

Integrated Annual report 2019 Extended Version

Including the notes and the declaration of corporate management

TRANSFORMATION

+++ In light of recent events +++

Dear Reader,

We are currently facing unprecedented challenges due to the corona pandemic. Overcoming this crisis will require solidarity, understanding and a collective effort from all of us.

Just like all energy companies, we have a special responsibility during this time and it is something we are all too willing to take on. As an operator of critical infrastructure, we know how to handle these types of challenges and already began to prepare ourselves at an early stage for the possibility that this outbreak would become a serious pandemic: We have phased contingency plans in place that are practised on a regular basis. An expert task force is working closely together with all specialist departments at our company and with external bodies. While many employees are keeping our day-to-day business running by working from home, the operational teams responsible for our power plants, grid control centres, the supply of water and the disposal of waste are ensuring that our energy supply system is also working safely and reliably during this difficult time.

Furthermore, we are endeavouring within the scope of our capabilities to provide support to our partners using the expertise we have in the technical management of crisis situations. We want to remove any additional burden on our customers by restoring the connections to any cut-off electricity or gas supplies and we are also available to help our customers in any other way we can to the very best of our abilities.

I can assure you that EnBW remains stable and secure.

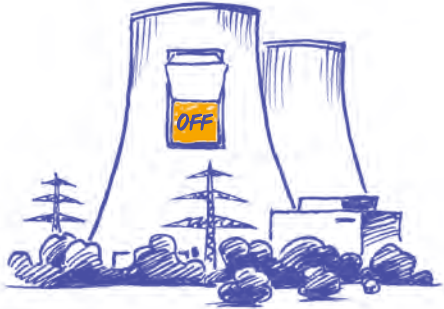
Best regards,



Frank Mastiaux
Chairman of the Board of Management

EnBW at a glance

Shaping the Energiewende



Switched off:

Philippsburg nuclear power plant Block 2

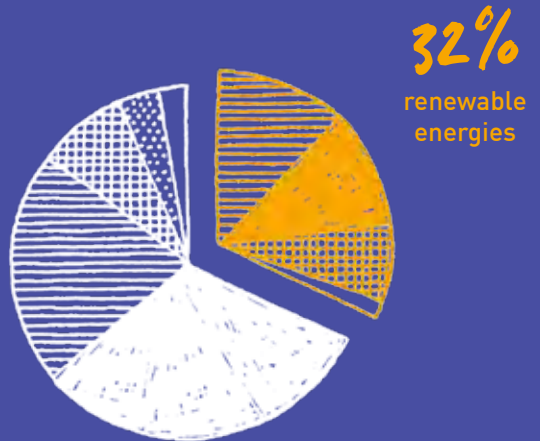


Switched on:

EnBW Hohe See and EnBW Albatros offshore wind farms as well as onshore wind farms and photovoltaic parks from Valeco

Generation mix

Installed output in MW 2019



Thermal power plants

	Brown and hard coal	4,461
	Nuclear power	2,933
	Gas	1,165
	Pumped storage	545
	Other	347

Renewable energies

	Wind	1,660
	Pumped storage (with natural flow of water)	1,507
	Run-of-river	1,006
	Other	225



5.5 million

B2C and B2B customers 2019

23,293

employees 2019

€2.4 billion

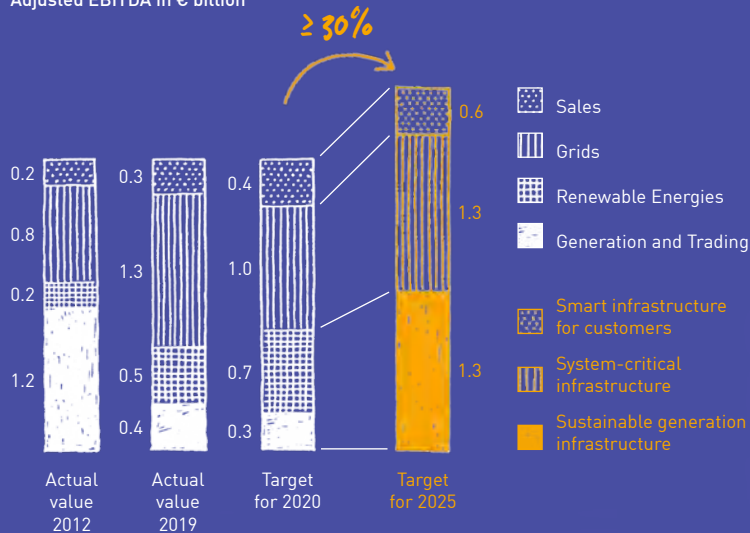
adjusted EBITDA in 2019

What sets us apart

- > EnBW 2020 strategy largely implemented: realignment and repositioning of the business portfolio has been achieved
- > EnBW 2025 strategy: The path to becoming a sustainable and innovative infrastructure partner
- > Stable shareholder structure
- > Leading position in important sustainability ratings in the energy sector
- > First German company to issue a green hybrid bond

Realignment and growth

Adjusted EBITDA in € billion



Expansion of the telecommunications business

We have strengthened our business in the nationwide telecommunications market with the acquisition of the broadband and fibre optic company Plusnet.

Expansion of electromobility

At the end of 2019, we were the largest operator of quick-charging infrastructure in Germany.

Infrastructure partner

Up to 1,000

quick-charging stations are planned across the country by the end of 2020.



62.4 billion kWh

of electricity was transmitted via the grids operated by our subsidiaries in 2019.

Performance indicators of the EnBW Group

Financial and strategic performance indicators

in € million	2019	2018	Change in %
External revenue ¹	18,765.0	20,815.4	-9.9
TOP Adjusted EBITDA	2,432.5	2,157.5	12.7
TOP Share of adjusted EBITDA accounted for by Sales in € million/in % ¹	294.3/12.1	268.4/12.4	9.6/-
TOP Share of adjusted EBITDA accounted for by Grids in € million/in %	1,311.2/53.9	1,176.9/54.5	11.4/-
TOP Share of adjusted EBITDA accounted for by Renewable Energies in € million/in %	482.8/19.8	297.7/13.8	62.2/-
TOP Share of adjusted EBITDA accounted for by Generation and Trading in € million/in % ¹	383.8/15.8	430.8/20.0	-10.9/-
Share of adjusted EBITDA accounted for by Other/Consolidation in € million/in %	-39.6/-1.6	-16.3/-0.7	-142.9/-
EBITDA	2,245.2	2,089.6	7.4
Adjusted EBIT	944.7	957.5	-1.3
EBIT	596.7	875.8	-31.9
Adjusted Group net profit ²	786.8	438.3	79.5
Group net profit ²	734.2	334.2	119.7
Earnings per share from Group net profit in € ²	2.71	1.23	119.7
Retained cash flow	1,240.7	999.1	24.2
TOP Internal financing capability in % ¹	82.6	92.2	-
Total investment ¹	3,315.2	1,786.4	85.6
Net financial debt	6,021.6	3,738.4	61.1
Coverage ratio ALM in %	48.1	51.8	-
TOP Return on capital employed (ROCE) in %	5.2	6.5	-
Weighted average cost of capital before tax in %	5.2	6.3	-
Average capital employed	19,315.1	16,053.3	20.3
Value added	0.0	32.1	-100.0

