other financial liabilities				
Collateral for trading activities		400		533
Miscellaneous other financial liabilities	1,849	1,019	422	152
	3,924	**1,810**	**1,998**	**766**

1 Including hybrid bonds classified as debt as per IFRS.

€631 million of the non-current financial liabilities were interest-bearing liabilities (previous year: €523 million).

The following overview shows the key data on the bonds of the RWE Group as of 31 December 2019:

Bonds payable Issuer	Outstanding amount	Carrying amount € million	Coupon in %	Maturity
RWE AG	€ 12 million	12	3.5	October 2037
RWE AG	€ 539 million[1]	538	2.75	April 2075
RWE AG	€ 282 million[1]	281	3.5	April 2075
RWE AG	US$ 317 million[1]	279	6.625	July 2075
Bonds payable		**1,110**		

1 Hybrid bonds classified as debt as per IFRS.

€39 million of the financial liabilities are secured by mortgages (previous year: €72 million).

Other financial liabilities contain lease liabilities.

In the previous year, liabilities arising from finance lease agreements had the following maturities:

Liabilities from finance lease agreements	Maturities of minimum lease payments		
	31 Dec 2018		
€ million	Nominal value	Discount	Present value
Due in the following year	10		10
Due after 1 to 5 years	39		39
Due after 5 years	192		192
	241		**241**

The introduction of IFRS 16 abolishes the distinction between operating leases and finance leases by the lessee. A maturity analysis of all lease liabilities as of 31 December 2019 can be found in the reporting on financial instruments (see Note 27).

(24) Income tax liabilities

Income tax liabilities contain uncertain income tax items in the amount of €1,174 million (previous year: €1,540 million; 1 January 2018: €1,969 million). Due to the IFRS IC agenda decision in September 2019, these are now recognised as income tax liabilities instead of as tax provisions. This item primarily includes income taxes for periods for which the tax authorities have not yet finalised a tax assessment and for the current year.

(25) Other liabilities

Other liabilities	31 Dec 2019		31 Dec 2018	
€ million	Non-current	Current	Non-current	Current
Tax liabilities		129		105
Social security liabilities	2	17	2	14
Derivatives	391	10,088	362	6,698
Miscellaneous other liabilities	456	1,354	144	383
	849	**11,588**	**508**	**7,200**
of which: financial debt	435	10,303	379	6,877
of which: non-financial debt	414	1,285	129	323

The principal component of social security liabilities are the amounts payable to social security institutions.

Miscellaneous other liabilities contain €269 million in contract liabilities (previous year: €76 million).

Moreover, €46 million (previous year: €56 million) in miscellaneous other liabilities were allocable to state investment subsidies primarily granted in connection with the construction of wind farms and in the preceding year with biomass co-firing.

Other information

(26) Earnings per share

Basic and diluted earnings per share are calculated by dividing the portion of net income attributable to RWE shareholders by the average number of shares outstanding; treasury shares are not taken into account in this calculation.

In the previous year, earnings per share were the same for both common and preferred shares.

Earnings per share		2019	2018
Net income for RWE AG shareholders	€ million	8,498	335
of which: from continuing operations		-691	-196
of which: from discontinued operations		9,189	531
Number of shares outstanding (weighted average)	in '000	614,745	614,745
Basic and diluted earnings per common share	€	13.82	0.54
of which: from continuing operations		-1.13	-0.32
of which: from discontinued operations		14.95	0.86
Dividend per common share	€	0.80[1]	0.70
Dividend per preferred share	€		0.70

1 Proposal for fiscal 2019.

(27) Reporting on financial instruments

Financial instruments are divided into non-derivative and derivative. Non-derivative financial assets essentially include other non-current financial assets, accounts receivable, marketable securities and cash and cash equivalents. Financial instruments are recognised either at amortised cost or at fair value, depending on their classification. Financial instruments are recognised in the following categories:

- Debt instruments measured at amortised cost: the contractual cash flows solely consist of interest and principal on the outstanding capital: there is an intention to hold the financial instrument until maturity.
- Debt instruments measured at fair value through other comprehensive income: the contractual cash flows solely consist of interest and principal on the outstanding capital: there is an intention to hold and sell the financial instrument.
- Equity instruments measured at fair value through other comprehensive income: the option to recognise changes in fair value directly in equity is exercised.
- Financial assets measured at fair value through profit or loss: the contractual cash flows of a debt instrument do not solely consist of interest and principal on the outstanding capital or the option to recognise changes in the fair value of equity instruments in other comprehensive income is not exercised.

On the liabilities side, non-derivative financial instruments principally include liabilities measured at amortised cost.

Financial instruments recognised at fair value are measured based on the published exchange price, insofar as the financial instruments are traded on an active market. The fair value of non-quoted debt and equity instruments is generally determined on the basis of discounted expected payment flows, taking into consideration macro-economic developments and corporate business plan data. Current market interest rates corresponding to the remaining maturity are used for discounting.

Derivative financial instruments are recognised at their fair values as of the balance-sheet date, insofar as they fall under the scope of IFRS 9. Exchange-traded products are measured using the published closing prices of the relevant exchange. Non-exchange traded products are measured on the basis of publicly available broker quotations or, if such quotations are not available, on generally accepted valuation methods. In doing so, we draw on prices on active markets as much as possible. If such prices are not available, company-specific planning estimates are used in the measurement process. These estimates encompass all of the market factors which other market participants would take into account in the course of price determination. Assumptions pertaining to the energy sector and economy are made within the scope of a comprehensive process with the involvement of both in-house and external experts.

Measurement of the fair value of a group of financial assets and financial liabilities is conducted on the basis of the net risk exposure per business partner.

The following overview presents the classifications of financial instruments measured at fair value in the fair value hierarchy prescribed by IFRS 13. The individual levels of the fair value hierarchy are defined as follows:

- Level 1: Measurement using (unadjusted) prices of identical financial instruments formed on active markets,
- Level 2: Measurement on the basis of input parameters which are not the prices from Level 1, but which can be observed for the financial instrument either directly (i.e. as price) or indirectly (i.e. derived from prices),
- Level 3: Measurement using factors which cannot be observed on the basis of market data.

Fair value hierarchy € million	Total 2019	Level 1	Level 2	Level 3	Total 2018	Level 1	Level 2	Level 3
Other financial assets	4,391	3,853	188	350	400	93	159	148
Derivatives (assets)	12,108		11,443	665	7,271		7,115	156
of which: used for hedging purposes	2,961		2,961		1,644		1,644	
Securities	3,258	1,829	1,429		3,606	1,618	1,988	
Assets held for sale	9		1	8	4,031	1,755	1,472	804
Derivatives (liabilities)	10,479		9,902	577	7,060		7,025	35
of which: used for hedging purposes	1,513		1,513		1,134		1,134	
Liabilities held for sale	4			4	1,343		1,343	

Due to the increase in the number of price quotations on active markets, financial assets with a fair value of €24 million (previous year: €14 million) were reclassified from Level 2 to Level 1. Conversely, due to a drop in the number of price quotations, financial assets with a fair value of €25 million (previous year: €12 million) were reclassified from Level 1 to Level 2. Furthermore, in the reporting year, derivatives with a fair value of €44 million were reclassified from Level 2 to Level 3.

The development of the fair values of Level 3 financial instruments is presented in the following table:

Level 3 financial instruments: Development in 2019 € million	Balance at 1 Jan 2019	Changes in the scope of consolidation, currency adjustments and other	Changes			Balance at 31 Dec 2019
			Recognised in profit or loss	Recognised in OCI	With a cash effect	
Other financial assets	148	155	–23	–9	79	350
Derivatives (assets)	156	182	434		–107	665
Assets held for sale	804	–819	–8		31	8
Derivatives (liabilities)	35	138	432		–28	577
Liabilities held for sale					4	4

Level 3 financial instruments: Development in 2018	Balance at 1 Jan 2018	Changes in the scope of consolidation, currency adjustments and other	Changes			Balance at 31 Dec 2018
			Recognised in profit or loss	Recognised in OCI	With a cash effect	
€ million						
Other financial assets	821	–741	–42	12	98	148
Financial receivables	35	–35				
Derivatives (assets)	33		140		–17	156
Assets held for sale		736	30	–1	39	804
Derivatives (liabilities)	4		36		–5	35

Amounts recognised in profit or loss generated through Level 3 financial instruments relate to the following line items on the income statement:

Level 3 financial instruments: Amounts recognised in profit or loss	Total 2019	Of which: attributable to financial instruments held at the balance-sheet date	Total 2018	Of which: attributable to financial instruments held at the balance-sheet date
€ million				
Revenue	242	242	25	25
Cost of materials	–449	–449	–24	–24
Other operating income/expenses	209	209	96	96
Income from investments	–23	–10	–45	–45
Income from discontinued operations	–8		40	48
	–29	**–8**	**92**	**100**

Level 3 derivative financial instruments essentially consist of energy purchase and commodity agreements, which relate to trading periods for which there are no active markets yet. The valuation of such depends on the development of electricity, oil and gas prices in particular. All other things being equal, rising market prices cause the fair values to increase, whereas declining gas prices cause them to drop. A change in pricing by +/– 10 % would cause the market value to rise by €61 million (previous year: €41 million) or decline by €61 million (previous year: €41 million).

Financial assets and liabilities can be broken down into the measurement categories with the following carrying amounts according to IFRS 9 in the year under review:

Carrying amounts by category € million	31 Dec 2019	31 Dec 2018
Financial assets measured at fair value through profit or loss	10,829	11,128
of which: obligatorily measured at fair value – continuing operations	10,821	8,483
of which: obligatorily measured at fair value – held for sale	8	2,645
Debt instruments measured at amortised cost	9,543	14,757
of which: held for sale	112	6,244
Debt instruments measured at fair value through other comprehensive income	1,727	1,715
of which: held for sale		975
Equity instruments measured at fair value through other comprehensive income	4,247	817
of which: held for sale		408
Financial liabilities measured at fair value through profit or loss	8,970	7,258
of which: obligatorily measured at fair value – continuing operations	8,966	5,926
of which: obligatorily measured at fair value – held for sale	4	1,332
Financial liabilities measured at (amortised) cost	8,091	20,621
of which: held for sale	311	15,545

The carrying amounts of financial assets and liabilities within the scope of IFRS 7 basically correspond to their fair values. The only deviations are for financial liabilities. The carrying amount of these is €4,632 million (previous year: €2,764 million), while the fair value amounts to €4,919 million (previous year: €2,842 million). Of this, €1,180 million (previous year: €1,080 million) is related to Level 1 and €3,739 million (previous year: €1,762 million) to Level 2 of the fair value hierarchy.

Due to the initial adoption of IFRS 16, the figures stated for financial liabilities in the period under review no longer include lease liabilities, whereas these were still considered in the previous year's figures.

The following net results from financial instruments as per IFRS 7 were recognised on the income statement, depending on the category:

Net gain/loss by category € million	2019	2018
Financial assets and liabilities measured at fair value through profit or loss	941	–95
of which: obligatorily measured at fair value	941	–95
Debt instruments measured at amortised cost	137	186
Debt instruments measured at fair value through other comprehensive income	38	25
Equity instruments measured at fair value through other comprehensive income	27	14
Financial liabilities measured at (amortised) cost	–317	–236

The net result as per IFRS 7 essentially includes interest, dividends and results from the measurement of financial instruments at fair value.

The option to recognise changes in fair value in other comprehensive income is exercised for a portion of the investments in equity instruments. These are strategic investments and other long-term investments as well as securities in special funds.

Fair value of equity instruments measured at fair value through other comprehensive income		
€ million	31 Dec 2019	31 Dec 2018
Securities in special funds	444	378
Nordsee One GmbH	22	31
E.ON SE	3,780	

In the 2019 fiscal year, €27 million (previous year: €13 million) in income from dividends from these financial instruments was recognised, of which €5 million (previous year: €4 million) is attributable to equity instruments sold during the same year. Moreover, in the year under review, equity instruments measured through other comprehensive income were sold in line with the existing investment strategy. Their fair value at the derecognition date amounted to €738 million (previous year: €312 million). The resulting gain amounted to €5 million (previous year: loss of €2 million).

The following is an overview of the financial assets and financial liabilities which are netted out in accordance with IAS 32 or are subject to enforceable master netting agreements or similar agreements. The netted financial assets and liabilities essentially consist of collateral for stock market transactions due on a daily basis.

Netting of financial assets and financial liabilities as of 31 Dec 2019	Gross amounts recognised	Netting	Net amounts recognised	Related amounts not set off		Net amount
				Financial instruments	Cash collateral received/ pledged	
€ million						
Derivatives (assets)	10,381	-9,801	580		-318	262
Derivatives (liabilities)	9,031	-8,185	846	-119	-727	

Netting of financial assets and financial liabilities as of 31 Dec 2018	Gross amounts recognised	Netting	Net amounts recognised	Related amounts not set off		Net amount
				Financial instruments	Cash collateral received/ pledged	
€ million						
Derivatives (assets)	14,915	-14,232	683		-400	283
Derivatives (liabilities)	10,532	-10,101	431	-186	-245	

The related amounts not set off include cash collateral received and pledged for over-the-counter transactions as well as collateral pledged in advance for stock market transactions.

As a utility enterprise with international operations, the RWE Group is exposed to market, credit and liquidity risks in its ordinary business activity. We limit these risks via systematic, groupwide risk management. The range of action, responsibilities and controls are defined in binding internal directives.

Market risks stem from changes in exchange rates and share prices as well as interest rates and commodity prices, which can have an influence on business results.

Due to the RWE Group's international profile, currency management is a key issue. Fuels are traded in British pounds and US dollars as well as in other currencies. In addition, RWE does business in a number of currency areas. The companies of the RWE Group are required to hedge their foreign currency risks via RWE AG. Foreign currency risks arising from the involvement in and the financing of the renewable energy business are hedged by RWE Renewables International Participations B.V.

Interest rate risks stem primarily from financial debt and the Group's interest-bearing investments. We hedge against negative changes in value caused by unexpected interest-rate movements using non-derivative and derivative financial instruments.

Opportunities and risks from changes in the values of non-current securities are centrally controlled by a professional fund management system operated by RWE AG.

The Group's other financial transactions are recorded using centralised risk management software and monitored by RWE AG.

For commodity operations, risk management directives have been established by RWE AG's Controlling & Risk Management Department. These regulations stipulate that derivatives may be used to hedge price risks. Furthermore, commodity derivatives may be traded, subject to limits. Compliance with limits is monitored daily.

Risks stemming from fluctuations in commodity prices and financial market risks (foreign currency risks, interest rate risks, securities risks) are monitored and managed by RWE using indicators such as the Value at Risk (VaR), amongst other things. In addition, for the management of interest rate risk, a Cash Flow at Risk (CFaR) is determined.

Using the VaR method, RWE determines and monitors the maximum expected loss arising from changes in market prices with a specific level of probability during specific periods. Historical price volatility is taken as a basis in the calculations. With the exception of the CFaR data, all VaR figures are based on a confidence interval of 95% and a holding period of one day. For the CFaR, a confidence interval of 95% and a holding period of one year is taken as a basis.

In respect of interest rate risks, RWE distinguishes between two risk categories: on the one hand, increases in interest rates can result in declines in the prices of securities from the holdings of RWE. This pertains primarily to fixed-rate instruments. A VaR is determined to quantify securities price risk. As of the balance-sheet date, it amounted to €4.8 million (previous year: €2.3 million). On the other hand, financing costs also increase along with the level of interest rates. The sensitivity of interest expenses to increases in market interest rates is measured with the CFaR. As of 31 December 2019 this amounted to €34.8 million (previous year: €5.9 million). RWE calculates the CFaR based on the assumption of the refinancing of maturing debt.

As of 31 December 2019, the VaR for foreign currency positions was €1.6 million (previous year: €1.1 million). This corresponds to the figure used internally, which also includes the underlying transactions for cash flow hedges. The VaR also reflects the risk of timing differences.

As of 31 December 2019, the VaR for risks related to the RWE share portfolio amounted to €3.7 million (previous year: €6.9 million).

The key internal control parameters for commodity positions at RWE Supply & Trading are the VaR for the trading business and the VaR for the pooled gas and liquefied natural gas (LNG) business. Here, the maximum VaR is €40 million and €14 million, respectively. As of 31 December 2019, the VaR was €12.0 million in the trading business (previous year: €12.4 million) and €4.7 million for the pooled gas and LNG business (previous year: €5.1 million).

Additionally, stress tests are carried out on a monthly basis in relation to the trading and pooled LNG and gas business of RWE Supply & Trading to model the impact of commodity price changes on the earnings conditions and take risk-mitigating measures if necessary. In these stress tests, market price curves are modified, and the commodity position is revalued on this basis. Historical scenarios of extreme prices and realistic, fictitious price scenarios are modelled. In the event that the stress tests exceed internal thresholds, these scenarios are then analysed in detail in relation to their impact and probability, and – if necessary – risk-mitigating measures are considered.

Commodity risks of the Group's power generation companies belonging to the Lignite & Nuclear and European Power segments are hedged by the Supply & Trading segment on the basis of available market liquidity in accordance with Group guidelines. In accordance with the approach for long-term investments for example, it is not possible to manage commodity risks from long-term positions or positions which cannot be hedged due to their size and the prevailing market liquidity using the VaR concept. As a result, these positions are not included in the VaR figures. Above and beyond open production positions which have not yet been transferred, the Group companies belonging to the Lignite & Nuclear and European Power segments are not allowed to maintain significant risk positions, according to a Group guideline. Furthermore, commodity price risks can exist in relation to the renewable generation positions and in the gas storage business. The commodity price risks associated with the renewable generation positions are managed by the Renewables Commodity Management Committee (RES CMC), which was newly established for this purpose. The subsidiaries owning the gas storage facilities also manage their positions independently, in compliance with unbundling regulations.

One of our most important instruments to limit market risk is the conclusion of hedging transactions. The instruments most commonly used are forwards and options with foreign currency, interest rate swaps, interest rate currency swaps, and forwards, options, futures and swaps with commodities.

Maturities of derivatives related to interest rates, currencies, equities, indices and commodities for the purpose of hedging are based on the maturities of the underlying transactions and are thus primarily short term and medium term in nature. Hedges of the foreign currency risks of foreign investments have maturities of up to twelve years.

All derivative financial instruments are recognised as assets or liabilities and are measured at fair value. When interpreting their positive and negative fair values, it should be taken into account that, with the exception of trading in commodities, these financial instruments are generally matched with underlying transactions that carry offsetting risks.

Hedge accounting pursuant to IFRS 9 is used primarily for mitigating currency risks from net investments in foreign functional currencies, commodity market price risks, interest risks from non-current liabilities and currency and price risks from sales and purchase transactions.

Fair value hedges are used to limit the market price risk exposure related to CO_2 emission allowances. In the case of fair value hedges, both the derivative as well as the underlying hedged transaction (in relation to the hedged risk) are recorded at fair value with an effect on income.

RWE held the following instruments to hedge the fair value of commodity price risks:

Fair value hedges as of 31 Dec 2019	Maturity		
	1–6 months	7–12 months	>12 months
CO_2 derivatives			
Nominal volume (€ million)			39
Secured average price (€/metric ton)			5.57

Fair value hedges as of 31 Dec 2018	Maturity		
	1–6 months	7–12 months	>12 months
CO_2 derivatives			
Nominal volume (€ million)			39
Secured average price (€/metric ton)			5.57

Cash flow hedges are primarily used to hedge against interest risks from non-current liabilities as well as currency and price risks from sales and purchase transactions. Hedging instruments consist of forwards, swaps and options with foreign currency and interest rates, and forwards, futures and swaps with commodities. Changes in the fair value of the hedging instruments – insofar as they affect the effective portion – are recorded under other comprehensive income until the underlying transaction is realised. The ineffective portion of changes in value is recognised in profit or loss. When hedging commodities, underlying and hedging transactions are based on the same price index. This generally does not result in ineffectiveness. When hedging foreign currency risks, ineffectiveness can result from the difference in timing between the origination of the hedged item and the hedging instrument. Ineffectiveness can likewise stem from hedges containing material foreign currency basis spreads. Upon realisation of the underlying transaction, the hedge's contribution to income from accumulated other comprehensive income is recognised on the income statement or is offset against the initial value recognition of an asset or a liability.

RWE held the following instruments to hedge future cash flows relating to foreign currency risks:

Cash flow hedges as of 31 Dec 2019	Maturity		
	1–6 months	7–12 months	>12 months
Currency forwards – purchases			
Nominal volume (€ million)	2,276	134	61
Avg. EUR/USD exchange rate	1.15	1.18	1.19
Avg. EUR/GBP exchange rate	0.87	0.89	
Avg. EUR/CAD exchange rate	1.54	1.56	1.64
Currency forwards – sales			
Nominal volume (€ million)	–2,947	–401	–112
Avg. EUR/USD exchange rate	1.13	1.18	1.26
Avg. EUR/GBP exchange rate	0.87	0.88	0.86
Avg. EUR/CAD exchange rate	1.51		1.57

Cash flow hedges as of 31 Dec 2018	Maturity		
	1–6 months	7–12 months	>12 months
Currency forwards – purchases			
Nominal volume (€ million)	1,534	135	738
Avg. EUR/USD exchange rate	1.20		1.19
Avg. EUR/GBP exchange rate	0.90	0.91	0.92
Avg. EUR/CAD exchange rate	1.57	1.58	1.55
Currency forwards – sales			
Nominal volume (€ million)	–1,743	–339	–217
Avg. EUR/USD exchange rate	1.23	1.28	1.17
Avg. EUR/GBP exchange rate	0.90	0.91	0.91
Avg. EUR/CAD exchange rate	1.53		

RWE held the following instruments to hedge future cash flows relating to interest risks:

Cash flow hedges as of 31 Dec 2019	Maturity		
	1 – 6 months	7 – 12 months	>12 months
Interest swaps			
Nominal volume (£ million)			808
Secured average interest rate (%)			1.55

Cash flow hedges as of 31 Dec 2018	Maturity		
	1 – 6 months	7 – 12 months	>12 months
Interest swaps			
Nominal volume (£ million)			1,642
Secured average interest rate (%)			1.56

The commercial optimisation of the power plant portfolio is based on a dynamic hedging strategy. Hedged items and hedging instruments are constantly adjusted based on changes in market prices, market liquidity and the sales business with consumers. Commodity prices are hedged if this leads to a positive margin. Proprietary commodities trading is strictly separated from this when managing risks.