Non-financial performance indicators

	2019	2018	Change in %
Customers and society goal dimension			
TOP Reputation Index	52.8	51.3	2.9
TOP EnBW/Yello Customer Satisfaction Index	116/157	120/152	-3.3/3.3
TOP SAIDI (electricity) in min./year	15	17	-11.8
Employees goal dimension			
TOP Employee Commitment Index ³	66	62	6.5
TOP LTIF for companies controlled by the Group ⁴ /LTIF overall ⁵	2.1/3.8	2.3/3.6	-8.7/5.6
Environment goal dimension			
TOP Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE in %	4.4/31.8	3.7/27.9	18.9/-
TOP CO ₂ intensity in g/kWh	419	553	-24.2

Employees⁶

	31/12/2019	31/12/2018	Change in %
Employees	23,293	21,775	7.0
Full-time equivalents ⁷	21,843	20,379	7.2

1 The figures for the previous year have been restated.

2 In relation to the profit/loss attributable to the shareholders of EnBW AG.

3 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered [except ITOs]).

4 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except for companies in the area of waste management as well as external agency workers and contractors).

5 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except external agency workers and contractors).

6 Number of employees excluding apprentices/trainees and inactive employees.

7 Converted into full-time equivalents.

Dear Reader,

We have embarked on the path to transform ourselves from a conventional energy company into a strong partner for energy and infrastructure.

To be a partner for energy and infrastructure, we believe that we must focus on people's living environments and adopt an integrated approach to sectors such as energy, transport, telecommunications and the development of cities and districts. This includes, amongst other things, themes like the supply of energy and the expansion of broadband and electromobility.

Besides significantly strengthening the grid and sales businesses, our EnBW 2020 strategy primarily focussed on making renewable energies one of the main pillars of the company. We now have a broad portfolio of wind farms, hydropower plants and solar parks. We were able to successfully conclude some major projects in the past year, especially in the offshore wind sector, and also start new ones in the area of photovoltaics. A lot has changed in the process: the way we work, the requirements of our customers and the conditions on the market. This is why the title of this year's Integrated Annual Report of EnBW is dedicated to the transformation in the area of renewable energies.

In our updated EnBW 2025 strategy, we will now concentrate on switching over to growth. The first steps in this direction have already been taken. We are significantly expanding the installed output from our renewable generation, driving forward electromobility and will be building liveable residential districts.

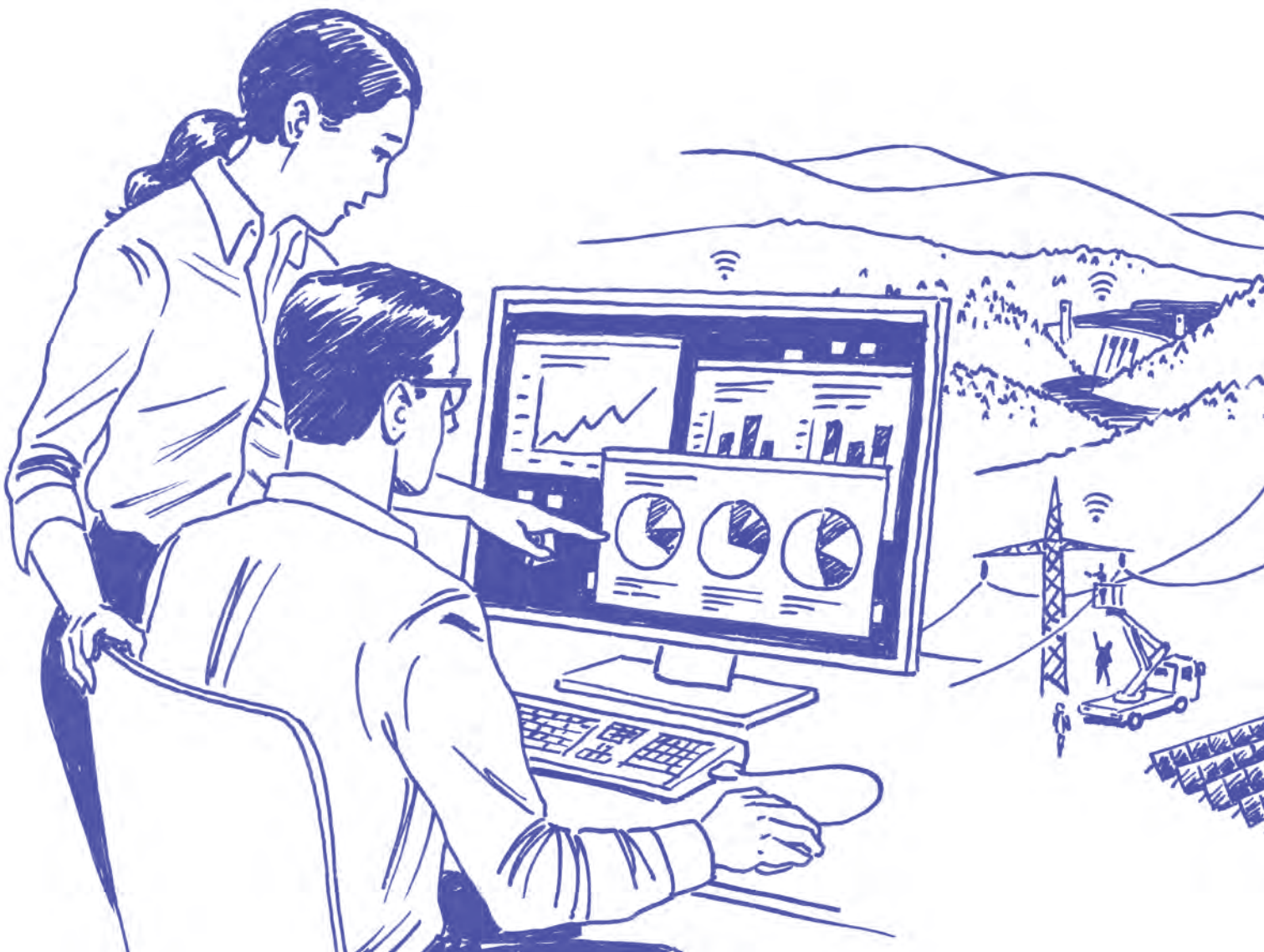
We will realise these plans with a strong team behind us – while keeping our main focus on people. This is why we not only want to push forward EnBW as an organisation but also support every single employee in their own personal development. This will help us create the right conditions to promote future growth.

This Integrated Report will take you on a journey through our transformation in the area of renewable energies.

Best regards,

Your EnBW

Playing an active role in shaping the Energiewende



EnBW is transforming itself from a conventional energy company into a sustainable and innovative partner for energy and infrastructure. In the process, we are linking the transport sector with the energy world, for example, as part of the forward-looking and citizen-centred development of cities and districts.

We accept our responsibility for the climate as we do this and are playing an active role in shaping the future of energy. While we continue to push forward the expansion of renewable energies, our grid subsidiaries ensure they can be successfully integrated into the electricity grid. This is promoting the development of so-called smart grids at the same time, which will guarantee that even more renewable energy power plants can be connected to the grid in the future.