Hedges of net investment in a foreign operation are used to hedge the foreign currency risks of net investment in foreign entities whose functional currency is not the euro. We use bonds with various terms in the appropriate currencies, interest rate currency swaps, and other currency derivatives as hedging instruments. If there are changes in the exchange rates of currencies in which the bonds used for hedging are denominated or changes in the fair value of interest rate currency swaps, this is recorded under foreign currency translation adjustments in other comprehensive income.

RWE held the following instruments to hedge net investments in foreign operations:

Net investment hedges as of 31 Dec 2019	Maturity		
	1 – 6 months	7 – 12 months	>12 months
Bonds and currency forwards – sales			
Nominal volume (€ million)	– 1,037	– 349	– 631
Avg. EUR/AUD exchange rate			
Avg. EUR/GBP exchange rate	0.90	0.86	0.63
Avg. EUR/USD exchange rate			

Net investment hedges as of 31 Dec 2018	Maturity		
	1 – 6 months	7 – 12 months	>12 months
Bonds and currency forwards – purchases			
Nominal volume (€ million)	56		
Avg. EUR/GBP exchange rate	0.89		
Bonds and currency forwards – sales			
Nominal volume (€ million)	– 1,576		– 4,370
Avg. EUR/AUD exchange rate	1.58		
Avg. EUR/GBP exchange rate	0.89		0.85
Avg. EUR/USD exchange rate	1.23		

As regards bonds used as hedging instruments for net investment hedges, the average price was calculated using the foreign exchange rate valid on the designation date of the hedging relationship.

The hedging instruments designated in hedging relationships had the following effects on the company's net asset, financial and earnings position:

Hedging instruments – effects on the net asset, financial and earnings position as of 31 Dec 2019	Nominal amount	Carrying amount		Fair value changes in the current period	Recognised ineffectiveness
€ million		Assets	Liabilities		
Fair value hedges					
Commodity price risks	39		135	11	
Cash Flow Hedges					
Interest risks	931		105	69	
Foreign currency risks	296	52	87	26	
Commodity price risks	–4,125[1]	2,337	1,046	–571	
Net investment hedges					
Foreign currency risks			328	55	35

1 The net nominal amount stated is made up of purchases in the amount of €3,494 million and sales in the amount of €7,619 million.

Hedging instruments – effects on the net asset, financial and earnings position as of 31 Dec 2018	Nominal amount	Carrying amount		Fair value changes in the current period	Recognised ineffectiveness
€ million		Assets	Liabilities		
Fair value hedges					
Commodity price risks	39		146	–126	
Cash Flow Hedges					
Interest risks	1,642		42	–26	
Foreign currency risks	108	39	63	–18	–11
Commodity price risks	4,516[1]	1,056	861	4,611	
Net investment hedges					
Foreign currency risks	–5,890	7	4,070	37	–3

1 The net nominal amount stated is made up of purchases in the amount of €7,904 million and sales in the amount of €3,388 million.

The carrying amounts of the hedging instruments are recognised in the 'Other receivables and other assets' and 'Other liabilities' balance-sheet items.

The hedged items designated in hedging relationships had the following effects on the company's net asset, financial and earnings position:

Fair value hedges as of 31 Dec 2019	Carrying amount		Of which cumulative fair value adjustments		Changes in fair value in the reporting year
€ million	Assets	Liabilities	Assets	Liabilities	
Commodity price risks	174		135		11

Fair value hedges as of 31 Dec 2018	Carrying amount		Of which cumulative fair value adjustments		Changes in fair value in the reporting year
€ million	Assets	Liabilities	Assets	Liabilities	
Commodity price risks	185		146		126

Cash flow hedges and net investment hedges as of 31 Dec 2019 € million	Changes in fair value during the current period	Reserve for current hedges	Reserve for terminated hedges
Cash flow hedges			
Interest risks		-94	
Foreign currency risks	67	107	
Commodity price risks	623	4,574	-15
Net investment hedges			
Foreign currency risks	55	1,151	328

Cash flow hedges and net investment hedges as of 31 Dec 2018 € million	Changes in fair value during the current period	Reserve for current hedges	Reserve for terminated hedges
Cash flow hedges			
Interest risks	26	-158	
Foreign currency risks	6	13	
Commodity price risks	4,611	5,004	
Net investment hedges			
Foreign currency risks	-19	1,380	171

The carrying amounts of the hedged items for fair value hedges are stated in the 'Other receivables and other assets' balance-sheet item. Amounts realised from OCI and any ineffectiveness are recognised in the items on the income statement in which the underlying transactions are also recognised with an effect on income. The amounts realised from OCI are recognised in revenue and the cost of materials, whereas any ineffectiveness is recognised in other operating income and expenses. Amounts recognised and any ineffectiveness of hedging interest risks are recognised in financial income and financial expenses on the income statement.

The reconciliation of the changes in the hedge reserve in relation to the various risk categories of hedge accounting follows below:

Hedge reserve – 2019 € million	
Balance at 1 Jan 2019	**3,344**
Cash flow hedges	
Effective portion of changes in market value	332
Interest risks	–53
Foreign currency risks	–223
Commodity price risks	608
Gain or loss reclassified from OCI to the income statement – realisation of underlying transactions	136
Foreign currency risks	–127
Commodity price risks	263
Gain or loss recognised as a basis adjustment	–1,267
Interest risks	38
Foreign currency risks	2
Commodity price risks	–1,307
Tax effect of the change in the hedge reserve	434
Net investment hedges	
Effective portion of changes in market value	95
Foreign currency risks	95
Ofsetting against currency adjustments	–95
Balance at 31 Dec 2019	**2,979**

Hedge reserve – 2018 € million	
Balance at 1 Jan 2018	**43**
Cash flow hedges	
Effective portion of changes in market value	5,085
Interest risks	–26
Foreign currency risks	12
Commodity price risks	5,099
Gain or loss reclassified from OCI to the income statement – realisation of underlying transactions	–473
Commodity price risks	–473
Gain or loss recognised as a basis adjustment	187
Interest risks	31
Foreign currency risks	–15
Commodity price risks	171
Tax effect of the change in the hedge reserve	–1,498
Net investment hedges	
Effective portion of changes in market value	57
Foreign currency risks	57
Ofsetting against currency adjustments	–57
Balance at 31 Dec 2018	**3,344**

Credit risks. In the fields of finance and commodities, RWE primarily has credit relationships with banks that have good creditworthiness and other trading partners, most of which have good creditworthiness. Furthermore, RWE has credit relationships primarily with banks and other business partners with good creditworthiness within the scope of large-scale projects such as the construction of wind farms. RWE reviews counterparty default risks before contracts are concluded. RWE mitigates such risks by establishing limits which are adjusted during the business relationships if the creditworthiness of the business partners changes. Counterparty risks are monitored constantly so that countermeasures can be initiated early on. Furthermore, RWE is exposed to credit risks due to the possibility of customers failing to meet their payment obligations. We identify these risks by conducting regular analyses of the creditworthiness of our customers and initate countermeasures if necessary.

Amongst other things, RWE demands guarantees, cash collateral and other forms of security in order to mitigate credit risks. Furthermore, RWE takes out credit insurance policies to protect against defaults. Bank guarantees received as collateral are from financial institutions with the required good ratings. Collateral for credit insurance is pledged by insurers with an investment-grade rating.

The maximum balance-sheet default risk is derived from the carrying amounts of the financial assets stated on the balance sheet. The default risks for derivatives correspond to their positive fair values. Risks can also stem from financial guarantees and loan commitments which we have to fulfill vis-à-vis external creditors in the event of a default of a certain debtor. As of 31 December 2019, these obligations amounted to €174 million (previous year: €223 million). As of 31 December 2019, default risks were balanced against credit collateral, financial guarantees, bank guarantees and other collaterals amounting to €5.5 billion (previous year: €1.3 billion). Of this, €1.1 billion relates to trade receivables (previous year: €0.2 billion), €1.1 billion to derivatives used for hedging purposes (previous year: €0.3 billion), and €3.3 billion to other derivatives (previous year: €0.8 billion). There were no material defaults in fiscal 2019 or the previous year.

In the RWE Group, the risk provision for financial assets is determined on the basis of expected credit losses. These are determined on the basis of the probability of default, loss given default and the exposure at default. We determine the probability of default and loss given default using historical data and forward-looking information. The exposure at default date for financial assets is the gross carrying amount on the balance-sheet date. The expected credit loss for financial assets determined on this basis corresponds to the difference between the contractually agreed payments and the payments expected by RWE, discounted by the original effective interest rate. The assignment to one of the levels described below influences the level of the expected losses and the effective interest income recognised.

- Stage 1 – Expected 12-month credit losses: At initial recognition, financial assets are generally assigned to this stage – with the exception of those that have been purchased or originated credit impaired, which are thus considered separately. The level of impairment results from the cash flows expected for the entire term of the financial instrument, multiplied by the probability of a default within 12 months from the reporting date. The effective interest rate used for measurement is determined on the basis of the carrying amount before impairment (gross).
- Stage 2 – Lifetime expected credit losses (gross): If the credit risk has risen significantly between initial recognition and the reporting date, the financial instrument is assigned to this stage. Unlike Stage 1, default events expected beyond the 12-month period from the reporting date are also considered in calculating the impairment. The effective interest rate used for measurement is still determined on the basis of the carrying amount before impairment (gross).
- Stage 3 – Lifetime expected credit losses (net): If in addition to the criteria for Stage 2 there is an objective indication of an impairment, the financial asset is assigned to Stage 3. The impairment is calculated analogously to Stage 2. In this case, however, the effective interest rate used for measurement is applied to the carrying amount after impairment (net).

In the RWE Group, risk provisions are formed for financial instruments in the following categories:

- debt instruments measured at amortised cost,
- debt instruments measured at fair value through other comprehensive income.

For debt instruments for which there has been no significant rise in credit risk since initial recognition, a risk provision is recognised in the amount of the expected 12-month credit losses (Stage 1). In addition, a financial instrument is assigned to Stage 1 of the impairment model if the absolute credit risk is low on the balance-sheet date. The credit risk is classified as low if the debtor's internal or external rating is investment-grade. For trade accounts receivable, the risk provision corresponds to the lifetime expected credit losses (Stage 2).

To determine whether a financial instrument is assigned to Stage 2 of the impairment model, it must be determined whether the credit risk has increased significantly since initial recognition. To make this assessment, we consider quantitative and qualitative information supported by our experience and assumptions regarding future developments.

In so doing, special importance is accorded to the sector in which the RWE Group's debtors are active. Our experience is based on studies and data from financial analysts and government authorities, amongst others. Special attention is paid to the following developments:

- significant deterioration of the internal or external rating of the financial instrument,
- unfavourable changes in risk indicators, e. g. credit spreads or debtor-related credit default swaps,
- negative development of the debtor's regulatory, technological or economic environment,
- danger of an unfavourable development of business resulting in a significant reduction in operating income.

Independent thereof, a significant rise in credit risk and thus an assignment of the financial instrument to Stage 2 are assumed if the contractually agreed payments are more than 30 days overdue and there is no information that contradicts the assumption of a payment default.

We draw conclusions about the potential default of a counterparty from information from internal credit risk management. If internal or external information indicates that the counterparty cannot fulfil its obligations, the associated receivables are classified as unrecoverable and assigned to Stage 3 of the impairment model. Examples of such information are:

- The debtor of the receivable has apparent financial difficulties.
- The debtor has already commited a breach of contract by missing or delaying payments.
- Concessions already had to be made to the debtor.
- An insolvency or another restructuring procedure is impending.
- The market for the financial asset is no longer active.
- A sale is only possible at a high discount, which reflects the debtor's reduced creditworthiness.

A payment default and an associated assignmet of the financial asset to Stage 3 is also assumed if the contractually agreed payments are more than 90 days overdue and there is no information disproving the assumption of a payment default. Based on our experience, we generally assume that this assumption does not apply to trade accounts receivable.

A financial asset is depreciated if there are indications that the counterparty is in serious financial difficulty and the situation is unlikely to improve. We may also take legal recourse and other measures in order to enforce the contractually agreed payments in the event of an impairment.

The following impairments were recognised for financial assets stated under the following balance-sheet items within the scope of IFRS 7:

Impairment of financial assets € million	Stage 1 – 12-month expected credit losses	Stage 2 – lifetime expected credit losses	Stage 3 – lifetime expected credit losses	Purchased or originated credit impaired	Total
Financial receivables					
Balance at 1 Jan 2019	**23**	**6**	**11**		**40**
Remeasurement due to new measurement parameters	4				4
Newly acquired/issued financial assets	2	1			3
Redeemed or derecognised financial assets	–18				–18
Transfer from Level 2 to Level 1		–4			–4
Balance at 31 Dec 2019	**11**	**3**	**11**		**25**

Impairment of financial assets € million	Stage 1 – 12-month expected credit losses	Stage 2 – lifetime expected credit losses	Stage 3 – lifetime expected credit losses	Purchased or originated credit impaired	Total
Financial receivables					
Balance at 1 Jan 2018	**53**	**5**	**11**	**71**	**140**
Remeasurement due to new measurement parameters	1	1			2
Newly acquired/issued financial assets	1				1
Redeemed or derecognised financial assets	–1				–1
Change in the scope of consolidation	–10			–71	–81
Transfers	–21				–21
Balance at 31 Dec 2018	**23**	**6**	**11**		**40**

For trade accounts receivable, the expected credit loss is determined by applying the simplified approach taking account of the entire lifetime of the financial instruments.

In the RWE Group, there are no cases where a risk provision for trade accounts receivable was not recognised due to the collateral on the books.

The following table shows the development of the risk provisions for trade accounts receivable:

Risk provision for trade accounts receivable € million	
Balance at 1 Jan 2019	**27**
Addition	9
Changes in the scope of consolidation	–4
Balance at 31 Dec 2019	**32**

Risk provision for trade accounts receivable € million	
Balance at 1 Jan 2018	**405**
Addition	85
Withdrawal	–81
Currency translation	–2
Changes in the scope of consolidation	–390
Transfers	10
Balance at 31 Dec 2018	**27**

The following table presents the gross carrying amounts of the financial instruments under the scope of the impairment model:

Gross carrying amounts of financial assets as of 31 Dec 2019 € million	Equivalent to S&P scale	Stage 1 – 12-month expected credit losses	Stage 2 – lifetime expected credit losses	Stage 3 – lifetime expected credit losses	Trade accounts receivable	Total
Class 1 – 5: low risk	AAA to BBB–	7,262	39		3,261	10,562
Class 6 – 9: medium risk	BB+ to BB–	121	1	12	95	229
Class 10: high risk	B+ to B–	43	10		67	120
Class 11: doubtful	CCC to C				6	6
Class 12: loss	D			1	36	37
		7,426	**50**	**13**	**3,465**	**10,954**

Gross carrying amounts of financial assets as of 31 Dec 2018 € million	Equivalent to S&P scale	Stage 1 – 12-month expected credit losses	Stage 2 – lifetime expected credit losses	Stage 3 – lifetime expected credit losses	Trade accounts receivable	Total
Class 1 – 5: low risk	AAA to BBB–	7,228			1,611	8,839
Class 6 – 9: medium risk	BB+ to BB–	68		11	297	376
Class 10: high risk	B+ to B–	5	13		65	83
Class 11: doubtful	CCC to C				6	6
Class 12: loss	D			1	20	21
		7,301	**13**	**12**	**1,999**	**9,325**

Liquidity risks. As a rule, RWE Group companies refinance with RWE AG. In this regard, there is a risk that liquidity reserves will prove to be insufficient to meet financial obligations in a timely manner. In 2020, liabilities owed to banks of €0.4 billion (previous year: €0.1 billion) are due. In addition, short-term debt must be repaid. Furthermore, taking account of the earliest possible call date of the hybrid bond, which is classified as debt pursuant to IFRS, €0.5 billion in capital market debt matures in 2020 (previous year: €0.8 billion).

As of 31 December 2019, holdings of cash and cash equivalents and current marketable securities amounted to €6,450 million (previous year: €7,132 million).

RWE AG's credit line was increased to €5 billion in April 2019. Its two tranches expire in April 2021 (€2 billion) and April 2024 (€3 billion). As of the balance-sheet date, US$0 billion (previous year: US$0 billion) of RWE AG's US$5 billion commercial paper programme (previous year: US$5 billion) was used. Above and beyond this, RWE AG can finance itself using a €10 billion debt issuance programme; as of the balance-sheet date, outstanding bonds from this programme amounted to €0 billion (previous year: €0 billion) at RWE AG. Accordingly, RWE AG's medium-term liquidity risk can be classified as low.

Financial liabilities falling under the scope of IFRS 7 are expected to result in the following (undiscounted) payments in the coming years:

Redemption and interest payments on financial liabilities		Redemption payments			Interest payments		
€ million	Carrying amounts 31 Dec 2019	2020	2021 to 2024	From 2025	2020	2021 to 2024	From 2025
Bonds payable[1]	1,110	539		571	44	116	53
Bank debt	1,356	393	70	894	23	90	94
Lease liabilities	1,102	83	244	784	24	89	200
Other financial liabilities	1,766	921	329	541	57	164	508
Derivative financial liabilities	10,479	10,092	85	302	22	64	153
Collateral for trading activities	400	400					
Miscellaneous other financial liabilities	3,147	3,143	9	4			

1 Including hybrid bonds classified as debt as per IFRS, taking into account the earliest possible call date.

Redemption and interest payments on financial liabilities		Redemption payments			Interest payments		
€ million	Carrying amounts 31 Dec 2018	2019	2020 to 2023	From 2024	2019	2020 to 2023	From 2024
Bonds payable[1]	1,103		539	564	102	129	81
Bank debt	554	87	90	413	13	51	31
Lease liabilities	241	10	39	192			
Other financial liabilities	333	155	13	170	7	27	428
Derivative financial liabilities	7,060	6,681	100	282	26	58	143
Collateral for trading activities	533	533					
Miscellaneous other financial liabilities	2,553	2,549	8	4			

1 Including hybrid bonds classified as debt as per IFRS, taking into account the earliest possible call date.

Above and beyond this, as of 31 December 2019, there were financial guarantees for external creditors in the amount of €121 million (previous year: €145 million), which are to be allocated to the first year of repayment. Additionally, Group companies have provided loan commitments to third-party companies amounting to €53 million (previous year: €78 million), which are callable in 2020.

Detailed information on the risks of the RWE Group and on the objectives and procedures of the risk management is presented on page 84 et seqq. in the review of operations.

(28) Contingent liabilities and financial commitments

As of 31 December 2019, the amount of capital commitments totalled €1,989 million (previous year: €2,396 million). This mainly consisted of investment in property, plant and equipment.

In the previous year, commitments from operating leases referred largely to rental arrangements for power generation and supply plants as well as rent and lease contracts for storage and administration buildings. Minimum lease payments had the following maturity structure:

Operating leases € million	Nominal value
	31 Dec 2018
Due within 1 year	59
Due after 1 to 5 years	159
Due after 5 years	354
	572

We have made long-term contractual purchase commitments for supplies of fuels, including natural gas in particular. Payment obligations stemming from the major long-term purchase contracts amounted to €27.1 billion as of 31 December 2019 (previous year: €27.9 billion), of which €0.3 billion is due within one year (previous year: €0.8 billion).

Gas purchases by the RWE Group are partially based on long-term take-or-pay contracts. The conditions in these contracts, which have terms up to 2036 in some cases, are renegotiated by the contractual partners at certain intervals, which may result in changes in the reported payment obligations. Calculation of the payment obligations resulting from the purchase contracts is based on parameters from the internal planning.

Furthermore, RWE has long-term financial commitments for purchases of electricity. As of 31 December 2019, the minimum payment obligations stemming from the major purchase contracts totalled €7.1 billion (previous year: €7.8 billion), of which €0.2 billion is due within one year (previous year: €0.8 billion). Above and beyond this, there are also long-term purchase and service contracts for uranium, conversion, enrichment and fabrication.

We bear legal and contractual liability from our membership in various associations which exist in connection with power plant projects, profit- and loss-pooling agreements and for the provision of liability cover for nuclear risks, amongst others.

On the basis of a mutual benefit agreement, RWE AG and other parent companies of German nuclear power plant operators undertook to provide approximately €2,244 million in funding to liable nuclear power plant operators to ensure that they are able to meet their payment obligations in the event of nuclear damages. From 1 January 2020, onwards, RWE AG has a 30.452 % contractual share in the liability (23.259 % until 31 December 2019) plus 5 % for damage settlement costs.

RWE AG and its subsidiaries are involved in official, regulatory and antitrust proceedings, litigation and arbitration proceedings related to their operations and are affected by the results of such. In some cases, out-of-court claims are also filed. However, RWE does not expect any material negative repercussions from these proceedings on the RWE Group's economic or financial position.

(29) Segment reporting

RWE is divided into five segments, which are separated from each other based on functional criteria.

We report on German electricity generation from lignite and nuclear fuel in the Lignite & Nuclear segment. This includes the Rhenish opencast lignite mining operations.

The European Power segment encompasses the German, British, Dutch/Belgian and Turkish power generation business via gas and hard coal-fired power stations, the Scottish biomass-fired power plant Markinch, and the project management and engineering specialist RWE Technology International. The segment is supplemented by hydroelectric power stations in Germany and Luxembourg.

The Supply & Trading segment contains energy and commodities trading, the marketing and hedging of the RWE Group's electricity position and the gas midstream business. This segment is the responsibility of RWE Supply & Trading, which also supplies certain major industrial and commercial customers with electricity and natural gas.

The innogy – continuing operations segment encompasses the parts of innogy the control of which was not transferred to E.ON. These are the renewables business, innogy's gas storage facilities located in Germany and the Czech Republic, and the stake in the Austrian energy utility Kelag. Along with electricity generation, activities in the field of renewables include the development and implementation of projects to expand capacities. Wind and hydroelectric power are the two dominant production technologies. The main production sites are located in Germany, the United Kingdom, the Netherlands, Poland, Spain and Italy.

The Acquired E.ON operations segment comprises the main parts of E.ON's former renewable energy business, of which RWE gained control on 18 September 2019. It includes onshore and offshore wind and photovoltaic activities.

'Other, consolidation' covers RWE AG, consolidation effects and the activities of other business areas which are not presented separately. These activities primarily include our non-controlling interests in the German transmission system operator Amprion and in E.ON.