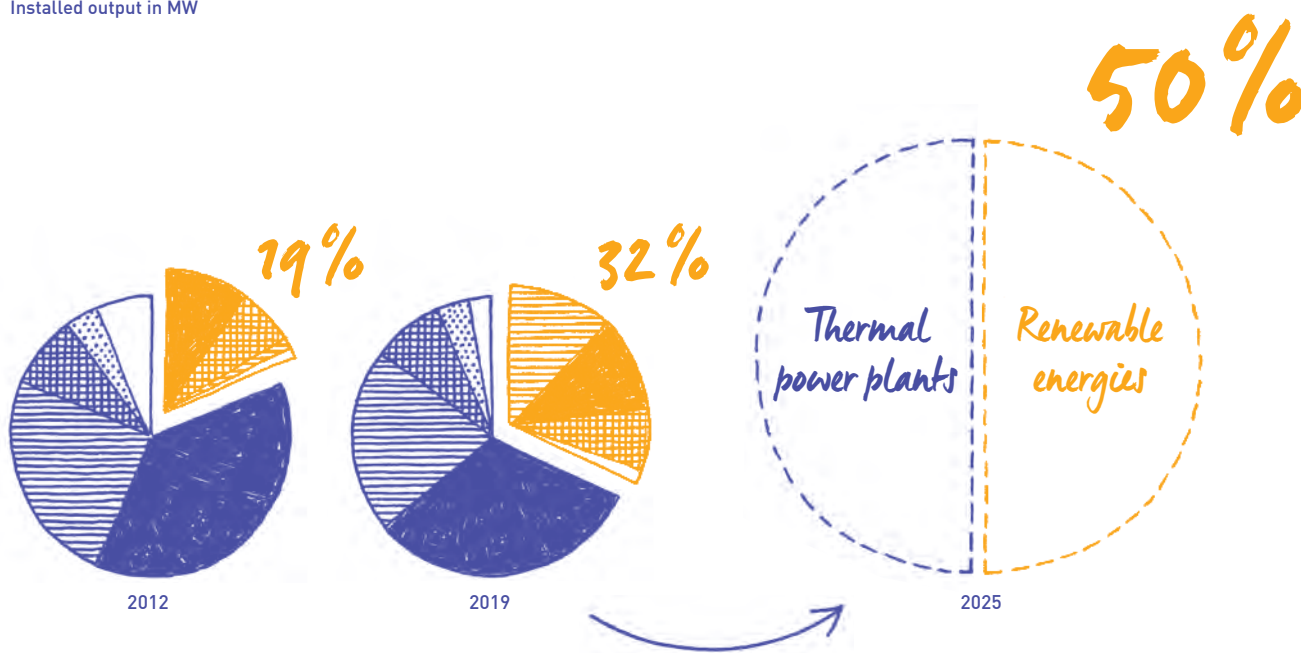
The transformation in the renewable energy sector is in full progress.

For us, climate protection is not just a trend, but has been an established part of our activities for many years.

EnBW was the first major energy company to announce the gradual phasing out of its coal-fired generation back in 2013. Through the EnBW 2020 strategy, we have developed renewable energies into one of the main pillars of the company and simultaneously reduced conventional generation by more than 40%. Furthermore, we have simplified structures and processes, transformed our corporate culture and increased our innovative strength. We are now well equipped for the challenges of the future as a result. EnBW can grow in new markets, deliver competitive services and respond proactively and flexibly in a rapidly changing business environment.

Transformation of the EnBW generation portfolio

Installed output in MW



Thermal power plants	2012	2019
Brown and hard coal	5,021	4,461
Nuclear power	3,333	2,933
Gas	1,154	1,165
Pumped storage	545	545
Other	820	347

Renewable energies	2012	2019
Wind	218	1,660
Pumped storage (with natural flow of water)	1,311	1,507
Run-of-river	882	1,006
Other	116	225

Wind power is now the most important renewable energy source in Germany.

Some 118 gigawatts (GW) of output from renewable energies were installed in Germany in 2018, which covered almost 38% of the gross electricity consumption. 59 GW of this installed output was accounted for by wind energy, 45 GW by solar energy, 5.6 GW by hydropower and 8.4 GW by biomass.

Since 2000, the fixed remuneration offered by the German Renewable Energies Act (EEG) has enabled strong growth in wind power plants in Germany. However, the reform to the EEG in 2017 has put the brakes on this upward trend: The act introduced upper limits to the expansion of renewable energies, the bureaucratic burden and costs for the development of wind farms has increased and the approval times for new power plants have since lengthened dramatically – due to, amongst other things, an increase in the cases of legal action taken against already issued approvals across Germany. The expansion of wind power has collapsed as a result.

We are ardent supporters of the Energiewende and want to continue to use our expertise as an investor, developer and operator of wind and photovoltaic power plants even under these difficult conditions. Today, we are already the third-largest project developer for onshore wind power in Germany and we want to further expand this area and also our engagement in offshore wind power. This is why we are working together with selected international partners to target new growth opportunities abroad. This strategy of selective internationalisation has already shown initial success in France and Sweden.

Photovoltaic power plants will play an increasingly important role in EnBW's future portfolio.

Technical improvements and a significant reduction in prices for solar modules are opening up interesting perspectives. Under certain conditions, photovoltaic power plants can already be operated today without EEG funding. This is why we have decided to make photovoltaics another pillar of our renewable energies alongside onshore and offshore wind power.

In the future, the market, customers and technology development will dictate the direction of the Energiewende to a much greater extent.

The energy world is becoming decentralised and digital, urban and oriented towards citizens. New and agile competitors are now already entering all of the business fields covered by EnBW. The growing dynamism and increasing competition on the energy markets clearly illustrate the importance of being willing to change, having innovative strength and achieving a high pace of change. To this end, we have introduced the "Next Level EnBW" initiative to not only take our Group as an organisation but also personally every single employee at EnBW to a whole new level. The initiative aims, amongst other things, to accelerate the pace of change, promote innovative strength and increase quality with a clear focus on customer centricity, internationalisation, new business and internal cooperation.



The power behind the transformation: water, wind and sun

In our EnBW 2020 strategy, we set ourselves the target of increasing the proportion of our generation accounted for by renewable energies to over 40% by the end of this year.

Today, the Renewable Energies and Grids segments already account for a combined share of over 70% of the operating result. In contrast, earnings from conventional generation have fallen by 80% between 2012 and 2020. We have thus successfully completed the desired transformation of our portfolio in the last few years. We will also continue to focus on the expansion of renewable energies and will invest more than 5 billion euros in corresponding activities in Germany and selected foreign markets up to 2025.

We have long been committed to the use of hydropower.

With around 1,000 MW of installed output from run-of-river power plants and around 2,000 MW from pumped storage and storage power plants, more than 10% of our electricity is generated using the power of water. There are hardly any suitable sites left for new, large hydroelectric and pumped storage power plants in Germany today. Against this background, we are expanding and modernising existing power plants, such as the Forbach power plant in the Black Forest. A concept to turn the existing plant into a modern and highly efficient pumped storage power plant has been developed for the Rudolf-Fettweis Plant. We are also represented on international markets in the area of hydropower. In Switzerland, for example, our Group is one of the leading operators of hydropower plants via participation models.