Segment reporting Divisions 2019 € million	Lignite & Nuclear	European Power	Supply & Trading	innogy – continuing operations	Acquired E.ON operations	Other, consoli-dation	RWE Group
External revenue (incl. natural gas tax/electricity tax)	**1,018**	**1,065**	**9,649**	**1,164**	**374**	**7**	**13,277**
Intra-group revenue	2,166	3,483	3,274	399		-9,322[1]	
Total revenue	3,184	4,548[2]	12,923	1,563	374	-9,315	13,277
Adjusted EBIT	12	132	691	443	116	-127	1,267
Operating income from investments	63	21	1	74	13	133	305
Operating income from investments accounted for using the equity method	62	20	34	59	16	132	323
Operating depreciation, amortisation and impairment losses	362	321	11	390	137	1	1,222
Impairment losses	785	772	19	414	11		2,001
Adjusted EBITDA	**374**	**453**	**702**	**833**	**253**	**-126**	**2,489**
Carrying amount of investments accounted for using the equity method	68	139	3	750	1,638	638	3,236
Capital expenditure on intangible assets, property, plant and equipment	342	252	11	1,215	267	3	2,090

1 Of which: consolidation of intra-group revenue of –€9,322 million.
2 Of which: total revenue from power generation in the United Kingdom of €2,640 million.

Regions 2019	EU			Rest of Europe	Other	RWE Group
€ million	Germany	UK	Other EU			
External revenue[1,2]	4,840	5,035	2,368	484	398	13,125
Intangible assets and property, plant and equipment	6,758	9,845	3,353		3,950	23,906

1 Excluding natural gas tax/electricity tax.
2 Broken down by the region in which the service was provided.

Segment reporting Divisions 2018 € million	Lignite & Nuclear	European Power	Supply & Trading	innogy – continuing operations	Acquired E.ON operations	Other, consoli-dation	RWE Group
External revenue (incl. natural gas tax/electricity tax)	**1,144**	**926**	**10,335**	**1,124**		**18**	**13,547**
Intra-group revenue	2,340	3,768	3,434	386		–9,928[1]	
Total revenue	3,484	4,694[2]	13,769	1,510		–9,910	13,547
Adjusted EBIT	77	37	177	349		–21	619
Operating income from invest-ments	58	7	–44	61		94	176
Operating income from invest-ments accounted for using the equity method	58	6		53		94	211
Operating depreciation, amortisation and impairment losses	279	297	6	350		–13	919
Impairment losses	14	29		4			47
Adjusted EBITDA	**356**	**334**	**183**	**699**		**–34**	**1,538**
Carrying amount of investments accounted for using the equity method	60	125	3	740		539	1,467
Capital expenditure on intangible assets and property, plant and equipment	230	245	13	592		–1	1,079

1 Of which: consolidation of intra-group revenue of – €9,929 million and intra-group revenue of other companies of €1 million.
2 Of which: total revenue from power generation in the United Kingdom of €2,213 million.

Regions 2018	EU			Rest of Europe	Other	RWE Group
€ million	Germany	UK	Other EU			
External revenue[1,2,3]	4,549	4,358	3,130	984	385	13,406
Intangible assets and property, plant and equipment	5,882	5,286	3,004		430	14,602

1 Excluding natural gas tax/electricity tax.
2 Broken down by the region in which the service was provided.
3 Prior-figures restated.

External revenue by product in 2019 € million	Lignite & Nuclear	European Power	Supply & Trading	innogy – continuing operations	Acquired E.ON operations	Other, consoli-dation	RWE Group
External revenue[1,2]	**1,003**	**1,062**	**9,514**	**1,164**	**374**	**8**	**13,125**
of which: electricity	282	620	8,259	869	242		10,272
of which: gas		12	1,094	50			1,156
of which: other revenue	721	430	161	245	132	8	1,697

1 Excluding natural gas tax/electricity tax.
2 Of which €3,054 million in external revenue on the basis of coal-based electricity generation and coal sales.

External revenue by product in 2018 € million	Lignite & Nuclear	European Power	Supply & Trading	innogy – continuing operations	Acquired E.ON operations	Other, consoli-dation	RWE Group
External revenue[1,2]	**1,132**	**925**	**10,208**	**1,124**		**17**	**13,406**
of which: electricity	303	542	8,478	799		-1	10,121
of which: gas		17	1,484	47		-1	1,547
of which: other revenue	829	366	246	278		19	1,738

1 Excluding natural gas tax/electricity tax.
2 Of which €4,196 million in external revenue on the basis of coal-based electricity generation and coal sales.

Notes on segment data. We report revenue between the segments as RWE intra-group revenue. Internal supply of goods and services is settled at arm's length conditions. Adjusted EBITDA is used for internal management. The following table presents the reconciliation of adjusted EBITDA to adjusted EBIT and income from continuing operations before tax:

Reconciliation of income items € million	2019	2018
Adjusted EBITDA	**2,489**	**1,538**
– Operating depreciation, amortisation and impairment losses	-1,222	-919
Adjusted EBIT	**1,267**	**619**
+ Non-operating result	-1,081	-161
+ Financial result	-938	-409
Income from continuing operations before tax	**-752**	**49**

Income and expenses that are unusual from an economic perspective, or stem from exceptional events, prejudice the assessment of operating activities. They are reclassified to the non-operating result. Amongst other things, these can include book gains or losses from the disposal of investments or non-current assets not required for operations, impairment of the goodwill of fully consolidated companies, as well as effects of the fair valuation of certain derivatives.

Non-operating result € million	2019	2018
Disposal result	48	-25
Impact of derivatives on earnings	81	-146
Other	-1,210	10
Non-operating result	**-1,081**	**-161**

Further commentary on the non-operating result can be found on page 57 et seq. of the review of operations.

(30) Notes to the cash flow statement

The cash flow statement classifies cash flows according to operating, investing and financing activities. Cash and cash equivalents in the cash flow statement correspond to the amount stated on the balance sheet. Cash and cash equivalents consist of cash on hand, demand deposits and fixed-interest marketable securities with a maturity of three months or less from the date of acquisition.

Among other things, cash flows from operating activities include:

- cash flows from interest income of €184 million (previous year: €166 million) and cash flows used for interest expenses of €257 million (previous year: €176 million),
- €325 million (previous year: €321 million) in taxes on income paid (less refunds),
- income from investments, corrected for items without an effect on cash flows, in particular from accounting using the equity method, which amounted to €187 million (previous year: €107 million).

Flows of funds from the acquisition and sale of consolidated companies are included in cash flows from investing activities. Effects of foreign exchange rate changes and other changes in value are stated separately.

Cash flows from financing activities of continuing operations include €430 million (previous year: €922 million) which was distributed to RWE shareholders, €51 million (previous year: €43 million) which was distributed to non-controlling shareholders, and €61 million (previous year: €60 million) which was distributed to hybrid capital investors. Furthermore, cash flows from financing activities include purchases of €86 million (previous year: €2 million) and sales in the amount of €0 million (previous year: €687 million) of shares in subsidiaries and other business units which did not lead to a change of control.

Changes in liabilities from financing activities are presented in the following table:

Statement of changes in financial liabilities € million	1 Jan 2019[1]	Increase/ repayment	Changes in the scope of consoli-dation	Currency effects	Changes in fair values	Other changes	31 Dec 2019
Current financial liabilities	787	986	7,081	-392	137	-6,789	1,810
Non-current financial liabilities	2,330	218	2,468	17		-1,109	3,924
Other items		474					

1 Including the effect of the initial adoption of IFRS 16 in the amount of €353 million.

Statement of changes in financial liabilities € million	1 Jan 2018	Increase/ repayment	Changes in the scope of consoli-dation	Of which stated as 'held for sale'	Currency effects	Changes in fair values	Other changes	31 Dec 2018
Current financial liabilities	2,787	- 196	-2,845	-2,779	32	-58	1,046	766
Non-current financial liabilities	14,414	435	-13,840	-13,840	4	1	984	1,998
Other items		-1,494						

The amount stated in the 'Other items' line item contains cash-effective changes resulting from derivative financial instruments and margin payments, which are recognised in cash flows from financing activities in the cash flow statement.

Restrictions on the disposal of cash and cash equivalents amounted to €51 million (previous year: €0 million).

(31) Related party disclosures

Within the framework of their ordinary business activities, RWE AG and its subsidiaries have business relationships with numerous companies. These include associated companies and joint ventures, which are classified as related parties. In particular, this category includes material investments of the RWE Group, which are accounted for using the equity method.

Business transactions were concluded with major associates and joint ventures, resulting in the following items in RWE's consolidated financial statements:

Key items from transactions with associates and joint ventures € million	Associated companies		Joint ventures	
	2019	2018	2019	2018
Income	258	1,855	74	79
Expenses	142	3,193	45	48
Receivables	88	140	59	64
Liabilities	123	191	7	8

The key items from transactions with associates and joint ventures mainly stem from supply and service transactions. In addition to supply and service transactions, there are also financial links with joint ventures. During the reporting period, income of €2 million (previous year: €4 million) was recorded from interest-bearing loans to joint ventures. As of the balance-sheet date, financial receivables accounted for €55 million of the receivables from joint ventures (previous year: €56 million). All transactions were completed at arm's length conditions, i.e. on principle the conditions of these transactions did not differ from those with other enterprises. €108 million of the receivables (previous year: €165 million) and €10 million of the liabilities (previous year: €166 million) fall due within one year. Other obligations from executory contracts amounted to €99 million (previous year: €578 million).

Above and beyond this, the RWE Group did not execute any material transactions with related companies or persons.

With regard to fiscal 2019, in addition to the members of the Executive Board and Supervisory Board of RWE AG, the Executive Board members and Supervisory Board members of innogy SE were deemed to be key management personnel for the RWE Group until 18 September 2019. The following information pertains to total compensation pursuant to IAS 24.

Key management personnel (Executive and Supervisory Board members) received €16,457,000 in short-term compensation components for fiscal 2019 (previous year: €19,721,000). Additionally, share-based payments within the framework of LTIP SPP amounted to €8,386,000 (previous year: €7,479,000) and the pension service cost amounted to €554,000 (previous year: €536,000). Provisions totalling €25,607,000 (previous year: €36,052,000) were formed for obligations vis-à-vis key management personnel.

The remuneration model and remuneration of the Executive and Supervisory Boards of RWE AG calculated pursuant to the German Commercial Code is presented in the remuneration report, which is included in the review of operations.

In total, the remuneration of the Executive Board amounted to €7,571,000 (previous year: €6,880,000). This contains share-based payments amounting to €2,350,000 (123,037 RWE performance shares) granted within the framework of the LTIP SPP. In the previous year, share-based payments amounting to €2,350,000 (125,000 RWE performance shares) were granted.

Including remuneration from subsidiaries for the exercise of mandates, the Supervisory Board received total remuneration of €3,304,000 (previous year: €3,480,000) in fiscal 2019. The employee representatives on the Supervisory Board have labour contracts with the respective Group companies. Remuneration occurs in accordance with the relevant contractual conditions.

During the period under review, no loans or advances were granted to members of the Executive or Supervisory Boards.

Former members of the Executive Board and their surviving dependants received €10,623,000 (previous year: €10,802,000), of which €651,000 came from subsidiaries (previous year: €940,000). As of the balance-sheet date, €146,568,000 (previous year: €146,721,000) were accrued for defined benefit obligations to former members of the Executive Board and their surviving dependants. Of this, €6,980,000 was set aside at subsidiaries (previous year: €8,516,000).

Information on the members of the Executive and Supervisory Boards is presented on page 207 et seqq. of the Notes.

(32) Auditors' fees

The fees for audit services primarily contain the fees for the audit of the consolidated financial statements and for the audit of the financial statements of RWE AG and its subsidiaries, along with the review of the interim statements. Other assurance services include fees for review of the internal controlling system, as well as expenses related to statutory or court-ordered requirements. In particular, the fees for tax services include compensation for consultation in the preparation of tax returns and other national and international tax-related matters as well as review of resolutions of the tax authorities. Other services primarily include compensation for M&A activity and IT project consulting.

RWE recognised the following fees as expenses for the services rendered by the auditors of the consolidated financial statements, PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC) and companies belonging to PwC's international network:

PwC network fees	2019		2018	
€ million	Total	Of which: Germany	Total	Of which: Germany
Audit services	17.5	12.9	17.7	11.0
Other assurance services	2.5	2.3	5.1	4.7
Tax services	0.9	0.3	0.7	0.6
Other services	5.8	5.6	3.8	1.8
	26.7	**21.1**	**27.3**	**18.1**

(33) Application of the exemption rule pursuant to Sec. 264, Para. 3 and Sec. 264b of the German Commercial Code

In fiscal 2019, the following German subsidiaries made partial use of the exemption clause pursuant to Sec. 264, Para. 3 and Sec. 264b of the German Commercial Code (HGB):

- BGE Beteiligungs-Gesellschaft für Energieunternehmen mbH, Essen,
- GBV Vierunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen,
- GBV Zweiunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen,
- Kernkraftwerk Lingen Gesellschaft mit beschränkter Haftung, Lingen (Ems),
- KMG Kernbrennstoff-Management Gesellschaft mit beschränkter Haftung, Essen,
- Rheinbraun Brennstoff GmbH, Cologne,
- Rheinische Baustoffwerke GmbH, Bergheim,
- RV Rheinbraun Handel und Dienstleistungen GmbH, Cologne,
- RWE Nuclear Beteiligungs-GmbH, Essen,
- RWE Renewables GmbH, Essen,
- RWE Technology International GmbH, Essen,
- RWE Trading Services GmbH, Essen.

(34) Events after the balance-sheet date

In the period from 1 January 2020 until the completion of the consolidated financial statements on 27 February 2020, the following significant events occurred:

Acquisition of the King's Lynn power station

On 12 February 2020, the acquisition of a 100 % stake in Centrica KL Limited (CKLL), Windsor, UK, agreed with the British energy company GB Gas Holdings Limited, a subsidiary of Centrica plc, Windsor, UK, at the end of December 2019, was completed.

The power station is a combined-cycle gas turbine (CCGT) power plant located in King's Lynn, Norfolk, UK. The plant has a capacity of 382 megawatts and will receive reliable, stable capacity payments until 2035 based on a 15-year contract in the British capacity market with a term starting in October 2020.

The preliminary purchase price amounts to £28 million (excluding repaid shareholder loans in the amount of £73 million). The final purchase price is subject to adjustments depending on the net debt and net working capital as of the completion date. The closing balance sheet as of this cut-off date is currently being finalised.

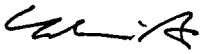
Since the closing balance sheet of CKLL had not been finalised when the RWE consolidated financial statements were prepared, the statements cannot present the information on the fair values of the acquired assets (including acquired receivables) and liabilities, or the information on the factors which may comprise goodwill, or any necessary information on acquisition at a price below market value.

(35) Declaration according to Sec. 161 of the German Stock Corporation Act

The declaration on the German Corporate Governance Code prescribed by Sec. 161 of the German Stock Corporation Act (AktG) has been submitted for RWE AG and has been made permanently and publicly available to shareholders on the Internet pages of RWE AG[1].

Essen, 27 February 2020

The Executive Board



Schmitz

Krebber

1 www.rwe.com/statement-of-compliance-2019

3.7 List of shareholdings (part of the notes)

List of shareholdings as per Sec. 285 No. 11 and No. 11a and Sec. 313 Para. 2 (in relation to Sec. 315 e I) of HGB as of 31 December 2019

I. Affiliated companies which are included in the consolidated financial statements	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Aktivabedrijf Wind Nederland B.V., Zwolle/Netherlands		100	25,645	23,154
Alte Haase Bergwerks-Verwaltungs-Gesellschaft mbH, Dortmund		100	-67,329	-3,664
Amrum-Offshore West GmbH, Düsseldorf		100	126	149,501
An Suidhe Wind Farm Limited, Swindon/United Kingdom		100	24,290	1,202
Anacacho Holdco, LLC, Wilmington/USA		100	56,488	0
Anacacho Wind Farm, LLC, Wilmington/USA		100	134,952	-5,062
Andromeda Wind s.r.l., Bolzano/Italy		51	9,579	2,876
Belectric Australia Pty. Limited, Melbourne/Australia		100	508	1,872
Belectric Canada Solar Inc. , Vancouver/Canada		100	-978	-964
Belectric Chile Energia Fotovoltaica LTDA, Santiago de Chile/Chile		100	-851	-5,747
Belectric Espana Fotovoltaica S.L., Barcelona/Spain		100	554	-199
Belectric France S.à.r.l., Vendres/France		100	-5,710	-5,129
BELECTRIC GmbH, Kolitzheim		100	12,467	-4,442
Belectric Inversiones Latinoamericana S.L., Barcelona/Spain		100	28	-18
Belectric Israel Ltd., Be'er Scheva/Israel		100	12,329	537
Belectric Italia s.r.l., Latina/Italy		100	3,299	409
Belectric Photovoltaic India Private Limited, Mumbai/India		100	727	-2,980
BELECTRIC PV Dach GmbH, Sömmerda		100	1,177	201
Belectric Solar & Battery GmbH, Kolitzheim		100	12,461	-3,064
Belectric Solar Ltd., Slough/United Kingdom		100	1,734	394
BELECTRIC Solar Power, S.L., Barcelona/Spain		100	50	0
BGE Beteiligungs-Gesellschaft für Energieunternehmen mbH, Essen	100	100	4,317,938	[1]
Bilbster Wind Farm Limited, Swindon/United Kingdom		100	3,846	352
Boiling Springs Wind Farm, LLC, Wilmington/USA		100	-60	-60
Bruenning's Breeze Holdco, LLC, Wilmington/USA		100	75,011	0
Bruenning's Breeze Wind Farm, LLC, Wilmington/USA		100	238,456	-5,287
Carl Scholl GmbH, Cologne		100	581	45
Carnedd Wen Wind Farm Limited, Swindon/United Kingdom		100	-4,340	-318
Cassadaga Wind LLC, Chicago/USA		100	66,403	-296
Champion WF Holdco, LLC, Wilmington/USA		100	114,010	-5,254
Champion Wind Farm, LLC, Wilmington/USA		100	114,010	-5,258
Cloghaneleskirt Energy Supply Limited, Kilkenny/Ireland		100	76	76
Colbeck's Corner Holdco, LLC, Wilmington/USA		100	73,239	0
Colbeck's Corner, LLC, Wilmington/USA		100	243,854	-7,489
Cranell Holdco, LLC, Wilmington/USA		100	29,363	0
Cranell Wind Farm, LLC, Wilmington/USA		100	29,298	-64
DOTTO MORCONE S.r.l., Rome/Italy		100	-1,161	-1,617
Dromadda Beg Wind Farm Limited, Kilkenny/Ireland		100	1,515	94
Edgware Energy Limited, Swindon/United Kingdom		100	-7	-7

1 Profit and loss-pooling agreement.
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6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

I. Affiliated companies which are included in the consolidated financial statements	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Electra Insurance Limited, Hamilton/Bermuda		100	29,823	687
Energies France S.A.S. – Group – (pre-consolidated)			33,206	1,878[2]
Centrale Hydroelectrique d'Oussiat S.A.S., Paris/France		100		
Energies Charentus S.A.S., Paris/France		100		
Energies France S.A.S., Paris/France		100		
Energies Maintenance S.A.S., Paris/France		100		
Energies Saint Remy S.A.S., Paris/France		100		
Energies VAR 1 S.A.S., Paris/France		100		
Energies VAR 3 S.A.S., Paris/France		100		
SAS Île de France S.A.S., Paris/France		100		
Energy Resources Holding B.V., 's-Hertogenbosch/Netherlands		100	96,292	-20,770
Energy Resources Ventures B.V., 's-Hertogenbosch/Netherlands		100	18,776	-5,191
E.ON Energie Odnawialne Sp. z o.o., Szczecin/Poland		100	61,917	29,764
Farma Wiatrowa Barzowice Sp. z o.o., Warsaw/Poland		100	16,727	7,464
Forest Creek Investco, Inc., Wilmington/USA		100	109	0
Forest Creek WF Holdco, LLC, Wilmington/USA		100	88,869	-3,728
Forest Creek Wind Farm, LLC, Wilmington/USA		100	88,869	-3,728
Fri-El Anzi Holding s.r.l., Bolzano/Italy		51	7,354	1,743
Fri-El Anzi s.r.l., Bolzano/Italy		100	7,629	1,776
Fri-El Guardionara s.r.l., Bolzano/Italy		51	10,334	2,344
GBV Vierunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen	100	100	17,923,746	5,268,288
GBV Zweiunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen	100	100	25	[1]
Generación Fotovoltaica De Alarcos, S.L.U., Barcelona/Spain		100	-20	-42
Georgia Biomass Holding LLC, Savannah/USA		100	62,922	18,351
Georgia Biomass LLC, Savannah/USA		100	46,072	14,266
GfV Gesellschaft für Vermögensverwaltung mbH, Dortmund	100	100	135,281	6,817
Glen Kyllachy Wind Farm Limited, Swindon/United Kingdom		100	-4,198	-4,078
Grandview Holdco, LLC, Wilmington/USA		100	103,297	2,260
Green Gecco GmbH & Co. KG, Essen		51	80,321	3,795
Hardin Class B Holdings LLC, Wilmington/USA		100	104,969	0
Hardin Wind Holdings LLC, Wilmington/USA		100	104,933	-3
Hardin Wind LLC, Chicago/USA		100	42,250	0
Harryburn Wind Farm Limited, Swindon/United Kingdom		100	-2,391	-464
Inadale Wind Farm, LLC, Wilmington/USA		100	121,398	-3,842
innogy Bergheim Windparkbetriebsgesellschaft mbH, Hanover		100	25	[1]
innogy Brise Windparkbetriebsgesellschaft mbH, Hanover		100	226	[1]
Innogy Energy Marketing LLC, Wilmington/USA		100	-42,733	-42,885
innogy Evendorf Windparkbetriebsgesellschaft mbH, Hanover		100	25	[1]
innogy Gas Storage NWE GmbH, Dortmund		100	317,572	[8]

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I. Affiliated companies which are included in the consolidated financial statements	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
innogy Gas Storage, s.r.o., Prague/Czech Republic		100	540,881	11,337
Innogy GyM 2 Limited, Swindon/United Kingdom		100	-13,399	-552
Innogy GyM 3 Limited, Swindon/United Kingdom		100	-13,401	-554
Innogy GyM 4 Limited, Swindon/United Kingdom		100	-40,229	-1,662
innogy Hörup Windparkbetriebsgesellschaft mbH, Hörup		100	26	[1]
innogy indeland Windpark Eschweiler GmbH & Co. KG, Eschweiler		51	53,581	3,159
innogy Italia s.p.a., Milan/Italy		100	16,766	1,507
innogy Kaskasi GmbH, Hamburg		100	99	[1]
innogy Lengerich Windparkbetriebsgesellschaft mbH, Gersten		100	25	[1]
innogy Limondale Sun Farm Holding Pty. Ltd., Melbourne/Australia		100	40,071	-582
innogy Lüneburger Heide Windparkbetriebsgesellschaft mbH, Walsrode		100	25	[1]
innogy Mistral Windparkbetriebsgesellschaft mbH, Hanover		100	578	[1]
innogy Offshore Wind Netherlands B.V., 's-Hertogenbosch/Netherlands		100	621	-396
Innogy Renewables Australia Pty Ltd., Melbourne/Australia		100	-16	-16
innogy Renewables Benelux B.V., 's-Hertogenbosch/Netherlands		100	-71,621	54,655
innogy Renewables Beteiligungs GmbH, Dortmund		100	7,350	[1]
innogy Renewables Canada Inc., Vancouver/Canada		100	1,485	-1,060
Innogy Renewables Ireland Limited, Kilkenny/Ireland		100	-3,237	-2,281
innogy Renewables Polska Sp. z o.o., Warsaw/Poland		100	245,878	38,464
Innogy Renewables UK Holdings Limited, Swindon/United Kingdom		100	1,842,861	328,572
Innogy Renewables UK Limited, Swindon/United Kingdom		100	2,373,332	712,184
Innogy Renewables US LLC, Chicago/USA		100	197,193	-11,792
innogy Seabreeze II GmbH & Co. KG, Essen		100	2,550	-47,591
innogy Slovensko s.r.o., Bratislava/Slovakia		100	9,452	10,061
innogy Sommerland Windparkbetriebsgesellschaft mbH, Sommerland		100	26	[1]
innogy Spain, S.A.U. – Group – (pre-consolidated)			153,356	20,608[2]
Danta de Energías, S.A., Soria/Spain		99		
Explotaciones Eólicas de Aldehuelas, S.L., Soria/Spain		95		
General de Mantenimiento 21, S.L.U., Barcelona/Spain		100		
Hidroeléctrica del Trasvase, S.A., Barcelona/Spain		60		
innogy Spain, S.A.U., Barcelona/Spain		100		
innogy Süderdeich Windparkbetriebsgesellschaft mbH, Süderdeich		100	106	[1]
innogy Titz Windparkbetriebsgesellschaft mbH, Essen		100	25	[1]
innogy Wind Onshore Deutschland GmbH, Hanover		100	77,373	[1]
innogy Windpark Bedburg GmbH & Co. KG, Bedburg		51	81,458	5,845
innogy Windpower Netherlands B.V., 's-Hertogenbosch/Netherlands		100	1,158	171,067
Inversiones Belectric Chile LTDA, Santiago de Chile/Chile		100	-39	-3

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I. Affiliated companies which are included in the consolidated financial statements	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
INVESTERG – Investimentos em Energias, SGPS, Lda. – Group – (pre-consolidated)			21,174	2,580[2]
INVESTERG – Investimentos em Energias, Sociedade Gestora de Participações Sociais, Lda., São João do Estoril/Portugal		100		
LUSITERG – Gestão e Produção Energética, Lda., São João do Estoril/Portugal		74		
IRUS Solar Development LLC, Dover/USA		100	-165	-165
IRUS Solar Holdings LLC, Dover/USA		100	22,385	-270
IRUS Solar NC Lessee LLC, Wilmington/USA		100	14,165	-33
IRUS Solar NC Pledgor LLC, Wilmington/USA		100	14,198	0
IRUS Solar Operations LLC, Wilmington/USA		100	13,361	-839
IRUS Wind Development LLC, Dover/USA		100	65,602	-1,210
IRUS Wind Holdings LLC, Dover/USA		100	198,798	0
IRUS Wind Operations LLC, Wilmington/USA		100	104,969	0
Jurchen Technology GmbH, Kitzingen		100	2,035	-397
Jurchen Technology India Private Limited, Mumbai/India		100	1,158	-62
Kernkraftwerk Gundremmingen GmbH, Gundremmingen		100	96,736	8,343
Kernkraftwerk Lingen Gesellschaft mit beschränkter Haftung, Lingen (Ems)		100	20,034	[1]
Kernkraftwerke Lippe-Ems Gesellschaft mit beschränkter Haftung, Lingen (Ems)		100	432,269	[1]
Kernkraftwerksbeteiligung Lippe-Ems beschränkt haftende OHG, Lingen/Ems		100	144,433	35,516
KMG Kernbrennstoff-Management Gesellschaft mit beschränkter Haftung, Essen		100	696,225	[1]
Knabs Ridge Wind Farm Limited, Swindon/United Kingdom		100	11,391	1,378
Limondale Sun Farm Pty. Ltd., Melbourne/Australia		100	-172	-171
Little Cheyne Court Wind Farm Limited, Swindon/United Kingdom		59	39,374	9,669
MI-FONDS G50, Frankfurt am Main	100	100	1,940,959	84,296
ML Wind LLP, Swindon/United Kingdom		51	75,549	9,501
Munnsville Investco, LLC, Wilmington/USA		100	14,309	0
Munnsville WF Holdco, LLC, Wilmington/USA		100	38,797	-1,378
Munnsville Wind Farm, LLC, Wilmington/USA		100	38,797	-1,378
Nordsee Windpark Beteiligungs GmbH, Essen		90	21,408	13,321
NRW Pellets GmbH, Erndtebrück		100	312	[1]
Padcon GmbH, Kitzingen		100	2,574	365
Panther Creek Holdco, LLC, Wilmington/USA		100	241,364	0
Panther Creek Wind Farm I&II, LLC, Wilmington/USA		100	259,732	-8,837
Panther Creek Wind Farm Three, LLC, Wilmington/USA		100	147,251	510
Peyton Creek Holdco, LLC, Wilmington/USA		100	16,498	0
Peyton Creek Wind Farm, LLC, Wilmington/USA		100	15,865	-635
Piecki Sp. z o.o., Warsaw/Poland		51	19,635	2,799

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	Direct	Total	€ '000	€ '000
Pioneer Trail Wind Farm, LLC, Wilmington/USA		100	167,466	-2,390
Primus Projekt GmbH & Co. KG, Hanover		100	-1,388	-734
Pyron Wind Farm, LLC, Wilmington/USA		100	203,648	-1,558
Radford's Run Holdco, LLC, Wilmington/USA		100	159,020	0
Radford's Run Wind Farm, LLC, Wilmington/USA		100	432,077	12,818
Raymond Holdco, LLC, Wilmington/USA		100	35,514	0
Raymond Wind Farm, LLC, Wilmington/USA		100	35,514	0
Rheinbraun Brennstoff GmbH, Cologne		100	82,619	[1]
Rheinische Baustoffwerke GmbH, Bergheim		100	9,236	[1]
Rheinkraftwerk Albbruck-Dogern Aktiengesellschaft, Waldshut-Tiengen		77	31,817	1,757
Rhenas Insurance Limited, Sliema/Malta	100	100	59,176	300
Rhyl Flats Wind Farm Limited, Swindon/United Kingdom		50	152,512	16,393
Roscoe WF Holdco, LLC, Wilmington/USA		100	172,832	-10,392
Roscoe Wind Farm, LLC, Wilmington/USA		100	172,832	-10,419
RV Rheinbraun Handel und Dienstleistungen GmbH, Cologne		100	36,694	[1]
RWE & Turcas Güney Elektrik Üretim A.S., Ankara/Turkey		70	190,537	-11,278
RWE Aktiengesellschaft, Essen			5,736,616	513,498
RWE Canada Ltd., Saint John/Canada		100	78,616	0
RWE Czech Gas Grid Holding B.V., Geertruidenberg/Netherlands	100	100	1,526	1,526
RWE Eemshaven Holding II B.V., Geertruidenberg/Netherlands		100	-48,396	9,487
RWE Energy Services, LLC, Wilmington/USA		100	3,108	1,683
RWE Generation NL B.V., Arnhem/Netherlands		100	-20,424	-187,664
RWE Generation NL Corner Participations B.V., Geertruidenberg/Netherlands		100	48,270	3,029
RWE Generation NL Participations B.V., Arnhem/Netherlands		100	-10,869	2,121
RWE Generation NL Personeel B.V., Arnhem/Netherlands		100	12,464	639
RWE Generation SE, Essen	100	100	264,673	[1]
RWE Generation UK Holdings Limited, Swindon/United Kingdom		100	3,024,201	-173,543
RWE Generation UK plc, Swindon/United Kingdom		100	1,779,495	-108,464
RWE Investco EPC Mgmt, LLC, Wilmington/USA		100	234,047	24
RWE Investco Mgmt, LLC, Wilmington/USA		100	1,586,717	69
RWE Investco Mgmt II, LLC, Wilmington/USA		100	579,256	-6,778
RWE Magicat Holdco, LLC, Wilmington/USA		100	91,555	0
RWE Markinch Limited, Swindon/United Kingdom		100	49,408	-5,402
RWE Nuclear Beteiligungs-GmbH, Essen		100	25	[1]
RWE Nuclear GmbH, Essen	100	100	100,000	[1]
RWE Personeel B.V., Arnhem/Netherlands		100	-17	23
RWE Power Aktiengesellschaft, Cologne and Essen	100	100	2,037,209	[1]
RWE Renewables Americas, LLC, Wilmington/USA		100	263,978	-156,882

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	Direct	Total	€ '000	€ '000
RWE Renewables Asset Management, LLC, Wilmington/USA		100	-25,066	32,107
RWE Renewables Canada Ltd., Saint John/Canada		100	8,299	1,877
RWE Renewables Development, LLC, Wilmington/USA		100	57,181	-11,440
RWE Renewables Energy Marketing, LLC, Wilmington/USA		100	-56,319	-31,364
RWE Renewables GmbH, Essen		100	25	[1]
RWE Renewables International GmbH, Essen		100	18,024	918
RWE Renewables International Participations B.V., Geertruidenberg/Netherlands		100	-111,318	-28,518
RWE Renewables Italia S.r.l., Rome/Italy		100	463,789	19,292
RWE Renewables O&M, LLC, Wilmington/USA		100	6,559	9,375
RWE Renewables QSE, LLC, Wilmington/USA		100	-9,898	478
RWE Renewables Services, LLC, Wilmington/USA		100	-46,542	-48,922
RWE Renewables Sweden AB, Malmö/Sweden		100	43,392	1,899
RWE Renewables UK Blyth Limited, Coventry/United Kingdom		100	-4,557	-708
RWE Renewables UK Developments Limited, Coventry/United Kingdom		100	56,274	17,103
RWE Renewables UK Humber Wind Limited, Coventry/United Kingdom		100	116,605	45,449
RWE Renewables UK Limited, Coventry/United Kingdom		100	64,839	16,403
RWE Renewables UK London Array Limited, Coventry/United Kingdom		100	101,571	24,297
RWE Renewables UK Offshore Wind Limited, Coventry/United Kingdom		100	51,971	6,797
RWE Renewables UK Operations Limited, Coventry/United Kingdom		100	33,842	6,770
RWE Renewables UK Robin Rigg East Limited, Coventry/United Kingdom		100	55,160	14,570
RWE Renewables UK Robin Rigg West Limited, Coventry/United Kingdom		100	60,955	10,495
RWE Renewables UK Wind Limited, Coventry/United Kingdom		100	16,051	15,058
RWE Renewables UK Zone Six Limited, Coventry/United Kingdom		100	0	0
RWE Slovak Holding B.V., Geertruidenberg/Netherlands	100	100	704,083	-317
RWE Solar Development, LLC, Wilmington/USA		100	-31,891	-9,735
RWE Solar PV, LLC, Wilmington/USA		100	36,139	-7,435
RWEST Middle East Holdings B.V., 's-Hertogenbosch/Netherlands		100	6,465	-79
RWE Supply & Trading Asia-Pacific PTE. LTD., Singapore/Singapore		100	41,607	10,726
RWE Supply & Trading CZ, a.s., Prague/Czech Republic		100	1,208,523	64,941
RWE Supply & Trading GmbH, Essen	100	100	446,778	[1]
RWE Supply & Trading (India) Private Limited, Mumbai/India		100	801	165
RWE Supply & Trading Participations Limited, London/United Kingdom		100	13,255	-2,876
RWE Supply and Trading (Shanghai) Co. Ltd, Shanghai/China		100	2,624	-267
RWE Technology International GmbH, Essen		100	12,463	[1]
RWE Technology Tasarim ve Mühendislik Danismanlik Ticaret Limited Sirketi, Istanbul/Turkey		100	192	113
RWE Technology UK Limited, Swindon/United Kingdom		100	2,948	1,006
RWE Trading Americas Inc., New York City/USA		100	9,558	47

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	Direct	Total	€ '000	€ '000
RWE Trading Services GmbH, Essen		100	5,735	[1]
RWE Wind Karehamn AB, Malmö/Sweden		100	33,150	-177
RWE Wind Services Denmark A/S, Rødby/Denmark		100	5,400	2,758
Sand Bluff WF Holdco, LLC, Wilmington/USA		100	6,823	-13,390
Sand Bluff Wind Farm, LLC, Wilmington/USA		100	6,823	-13,390
Settlers Trail Wind Farm, LLC, Wilmington/USA		100	193,435	-8,844
Sofia Offshore Wind Farm Holdings Limited, Swindon/United Kingdom		100	0	0
Sofia Offshore Wind Farm Limited, Swindon/United Kingdom		100	-394	-383
SOLARENGO Energia, Unipessoal, Lda., Cascais/Portugal		100	-81	-81
Solar Holding India GmbH, Kolitzheim		100	5,925	-50
Solar Holding Poland GmbH, Kolitzheim		100	16	-3
SRS EcoTherm GmbH, Salzbergen		90	13,758	1,706
Stella Holdco, LLC, Wilmington/USA		100	97,537	0
Stella Wind Farm, LLC, Wilmington/USA		100	235,593	-169
Taber Solar 1 Inc., Vancouver/Canada		100	9,521	-69
Taber Solar 2 Inc., Vancouver/Canada		100	10,210	-64
Tamworth Holdings, LLC, Charlotte/USA		100	7,743	77
Tanager Holdings, LLC, Charlotte/USA		100	7,129	-1
Tech Park Solar, LLC, Wilmington/USA		100	-11,511	767
The Hollies Wind Farm Limited, Swindon/United Kingdom		100	604	68
Transpower Limited, Dublin/Ireland		100	3,528	-1,048
Triton Knoll HoldCo Limited, Swindon/United Kingdom		59	97,484	0
Triton Knoll Offshore Wind Farm Limited, Swindon/United Kingdom		100	-25,460	1,852
Valencia Solar, LLC, Tucson/USA		100	-19,810	565
Východoslovenská distribucná, a.s., Košice/Slovakia		100	290,463	30,641
Východoslovenská energetika a.s., Košice/Slovakia		100	67,856	8,641
Východoslovenská energetika Holding a.s., Košice/Slovakia		49	608,317	77,877[4]
West of the Pecos Solar, LLC, Wilmington/USA		100	91,352	-3,049
West Raymond Holdco, LLC, Wilmington/USA		100	33,054	0
West Raymond Wind Farm, LLC, Wilmington/USA		100	33,054	0
Wind Farm Deliceto s.r.l., Bolzano/Italy		100	24,403	1,909
Windpark Eekerpolder B.V., 's-Hertogenbosch/Netherlands		100	-2	-2
Windpark Kattenberg B.V., 's-Hertogenbosch/Netherlands		100	520	153
Windpark Nordsee Ost GmbH, Heligoland		100	256	[1]
Windpark Oostpolderdijk B.V., 's-Hertogenbosch/Netherlands		100	0	0
Windpark Zuidwester B.V., 's-Hertogenbosch/Netherlands		100	9,336	-593
WKN Windkraft Nord GmbH & Co. Windpark Wönkhausen KG, Hanover		100	2,016	649

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II. Affiliated companies which are not included in the consolidated financial statements due to secondary importance for the assets, liabilities, financial position and profit or loss of the Group	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Adensis GmbH, Dresden		100	381	59
Agenzia Carboni S.R.L., Genoa/Italy		100	191	24
Alcamo II S.r.l., Milan/Italy		100	6	-13
Alvarado Solar S.L., Barcelona/Spain		100	-84	-138
Ashwood Solar I, LLC, Wilmington/USA		100	0	0
Aurum Solaris 4 GmbH & Co. KG, Kassel		100	1	-12
Avolta Storage Limited, Kilkenny/Ireland		100	-292	-288
Awel y Môr Offshore Wind Farm Limited, Swindon/United Kingdom		100		3
Baltic Trade and Invest Sp. z o.o., Slupsk/Poland		100	10,913	-4,926
Baron Winds LLC, Chicago/USA		100	0	0
Belectric International GmbH, Kolitzheim		100	99	10
BELECTRIC JV GmbH, Kolitzheim		100	14	-5
Belectric Mexico Fotovoltaica S.de R.L. de C.V., Bosques de las Lomas/ Mexico		100	-5	356
Belectric Polska Sp. z o.o., Warsaw/Poland		100	-146	-44
Belectric PV 5 (SARL), Vendres/France		100	-11	-10
Belectric PV 10 (SARL), Vendres/France		100	-8	-2
Belectric SP Solarprojekte 14 GmbH & Co. KG, Sömmerda		100		3
Belectric SP Solarprojekte 14 Verwaltungs-GmbH, Sömmerda		100		3
Belectric SP Solarprojekte 15 GmbH & Co. KG, Sömmerda		100		3
Belectric SP Solarprojekte 15 Verwaltungs-GmbH, Sömmerda		100		3
Belectric SP Solarprojekte 16 GmbH & Co. KG, Sömmerda		100		3
Belectric SP Solarprojekte 16 Verwaltungs-GmbH, Sömmerda		100		3
Belectric US LLC, Wilmington/USA		100		3
Biomasseheizkraftwerk Schameder GmbH, Essen		100	23	-1
Blackbeard Solar, LLC, Wilmington/USA		100	0	0
Blackbriar Battery, LLC, Wilmington/USA		100	0	0
Blackjack Creek Wind Farm, LLC, Wilmington/USA		100	0	0
Blueberry Hills LLC, Chicago/USA		100	0	0
BO Baltic Offshore GmbH, Hamburg		98	13	-7
Boiling Springs Holdco, LLC, Wilmington/USA		100	0	0
Bowler Flats Energy Hub LLC, Chicago/USA		100	0	0
Brahman Solar, LLC, Wilmington/USA		100	0	0
Broken Spoke Solar, LLC, Wilmington/USA		100	0	0
Buckeye Wind LLC, Chicago/USA		100	0	0
Burgar Hill Wind Farm Limited, Swindon/United Kingdom		100	0	0
Bursjöliden Vind AB, Malmö/Sweden		100	561	-2
Camellia Solar LLC, Wilmington/USA		100	0	0
Camellia Solar Member LLC, Wilmington/USA		100	0	0

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	Direct	Total	€ '000	€ '000
Cardinal Wind Farm, LLC, Wilmington/USA		100	0	0
Casey Fork Solar, LLC, Wilmington/USA		100	0	0
Cassadaga Class B Holdings LLC, Wilmington/USA		100		[3]
Cassadaga Wind Holdings LLC, Wilmington/USA		100		[3]
Catalina-Cypress Holding Limited, Swindon/United Kingdom		100	94	0
Cattleman Wind Farm, LLC, Wilmington/USA		100	0	0
Cattleman Wind Farm II, LLC, Wilmington/USA		100	0	0
Champaign Wind LLC, Chicago/USA		100	0	0
Ciriè Centrale PV s.a.s. (s.r.l.), Rome/Italy		100	-5	-22
Clavellinas Solar, S.L., Barcelona/Spain		100	-26	-39
Climagy Photovoltaikprojekt Verwaltungs-GmbH, Kolitzheim		100	29	-1
Climagy PV-Sonnenanlage GmbH & Co. KG, Kolitzheim		100	-26	-2
Climagy PV-Sonnenanlage Verwaltungs-GmbH, Kolitzheim		100	28	0
Climagy Sonneneinstrahlung GmbH & Co. KG, Kolitzheim		100	-20	-2
Climagy Sonneneinstrahlung Verwaltungs-GmbH, Kolitzheim		100	27	0
Climagy Sonnenkraft Verwaltungs-GmbH, Kolitzheim		100	27	-1
Climagy Sonnenstrom GmbH & Co. KG, Kolitzheim		100	-29	-2
Climagy Sonnenstrom Verwaltungs-GmbH, Kolitzheim		100	29	0
Climagy Stromertrag GmbH & Co. KG, Kolitzheim		100	-18	-2
Climagy Stromertrag Verwaltungs-GmbH, Kolitzheim		100	27	0
Clinton Wind, LLC, Wilmington/USA		100	0	0
Clocaenog Wind Farm Limited, Swindon/United Kingdom		100	0	0
Coralese Investments Sp. z o.o., Warsaw/Poland		100	90	-12
Cordova Wind Farm, LLC, Wilmington/USA		100	0	0
Curns Energy Limited, Kilkenny/Ireland		70	-501	-266
Decadia GmbH, Essen	50	50	893	-45
E & Z Industrie-Lösungen GmbH, Essen		100	16,874	-2,885
Eko-En 1 Sp. z o.o., Warsaw/Poland		100	98	-78
Eko-En 2 Sp. z o.o., Warsaw/Poland		100	1,236	-58
Eko-En 3 Sp. z o.o., Warsaw/Poland		100	134	-69
Eko-En 4 Sp. z o.o., Warsaw/Poland		100	535	-76
El Algarrobo (SpA), Santiago de Chile/Chile		100	1	0
El Algodon Alto Wind Farm, LLC, Wilmington/USA		100	0	0
El Chañar (SpA), Santiago de Chile/Chile		100	1	0
El Navajo Solar, S.L., Barcelona/Spain		100	-10	-23
El Pimiento (SpA), Santiago de Chile/Chile		100	1	0
El Solar (SpA), Santiago de Chile/Chile		100	1	-5
El Tamarugo (SpA), Santiago de Chile/Chile		100	1	0