Wind energy will also continue to play a decisive role in the future.

EnBW has more than tripled its onshore wind power capacities since 2012. We were able to increase capacities by a total of 204 MW in 2017. In 2019, we could achieve little expansion in Germany. In France, we were able to expand our onshore portfolio with the acquisition of Valeco. In the area of offshore wind power, we have constructed the two wind farms EnBW Baltic 1 and EnBW Baltic 2 in the Baltic Sea over the last few years. We completed our third offshore project in 2019: The neighbouring wind farms EnBW Hohe See and EnBW Albatros have a total capacity of 609 MW and are thus the largest offshore project to be built in Germany to date. The 87 wind turbines can supply on aggregate around 710,000 households with electricity and thus save around 1.9 million tonnes CO₂ per year. The project represented the largest investment in the history of EnBW with construction costs of around 2.3 billion euros.

Despite the challenging conditions, we will continue to push forward the expansion of wind power with other planned onshore and offshore projects. Between 2020 and 2025, we want to increase our wind power capacities to 4,500 MW. We are planning, for example, to construct the EnBW He Dreih wind farm in the North Sea with an output of 900 MW – for the first time without state subsidies.

Selective internationalisation

EnBW has gathered valuable expertise in the planning, construction, operation, maintenance, servicing and direct distribution of wind turbines over the last few years. We aim to use these skills to open up new markets and exploit opportunities for growth internationally.

Turkey

We entered into cooperation with our Turkish partner Borusan back in 2009 and have since developed around 500 MW of generation capacity in the area of onshore wind power.



USA

We believe that the North American market offers great opportunities for the expansion of offshore wind energy. Our own representative offices in Jersey City and Boston will ensure close contact with local cooperation partners. In Morro Bay (California), on the West Coast of the USA, the team is developing the world's first floating offshore wind farm in a joint venture.

Sweden

Sweden is one of the key European markets for the expansion of onshore wind energy. We have already been represented in Scandinavia via our subsidiary Connected Wind Services (CWS) since 2016. And we have been active in Sweden via EnBW Sverige and its subsidiaries since 2018 and currently operate seven wind farms with a total output of 105 MW, while a further 11 MW is currently under construction.

France

In 2019, we acquired the French developer and operator of wind and solar projects Valeco. It has installed output of 276 MW of onshore wind power and 56 MW of solar power, as well as a project pipeline of 1,700 MW.

Taiwan

In cooperation with the Australian investor Macquarie Capital and the Taiwanese industrial company Swancor, we have been developing three offshore wind farm projects since the beginning of 2018. The projects involve the construction of wind turbines with a potential total output of up to 2,000 MW.

Germany's largest solar park Weesow-Willmersdorf

A solar park with an output of 180 MW is currently being constructed in Werneuchen (Brandenburg).



We will produce 180 million kWh of electricity per year on an area equivalent to around 225 football pitches.

This corresponds to the annual consumption of 50,000 households.

On Easter Monday 2019, more than half of the electricity demand across Germany of 61 GW was already covered by solar energy.

We are demonstrating at the solar park in Brandenburg that it is possible to construct solar projects even without state funding.

This demonstrates that the solar market is an attractive proposition. The latest generation of photovoltaic modules work more efficiently than previous technologies. In addition, the price of modules has fallen significantly in recent months. Furthermore, we are able to realise long-term and major projects in Germany and other European markets economically due to our trading and marketing expertise. This vindicates our decision to make photovoltaics the third pillar of our strategy for renewable energies.

For example, we are one of the first companies to construct a solar park whose electricity production costs are lower than those of a new conventional power plant. Therefore, we are financing our latest solar park – Weesow-Willmersdorf in Brandenburg – for the first time without EEG funding. We are thus reinforcing our role as a pioneer in the development, construction, operation and marketing of major solar parks.

As part of our solar strategy, however, we will still continue to rely on solar parks with EEG funding. Companies who claim the lowest level of state funding for the production of solar electricity will have the best chance of having their bid for EEG funding accepted. Our precise planning is paying dividends: In Germany-wide auctions, EnBW has been the fourth most successful company since 2015 – behind three companies that specialise solely in solar power.

The company plans to develop a solar energy portfolio of 600 MW across Germany by 2025. In addition, we are also looking at sites abroad.



Dirk Güsewell

“We started looking at the bigger picture at an early stage.”

Interview with Dirk Güsewell, Head of Portfolio Development Generation, EnBW.

How long has EnBW been actively involved with renewable energies?

Dirk Güsewell: The foundations for our growth in the area of renewable energies certainly lie in the significant upgrading of this business field as part of our EnBW 2020 strategy. As part of this strategy, we were the first major energy company to start resolutely aligning ourselves to the opportunities offered by the Energiewende back in 2013. Following initial success in Germany, the decision to extend our business activities and teams geographically is the logical continuation of our aspiration to achieve further growth through the expansion of renewable energies using the expertise we have gained.

What has happened since then?

Dirk Güsewell: Our strategy has developed further since then but still remains basically unchanged. Today, we are one of the market leaders in Germany with our offshore and onshore wind farms and open-field photovoltaic power plants, while we are excellently positioned for growth in France with Valeco and are also represented by teams in Sweden, North America and Taiwan. Our aim is to increase the earnings contribution from this business field by 500 million euros by 2020, compared to 2012, and thus more than double it. Although the market conditions have become more challenging, we are also working to achieve further growth in later years.

How is EnBW able to build both the first solar park and first wind farm without state funding?

Dirk Güsewell: This is possible due to really impressive advances in the electricity production costs for these technologies across all value-added stages. Our contribution is that we possess the required long-standing experience in planning, construction and operation and have a good overview of the market at all value-added stages. And we perhaps also started looking at the bigger picture earlier than other competitors. Incidentally, we believe that this is a fantastic development that will give the Energiewende new impetus and momentum in the future.

What does selective internationalisation mean?

Dirk Güsewell: We can generate value through growth abroad – above and beyond the potential offered by our home market of Germany. In addition, internationalisation represents an opportunity for us – both for cultural development and for the acquisition of new talent. This internationalisation is “selective” in the sense that we choose our target markets very deliberately so that we will be able to take up a prominent position on these markets.



Using the “ONE EnBW” programme, we were able to simplify our structures and processes, implement efficiency measures that saved 1.4 billion euros up to 2019 and open up new business fields.

The EnBW 2020 strategy also had an impact internally: The Group is now an organisation that has quick decision-making paths and is oriented to the market and customers.

The flexibility and innovative strength of the new EnBW are reflected in the design of its working worlds: spacious areas enable agile forms of independent working and promote a culture of open discussion and network-based learning. Events such as the interactive management forum – a biannual event for the top three management levels – are a symbol of this new team culture. At the Group-wide Innovation Campus, every employee at EnBW is given the opportunity to become an intrapreneur, contribute their own ideas and develop them further within the Group.