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	Direct	Total	€ '000	€ '000
Enchant Solar 3 Inc., Vancouver/Canada		100	0	0
Enchant Solar 4 Inc., Vancouver/Canada		100	0	0
Energio Co., Ltd., Bangkok/Thailand		100	29	-1
Eólica de Sarnago, S.A., Soria/Spain		52	1,550	-29
EverPower Maine LLC, Chicago/USA		100	0	0
EverPower Ohio LLC, Chicago/USA		100	0	0
EverPower Solar LLC, Chicago/USA		100	0	0
EverPower Wind Development, LLC, Chicago/USA		100	0	0
Farma Wiatrowa Lubsko Sp. z o.o. , Zielona Góra/Poland		100		[3]
Fifth Standard Solar PV, LLC, Wilmington/USA		100	0	0
"Finelectra" Finanzgesellschaft für Elektrizitäts-Beteiligungen AG in Liquidation, Hausen/Switzerland		100	7,562	122
Five Estuaries Offshore Wind Farm Limited, Swindon/United Kingdom		100		[3]
Flatlands Wind Farm, LLC, Wilmington/USA		100	0	0
Florida Solar and Power Group LLC, Wilmington/USA		100	0	0
Frazier Solar, LLC, Wilmington/USA		100	0	0
Gazules I Fotovoltaica, S.L., Barcelona/Spain		100	-58	-137
Gazules II Solar, S.L., Barcelona/Spain		100	-58	-137
GBV Achtunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen		100	25	[1]
GBV Dreiunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen	100	100	25	[1]
GBV Einunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen	100	100	30	[1]
GBV Sechsunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen		100	25	[1]
GBV Siebenunddreißigste Gesellschaft für Beteiligungsverwaltung mbH, Essen		100	25	[1]
GBV Siebte Gesellschaft für Beteiligungsverwaltung mbH, Essen		100	100	[1]
Generación Fotovoltaica Castellano Manchega, S.L., Murcia/Spain		100		[3]
Goole Fields II Wind Farm Limited, Swindon/United Kingdom		100	0	0
Grandview Wind Farm III, LLC, Wilmington/USA		100	0	0
Grandview Wind Farm IV, LLC, Wilmington/USA		100	0	0
Grandview Wind Farm V, LLC, Wilmington/USA		100	0	0
Green Gecco Verwaltungs GmbH, Essen		51	36	1
Haube Wind Sp. z o.o., Slupsk/Poland		100	663	-255
Highland III LLC, Chicago/USA		100	0	0
Horse Thief Wind Project LLC, Chicago/USA		100	0	0
INDI Energie B.V., 's-Hertogenbosch/Netherlands		100	47	40
Infraestructuras de Aldehuelas, S.A., Barcelona/Spain		100	428	0
Infrastrukturgesellschaft Netz Lübz mit beschränkter Haftung, Hanover		100	18	-24
innogy Energy Marketing Australia PTY LTD, Melbourne/Australia		100		[3]

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	Direct	Total	€ '000	€ '000
Innogy Energy Services LLC, Wilmington/USA		100	0	0
innogy Hillston Sun Farm Holding Pty. Ltd., Melbourne/Australia		100	-169	-168
innogy indeland Windpark Eschweiler Verwaltungs GmbH, Eschweiler		100	47	6
Innogy Management Services LLC, Wilmington/USA		100		[3]
innogy Middle East & North Africa Ltd., Dubai/UAE		100	-7,654	-5,550
innogy Offshore Wind Netherlands Participations I B.V., 's-Hertogenbosch/Netherlands		100	0	0
innogy Offshore Wind Netherlands Participations II B.V., 's-Hertogenbosch/Netherlands		100	0	0
innogy Offshore Wind Netherlands Participations III B.V., 's-Hertogenbosch/Netherlands		100	0	0
innogy Offshore Wind Netherlands Participations IV B.V., 's-Hertogenbosch/Netherlands		100	0	0
innogy Seabreeze II Verwaltungs GmbH, Essen		100	65	6
innogy Solar Netherlands B.V., 's-Hertogenbosch/Netherlands		100	0	0
innogy Solar Polska Sp. z o.o., Warsaw/Poland		100	22	-6
innogy Solutions s.r.o., Bratislava/Slovakia		100		[3]
Innogy Stallingborough Limited, Swindon/United Kingdom		100	0	0
innogy Windpark Bedburg Verwaltungs GmbH, Bedburg		51	45	2
innogy Windpark Garzweiler GmbH & Co. KG, Essen		51	559	-23
Innogy Windpark Jüchen A44n Verwaltungs GmbH, Essen		100	31	-3
innogy Windpark Papenhagen GmbH & Co. KG, Hanover		100		[3]
innogy Windpark Papenhagen Verwaltungs GmbH, Hanover		100		[3]
Iron Horse Battery Storage, LLC, Wilmington/USA		100	10,849	679
IRUS Offshore Wind Holdings LLC, Dover/USA		100	0	0
iWATT s.r.o., Košice/Slovakia		100		[3]
Jerez Fotovoltaica S.L., Barcelona/Spain		100	2	-35
Kasson Manteca Solar, LLC, Wilmington/USA		100	0	0
Kieswerk Kaarst GmbH & Co. KG, Bergheim		51	2,200	656
Kieswerk Kaarst Verwaltungs GmbH, Bergheim		51	30	0
Kiln Pit Hill Wind Farm Limited, Swindon/United Kingdom		100	0	0
Kimberly Run LLC, Chicago/USA		100	0	0
Lake Fork Wind Farm, LLC, Wilmington/USA		100	0	0
Lampasas Wind LLC, Chicago/USA		100	0	0
Las Vaguadas I Fotovoltaica S.L., Barcelona/Spain		100	-17	-54
Las Vaguadas II Solar S.L., Barcelona/Spain		100	-42	-79
Lochelbank Wind Farm Limited, Swindon/United Kingdom		100	0	0
Mahanoy Mountain, LLC, Chicago/USA		100	0	0
Major Wind Farm, LLC, Wilmington/USA		100	0	0

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	Direct	Total	€ '000	€ '000
March Road Solar, LLC, Wilmington/USA		100	0	0
Maricopa East Solar PV, LLC, Wilmington/USA		100	0	0
Maricopa East Solar PV 2 , LLC, Wilmington/USA		100	0	0
Maricopa Land Holding, LLC, Wilmington/USA		100	0	0
Maricopa West Solar PV 2, LLC, Wilmington/USA		100	0	0
Maryland Sunlight 1 LLC, Wilmington/USA		100		[3]
Mason Dixon Wind LLC, Chicago/USA		100	0	0
Mud Springs Wind Project LLC, Chicago/USA		100	0	0
Nadácia VSE Holding , Košice/Slovakia		100		[3]
Northern Orchard Solar PV, LLC, Wilmington/USA		100	0	0
Northern Orchard Solar PV 2, LLC, Wilmington/USA		100	0	0
Northern Orchard Solar PV 3, LLC, Wilmington/USA		100	0	0
Novar Two Wind Farm Limited, Swindon/United Kingdom		100	0	0
Offshore-Windpark Delta Nordsee GmbH, Hamburg		100	246	0
Ohio Sunlight 1 LLC, Wilmington/USA		100		[3]
Oranje Wind Power B.V., 's-Hertogenbosch/Netherlands		100	0	0
Oranje Wind Power C.V., 's-Hertogenbosch/Netherlands		100	0	0
Owen Prairie Wind Farm, LLC, Wilmington/USA		100	0	0
Painter Energy Storage, LLC, Wilmington/USA		100	0	0
Panther Creek Solar, LLC, Wilmington/USA		100	0	0
Paradise Cut Battery, LLC, Wilmington/USA		100	0	0
Parc Ynni Cymunedol Alwen Cyfyngedig, Swindon/United Kingdom		100		[3]
Park Wiatrowy Dolice Sp. z o.o., Warsaw/Poland		100	-2,662	-227
Park Wiatrowy Gaworzyce Sp. z o.o., Warsaw/Poland		100	-143	124
Pawnee Spirit Wind Farm, LLC, Wilmington/USA		100	0	0
Pe Ell North LLC, Chicago/USA		100	0	0
Peg Project #1 Pty Ltd, Melbourne/Australia		100		[3]
Peg Project #2 Pty Ltd, Melbourne/Australia		100		[3]
Photovoltaikkraftwerk Götz Verwaltungs-GmbH, Kolitzheim		100	28	-1
Photovoltaikkraftwerk Groß Dölln Infrastruktur GmbH & Co. KG, Templin		100	-16	-2
Photovoltaikkraftwerk Groß Dölln Infrastruktur Verwaltungs-GmbH, Templin		100	29	0
Photovoltaikkraftwerk Reinsdorf GmbH & Co. KG, Kolitzheim		100	-26	1
Photovoltaikkraftwerk Reinsdorf Verwaltungs-GmbH, Kolitzheim		100	30	0
Photovoltaikkraftwerk Tramm GmbH & Co. KG, Kolitzheim		100	-29	-2
Photovoltaikkraftwerk Tramm Netzanschluss GmbH & Co. KG, Kolitzheim		100	-27	-2
Photovoltaikkraftwerk Tramm Netzanschluss Verwaltungs-GmbH, Kolitzheim		100	28	0
Photovoltaikkraftwerk Tramm PV-Finanzierung GmbH & Co. KG, Kolitzheim		100	-19	-2

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Photovoltaikkraftwerk Tramm PV-Finanzierung Verwaltungs-GmbH, Kolitzheim		100	27	0
Photovoltaikkraftwerk Tramm Verwaltungs-GmbH, Kolitzheim		100	30	0
PI E&P Holding Limited, George Town/Cayman Islands		100	45,505	-11
PI E&P US Holding LLC, New York City/USA		100	45,377	-78
Pinckard Solar LLC, Wilmington/USA		100	0	0
Pinckard Solar Member LLC, Wilmington/USA		100	0	0
Pipkin Ranch Wind Farm, LLC, Wilmington/USA		100	0	0
Proyecto Rio Putaendo S.p.A., Santiago de Chile/Chile		100		[3]
Proyecto Tabalongo Solar S.p.A., Santiago de Chile/Chile		100	1	0
Proyectos Solares Iberia I, S.L., Barcelona/Spain		100	6	-14
Proyectos Solares Iberia II, S.L., Barcelona/Spain		100	0	-20
Proyectos Solares Iberia III, S.L., Barcelona/Spain		100	19	-1
Proyectos Solares Iberia IV, S.L., Barcelona/Spain		100	19	-1
Proyectos Solares Iberia V, S.L., Barcelona/Spain		100	19	-1
Pryor Caves Wind Project LLC, Chicago/USA		100	0	0
PT Rheincoal Supply & Trading Indonesia, PT, Jakarta/Indonesia		100	277	4
Quintana Fotovoltaica SLU, Barcelona/Spain		100	-5	-5
Rampion Extension Development Limited, Swindon/United Kingdom		100		[3]
RD Hanau GmbH, Hanau		100	0	0
Rose Rock Wind Farm, LLC, Wilmington/USA		100	0	0
Rowantree Wind Farm Ltd., Swindon/United Kingdom		100	0	0
RWE & Turcas Dogalgaz Ithalat ve Ihracat A.S., Istanbul/Turkey		100	855	161
RWE Australia Pty. Ltd., Brisbane/Australia		100	50	-14
RWE Belgium BVBA, Brussels/Belgium		100	1,451	-8[2]
RWE Carbon Sourcing North America, LLC, Wilmington/USA		100	0	0
RWE Energy APAC Co. Ltd., Chengdu/China		100	1,977	-105
RWE Enerji Toptan Satis A.S., Istanbul/Turkey		100	4,294	-244
RWE Generation Hydro GmbH, Essen		100	25	[1]
RWE Ingen!us Limited, Swindon/United Kingdom		100	2,670	82
RWE NSW PTY LTD, Sydney/Australia		100	219	-45,462
RWE Pensionsfonds AG, Essen	100	100	3,694	-145
RWE Power Climate Protection GmbH, Essen		100	23	[1]
RWE Power Climate Protection Southeast Asia Co., Ltd., Bangkok/Thailand		100	3,032	-77
RWE Principal Investments USA, LLC, New York City/USA		100	169	-971
RWE Renewables Australia Holdings Pty Ltd., Brisbane/Australia		100	176	-27
RWE Renewables Chile SpA, Santiago/Chile		100	1,133	-570
RWE Renewables France SAS, Levallois-Perret/France		100	-1,532	-4,337

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RWE Renewables Japan G.K., Tokyo/Japan		100	3,643	– 384
RWE Renewables Mexico, S. de R.L. de C.V., Mexico City/Mexico		100	1,166	– 179
RWE Renewables Services GmbH, Essen		100	25	0
RWE Renewables Services Mexico, S. de R.L. de C.V., Mexico City/Mexico		100		[3]
RWE Slovensko s.r.o., Bratislava/Slovakia	100	100		[3]
RWEST PI Bras Limited, London/United Kingdom		100	1,360	– 23
RWEST PI FRE Holding LLC, New York City/USA		100	– 1	– 31
RWEST PI Limetree GmbH, Essen		100	25	0
RWE Supply & Trading CZ GmbH, Essen		100	100,990	6
RWE SUPPLY TRADING TURKEY ENERJI ANONIM SIRKETI, Istanbul/Turkey		100	1,054	176
RWE Technology International Energy Environment Engineering GmbH, Essen		100	25	[1]
RWE TECNOLOGIA LTDA, Rio de Janeiro/Brazil		100		[3]
RWE Trading Services Limited, Swindon/United Kingdom		100	1,349	32
RWE Wind Denmark AB, Malmö/Sweden		100	684	0
RWE Wind Norway AB, Malmö/Sweden		100	6,634	788
RWE Windparks Deutschland GmbH, Essen		100	24	– 1
RWE Wind Projects AB, Malmö/Sweden		100	4	0
RWE Wind Service Italia S.r.l. , Milan/Italy		100	– 399	– 444
RWE Wind Services GmbH, Neubukow		100	2,165	0
RWE Wind Services Norway AS, Oslo/Norway		100	1,515	– 8
RWE Wind Songkjølen AS, Oslo/Norway		100	3,533	– 18
Santa Severa Centrale PV s.a.s. (s.r.l.), Rome/Italy		100	– 151	0
SB Retrofit, LLC, Wilmington/USA		100	0	0
Scioto Solar LLC, Wilmington/USA		100		[3]
Snow Shoe Wind Farm, LLC, Wilmington/USA		100	0	0
Songkjølen Wind Farm DA, Oslo/Norway		100	4,943	– 25
Sparta North, LLC, Wilmington/USA		100	0	0
Sparta South, LLC, Wilmington/USA		100	0	0
SP Solarprojekte 1 Verwaltungs-GmbH, Kolitzheim		100	25	0
SP Solarprojekte 2 GmbH & Co. KG, Kolitzheim		100	– 3	– 3
SP Solarprojekte 2 Verwaltungs-GmbH, Kolitzheim		100	26	0
SP Solarprojekte 3 GmbH & Co. KG, Kolitzheim		100	– 4	– 2
SP Solarprojekte 3 Verwaltungs-GmbH, Kolitzheim		100	26	0
SP Solarprojekte 4 GmbH & Co. KG, Kolitzheim		100	– 4	– 2
SP Solarprojekte 4 Verwaltungs-GmbH, Kolitzheim		100	26	0
SP Solarprojekte 7 GmbH & Co. KG, Kolitzheim		100	– 2	– 3
SP Solarprojekte 7 Verwaltungs-GmbH, Kolitzheim		100	25	0

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SP Solarprojekte 8 GmbH & Co. KG, Sömmerda		100		[3]
SP Solarprojekte 8 Verwaltungs-GmbH, Sömmerda		100		[3]
SP Solarprojekte 9 GmbH & Co. KG, Sömmerda		100		[3]
SP Solarprojekte 9 Verwaltungs-GmbH, Sömmerda		100		[3]
SP Solarprojekte 10 GmbH & Co. KG, Sömmerda		100		[3]
SP Solarprojekte 10 Verwaltungs-GmbH, Sömmerda		100		[3]
SP Solarprojekte 11 GmbH & Co. KG, Kolitzheim		100	–28	–2
SP Solarprojekte 11 Verwaltungs-GmbH, Kolitzheim		100	29	0
SP Solarprojekte 12 GmbH & Co. KG , Kolitzheim		100	–29	–2
SP Solarprojekte 12 Verwaltungs-GmbH, Kolitzheim		100	29	0
SP Solarprojekte 13 GmbH & Co. KG, Kolitzheim		100	–29	–2
SP Solarprojekte 13 Verwaltungs-GmbH, Kolitzheim		100	29	0
Stillwater Energy Storage, LLC, Wilmington/USA		100	0	0
Stockton Solar I, LLC, Wilmington/USA		100	0	0
Stockton Solar II, LLC, Wilmington/USA		100	0	0
Storage Facility 1 Ltd., Slough/United Kingdom		100	–20	–20
Sun Data GmbH (i.L.), Kolitzheim		100	74	70
Sunpow 1 Sp. z o.o., Warsaw/Poland		100	0	0
Sunrise Energy Generation Pvt. Ltd., Mumbai/India		100	70	3
Sunrise Wind Holdings, LLC, Chicago/USA		100	0	0
SVFR 12 (SAS), Vendres/France		100	–112	–2
Terrapin Hills LLC, Chicago/USA		100	0	0
Three Rocks Solar, LLC, Wilmington/USA		100	0	0
Tierra Blanca Wind Farm, LLC, Wilmington/USA		100	0	0
Tipton Wind, LLC, Wilmington/USA		100	0	0
Valverde Wind Farm, LLC, Wilmington/USA		100	0	0
VDE Komplementär GmbH, Kassel		100	8	–9
VDE Projects GmbH, Kassel		100	37	–22
Venado Wind Farm, LLC, Wilmington/USA		100	0	0
Versuchsatomkraftwerk Kahl GmbH, Karlstein am Main		80	604	31
Vici Wind Farm, LLC, Wilmington/USA		100	0	0
Vici Wind Farm II, LLC, Wilmington/USA		100	0	0
Vici Wind Farm III, LLC, Wilmington/USA		100	0	0
Vortex Energy Deutschland GmbH, Kassel		100	4,661	986
Vortex Energy Windpark GmbH & Co. KG, Kassel		100	1	–29
VSE Call centrum, s.r.o., Košice/Slovakia		100	56	29
VSE Ekoenergia, s.r.o., Košice/Slovakia		100	65	–119
West of the Pecos Holdco, LLC, Wilmington/USA		100	0	0

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

II. Affiliated companies which are not included in the consolidated financial statements due to secondary importance for the assets, liabilities, financial position and profit or loss of the Group	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Wildcat Wind Farm II, LLC, Wilmington/USA		100	0	0
Wildcat Wind Farm III, LLC, Wilmington/USA		100	0	0
Willowbrook Solar I, LLC, Wilmington/USA		100	0	0
Windpark Hölzerberg GmbH & Co. KG, Kassel		100	1	-12
Windpark Winterlingen-Alb GmbH & Co. KG, Kassel		100	1	-12
Wiregrass, LLC, Wilmington/USA		100	0	0
WIT Ranch Wind Farm, LLC, Wilmington/USA		100	0	0
WR Graceland Solar, LLC, Wilmington/USA		100	0	0
Zielone Główczyce Sp. z o.o., Główczyce/Poland		100	472	-519

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

III. Joint operations	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Greater Gabbard Offshore Winds Limited, Reading/United Kingdom		50	1,122,469	101,728
N.V. Elektriciteits-Produktiemaatschappij Zuid-Nederland EPZ, Borssele/ Netherlands		30	81,302	5,609

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

IV. Associated companies of joint operations	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
B.V. NEA, Arnhem/Netherlands		28	71,714	216

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

V. Joint ventures accounted for using the equity method	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
AS 3 Beteiligungs GmbH, Essen		51[5]	36,819	5,740
AWE-Arkona-Windpark Entwicklungs-GmbH, Hamburg		50	1,074,954	26,952
C-Power N.V., Oostende/Belgium		27	247,933	22,227
Elevate Wind Holdco, LLC, Wilmington/USA		50	245,884	16,100
Galloper Wind Farm Holding Company Limited, Swindon/United Kingdom		25	-101,690	33,135
Grandview Wind Farm, LLC, Wilmington/USA		50	302,098	-12,364
Gwynt y Môr Offshore Wind Farm Limited, Swindon/United Kingdom		50	-2,103	-992
Innogy Venture Capital GmbH, Dortmund		75[5]	714	119
Rampion Renewables Limited, Coventry/United Kingdom		60[5]		[3]
Société Electrique de l'Our S.A., Luxembourg/Luxembourg		40	11,617	5,686[2]
TCP Petcoke Corporation, Dover/USA		50	35,437	25,425[2]
URANIT GmbH, Jülich		50	72,127	98,094

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

VI. Associates accounted for using the equity method	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Amprion GmbH, Dortmund	25	25	1,823,000	203,400
ATBERG – Eólicas do Alto Tâmega e Barroso, Lda., Ribeira de Pena/Portugal		40	4,862	532
Belectric Gulf Limited, Abu Dhabi/UAE		49	4,758	4,173
Bray Offshore Wind Limited, Kilkenny/Ireland		50	-83	-12
DOTI Deutsche Offshore-Testfeld- und Infrastruktur-GmbH & Co. KG, Oldenburg		26	84,844	-46,276
GNS Gesellschaft für Nuklear-Service mbH, Essen		28	36,339	15,690[2]
Grosskraftwerk Mannheim Aktiengesellschaft, Mannheim		40	127,435	6,647
HIDROERG – Projectos Energéticos, Lda., Lisbon/Portugal		32	12,588	1,964
Innogy Renewables Technology Fund I GmbH & Co. KG (i.L.), Dortmund		78[5]	16,637	-1,833
Kärntner Energieholding Beteiligungs GmbH, Klagenfurt/Austria		49	912,286	96,638[2]
KELAG-Kärntner Elektrizitäts-AG, Klagenfurt/Austria		13[6]	893,675	93,316
Kish Offshore Wind Limited, Kilkenny/Ireland		50	-103	-12
Magicat Holdco, LLC, Wilmington/USA		20	278,448	1,552
Mingas-Power GmbH, Essen		40	5,114	4,445
Nysäter Wind AB, Malmö/Sweden		20	20,419	-5,869
PEARL PETROLEUM COMPANY LIMITED, Road Town/British Virgin Islands		10[7]	1,951,247	242,061
Rødsand 2 Offshore Wind Farm AB, Malmö/Sweden		20	143,174	14,320

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

VI. Associates accounted for using the equity method	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Schluchseewerk Aktiengesellschaft, Laufenburg Baden		50	64,957	2,809
Vliegasunie B.V., De Bilt/Netherlands		60[5]	10,679	3,070

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

VII. Companies which are not accounted for using the equity method due to secondary importance for the assets, liabilities, financial position and profit or loss of the Group	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Abwasser-Gesellschaft Knapsack, Gesellschaft mit beschränkter Haftung, Hürth		33	415	185
Alfred Thiel-Gedächtnis-Unterstützungskasse GmbH, Essen		50	5,113	0
Ascent Energy LLC, Wilmington/USA		50	83,664	-3,349
CARBON Climate Protection GmbH, Langenlois/Austria		50	3,052	1,422
CARBON Egypt Ltd. (Under Liquidation), Cairo/Egypt		49	-2,274	-245
DBO Energia S.A., Rio de Janeiro /Brazil		90	604	-988
Deutsche Gesellschaft für Wiederaufarbeitung von Kernbrennstoffen AG & Co. oHG, Essen		31	2,159	1,647
DOTI Management GmbH, Oldenburg		26	119	0
EMDO S.A.S., Paris/France		30	-10,890	-5,906
Energotel, a.s., Bratislava/Slovakia		20	6,922	1,410
Eoliennes en mer de Dunkerque (EMD) S.A.S., Paris/France		30		[3]
Fassi Coal Pty. Ltd., Rutherford/Australia		47	-9,954	-2,975
First River Energy LLC, Denver/USA		40	-1,410	-7,597
Focal Energy Photovoltaic Holdings Limited, Nicosia/Cyprus		50	1,476	-4
Gemeinschaftswerk Hattingen Gesellschaft mit beschränkter Haftung, Essen		52	2,045	-685
GfS Gesellschaft für Simulatorschulung mbH, Essen		33	62	3
Kraftwerk Buer GbR, Gelsenkirchen		50	5,113	0
KSG Kraftwerks-Simulator-Gesellschaft mbH, Essen		33	615	26
KÜCKHOVENER Deponiebetrieb GmbH & Co. Kommanditgesellschaft, Bergheim		50	32	-1
KÜCKHOVENER Deponiebetrieb Verwaltungs-GmbH, Bergheim		50	39	0
LDO Coal Pty. Ltd., Rutherford/Australia		47	-101	77
Limetree Bay Preferred Holdings LLC, Boston/USA		28		[3]
London Array Limited, Tunbridge Wells/United Kingdom		30	0	0
Moravske Hidroelektrane d.o.o., Belgrade/Serbia		51	3,538	-18
Netzanbindung Tewel OHG, Cuxhaven		25	627	-41
PV Projects GmbH & Co. KG (i.L.), Kolitzheim		50	236	-33

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

VII. Companies which are not accounted for using the equity method due to secondary importance for the assets, liabilities, financial position and profit or loss of the Group	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
PV Projects Komplementär GmbH (i.L.), Kolitzheim		50	26	1
RWE Dhabi Union Energy LLC, Abu Dhabi/UAE		24	36	0
Scarweather Sands Limited, Coventry/United Kingdom		50	0	0
SPX, s.r.o., Zilina/Slovakia		33	163	9
TetraSpar Demonstrator ApS, Copenhagen/Denmark		33	-1,037	-1,985
Toledo PV A.E.I.E., Madrid/Spain		33	1,607	681
TPG Wind Limited, Coventry/United Kingdom		50	516	904
TRANSELEKTRO, s.r.o., Košice/Slovakia		26	-36	-69
Umspannwerk Putlitz GmbH & Co. KG, Oldenburg		25	0	-137
WALDEN GREEN ENERGY LLC, New York City/USA		74	13,697	18,618
Walden Renewables Development LLC, New York City/USA		76		[3]
Windesco Inc, Boston/USA		22	-1,029	-1,120
Windpark Fresenhede GmbH & Co. KG, Kassel		50	1	-38
Windpark Herßum-Vinnen Projekt GmbH & Co. KG, Kassel		50	1	-7
Windpark Rotenburg GmbH & Co. KG, Kassel		50	1	-119
Windpark Schapen GmbH & Co. KG, Kassel		50	1	-9
WINDTEST Grevenbroich GmbH, Grevenbroich		38	2,276	118
Yorkshire Windpower Limited, Coventry/United Kingdom		50	26,121	4,176

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

VIII. Other investments	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
APEP Dachfonds GmbH & Co. KG, Munich	36	36	159,315	67,583
Chrysalix Energy II U.S. Limited Partnership, Vancouver/Canada		6	9,155	-51
Chrysalix Energy III U.S. Limited Partnership, Vancouver/Canada		11	115,776	-6,846
Dry Bulk Partners 2013 LP, Grand Cayman/Cayman Islands		23	6,578	85
Energías Renovables de Ávila, S.A., Madrid/Spain		17	595	0
E.ON SE, Essen		15	9,431,700	1,053,000
Focal Energy Solar Three Ltd., Nicosia/Cyprus		8	5,430	-4
Glenrothes Paper Limited, Glenrothes/United Kingdom		0	715	0
Globus Steel & Power Pvt. Limited, New Delhi/India		18	-1,337	-937
High-Tech Gründerfonds II GmbH & Co. KG, Bonn		1	111,181	0
HOCHTEMPERATUR-KERNKRAFTWERK Gesellschaft mit beschränkter Haftung (HKG) Gemeinsames Europäisches Unternehmen, Hamm		31	0	0

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

VIII. Other investments	Shareholding in %		Equity	Net income/loss
	Direct	Total	€ '000	€ '000
Nordsee One GmbH, Oststeinbek		15	121,250	49,274
Nordsee Three GmbH, Oststeinbek		15	226	-7
Nordsee Two GmbH, Oststeinbek		15	73	-7
OPPENHEIM PRIVATE EQUITY Institutionelle Anleger GmbH & Co. KG, Cologne	29	29	385	-20
Parque Eólico Cassiopea, S.L., Oviedo/Spain		10	50	0
Parque Eólico Escorpio, S.A., Oviedo/Spain		10	522	4
Parque Eólico Leo, S.L., Oviedo/Spain		10	126	0
PEAG Holding GmbH, Dortmund	12	12	18,858	2,425
People2People, s.r.o., Bratislava /Slovakia		9	177	-43
Promocion y Gestion Cáncer, S.L., Oviedo/Spain		10	63	1
REV LNG LLC, Ulysses/USA		5	3,163	325
SET Fund II C.V., Amsterdam/Netherlands		13	49,078	10,271
Stem Inc., Milbrae/USA		6	2,211	-45,187
Sustainable Energy Technology Fund C.V., Amsterdam/Netherlands		50	15,030	-1,949
Technologiezentrum Jülich GmbH, Jülich		5	1,791	198
Transport- und Frischbeton-Gesellschaft mit beschränkter Haftung & Co. Kommanditgesellschaft Aachen, Aachen		17	390	164
Trinkaus Secondary GmbH & Co. KGaA, Düsseldorf	43	43	1,058	-144
UMBO GmbH, Hamburg		10	1,487	1,387
Umspannwerk Lübz GbR, Lübz		18	19	-39
Versorgungskasse Energie (VVaG) i.L., Hanover		0	51,729	0

1 Profit and loss-pooling agreement.
2 Figures from the Group's consolidated financial statements.
3 Newly founded, financial statements not yet available.
4 Control by virtue of company contract.
5 No control by virtue of company contract.
6 Significant influence via indirect investments.
7 Significant influence by virtue of company contract.
8 Profit and loss-pooling agreement with non-Group companies.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Additions to affiliated companies included in the consolidated financial statements			
Amrum-Offshore West GmbH, Düsseldorf	100		100
Anacacho Holdco, LLC, Wilmington/USA	100		100
Anacacho Wind Farm, LLC, Wilmington/USA	100		100
Belectric Canada Solar Inc. , Vancouver/Canada	100		100
Boiling Springs Wind Farm, LLC, Wilmington/USA	100		100
Bruenning's Breeze Holdco, LLC, Wilmington/USA	100		100
Bruenning's Breeze Wind Farm, LLC, Wilmington/USA	100		100
Champion WF Holdco, LLC, Wilmington/USA	100		100
Champion Wind Farm, LLC, Wilmington/USA	100		100
Colbeck's Corner Holdco, LLC, Wilmington/USA	100		100
Colbeck's Corner, LLC, Wilmington/USA	100		100
Cranell Holdco, LLC, Wilmington/USA	100		100
Cranell Wind Farm, LLC, Wilmington/USA	100		100
DOTTO MORCONE S.r.l., Rome/Italy	100		100
E.ON Energie Odnawialne Sp. z o.o., Szczecin/Poland	100		100
Energiewerken B.V., Almere/Netherlands	100		100
Farma Wiatrowa Barzowice Sp. z o.o., Warsaw/Poland	100		100
Forest Creek Investco, Inc., Wilmington/USA	100		100
Forest Creek WF Holdco, LLC, Wilmington/USA	100		100
Forest Creek Wind Farm, LLC, Wilmington/USA	100		100
Get Energy Solutions Szolgáltató Kft., Budapest/Hungary	91		91
Glen Kyllachy Wind Farm Limited, Swindon/United Kingdom	100		100
Grandview Holdco, LLC, Wilmington/USA	100		100
Hardin Class B Holdings LLC, Wilmington/USA	100		100
Hardin Wind Holdings LLC, Wilmington/USA	100		100
Inadale Wind Farm, LLC, Wilmington/USA	100		100
IRUS Solar NC Lessee LLC, Wilmington/USA	100		100
IRUS Solar NC Pledgor LLC, Wilmington/USA	100		100
IRUS Solar Operations LLC, Wilmington/USA	100		100
IRUS Wind Operations LLC, Wilmington/USA	100		100
Klima és Hutéstechnológia Tervezo, Szerelo és Kereskedelmi Kft., Budapest/Hungary	100		100
Munnsville Investco, LLC, Wilmington/USA	100		100
Munnsville WF Holdco, LLC, Wilmington/USA	100		100
Munnsville Wind Farm, LLC, Wilmington/USA	100		100
Panther Creek Holdco, LLC, Wilmington/USA	100		100
Panther Creek Wind Farm I&II, LLC, Wilmington/USA	100		100
Panther Creek Wind Farm Three, LLC, Wilmington/USA	100		100
Peyton Creek Holdco, LLC, Wilmington/USA	100		100
Peyton Creek Wind Farm, LLC, Wilmington/USA	100		100
Pioneer Trail Wind Farm, LLC, Wilmington/USA	100		100

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Additions to affiliated companies included in the consolidated financial statements			
Pyron Wind Farm, LLC, Wilmington/USA	100		100
Radford's Run Holdco, LLC, Wilmington/USA	100		100
Radford's Run Wind Farm, LLC, Wilmington/USA	100		100
Raymond Holdco, LLC, Wilmington/USA	100		100
Raymond Wind Farm, LLC, Wilmington/USA	100		100
Roscoe WF Holdco, LLC, Wilmington/USA	100		100
Roscoe Wind Farm, LLC, Wilmington/USA	100		100
RWE Canada Ltd., Saint John/Canada	100		100
RWE Czech Gas Grid Holding B.V., Geertruidenberg/Netherlands	100		100
RWE Energy Services, LLC, Wilmington/USA	100		100
RWE Investco EPC Mgmt, LLC, Wilmington/USA	100		100
RWE Investco Mgmt, LLC, Wilmington/USA	100		100
RWE Investco Mgmt II, LLC, Wilmington/USA	100		100
RWE Magicat Holdco, LLC, Wilmington/USA	100		100
RWE Renewables Americas, LLC, Wilmington/USA	100		100
RWE Renewables Asset Management, LLC, Wilmington/USA	100		100
RWE Renewables Canada Ltd., Saint John/Canada	100		100
RWE Renewables Development, LLC, Wilmington/USA	100		100
RWE Renewables Energy Marketing, LLC, Wilmington/USA	100		100
RWE Renewables International GmbH, Essen	100		100
RWE Renewables International Participations B.V., Geertruidenberg/Netherlands	100		100
RWE Renewables Italia S.r.l., Rome/Italy	100		100
RWE Renewables O&M, LLC, Wilmington/USA	100		100
RWE Renewables QSE, LLC, Wilmington/USA	100		100
RWE Renewables Services, LLC, Wilmington/USA	100		100
RWE Renewables Sweden AB, Malmö/Sweden	100		100
RWE Renewables UK Blyth Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Developments Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Humber Wind Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Limited, Coventry/United Kingdom	100		100
RWE Renewables UK London Array Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Offshore Wind Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Operations Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Robin Rigg East Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Robin Rigg West Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Wind Limited, Coventry/United Kingdom	100		100
RWE Renewables UK Zone Six Limited, Coventry/United Kingdom	100		100
RWE Slovak Holding B.V., Geertruidenberg/Netherlands	100		100
RWE Solar Development, LLC, Wilmington/USA	100		100
RWE Solar PV, LLC, Wilmington/USA	100		100
RWE Wind Karehamn AB, Malmö/Sweden	100		100

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Additions to affiliated companies included in the consolidated financial statements			
RWE Wind Services Denmark A/S, Rødby/Denmark	100		100
Sand Bluff WF Holdco, LLC, Wilmington/USA	100		100
Sand Bluff Wind Farm, LLC, Wilmington/USA	100		100
Settlers Trail Wind Farm, LLC, Wilmington/USA	100		100
Stella Holdco, LLC, Wilmington/USA	100		100
Stella Wind Farm, LLC, Wilmington/USA	100		100
Tamworth Holdings, LLC, Charlotte/USA	100		100
Tanager Holdings, LLC, Charlotte/USA	100		100
Tech Park Solar, LLC, Wilmington/USA	100		100
Valencia Solar, LLC, Tucson/USA	100		100
West of the Pecos Solar, LLC, Wilmington/USA	100		100
West Raymond Holdco, LLC, Wilmington/USA	100		100
West Raymond Wind Farm, LLC, Wilmington/USA	100		100
Additions to joint ventures accounted for using the equity method			
AWE-Arkona-Windpark Entwicklungs-GmbH, Hamburg	50		50
Elevate Wind Holdco, LLC, Wilmington/USA	50		50
Grandview Wind Farm, LLC, Wilmington/USA	50		50
Rampion Renewables Limited, Coventry/United Kingdom	60[3]		60
Additions to associates accounted for using the equity method			
DOTI Deutsche Offshore-Testfeld- und Infrastruktur-GmbH & Co. KG, Oldenburg	26		26
Magicat Holdco, LLC, Wilmington/USA	20		20
Nysäter Wind AB, Malmö/Sweden	20		20
Rødsand 2 Offshore Wind Farm AB, Malmö/Sweden	20		20
Disposal of affiliated companies included in the consolidated financial statements			
2. CR-Immobilien-Vermietungsgesellschaft mbH & Co. KG Cottbus, Düsseldorf		[1]	
2. CR Immobilien-Vermietungsgesellschaft mbH & Co. Objekt MEAG Halle KG, Düsseldorf		[1]	
Artelis S.A., Luxembourg/Luxembourg		90	–90
A/V/E GmbH, Halle (Saale)		76	–76
Bayerische Bergbahnen-Beteiligungs-Gesellschaft mbH, Gundremmingen		100	–100
Bayerische Elektrizitätswerke Gesellschaft mit beschränkter Haftung, Augsburg		100	–100
Bayerische-Schwäbische Wasserkraftwerke Beteiligungsgesellschaft mbH, Gundremmingen		62	–62
Bristol Channel Zone Limited, Bristol/United Kingdom		100	–100
Broadband TelCom Power, Inc., Santa Ana/USA		100	–100
BTB-Blockheizkraftwerks, Träger- und Betreibergesellschaft mbH Berlin, Berlin		100	–100
Budapesti Elektromos Muvek Nyrt., Budapest/Hungary		55	–55

1 Structured entity pursuant to IFRS 10 and 12.
2 Control by virtue of company contract.
3 No control by virtue of company contract.
4 Significant influence via indirect investments.
5 Addition 2019.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Disposal of affiliated companies included in the consolidated financial statements			
Cegecom S.A., Luxembourg/Luxembourg		100	– 100
Certified B.V., Amsterdam/Netherlands		100	– 100
Channel Energy Limited, Bristol/United Kingdom		100	– 100
EGD-Energiewacht Facilities B.V., Assen/Netherlands		100	– 100
Elektrizitätswerk Landsberg GmbH, Landsberg am Lech		100	– 100
ELE Verteilnetz GmbH, Gelsenkirchen		100	– 100
ELMU DSO Holding Korlátolt Felelosségu Társaság, Budapest/Hungary		100	– 100
ELMU-ÉMÁSZ Energiakereskedo Kft., Budapest/Hungary		100	– 100
ELMU-ÉMÁSZ Energiaszolgáltató Zrt., Budapest/Hungary		100	– 100
ELMU-ÉMÁSZ Energiatároló Kft., Budapest/Hungary		100	– 100
ELMU-ÉMÁSZ Solutions Kft., Budapest/Hungary		100	– 100
ELMU-ÉMÁSZ Telco Kft., Budapest/Hungary		100	– 100
ELMU-ÉMÁSZ Ügyfélszolgálati Kft., Budapest/Hungary		100	– 100
ELMU Halozati Eloszto Kft., Budapest/Hungary		100	– 100
ÉMÁSZ Halozati Kft., Miskolc/Hungary		100	– 100
Emscher Lippe Energie GmbH, Gelsenkirchen		50	– 50
Energiedirect B.V., Waalre/Netherlands		100	– 100
Energienetze Berlin GmbH, Berlin		100	– 100
Energiewacht Facilities B.V., Zwolle/Netherlands		100	– 100
Energiewacht Groep B.V., Meppel/Netherlands		100	– 100
Energiewacht N.V., Veendam/Netherlands		100	– 100
Energiewacht West Nederland B.V., Assen/Netherlands		100	– 100
Energiewerken B.V., Almere/Netherlands			[5]
energis GmbH, Saarbrücken		72	– 72
energis-Netzgesellschaft mbH, Saarbrücken		100	– 100
enviaM Beteiligungsgesellschaft Chemnitz GmbH, Chemnitz		100	– 100
enviaM Beteiligungsgesellschaft mbH, Essen		100	– 100
envia Mitteldeutsche Energie AG, Chemnitz		59	– 59
envia SERVICE GmbH, Cottbus		100	– 100
envia TEL GmbH, Markkleeberg		100	– 100
envia THERM GmbH, Bitterfeld-Wolfen		100	– 100
eprimo GmbH, Neu-Isenburg		100	– 100
Essent Belgium N.V., Antwerp/Belgium		100	– 100
Essent EnergieBewust Holding B.V., 's-Hertogenbosch/Netherlands		100	– 100
Essent Energie Verkoop Nederland B.V., 's-Hertogenbosch/Netherlands		100	– 100
Essent Energy Group B.V., Arnhem/Netherlands		100	– 100
Essent IT B.V., Arnhem/Netherlands		100	– 100
Essent Nederland B.V., Arnhem/Netherlands		100	– 100
Essent N.V., 's-Hertogenbosch/Netherlands		100	– 100

1 Structured entity pursuant to IFRS 10 and 12.
2 Control by virtue of company contract.
3 No control by virtue of company contract.
4 Significant influence via indirect investments.
5 Addition 2019.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Disposal of affiliated companies included in the consolidated financial statements			
Essent Retail Energie B.V., 's-Hertogenbosch/Netherlands		100	–100
Essent Rights B.V., 's-Hertogenbosch/Netherlands		100	–100
Essent Sales Portfolio Management B.V., 's-Hertogenbosch/Netherlands		100	–100
Eszak-magyarorszagi Aramszolgáltató Nyrt., Miskolc/Hungary		54	–54
EuroSkyPark GmbH, Saarbrücken		51	–51
EVIP GmbH, Bitterfeld-Wolfen		100	–100
EWIS BV, Ede/Netherlands		100	–100
EWV Energie- und Wasser-Versorgung GmbH, Stolberg		54	–54
FAMIS Gesellschaft für Facility Management und Industrieservice mbH, Saarbrücken		100	–100
GasNet, s.r.o., Ústí nad Labem/Czech Republic		100	–100
GasWacht Friesland Facilities B.V., Leeuwarden/Netherlands		100	–100
Geas Energiewacht B.V., Enschede/Netherlands		100	–100
Gemeinschaftskraftwerk Bergkamen A beschränkt haftende OHG, Bergkamen		51	–51
Get Energy Solutions Szolgáltató Kft., Budapest/Hungary			[5]
GridServices, s.r.o., Brno/Czech Republic		100	–100
GWG Grevenbroich GmbH, Grevenbroich		60	–60
Hof Promotion B.V., Eindhoven/Netherlands		100	–100
Improvers B.V., 's-Hertogenbosch/Netherlands		100	–100
Improvers Community B.V., Amsterdam/Netherlands		100	–100
innogy Aqua GmbH, Mülheim an der Ruhr		100	–100
innogy Benelux Holding B.V., 's-Hertogenbosch/Netherlands		100	–100
innogy Beteiligungsholding GmbH, Essen		100	–100
innogy Business Services Benelux B.V., Arnhem/Netherlands		100	–100
innogy Business Services Polska Sp. z o.o., Cracow/Poland		100	–100
Innogy Business Services UK Limited, Swindon/United Kingdom		100	–100
innogy Ceská republika a.s., Prague/Czech Republic		100	–100
innogy eMobility Solutions GmbH, Dortmund		100	–100
innogy e-mobility US LLC, Delaware/USA		100	–100
innogy Energie, s.r.o., Prague/Czech Republic		100	–100
innogy Energo, s.r.o., Prague/Czech Republic		100	–100
innogy Finance B.V., 's-Hertogenbosch/Netherlands		100	–100
innogy Gastronomie GmbH, Essen		100	–100
innogy Grid Holding, a.s., Prague/Czech Republic		50	–50
innogy Hungária Tanácsadó Kft., Budapest/Hungary		100	–100
innogy Innovation Berlin GmbH, Berlin		100	–100
INNOGY INNOVATION CENTER LTD, Tel Aviv/Israel		100	–100
innogy Innovation GmbH, Essen		100	–100
innogy Innovation UK Ltd., London/United Kingdom		100	–100
innogy International Participations N.V., 's-Hertogenbosch/Netherlands		100	–100