The market, customers and technology are already dictating the rapid pace of the Energiewende today: other young and agile competitors are entering the market and customers are demanding individual and digitally networked solutions. New technologies demand that all project developers constantly examine the market for any new opportunities. We are preparing ourselves for this “sprint logic” with the EnBW 2025 strategy: Targeted coaching of employees and selective external recruiting will allow the company to anticipate market developments. New, agile management models and forms of cooperation will increase the pace at which we work in the Group. This will enable us to keep on shaping a faster and more complex energy world together with our employees.



Volker Reinhard

"We are supplementing our long-standing core expertise with new skills."

Interview with Volker Reinhard, Head of HR, Generation Sector, EnBW.

What changes have taken place in the area of generation at EnBW?

Volker Reinhard: EnBW was characterised by the operation of large, labour-intensive coal, nuclear and hydropower power plants. Our activities were mainly focused in Baden-Württemberg. Today, our wind and solar power plants are distributed across Germany, which is why we have established branches in Trier, Erfurt, Hamburg and Berlin. A lot has also changed from a structural perspective. Generation used to be organised as its own company but today the project planning, construction and operation of power plants is combined in business units. Agile working methods support the project work and are set up in parallel to the line organisation.

What new skills does EnBW require in the area of renewable energies?

Volker Reinhard: In the case of specialist tradesmen, the basic training requirements for employees have remained almost the same. In contrast, our project work has changed fundamentally. We have to adapt much more quickly today to numerous modern technologies and further training has now become much more significant than in the past. Specialist skills are required, in particular, for the realisation of large wind, solar or hydropower projects. This ranges from the logistical organisation of these major projects through to special geological expertise for the deep foundations required by wind turbines. This is why we are always pleased to find employees who already have experience in these areas. As we have already gained a very good level of knowledge at our site in Hamburg over the last few years, we are also able to use this very high level of expertise to provide relevant training ourselves. In addition, EnBW remains in contact with colleges and universities to assess what qualifications we will need in the future. An important factor is the geographical mobility of our employees, not only within Germany but also increasingly internationally.

What does the "Next Level EnBW" initiative mean for the area of generation and especially for renewable energies?

Volker Reinhard: We have set ourselves the following goal as part of "Next Level EnBW": We want to be proactive and flexible from both a strategic and organisational perspective to ensure that we have a presence on all relevant markets. This includes selective internationalisation. We will also organise our portfolio so that it is stable and sustainable. As larger power plants will play a more important role in the future, we will keep a close eye on current and future generation technologies – such as floating wind turbines. This will enable us to continue to operate profitably and add our own value to Group earnings.

Why should people apply to work at EnBW?

Volker Reinhard: A job at EnBW offers many exciting challenges and will leave you wanting even more. I believe that there has never been such a good opportunity to help fight climate change than to find a meaningful vocation in the generation of renewable energies. And EnBW is amongst the frontrunners in this field. In this way, we can try to make the world that little bit better.

Asking the Experts: "How has your job changed?"



We built EnBW Baltic 1 back in 2011, while EnBW Hohe See and EnBW Albatros were completed in 2019. What has changed during this time?

Stefan Kansy (Head of New Construction Projects at EnBW): EnBW Baltic 1 was the first commercial offshore wind farm in Germany to be placed into operation. The offshore wind farm EnBW Baltic 2 – which was completed in 2015 – surpassed EnBW Baltic 1 in all dimensions. The planning and logistical challenges faced in the construction of our third offshore wind farm project EnBW Hohe See/Albatros were even higher: Each of the 87 wind turbines is three times larger than the ones at Baltic 1, the turbines are located 100 km from the coast in the North Sea instead of 16 km out in the Baltic Sea and the total capacity of Hohe See/Albatros is twelve times that of Baltic 1. This clearly illustrates how dynamically the skills at EnBW have developed in the project planning for large offshore wind farms.

There are now an increasing number of interdisciplinary projects.

What does "working beyond departmental boundaries" mean to you?

Thorsten Jörß (Head of Project Development for Photovoltaics): A large EnBW team ranging from technicians and purchasers through to lawyers participates in the development and implementation of a solar park project. That makes agile working models essential. We are constantly searching for new PV sites across Germany throughout the year. If the regional conditions are favourable, we begin the detailed planning work. However, we can only implement our plans if we are successful in the corresponding EEG auction. And we all work together to achieve this goal.



How has your job working with local authorities in Baden-Württemberg changed in the last few years?

Rico Goede (EnBW Local Authority Consultant): Citizens today want to be a part of the Energiewende. At the same time, our customers and the local authorities are still concerned about their own autarchy. Involving mayors and town councils in the planning process at an early stage helps to gain acceptance for the project amongst citizens and thus secure the long-term success of the project. This is why our relationship management department accompanies the process of political decision-making at the local level from the very beginning. At the same time, we also examine the local PV market at an early stage of the planning.



The Energiewende is also changing the role played by our customers.

Mr Reitze, why are local authorities becoming electricity producers?

Armin Reitze (Mayor of Leibertingen): The municipality of Leibertingen wanted to make its contribution to pushing forward the Energiewende. EnBW discussed our proposals with us and implemented them to our satisfaction. The new solar power plants barely disturb anybody here. Photovoltaic plants are only permitted on certain sites such as on land with a low agricultural yield. There are many sites of this type in the Swabian Alb region. And the impact on nature due to soil sealing is limited.

“The majority of the bonds that we issue on the market in future will be green bonds.”



Ingo Peter Voigt

Interview with Ingo Peter Voigt, Head of Finance, M&A and Investor Relations, and Peter Berlin, Director for Capital Markets, both at EnBW.

How has the financing strategy at EnBW changed over the last few years?

Ingo Peter Voigt: As part of our strategic repositioning through EnBW 2020, we did not just significantly intensify the expansion of renewable energies but also focussed on other aspects of sustainable supply and sustainable business, such as restructuring and expanding the grids and investing in e-mobility. Accordingly, we also rigorously updated our financing strategy and made it more sustainable. EnBW has raised 1.5 billion euros solely through the issuing of green bonds in the last two years. Our message is clear: The majority of the bonds that we issue on the market in future will be green bonds.

What are green bonds?

Peter Berlin: Bonds are “green” when they finance investment in sustainability goals. There has been strong demand on the markets for this type of bond. Our green bonds especially address a wider group of investors who invest in sustainable products out of conviction.

How does EnBW use the proceeds from green bonds?

Ingo Peter Voigt: We have used the proceeds from the green bonds in the area of offshore wind power, primarily for the wind farms EnBW Hohe See and EnBW Albatros which were completed at the turn of the year. In addition, we are investing in onshore wind, e-mobility and photovoltaic projects.

How does EnBW ensure transparency with respect to the use of the funds?

Ingo Peter Voigt: Issuers of green bonds have to guarantee in advance that the funds raised will be invested in green projects and subsequently provide their investors with annual verification of the sustainable use of the funds and a report on the impact on the environment.