1 Structured entity pursuant to IFRS 10 and 12.
2 Control by virtue of company contract.
3 No control by virtue of company contract.
4 Significant influence via indirect investments.
5 Addition 2019.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Disposal of affiliated companies included in the consolidated financial statements			
innogy IT Magyarország Kft. „v.a.", Budapest/Hungary		100	– 100
innogy Metering GmbH, Mülheim an der Ruhr		100	– 100
innogy Netze Deutschland GmbH, Essen		100	– 100
innogy New Ventures LLC, Palo Alto/USA		100	– 100
innogy Polska IT Support Sp. z o.o., Warsaw/Poland		100	– 100
innogy Polska S.A., Warsaw/Poland		100	– 100
innogy Polska Solutions Sp. z o.o., Warsaw/Poland		100	– 100
innogy Rheinhessen Beteiligungs GmbH, Essen		100	– 100
innogy SE, Essen		77	– 77
Innogy Solutions Ireland Limited, Dublin/Ireland		100	– 100
innogy solutions Kft., Budapest/Hungary		100	– 100
innogy Solutions s.r.o., Banská Bystrica/Slovakia		100	– 100
innogy South East Europe s.r.o., Bratislava/Slovakia		100	– 100
innogy Stoen Operator Sp. z o.o., Warsaw/Poland		100	– 100
innogy TelNet GmbH, Essen		100	– 100
innogy Ventures GmbH, Essen		100	– 100
innogy Zákaznické služby, s.r.o., Ostrava/Czech Republic		100	– 100
innogy Zweite Vermögensverwaltungs GmbH, Essen		100	– 100
Installatietechniek Totaal B.V., Leeuwarden/Netherlands		100	– 100
IsoFitters BVBA, Herentals/Belgium		100	– 100
Isoprofs België BVBA, Hasselt/Belgium		100	– 100
Isoprofs B.V., Meijel/Netherlands		100	– 100
iSWITCH GmbH, Essen		100	– 100
It's a beautiful world B.V., Amersfoort/Netherlands		100	– 100
Klima és Hutéstechnológia Tervezo, Szerelo és Kereskedelmi Kft., Budapest/ Hungary			[5]
Konnektor B.V., Amsterdam/Netherlands		100	– 100
Koprivnica Opskrba d.o.o., Koprivnica/Croatia		75	– 75
Koprivnica Plin d.o.o., Koprivnica/Croatia		75	– 75
Lechwerke AG, Augsburg		90	– 90
Leitungspartner GmbH, Düren		100	– 100
LEW Anlagenverwaltung Gesellschaft mit beschränkter Haftung, Gundremmingen		100	– 100
LEW Beteiligungsgesellschaft mbH, Gundremmingen		100	– 100
LEW Netzservice GmbH, Augsburg		100	– 100
LEW Service & Consulting GmbH, Augsburg		100	– 100
LEW TelNet GmbH, Neusäß		100	– 100
LEW Verteilnetz GmbH, Augsburg		100	– 100
Licht Groen B.V., Amsterdam/Netherlands		100	– 100
Livisi GmbH, Essen		100	– 100

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3 No control by virtue of company contract.
4 Significant influence via indirect investments.
5 Addition 2019.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Disposal of affiliated companies included in the consolidated financial statements			
MI-FONDS 178, Frankfurt am Main		100	–100
MI-FONDS F55, Frankfurt am Main		100	–100
MI-FONDS G55, Frankfurt am Main		100	–100
MI-FONDS J55, Frankfurt am Main		100	–100
MI-FONDS K55, Frankfurt am Main		100	–100
MITGAS Mitteldeutsche Gasversorgung GmbH, Halle (Saale)		75	–75
Mitteldeutsche Netzgesellschaft Gas mbH, Halle (Saale)		100	–100
Mitteldeutsche Netzgesellschaft Strom mbH, Halle (Saale)		100	–100
Mittlere Donau Kraftwerke AG, Munich		40[1]	–40
Montcogim – Plinara d.o.o., Sveta Nedelja/Croatia		100	–100
Nederland Isoleert B.V., Amersfoort/Netherlands		100	–100
Nederland Schildert B.V., Amersfoort/Netherlands		100	–100
Nederland Schildert Rijnmond B.V., Amersfoort/Netherlands		100	–100
Nederland Verkoopt B.V., Amersfoort/Netherlands		100	–100
NEW AG, Mönchengladbach		40[2]	–40
NEW Netz GmbH, Geilenkirchen		100	–100
NEW Niederrhein Energie und Wasser GmbH, Mönchengladbach		100	–100
NEW NiederrheinWasser GmbH, Viersen		100	–100
NEW Tönisvorst GmbH, Tönisvorst		98	–98
NEW Viersen GmbH, Viersen		100	–100
Npower Business and Social Housing Limited, Swindon/United Kingdom		100	–100
Npower Commercial Gas Limited, Swindon/United Kingdom		100	–100
Npower Direct Limited, Swindon/United Kingdom		100	–100
Npower Financial Services Limited, Swindon/United Kingdom		100	–100
Npower Gas Limited, Swindon/United Kingdom		100	–100
Npower Group Limited, Swindon/United Kingdom		100	–100
Npower Limited, Swindon/United Kingdom		100	–100
Npower Northern Limited, Swindon/United Kingdom		100	–100
Npower Yorkshire Limited, Swindon/United Kingdom		100	–100
Npower Yorkshire Supply Limited, Swindon/United Kingdom		100	–100
Octopus Electrical Limited, Swindon/United Kingdom		100	–100
OIE Aktiengesellschaft, Idar-Oberstein		100	–100
Plus Shipping Services Limited, Swindon/United Kingdom		100	–100
Powerhouse B.V., Almere/Netherlands		100	–100
PS Energy UK Limited, Swindon/United Kingdom		100	–100
Recargo Inc., El Segundo/USA		100	–100
Regionetz GmbH, Aachen		49[2]	–49
Rhein-Sieg Netz GmbH, Siegburg		100	–100
rhenag Rheinische Energie Aktiengesellschaft, Cologne		67	–67

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3 No control by virtue of company contract.
4 Significant influence via indirect investments.
5 Addition 2019.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Disposal of affiliated companies included in the consolidated financial statements			
RL Besitzgesellschaft mbH, Gundremmingen		100	– 100
RL Beteiligungsverwaltung beschr. haft. OHG, Gundremmingen		100	– 100
RUMM Limited, Ystrad Mynach/United Kingdom		100	– 100
RWE Cogen UK (Hythe) Limited, Swindon/United Kingdom		100	– 100
RWE Cogen UK Limited, Swindon/United Kingdom		100	– 100
RWE Energija d.o.o., Zagreb/Croatia		100	– 100
RWE Generation Belgium N.V., Antwerp/Belgium		100	– 100
RWE Hrvatska d.o.o., Zagreb/Croatia		100	– 100
RWE Ljubljana d.o.o., Ljubljana/Slovenia		100	– 100
RWE Plin d.o.o., Zagreb/Croatia		100	– 100
RWE Supply & Trading Switzerland S.A., Geneva/Switzerland		100	– 100
RWW Rheinisch-Westfälische Wasserwerksgesellschaft mbH, Mülheim an der Ruhr		80	– 80
SARIO Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Würzburg KG, Düsseldorf		[1]	
Stadtwerke Düren GmbH, Düren		50[2]	– 50
Südwestsächsische Netz GmbH, Crimmitschau		100	– 100
Süwag Energie AG, Frankfurt am Main		78	– 78
Süwag Grüne Energien und Wasser GmbH, Frankfurt am Main		100	– 100
Süwag Vertrieb AG & Co. KG, Frankfurt am Main		100	– 100
Syna GmbH, Frankfurt am Main		100	– 100
Überlandwerk Krumbach GmbH, Krumbach		75	– 75
Verteilnetz Plauen GmbH, Plauen		100	– 100
VKB-GmbH, Neunkirchen		50	– 50
Volta Energycare N.V., Houthalen-Helchteren/Belgium		100	– 100
Volta Limburg B.V., Schinnen/Netherlands		100	– 100
Volta Service B.V., Schinnen/Netherlands		100	– 100
Volta Solar B.V., Heerlen/Netherlands		95	– 95
Volta Solar VOF, Heerlen/Netherlands		60	– 60
VSE Aktiengesellschaft, Saarbrücken		51	– 51
VSE NET GmbH, Saarbrücken		100	– 100
VSE Verteilnetz GmbH, Saarbrücken		100	– 100
VWS Verbundwerke Südwestsachsen GmbH, Lichtenstein/Sa.		98	– 98
Wendelsteinbahn Gesellschaft mit beschränkter Haftung, Brannenburg		100	– 100
Wendelsteinbahn Verteilnetz GmbH, Brannenburg		100	– 100
Westerwald-Netz GmbH, Betzdorf-Alsdorf		100	– 100
Westnetz GmbH, Dortmund		100	– 100
WTTP B.V., Arnhem/Netherlands		100	– 100
ZonnigBeheer B.V., Lelystad/Netherlands		100	– 100

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4 Significant influence via indirect investments.
5 Addition 2019.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Disposal of joint ventures not accounted for using the equity method due to application of IFRS 5			
AVU Aktiengesellschaft für Versorgungs-Unternehmen, Gevelsberg		50	–50
BEW Netze GmbH, Wipperfürth		61[3]	–61
Budapesti Disz- es Közvilagitasi Korlatolt Felelössegü Tarsasag, Budapest/ Hungary		50	–50
Energie Nordeifel GmbH & Co. KG, Kall		33	–33
FSO GmbH & Co. KG, Oberhausen		50	–50
Konsortium Energieversorgung Opel beschränkt haftende oHG, Karlstein		67[3]	–67
PRENU Projektgesellschaft für Rationelle Energienutzung in Neuss mit beschränkter Haftung, Neuss		50	–50
Rain Biomasse Wärmegesellschaft mbH, Rain		70[3]	–70
SHW/RWE Umwelt Aqua Vodogradnja d.o.o., Zagreb/Croatia		50	–50
Stadtwerke Dülmen Dienstleistungs- und Beteiligungs-GmbH & Co. KG, Dülmen		50	–50
Stadtwerke Lingen GmbH, Lingen (Ems)		40	–40
Stromnetz Friedberg GmbH & Co. KG, Friedberg		49	–49
Stromnetz Gersthofen GmbH & Co. KG, Gersthofen		49	–49
Stromnetz Günzburg GmbH & Co. KG, Günzburg		49	–49
SVS-Versorgungsbetriebe GmbH, Stadtlohn		30	–30
Zagrebacke otpadne vode d.o.o., Zagreb/Croatia		49	–49
Disposal of associates not accounted for using the equity method due to application of IFRS 5			
Dortmunder Energie- und Wasserversorgung Gesellschaft mit beschränkter Haftung, Dortmund		40	–40
EnergieServicePlus GmbH, Düsseldorf		49	–49
Energieversorgung Guben GmbH, Guben		45	–45
Energieversorgung Hürth GmbH, Hürth		25	–25
Energieversorgung Oberhausen Aktiengesellschaft, Oberhausen		10[4]	–10
ENNI Energie & Umwelt Niederrhein GmbH, Moers		20	–20
e-regio GmbH & Co. KG, Euskirchen		43	–43
EWR Aktiengesellschaft, Worms		1[4]	–1
EWR Dienstleistungen GmbH & Co. KG, Worms		25	–25
EWR GmbH, Remscheid		20	–20
Freiberger Stromversorgung GmbH (FSG), Freiberg		30	–30
Gas- und Wasserwerke Bous – Schwalbach GmbH, Bous		49	–49
Kemkens B.V., Oss/Netherlands		49	–49
KEW Kommunale Energie- und Wasserversorgung Aktiengesellschaft, Neunkirchen		29	–29
MAINGAU Energie GmbH, Obertshausen		47	–47
medl GmbH, Mülheim an der Ruhr		39	–39
Nebelhornbahn-Aktiengesellschaft, Oberstdorf		20	–20
PFALZWERKE AKTIENGESELLSCHAFT, Ludwigshafen am Rhein		27	–27
Projecta 14 GmbH, Saarbrücken		50	–50

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3 No control by virtue of company contract.
4 Significant influence via indirect investments.
5 Addition 2019.

Changes in shareholding with change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Disposal of associates not accounted for using the equity method due to application of IFRS 5			
Propan Rheingas GmbH & Co Kommanditgesellschaft, Brühl		30	– 30
Recklinghausen Netzgesellschaft mbH & Co. KG, Recklinghausen		50	– 50
RheinEnergie AG, Cologne		20	– 20
Rhein-Main-Donau GmbH, Munich		23	– 23
Siegener Versorgungsbetriebe GmbH, Siegen		25	– 25
SpreeGas Gesellschaft für Gasversorgung und Energiedienstleistung mbH, Cottbus		33	– 33
SSW – Stadtwerke St. Wendel GmbH & Co KG., St. Wendel		50	– 50
Stadtwerke Aschersleben GmbH, Aschersleben		35	– 35
Stadtwerke Bernburg GmbH, Bernburg (Saale)		45	– 45
Stadtwerke Bitterfeld-Wolfen GmbH, Bitterfeld-Wolfen		40	– 40
Stadtwerke Duisburg Aktiengesellschaft, Duisburg		20	– 20
Stadtwerke Emmerich GmbH, Emmerich am Rhein		25	– 25
Stadtwerke Essen Aktiengesellschaft, Essen		29	– 29
Stadtwerke Geldern GmbH, Geldern		49	– 49
Stadtwerke GmbH Bad Kreuznach, Bad Kreuznach		25	– 25
Stadtwerke Kamp-Lintfort GmbH, Kamp-Lintfort		49	– 49
Stadtwerke Kirn GmbH, Kirn/Nahe		49	– 49
Stadtwerke Meerane GmbH, Meerane		25	– 25
Stadtwerke Meerbusch GmbH, Meerbusch		40	– 40
Stadtwerke Merseburg GmbH, Merseburg		40	– 40
Stadtwerke Merzig Gesellschaft mit beschränkter Haftung, Merzig		50	– 50
Stadtwerke Neuss Energie und Wasser GmbH, Neuss		25	– 25
Stadtwerke Radevormwald GmbH, Radevormwald		50	– 50
Stadtwerke Ratingen GmbH, Ratingen		25	– 25
Stadtwerke Reichenbach/Vogtland GmbH, Reichenbach im Vogtland		25	– 25
Stadtwerke Saarlouis GmbH, Saarlouis		49	– 49
Stadtwerke Velbert GmbH, Velbert		30	– 30
Stadtwerke Weißenfels Gesellschaft mit beschränkter Haftung, Weißenfels		25	– 25
Stadtwerke Willich Gesellschaft mit beschränkter Haftung, Willich		25	– 25
Stadtwerke Zeitz GmbH, Zeitz		25	– 25
SWTE Netz GmbH & Co. KG, Ibbenbüren		33	– 33
Tankey B.V., 's-Hertogenbosch/Netherlands		43	– 43
WVW Wasser- und Energieversorgung Kreis St. Wendel Gesellschaft mit beschränkter Haftung, St. Wendel		28	– 28
Xelan SAS, Saint-Denis La Plaine/France		34	– 34
Zagrebacke otpadne vode-upravljanje i pogon d.o.o., Zagreb/Croatia		31	– 31
Zwickauer Energieversorgung GmbH, Zwickau		27	– 27

Changes in shareholding without change of control	Shareholding in % 31 Dec 2019	Shareholding in % 31 Dec 2018	Change
Affiliated companies which are included in the consolidated financial statements			
Fri-El Guardionara s.r.l., Bolzano/Italy	51	100	-49
innogy indeland Windpark Eschweiler GmbH & Co. KG, Eschweiler	51	100	-49
Kernkraftwerk Gundremmingen GmbH, Gundremmingen	100	75	25
Kernkraftwerke Lippe-Ems Gesellschaft mit beschränkter Haftung, Lingen (Ems)	100	99	1
Kernkraftwerksbeteiligung Lippe-Ems beschränkt haftende OHG, Lingen/Ems	100	88	12
RWE & Turcas Güney Elektrik Üretim A.S., Ankara/Turkey	70	70	0

3.8 Boards (part of the notes)

As of: 28 February 2020

Supervisory Board

(End of term: 2021 Annual General Meeting)

Dr. Werner Brandt
Bad Homburg
Chairman
Chairman of the Supervisory Board of ProSiebenSat.1 Media SE
Year of birth: 1954
Member since 18 April 2013

Other appointments:
- ProSiebenSat.1 Media SE (Chairman)[1]
- Siemens AG[1]

Frank Bsirske[2]
Berlin
Deputy Chairman
Former Chairman of ver.di Vereinte Dienstleistungsgewerkschaft
Year of birth: 1952
Member since 9 January 2001

Other appointments:
- DB Privat- und Firmenkundenbank AG
- Deutsche Bank AG[1]
- innogy SE[1,3]

Michael Bochinsky[2]
Grevenbroich
Deputy Chairman of the General Works Council of RWE Power AG
Year of birth: 1967
Member since 1 August 2018

Reiner Böhle[2,4]
Witten
Consultant for Special Tasks and Project Work at Westnetz GmbH
Year of birth: 1960
Member from 1 January 2013 to 18 September 2019

Sandra Bossemeyer[2]
Duisburg
Chairwoman of the Works Council of RWE AG
Representative of the disabled
Year of birth: 1965
Member since 20 April 2016

Martin Bröker[2]
Bochum
Head of HR & Business Functions IT at RWE Generation SE
Year of birth: 1966
Member since 1 September 2018

Anja Dubbert[2]
Essen
Business Development Manager / Member of the
Works Council of RWE Supply & Trading GmbH
Year of birth 1979
Member since 27 September 2019

Matthias Dürbaum[2]
Heimbach
Chairman of the Works Council of the Hambach Opencast Mine
Year of birth: 1987
Member since 27 September 2019

Ute Gerbaulet
Düsseldorf
General Partner of Bankhaus Lampe KG
Year of birth: 1968
Member since 27 April 2017

Other appointments:
- NRW.Bank AöR

Prof. Dr.-Ing. Dr.-Ing. E. h. Hans-Peter Keitel
Essen
Former Chairman of the Executive Board of HOCHTIEF AG
Year of birth: 1947
Member since 18 April 2013

Other appointments:
- National-Bank AG
- Consolidated Contractors Group S.A.L.

• Member of other mandatory supervisory boards as defined in Section 125 of the German Stock Corporation Act.
- Member of comparable domestic and foreign supervisory boards of commercial enterprises as defined in Section 125 of the German Stock Corporation Act.

1 Listed company.
2 Employee representative.
3 Office within the Group until 18 September 2019.
4 Information valid as of the date of retirement.

Mag. Dr. h. c. Monika Kircher
Krumpendorf, Austria
Consultant
Year of birth: 1957
Member since 15 October 2016

Other appointments:
- Andritz AG[1]
- Kärntner Energieholding Beteiligungs GmbH (Chairwoman)[3]
- KELAG-Kärntner Elektrizitäts AG[1,3]
- Siemens AG Österreich

Monika Krebber[2,4]
Mülheim an der Ruhr
Deputy Chairwoman of the General Works Council of innogy SE
Year of birth: 1962
Member from 20 April 2016 to 18 September 2019

Other appointments:
- innogy SE[1,3]

Harald Louis[2]
Jülich
Chairman of the General Works Council of RWE Power AG
Year of birth: 1967
Member since 20 April 2016

Other appointments:
- RWE Power AG[5]

Dagmar Mühlenfeld
Mülheim an der Ruhr
Former Mayor of the City of Mülheim an der Ruhr/
Managing Director of JUNI gGmbH (Junior-Uni Ruhr)
Year of birth: 1951
Member since 4 January 2005

Peter Ottmann
Nettetal
Managing Director of Verband der kommunalen
RWE-Aktionäre GmbH
Attorney, Former Chief Administrative Officer of Viersen County
Year of birth: 1951
Member since 20 April 2016

Günther Schartz
Wincheringen
Chief Administrative Officer of the District of Trier-Saarburg
Year of birth: 1962
Member since 20 April 2016

Other appointments:
- A.R.T. Abfallberatungs- und Verwertungsgesellschaft mbH (Chairman)
- Kreiskrankenhaus St. Franziskus Saarburg GmbH (Chairman)
- Sparkassenverband Rheinland-Pfalz
- Sparkasse Trier (Chairman)
- Trierer Hafengesellschaft mbH
- Zweckverband Abfallwirtschaft Region Trier

Dr. Erhard Schipporeit
Hanover
Independent Corporate Consultant
Year of birth: 1949
Member since 20 April 2016

Other appointments:
- BDO AG
- Fuchs Petrolub SE[1]
- Hannover Rück SE[1]
- HDI V. a. G.
- Talanx AG[1]

- Member of other mandatory supervisory boards as defined in Section 125 of the German Stock Corporation Act.
- Member of comparable domestic and foreign supervisory boards of commercial enterprises as defined in Section 125 of the German Stock Corporation Act.

1 Listed company.
2 Employee representative.
3 Office within the Group until 18 September 2019.
4 Information valid as of the date of retirement.
5 Office within the Group.

Dr. Wolfgang Schüssel
Vienna, Austria
Former Federal Chancellor of the Republic of Austria
Year of birth: 1945
Member since 1 March 2010

Other appointments:
- Adenauer Stiftung (Chairman of the Board of Trustees)
- PJSC LUKOIL[1]

Ullrich Sierau
Dortmund
Mayor of the City of Dortmund
Year of birth: 1956
Member since 20 April 2011

Other appointments:
- Dortmunder Energie- und Wasserversorgung GmbH (Chairman)
- Dortmunder Stadtwerke AG (Chairman)
- Dortmunder Stadtwerke Holding GmbH (Chairman)
- KEB Holding AG (Chairman)
- KSBG Kommunale Verwaltungsgesellschaft GmbH
- Schüchtermann-Schiller'sche Kliniken Bad Rothenfelde GmbH & Co. KG
- Sparkasse Dortmund (Chairman)

Ralf Sikorski[2]
Hanover
Deputy Chairman of IG Bergbau, Chemie, Energie
Year of birth: 1961
Member since 1 July 2014

Other appointments:
- CHEMIE Pensionsfonds AG (Chairman)
- Lanxess AG[1]
- Lanxess Deutschland GmbH
- RAG AG
- RWE Generation SE[5]
- RWE Power AG[5]
- KSBG Kommunale Verwaltungsgesellschaft GmbH

Marion Weckes[2]
Dormagen
Head of Unit
Institut für Mitbestimmung und Unternehmensführung der Hans-Böckler-Stiftung
Year of birth: 1975
Member since 20 April 2016

Leonhard Zubrowski[2]
Lippetal
Chairman of the Group Works Council of RWE AG
Year of birth: 1961
Member since 1 July 2014

Other appointments:
- RWE Generation SE[5]

- Member of other mandatory supervisory boards as defined in Section 125 of the German Stock Corporation Act.
- Member of comparable domestic and foreign supervisory boards of commercial enterprises as defined in Section 125 of the German Stock Corporation Act.

1 Listed company.
2 Employee representative.
3 Office within the Group until 18 September 2019.
4 Information valid as of the date of retirement.
5 Office within the Group.

Supervisory Board Committees

Executive Committee of the Supervisory Board
Dr. Werner Brandt (Chairman)
Frank Bsirske
Sandra Bossemeyer
Anja Dubbert
Matthias Dürbaum
Prof. Dr. Hans-Peter Keitel
Dagmar Mühlenfeld
Dr. Wolfgang Schüssel

Mediation Committee in accordance with Section 27, Paragraph 3 of the German Co-Determination Act
Dr. Werner Brandt (Chairman)
Frank Bsirske
Dr. Wolfgang Schüssel
Ralf Sikorski

Personnel Affairs Committee
Dr. Werner Brandt (Chairman)
Frank Bsirske
Harald Louis
Peter Ottmann
Dr. Wolfgang Schüssel
Leonhard Zubrowski

Audit Committee
Dr. Erhard Schipporeit (Chairman)
Michael Bochinsky
Mag. Dr. h. c. Monika Kircher
Ullrich Sierau
Ralf Sikorski
Marion Weckes

Nomination Committee
Dr. Werner Brandt (Chairman)
Prof. Dr. Hans-Peter Keitel
Peter Ottmann

Strategy Committee
Dr. Werner Brandt (Chairman)
Frank Bsirske
Prof. Dr. Hans-Peter Keitel
Günther Schartz
Ralf Sikorski
Leonhard Zubrowski

The Executive Board

Dr. Rolf Martin Schmitz (Chief Executive Officer)
Chairman of the Executive Board of RWE AG since 15 October 2016
Member of the Executive Board of RWE AG since 1 May 2009,
appointed until 30 June 2021
Labour Director of RWE AG since 1 May 2017

Other appointments:
- Amprion GmbH
- E.ON SE[1]
- RWE Generation SE[5] (Chairman)
- RWE Power AG[5] (Chairman)
- RWE Supply & Trading GmbH[5]
- TÜV Rheinland AG
- Jaeger Grund GmbH & Co. KG (Jaeger Gruppe, Chairman)
- Kärntner Energieholding Beteiligungs GmbH[3]
- KELAG-Kärntner Elektrizitäts-AG[1,3]

Dr. Markus Krebber (Chief Financial Officer)
Member of the Executive Board of RWE AG since 1 October 2016,
appointed until 30 September 2024

Other appointments:
- RWE Generation SE[5]
- RWE Pensionsfonds AG[5] (Chairman)
- RWE Power AG[5]
- RWE Supply & Trading GmbH[5] (Chairman)

- Member of other mandatory supervisory boards as defined in Section 125 of the German Stock Corporation Act.
- Member of comparable domestic and foreign supervisory boards of commercial enterprises as defined in Section 125 of the German Stock Corporation Act.

1 Listed company.
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3 Office within the Group until 18 September 2019.
4 Information valid as of the date of retirement.
5 Office within the Group.

3.9 Independent auditor's report

To RWE Aktiengesellschaft, Essen

Report on the audit of the consolidated financial statements and of the group management report

Audit Opinions

We have audited the consolidated financial statements of RWE Aktiengesellschaft, Essen, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2019, and the consolidated statement of profit or loss, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of RWE Aktiengesellschaft, which is combined with the Company's management report, for the financial year from January 1 to December 31, 2019. We have not audited the content of those parts of the group management report listed in the "Other Information" section of our auditor's report in accordance with the German legal requirements.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2019, and of its financial performance for the financial year from January 1 to December 31, 2019 and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISAs). Our responsibilities under those requirements, principles and standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year January 1 to December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matters of most significance in our audit were as follows:

❶ Deconsolidation of the discontinued operations
❷ Business combinations
❸ Accounting effects from the coal phaseout
❹ Recoverability of goodwill

Our presentation of these key audit matters has been structured in each case as follows:

① Matter and issue
② Audit approach and findings
③ Reference to further information

Hereinafter we present the key audit matters:

❶ **Deconsolidation of the discontinued operations**

① On March 12, 2018, RWE Aktiengesellschaft and E.ON SE (hereinafter E.ON SE and its subsidiaries are abbreviated as "E.ON") agreed to divestments and acquisitions of business operations. It stipulates the following, among other items: RWE AG will transfer its entire stake in innogy SE (innogy) (76.8 %) to E.ON. In return, the renewable energy business and the gas storage activities of innogy as well as the investment in KELAG-Kärntner Elektrizitäts-AG/Kärntner Energieholding Beteiligungs GmbH, Klagenfurt/Austria, will be returned to the Group. The renewable energy business of E.ON will also be transferred to RWE. Since June 30, 2018, RWE Aktiengesellschaft has accounted for the operations of innogy to be transferred on a long-term basis to E.ON – essentially the grid and retail business – as discontinued operations in accordance with IFRS 5.

Following regulatory approval by the antitrust authorities, the first partial transaction took place on September 18, 2019 with the sale of the innogy shares. The discontinued operations were therefore– with the retention of the relatively insignificant share in the Slovakian electricity and gas supplier Východoslovenská energetika Holding a.s. (VSEH), which will probably be transferred to E.ON in 2020 – deconsolidated.

The equity value of the assets given in the amount of about €3.5 billion was offset by a fair value of the consideration received of approximately €12.8 billion. Taking into account further technical deconsolidation effects (primarily: reclassification of the other earnings attributable to the deconsolidated subsidiaries (so-called "Recycling") to the income statement and restoring the transactions that were previously considered intercompany to a new external outside-the-group basis with respect to innogy), a deconsolidation profit was generated in the total amount of €8.1 billion. The profit is reported in the result from discontinued operations.

At the same time of the deconsolidation of the grid and retail business, RWE acquired the sole control over the renewable energy business of innogy. The carrying value (€607 million) of the previous minority interests of the renewable energy business, that existed at the level of innogy SE, was accordingly derecognized against the retained earnings (reduction to retained earnings: €347 million) as of September 18, 2019 with no effect on profit or loss.

The deconsolidation was of particular significance in the context of our audit due to the complexity of the contractual agreements and accounting provisions as well as the overall material effects of the transaction on the assets, liabilities, financial position and financial performance of the RWE Group.

② As part of our audit, we first assessed whether the conditions for the accounting treatment of the transaction were generally fulfilled, e.g. that the approval of the antitrust authorities for the execution of the transaction was obtained, and whether the conditions for deconsolidation in compliance with IFRS 10 were met. We then assessed which assets should be included in the deconsolidation. For this purpose, we reviewed the contractual agreements with E.ON and assessed the underlying IT concept for executing the deconsolidation and its implementation in the consolidation system. On this basis, we also assessed whether the separation of the assets of VSEH to be deconsolidated and the assets not to be deconsolidated was performed appropriately.

We also assessed the appropriateness of the methods and calculations used in the deconsolidation in accordance with IFRS 10 and the amount of the equity value of the assets given up for the discontinued operations as of September 18, 2019. Furthermore, we reviewed the amount of the consideration received on the basis of agreements and other correspondence with E.ON as well as calculations of the Company and in particular considered the allocation between the deconsolidation calculation and the calculation for derecognition of minority interests for the renewable energy business. In addition, we assessed the determination of the assets and liabilities (especially derivatives) for transactions now restored to an external outside-the-group basis and assessed their recognition and measurement in the consolidated balance sheet.

In addition and in connection with the assumption of the sole control of RWE over the renewable energy business of innogy, we assessed whether the carrying value of the former minority interests, which existed at the innogy SE level, was appropriately derecognized against retained earnings with no effect on profit or loss.

In our view, the estimates applied and assumptions made by the executive directors regarding the deconsolidation of the discontinued operations are sufficiently documented and justified and result in a fair presentation in the consolidated financial statements overall.

③ The disclosures required under IFRS 5 up until deconsolidation are contained in the notes to the consolidated financial statements in the section "Disposals and discontinued operations". Explanations about the divestment are also given in this section. In addition, information from the Group concerning the transaction in general can be found in the section "Strategy and Structure" of the Group Management Report.

❷ Business combinations

① On March 12, 2018, RWE Aktiengesellschaft and E.ON SE (hereinafter E.ON SE and its subsidiaries are abbreviated as "E.ON") agreed to divestments and acquisitions of business operations. It stipulates the following, among other items: RWE AG will transfer its entire stake in innogy SE (innogy) (76.8%) to E.ON. In return, the renewable energy business and the gas storage activities of innogy as well as the investment in KELAG-Kärntner Elektrizitäts-AG/Kärntner Energieholding Beteiligungs GmbH, Klagenfurt/Austria, will remain in the RWE Group. The renewable energy business of E.ON will also be transferred to RWE.

The economic and legal transfer of the renewable energy business from E.ON to RWE, which is accounted for as a business combination under IFRS 3, took place in September 2019. The first-time consolidation occurred on September 18, 2019. The preliminary purchase price (taking into account purchase price adjustments) amounted to €3,593 million. The identified assets acquired and the liabilities assumed of the renewable energy business from E.ON were recognized at their fair values at the date of acquisition. Including acquired net assets of €2,940 million, goodwill arose in the amount of €653 million. The fair values and the goodwill are preliminary because the purchase price allocation has not yet been fully completed as of December 31, 2019.

The purchase price allocation was of particular significance in the context of our audit due to the complexity of the contractual agreements and accounting provisions.

② As part of our audit of the presentation of the acquisition of the renewable energy business from E.ON, we first gained an understanding of the underlying contractual stipulations and, among other items, the determination of the closing date for the acquisition of control and the preliminary purchase price. On this basis, we assessed the opening balance sheet of the underlying business combination. To this end, we assessed the recognition and measurement of the assets and liabilities. This included their identification, the application of uniform accounting policies and the recognition of the preliminary fair values at the date of first-time consolidation. In this context, we assessed in particular the preliminary fair values calculated with the support of an external expert from RWE. Among other items, we assessed the models underlying the valuations and the valuation parameters and assumptions applied. The assessment covered in particular the examination of the methodology and mathematical accuracy of the valuation models. In addition, we assessed the costs of capital applied. We also reviewed the technical implementation of the first-time consolidation and the derivation of the preliminary goodwill.

Overall, we were able to satisfy ourselves that the accounting presentation of the acquisition of the renewable energy business is appropriately made on the basis of the preliminary results of the purchase price allocation and is sufficiently documented.

③ The disclosures required under IFRS 3 concerning business combinations are contained in the notes to the consolidated financial statements in the section "Acquisitions". In addition, information from the Group concerning the transaction in general can be found in the section "Strategy and Structure" of the Group Management Report.

❸ Accounting effects from the coal phaseout

① In 2019, political developments in Germany and the Netherlands progressed further, which further specified the termination of coal-fired power generation in both countries. This applies to the use of black coal and, in Germany, also to brown coal (lignite) for electricity generation and the decommissioning of the corresponding surface lignite mines (hereinafter collectively referred to as "coal phaseout").

Due to the shorter operating lives of black coal and lignite-fired power plants, impairment charges were recognized on property, plant and equipment in the total amount of €1,540 million. The recoverability of the power plant assets was reviewed on the basis of their fair values less costs of disposal. The fair values of the respective power plants assets were determined by the Company as the present values of future cash flows using discounted cash flow models. This was based on the planning projections prepared by the executive directors, which include long-term assumptions regarding electricity, coal and CO_2 certificate prices and planned power plant operating times. The results from these valuations depends to a large extent on the planning assumptions and the estimates of the future cash inflows made by the executive directors as well as on the discount rates used in the valuation models. The amount of the impairment charges was also impacted by the fact that the definition of cash-generating units for power plants changed.

The coal phaseout was also a major reason for the increase in the provisions for loss-making power purchase agreements. The consideration of the shorter terms of the coal-fired power plants associated with the individual contracts resulted in the fact that the expected positive value contributions in later years of the contract terms no longer applied. The provisions for loss-making power purchase agreements increased in 2019 by €225 million year-on-year.

Due to the coal phaseout, additional provisions had to be increased or recognized for the first time by a total of €2,262 million. This mainly relates to the increase in provisions for recultivation. In order to determine the settlement amount, the expected future disbursements are first escalated at the closing date prices using the expected rates of price increase and then discounted using an appropriate discount rate. This was based on the recultivation plans drawn up by the executive directors with the assistance of reports prepared by external expert appraisers. The escalation rate and discount rate were adjusted in the financial year to reflect the earlier incurrence of expenditure due to the coal phaseout and the market interest rate level in that period.

The result from the measurement of the provisions depends to a large extent on the planning assumptions and the estimates of the executive directors regarding the amount and the timing of future cash outflows as well as the escalation rates and discount rates used in the valuation models.

Due to the connection between the lignite phaseout and the related compensation, RWE recognized the compensation amount of €2,600 million provided by the German government as a reimbursement or indemnification claim for increased or newly arising obligations and for impairment charges and reported it under other assets.

The accounting presentation of the fixed or expected effects of the coal phaseout on the basis of measures taken in 2019 and on the basis of its accountability to be ascertained has a significant impact on the assets, liabilities and financial performance of the RWE group. In addition, the assessment of the impact is subject to considerable uncertainty and is complex. In this context, this matter was of particular significance for our audit.

② As part of our audit, we first assessed whether the conditions for accounting of the coal phaseout were basically met. We then assessed which assets could be impaired or which obligations could be increased in value and which obligations and claims should be recognized for the first time.

In our audit of the measurement of the power plant assets as well as the provisions for existing or newly incurred obligations, we have, among other items, assessed the methodology for carrying out the measurements and assessed the calculations of the discount rates and escalation rates. We also assessed whether the future cash inflows and outflows of the underlying measurements in connection with the discount rates and escalation rates used, form an appropriate basis for the measurement overall. We assessed the appropriateness of the future cash flows used in the calculations by comparing these figures with the planning projections or recultivation plans prepared by the executive directors and by reconciling them with general and sector-specific market expectations. In the knowledge that even relatively small changes in the discount rates applied and the escalation rates used in the measurement of the provisions for recultivation can in some cases have a material impact on the amount of the fair value less costs of disposal or settlement amount calculated using this method, we also evaluated the parameters used to determine the discount rates and escalation rates and assessed the respective measurement model. We reviewed the appraisals prepared by external experts and assessed their usability by, among other items, assessing and checking the plausibility of the premises contained in the appraisals. We also assessed that the capitalization of the compensation claim is appropriate in terms of reason and amount.

In our view, the estimates and assumptions of the executive directors of the underlying accounting treatment of the coal phaseout are sufficiently justified and documented. Overall, the measurement parameters and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

③ The information provided by the Company on the impact of the coal phaseout in Germany and the Netherlands is contained in the notes to the consolidated financial statements under section "Notes to the income statement" in note "(5) Depreciation, amortization and impairment losses" and in section "Notes to the balance sheet" in note "(15) Other receivables and other assets" and in note "(22) Provisions". Supplementary information can also be found in section "Political environment" of the Group Management Report.

❹ Recoverability of goodwill

① In the consolidated financial statements of RWE Aktiengesellschaft, goodwill amounting to €2.4 billion (3.7 % of consolidated total assets) (prior year: €1.7 billion or 2 % of consolidated total assets) is reported under the balance sheet item "Intangible assets". In addition to the goodwill of the cash-generating units "innogy – continuing operations" and "supply & trading", this item includes the newly acquired business value of "operations acquired from E.ON" for the first time as of December 31, 2019.

Goodwill is tested for impairment ("impairment test") annually or when there are indications of impairment, to determine any possible need for write-downs. The carrying amounts of the relevant cash-generating units, including goodwill, are compared with the corresponding recoverable amounts in the context of the impairment tests. The recoverable amount is generally calculated on the basis of fair value less costs of disposal. The impairment tests are performed at the level of the cash-generating units or groups of cash-generating units to which the respective goodwill is allocated. The measurements to calculate the fair value less costs of disposal carried out for the purposes of the impairment tests are based on the present values of the future cash flows derived from the planning projections for the next three years (medium-term plan) prepared by the executive directors and acknowledged by the

supervisory board. In doing so, expectations relating to future market developments and country-specific assumptions about the performance of macroeconomic indicators are also taken into account. Present values are calculated using discounted cash flow models. The discount rate applied is the weighted average cost of capital for the relevant cash-generating unit. The impairment test did not result in the recognition of a write-down. The outcome of these valuations is dependent to a large extent on the estimates made by the executive directors of the future cash inflows of the cash-generating units, and on the respective discount rates and rates of growth employed as well as on further assumptions. The valuation is therefore subject to considerable uncertainty. Against this background and due to the underlying complexity of the valuation, this matter was of particular significance in the context of our audit.

② As part of our audit, we evaluated the methodology used for the purpose of performing the impairment tests and assessed the calculation of the weighted average cost of capital, among other items. In addition, we assessed whether the future cash inflows underlying the measurements together with the weighted cost of capital used represent an appropriate basis for the impairment tests overall. We evaluated the appropriateness of the future cash inflows used in the calculations, among other items, by comparing this data with the Group's medium-term plan and by reconciling it against general and sector-specific market expectations. In this context, we also assessed whether the costs of Group functions were properly included in the respective cash-generating unit. In the knowledge that even relatively small changes in the discount rate applied can in some cases have a material impact on the fair value less costs of disposal calculated using this method, we also evaluated the parameters used to determine the discount rate applied and assessed the measurement model. Furthermore, we evaluated the sensitivity analyses performed by the Company in order to evaluate any impairment risk (carrying amount higher than recoverable amount) in the event of a reasonably possible change in a material assumption underlying the measurement. Overall, the measurement parameters and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

③ The Company's disclosures relating to goodwill are contained in the notes to the consolidated financial statements in section "Notes to the Balance Sheet" in note "(10) Intangible assets".

Other information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

- the statement on corporate governance pursuant to § 289f HGB and § 315d HGB included in section 1.8 of the group management report
- the separate non-financial group report pursuant to § 315b Abs. 3 HGB

The other information comprises further the remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and supplementary compliance with the ISAs will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the

assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on May 3, 2019. We were engaged by the supervisory board on May 6, 2019. We have been the group auditor of RWE Aktiengesellschaft, Essen, without interruption since the financial year 2001.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Ralph Welter.

Essen, 28 February 2020

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Michael Reuther	Ralph Welter
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

3.10 Information on the auditor

The consolidated financial statements of RWE AG and its subsidiaries for the 2018 fiscal year – consisting of the Group balance sheet, Group income statement and statement of comprehensive income, Group statement of changes in equity, Group cash flow statement and Group notes to the financial statements – were audited by the auditing company PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft.

The auditor at PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft responsible for RWE is Mr Ralph Welter. Mr Welter has performed this function in six previous audits of RWE.

Five-year overview

Key figures of the RWE Group[1]		2019	2018	2017	2016	2015
External revenue (excluding natural gas tax/electricity tax)	€ million	13,125	13,406	13,822	43,590	45,848
Income						
Adjusted EBITDA	€ million	2,489	1,538	2,149	5,403	7,017
Adjusted EBIT	€ million	1,267	619	1,170	3,082	3,837
Income before tax	€ million	-752	49	2,056	-5,807	-637
Net income/RWE AG shareholders' share in income	€ million	8,498	335	1,900	-5,710	-170
Earnings per share	€	13.82	0.54	3.09	-9.29	-0.28
Cash flow						
Cash flows from operating activities	€ million	-977	4,611	-3,771	2,352	3,339
Free cash flow	€ million	-2,053	3,439	-4,439	809	441
Asset/capital structure						
Non-current assets	€ million	35,951	18,595	45,694	45,911	51,453
Current assets	€ million	28,241	61,513	23,365	30,491	27,881
Balance sheet equity	€ million	17,448	14,257	11,991	7,990	8,894
Non-current liabilities	€ million	27,018	20,007	36,774	39,646	45,315
Current liabilities	€ million	19,726	45,844	20,294	28,766	25,125
Balance sheet total	€ million	64,192	80,108	69,059	76,402	79,334
Equity ratio	%	27.2	17.8	17.4	10.5	11.2
Net debt	€ million	9,298	19,339	20,227	22,709	25,463
Net debt of continuing operations	€ million	9,066	4,389	–	–	–
Workforce						
Workforce at year-end[2]		19,792	17,748	59,547	58,652	59,762
Research & development						
Operating R&D costs	€ million	21	18	182	165	101
Emissions balance						
CO_2 emissions	million metric tons	88.1	118.0	131.8	148.3	150.8
Free allocation of CO_2 certificates	million metric tons	1.1	1.3	1.3	4.5	5.6
Shortage of CO_2 certificates[3]	million metric tons	86.0	115.6	129.1	142.6	143.9
Specific CO_2 emissions	metric tons/ MWh	0.575	0.670	0.658	0.686	0.708

1 The comparability of some of the figures for various fiscal years is limited due to changes in reporting.
2 Converted to full-time positions.
3 As Turkey does not participate in the European Union Emissions Trading System, we do not need emission allowances for our CO_2 emissions in that country.

Imprint

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For annual reports, interim reports, interim statements and further information on RWE, please visit us on the internet at www.rwe.com.

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Financial Calendar 2020/2021

12 March 2020	Capital Market Day
28 April 2020	Annual General Meeting
29 April 2020	Ex-dividend date
4 May 2020	Dividend payment
14 May 2020	Interim statement on the first quarter of 2020
13 August 2020	Interim report on the first half of 2020
12 November 2020	Interim statement on the first three quarters of 2020
16 March 2021	Annual report for fiscal 2020
28 April 2021	Annual General Meeting
29 April 2021	Ex-dividend date
3 May 2021	Dividend payment
12 May 2021	Interim statement on the first quarter of 2021
12 August 2021	Interim report on the first half of 2021
11 November 2021	Interim statement on the first three quarters of 2021

The Annual General Meeting (until the beginning of the Q&A session) and all events concerning the publication of our financial reports are broadcast live on the internet and recorded. We will keep the recordings on our website for at least twelve months.

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