Peter Berlin: Which standards apply to green bonds and what the word “sustainable” actually means must, therefore, be defined clearly and understandably for all market participants. The first standards were set by the European Commission with their guidelines on climate-related reporting for companies. Other guidelines are based on the proposals by the Technical Expert Group on Sustainable Finance and the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) appointed by the Financial Stability Board of the G20.

Ingo Peter Voigt: EnBW participated in and actively contributed to the relevant working groups at a very early stage. At the same time, we also integrated the results into our own form of reporting. It is for this reason that it was relatively easy for us to establish the institutional framework for the issuing of green bonds and to have it certified by renowned sustainability rating agencies. This guarantees to all investors that the green bonds issued by EnBW are sustainable.



Peter Berlin



Our future has already begun

The Energiewende has long since arrived in urban areas. This has given a whole new dynamic to the transformation of supply systems, in which renewable energies are also playing an important role.

Efficient and effective infrastructure will be an important theme for all stakeholders, whether private consumers, industrial customers or local authorities. EnBW is making this kind of intelligently networked infrastructure available to its customers.

The focus in future will be on how to network previously separate infrastructures such as energy, transport, telecommunications and urban development.

We are a strong partner for the careful planning, reliable operation and sustainable development of complex infrastructure. Through the smart networking of our products and services, we ensure, for example, a high level of energy self-sufficiency and mobility within new districts. Carefully planned infrastructure guarantees sustainability and efficiency in the provision of electricity, heating and cooling.

Renewable energies will be integrated into district development locally, regionally and supraregionally to enable a sustainable supply of green energy:

The local generation of electricity using combined heat and power plants, solar power plants and biogas plants makes environmental sense. Virtual power plants will handle the marketing of the energy produced.

Ideas for the future

We already embarked on the path to the future long ago with our new products and business models. The following selection of EnBW innovations from the area of renewable energies shows the direction in which we are headed.



EnBW Asset RADAR

EnBW Asset RADAR (Reporting and Data Analytics for Renewables) uses artificial intelligence to identify technical faults on wind power plants at an early stage and helps avoid any subsequent damage. Savings of several millions of euros were achieved using EnBW Asset RADAR in 2018.

Sun and wind forecasts

Energy supply companies are increasingly dependent on wind and sunshine forecasts due to the expansion of renewable energies. EnBW is participating in an EU project that aims to improve the quality of weather forecasts.

Offshore kites

Flying systems could enable the harnessing of upper atmospheric layers with their energy-rich and stable wind speeds for electricity generation. EnBW is participating in a project to develop a fully automated high-altitude wind power plant.



Green gases

Since the beginning of 2019, the EnBW subsidiary ZEAG has been generating green hydrogen at the "Harthäuser Wald" wind farm. Energiedienst already opened a hydrogen electrolysis plant in Wyhlen that is operated using hydropower in 2018.



Floating solar power plants

The EnBW subsidiary Erdgas Südwest is realising the largest floating photovoltaic power plant in Germany on the Maiwald quarry lake in Renchen. If the green electricity is not consumed on-site at the gravel plant, it flows into the public grid. The operator is thus able to save around 560,000 kg of CO₂ per year.

Floating wind power plants

Floating platforms could be used to exploit the wind power potential in deeper waters. In cooperation with partners, EnBW is developing various different concepts that would be suitable for opening up new international offshore wind energy regions.

Contents

Combined management report of the EnBW Group and EnBW AG

Front cover pages:

Performance indicators of the EnBW Group	
EnBW at a glance	
Editorial	

Playing an active role in shaping the Energiewende

Playing an active role in shaping the Energiewende	2
The power behind the transformation: water, wind and sun	6
Cultural change for new energy	10
Our future has already begun	14
The Board of Management	18
Letter to shareholders	22
Report of the Supervisory Board (condensed)	24
About this report	27

Fundamentals of the Group

Business model	32
Strategy, goals and performance management system	41
Corporate governance	48
In dialogue with our stakeholders	51
Research, development and innovation	56
Procurement	59

Business report

General conditions	62
The EnBW Group	68
EnBW AG	91
Overall assessment of the economic situation of the Group	95
Forecast	96
Report on opportunities and risks	100
Remuneration report	110
Disclosures pursuant to sections 289 a (1) and 315 a (1) German Commercial Code (HGB) and explanatory report of the Board of Management	119
Index for the non-financial declaration of the EnBW Group and EnBW AG	121
Index for the Task Force on Climate-related Financial Disclosures (TCFD)	122
Declaration of the legal representatives	123

The declaration of corporate management including the corporate governance report 124

Financial statements of the EnBW Group

Income statement	135
Statement of comprehensive income	136
Balance sheet	137
Cash flow statement	138
Statement of changes in equity	139
Notes to the 2019 financial statements of the EnBW Group	140
Notes to the income statement and the balance sheet	158
Other disclosures	194
Auditor's report	241

Corporate bodies

The Supervisory Board	250
Offices held by members of the Board of Management	252
Other offices held by members of the Supervisory Board	253

Service

Financial terms	256
Glossary	257
Multi-year overview	260
Important notes	262

Rear cover pages:

Financial calendar 2020
On track for growth with new wind farms in the North Sea

Navigation

The integrated management of EnBW comprises financial and non-financial goals in the dimensions:



TOP Our key performance indicators are labelled with this symbol.

The cross-references take you to further information within this report or to the definition of terms in the glossary in the service section at the end of the report. You will also find the financial terms here.

Note

We have also published an online version of the Integrated Annual Report 2019 at www.enbw.com/report2019.

The cross-references and Internet links do not form part of the audited management report.

The Board of Management



“The infrastructure and energy world of the future will be sustainable and green, decentralised and digital, urban and cooperative. We are already well on the way towards getting there.”

Frank Mastiaux

Dr. Frank Mastiaux

born 1964 in Essen

- › Chairman of the Board of Management
- › Chief Executive Officer since 1 October 2012
- › appointed until 30 September 2022
- › lives in Stuttgart



"We want to grow sustainably in the next phase of our strategy. Our financing activities will consistently adhere to our corporate strategy, which is why the majority of our bonds will be green bonds in future."

Thomas Kusterer



Thomas Kusterer

born 1968 in Pforzheim

- › Member of the Board of Management
- › Chief Financial Officer since 1 April 2011
- › appointed until 31 March 2024
- › lives in Ettlingen

Dr. Hans-Josef Zimmer

born 1958 in Merzig

- › Member of the Board of Management
- › Chief Technical Officer since 1 January 2012
- › appointed until 31 May 2021
- › lives in Steinfeld (Pfalz)



“EnBW plans to invest more than five billion euros by 2025 in the further expansion of renewable energies.”

Hans-Josef Zimmer

“The ideas, motivation and drive of our employees will help us to switch over to growth. As we do this, we will be breaking new ground – and the focus will be on people.”

Colette Rückert-Hennen



Colette Rückert-Hennen

born 1961 in Leverkusen-Opladen

- › Member of the Board of Management and Director of Personnel
- › Chief Human Resources Officer since 1 March 2019
- › appointed until 28 February 2022
- › lives in Karlsruhe



Letter to shareholders



Frank Mastiaux
Chairman of the Board of Management

*Dear Sir or Madame, Dear Shareholders,
Employees and Friends of EnBW,*

We have been transforming ourselves from a conventional energy company into a strong and innovative partner for energy and infrastructure for the last eight years. We have learned to consider the central themes and trends of our time, such as climate protection, the mobility transition, digitalisation and urbanisation, as opportunities to secure the future viability of our company. We have made the ability to change into one of our key skills.

A successful and eventful 2019 financial year

We developed the EnBW 2020 strategy in 2013 with the target of reaching the same level of earnings in 2020 as in 2012: an adjusted EBITDA of €2.4 billion. The strategy has been rigorously implemented since then and we have already achieved our earnings target for 2020 one year early. In 2020, we will conclude the fundamental transformation of the business portfolio to meet the requirements of a new energy world. The fact that the earnings contributions made by the individual segments have been completely transformed in comparison to 2012 demonstrates how profoundly we have changed over the last few years. We have also been able to improve in the non-financial goal dimensions: The good reputation of EnBW amongst important stakeholders has once again improved, while customer satisfaction and supply reliability are at a high level. The trust placed in the competitiveness and future viability of the company by our employees has increased and occupational safety has also improved further. The expansion of renewable energies is continuing according to plan, while the CO₂ intensity of our own generation of electricity has fallen.

We initiated many new things and continued with others – across all segments – in 2019. Here are some examples:

In the Sales segment, we have now achieved growth two years in a row after considerable repositioning efforts. Our subsidiary Senec is one of the top 3 suppliers on the German market for home storage systems for solar power plants. By expanding our public charging network for electromobility and through collaborations with renowned partners, we currently have the most comprehensive charging infrastructure for e-cars in Germany. In Baden-Württemberg, municipal utilities, suppliers and local authorities worked together under our leadership to establish a core charging network for electric vehicles. The acquisition of the broadband provider Plusnet in 2019 was a major step in building a strong position for ourselves on the nationwide telecommunications market in Germany.

The Grids segment is continuing to expand the transmission grids, converting them into smart grids and integrating various measures for electromobility in the process. A new participation model for the transmission grids that enables local authorities to acquire shares in Netze BW and thus play a part in the economic success of our electricity and gas grids has lifted the quality of our partnerships with local authorities to a whole new level.

In the Renewable Energies segment, the acquisition of the French developer of wind and solar projects Valeco is moving us forward and opens up potential for international growth. We have also completed the largest offshore wind project to be built in Germany to date – EnBW Hohe See and EnBW Albatros with a total output of 609 MW. In addition, we made the decision in 2019 to take on the construction of the largest solar park in Germany with an output of 180 MW without state funding. To finance this and other investments, we issued green hybrid bonds with a total volume of €1 billion in 2019 – the first German company to do so.

In the Generation and Trading segment, we continued to push forward the transformation of our portfolio. The proportion of CO₂-intensive power plants has fallen by around 40% since 2012. In 2019, we had our bid accepted for the construction of a new gas turbine power plant as special technical equipment for grids and the Philippsburg 2 nuclear power plant was shut down for good on New Year's Eve.

Please allow me at this point to comment on energy policy: We are following the deviations of the Coal Phase-out Act from the recommendations made by the Coal Commission with some concern. The law is now detrimental to climate protection and detrimental to a sustainable Energiewende, especially in southern Germany. Therefore, we are calling on the German government to return to the recommendations made by the Coal Commission and also to improve the planning of the expansion of renewable energies.

Switching over to growth

Following our realignment and repositioning phase, we have now switched our priority and are on track for growth. We have set ourselves the target of an operating result of €3.2 billion in 2025. The acquisitions of Valeco and Plusnet in 2019 were already the first steps in this direction. As part of our EnBW 2025 strategy, we are transforming ourselves into a sustainable and innovative infrastructure partner for our customers and other stakeholders. In the process, we are also branching out beyond the traditional boundaries of the energy sector to open up new growth areas for our core expertise – the safe and reliable construction and operation of critical infrastructure. Urban infrastructure is a good example of one of these growth fields. We understand this to be the smart networking of energy, transport, telecommunications, security and more in the public sphere. However, we aren't going to just approach this from a technical perspective – we want to create liveable districts for people.

We are striving to make the business activities at EnBW even more sustainable in future – an ambitious goal for which the security of supply must be addressed during its realisation. As in the previous strategy period, the achievement of these targets will require the outstanding performance of the whole team at EnBW and plenty of creativity, while always placing the focus on the customer. We have already achieved this once.

Yours sincerely,



Dr. Frank Mastiaux
Chairman of the Board of Management

Report of the Supervisory Board



Lutz Feldmann
Chairman of the Supervisory Board

The Supervisory Board dutifully and comprehensively performed all of the tasks incumbent on it in the 2019 financial year as required by law and the Articles of Association. It regularly advised the Board of Management on its management of the company and continuously accompanied and monitored all important management measures for the Group. In the process, the Supervisory Board was involved in all decisions of fundamental importance to the company and the Group.

The Board of Management regularly, comprehensively and promptly informed the Supervisory Board about all relevant aspects of intended business policies and other fundamental issues relating to business planning and also provided reasons for any discrepancies between the actual development of business

and the plans and targets reported at an earlier date. In addition, the Board of Management informed the Supervisory Board about the economic position of the company and the Group including, amongst other things, the profitability of the company (especially the equity), the development of business (especially the revenue and earnings, the net assets, financial position and results of operations, as well as HR development at the company) and those business transactions that could be of significant importance for the profitability or liquidity of the company. In addition, the Board of Management informed the Supervisory Board about the risk situation of the Group and of individual areas of the Group, corporate strategy and planning, risk management, the internal control system and compliance.

Key topics of the discussions at the plenary meetings of the Supervisory Board

In the 2019 financial year, the Supervisory Board dealt extensively with verbal and written reports and proposals for resolutions issued by the Board of Management at its seven ordinary meetings on 15 February 2019, 27 March 2019, 7 May 2019, 11 July 2019, 27 September 2019, 7 November 2019 and 4 December 2019, an extraordinary meeting on 7 March 2019 and through two written resolution procedures. Furthermore, it requested reports and information from the Board of Management on individual topics, which were comprehensively provided in a timely manner in each case. The discussions and resolutions at the plenary meetings of the Supervisory Board focused on the following key issues:

- › In-depth consultations and discussions with the Board of Management about long-term strategic planning (with a focus on offshore and onshore wind power and critical infrastructure)
- › Consultation on the personnel strategy
- › Consultation on the implementation status of the sales strategy
- › Consultation on the results of the negotiations with the commission on “Growth, Structural Change and Employment” of the German Federal Ministry for Economic Affairs and Energy (so-called “Coal Commission”)
- › Consultation on issues relating to the sustainable procurement of hard coal from Colombia and Russia
- › Consultation on climate protection activities by the company
- › Approval for the acquisition of all shares in the Valeco Group (development, construction and operation of wind and solar energy), France, by EnBW France GmbH
- › Approval for the acquisition of all shares in Plusnet GmbH and indirectly in its subsidiaries by EnBW Telekommunikation GmbH
- › Consultation on the expansion of the quick-charging infrastructure for electromobility
- › Approval for the submission of bids as part of the EU tender process “Special technical equipment for grids” for the site in Marbach and for a project budget in the event that the bid was accepted (as it has been in the meantime)
- › Approval of the scheduled sale of the remaining 6% shareholding in EWE Aktiengesellschaft
- › Approval for the conclusion of an LNG procurement contract with Novatek Gas & Power Asia Pte. Ltd.
- › Approval for the realisation of the Weesow-Willmersdorf solar park
- › Consultation on opening up Netze BW GmbH for indirect investment by local authorities of up to 24.9% and approval for the measures under corporate law required for this purpose
- › Consultation on the financing strategy, including in particular the approval for the issuing of two green hybrid bonds with a total volume of €1 billion in 2019
- › Approval of financing measures for Pražská energetika a.s. (PRE)
- › Regular consultation on the development of the financial ratings of EnBW AG
- › Approval for the amendment to the plan for the allocation of responsibilities proposed by the Board of Management due to Dr. Bernhard Beck stepping down from the Board of Management and Colette Rückert-Hennen being appointed to the Board of Management
- › Appointment of Colette Rückert-Hennen as the Director of Personnel of EnBW AG
- › Consultation on the reform of the German Corporate Governance Code and the impact of the law for the implementation of the second shareholder rights directive (“ARUG II”)
- › Amendment to the rules of procedure for the Supervisory Board
- › Consultation on corporate governance and the issuing of the annual declaration of compliance
- › Regular reporting on the operation, safety and, where relevant, dismantling of the nuclear power plants
- › Consultation on the status of the projects to construct the waste material processing centres and waste storage facilities in Philippsburg and Neckarwestheim, as well as approval for the amendment of the budget for the projects
- › Approval of the measures for the corporate financing of TransnetBW GmbH by EnBW AG in connection with the new grid construction projects SuedLink and ULTRANET
- › Regular reporting on major investment projects, including EnBW Hohe See and EnBW Albatros, as well as other projects that form part of the generation strategy (renewable and conventional generation)
- › Consultation on the current status and strategic issues related to the engagement of EnBW in Turkey as part of the joint venture Borusan EnBW Enerji yatirimlari ve Üretim A.S., with a focus on, amongst other things, the impacts of the political events and developments in Turkey
- › Approval to finance the Saros wind project of Borusan EnBW Enerji yatirimlari ve Üretim A.S. (JV)
- › Approval of the budget for the 2020 financial year and acknowledgement of the medium-term planning for the period 2021 to 2022 consisting of the Group earnings, finance, investment and personnel plans, as well as the result (HGB) and liquidity planning of EnBW AG
- › Defining the level of the short-term variable remuneration for the Board of Management for 2018 and the long-term variable remuneration for the Board of Management for 2016 (performance period 2016 to 2018)
- › Defining the targets for the short and long-term variable remuneration for the Board of Management for 2020
- › Consultation on the annual compliance and data protection report and the agenda for the following period
- › Regular reporting on the development of market prices for electricity, fuels and CO₂
- › Regular reporting on the key indicators for occupational safety and health protection and exceptional events in the EnBW Group
- › Approval of the proposals made at the Annual General Meeting, including the election of the auditor for the 2019 financial year and for the (by-)election of members of the Supervisory Board

Aside from the meetings, the Board of Management informed the Supervisory Board in writing about all business transactions of particular importance for the company or the Group. In addition, there was ongoing communication between the Chairman of the Supervisory Board and the Board of Management, particularly with the Chairman of the Board of Management, in order to discuss issues relating to the strategic positioning, planning, business development, risk situation, risk management, compliance, important individual transactions and currently pending decisions.

There was a consistently very high attendance rate at the individual meetings of the Supervisory Board. The majority of the members of the Supervisory Board attended all meetings of the Supervisory Board. No member of the Supervisory Board participated in less than half of the meetings.

Work of the committees

In order for the Supervisory Board to perform its functions efficiently, the committees it set up once again met regularly in the past financial year. The respective members of the committees are listed on p. 251 of the Integrated Annual Report 2019. The Chairpersons of the committees regularly reported comprehensively on the work of the committees at each subsequent plenary meeting of the Supervisory Board.

Corporate governance

The Supervisory Board also paid close attention to the various issues relating to corporate governance in the 2019 financial year. These issues are described in detail in the corporate governance report. The corporate governance report is part of the (Group) declaration on corporate management, which the company has published on its website (www.enbw.com/corporate-governance) in accordance with section 289 f (1) sentence 2 and section 315 d sentence 2 of the German Commercial Code (HGB).

Audit of the annual and consolidated financial statements

Following a thorough examination by the audit committee, the Supervisory Board undertook a detailed review of the annual financial statements and consolidated financial statements as of 31 December 2019 that were audited and issued with an unqualified audit opinion by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, and of the combined management report including the non-financial declaration for the 2019 financial year.

The final results of its own reviews did not lead to any reservations on behalf of the Supervisory Board. It approved the audit results of the independent auditor and endorsed the annual financial statements prepared by the Board of Management as of 31 December 2019 – which have thus been ratified – and the consolidated financial statements as of 31 December 2019, as well as the combined management report including the non-financial declaration for the 2019 financial year.

Reference to the complete version of the report of the Supervisory Board

Further details on the topics “Work of the committees”, “Corporate governance”, “Audit of the annual and consolidated financial statements” and “Personnel changes at the level of the Board of Management and Supervisory Board” can be found in the full version of the Report of the Supervisory Board made available to the public on the company’s website at www.enbw.com/corporate-governance.

Karlsruhe, 20 March 2020

The Supervisory Board



Lutz Feldmann
Chairman

About this report

Integrated reporting

In this Integrated Annual Report – as in previous years – we also take ecological and social aspects of the company’s activities into account as well as economic aspects. We have published an Integrated Annual Report based on the recommendations of the International Integrated Reporting Council (IIRC) since the 2014 financial year, with the aim of achieving a holistic representation of the performance of the company. Based on the concepts behind integrated reporting, we strive for the comprehensive integrated management of the company through the implementation of the EnBW 2020 strategy and the subsequent EnBW 2025 strategy. By presenting financial and non-financial corporate goals in the dimensions of finance, strategy, customers

and society, employees and environment, we are seeking to promote integrated thinking within the company and emphasise the importance of being comprehensively oriented towards performance and our stakeholders. We measure the achievement of our goals using key performance indicators. Our ambitions are underlined by the work and membership of Thomas Kusterer, member of the Board of Management of EnBW, in the IIRC as well as in the EU Technical Expert Group on Sustainable Finance (TEG) (Glossary, from p. 257). The “Building Public Trust Award 2019”, which we received from PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft for the Integrated Annual Report in 2018, confirms our commitment in this area. More about integrated reporting at EnBW can be found at www.enbw.com/integrated-reporting.

The Integrated Annual Report 2019



www.enbw.com/report2019

The Integrated Annual Report 2019 presents financial and non-financial corporate goals in the following dimensions:

- 
Finance
- 
Strategy
- 
Customers and society
- 
Employees
- 
Environment

This promotes integrated thinking within the company and emphasises the importance of being comprehensively oriented towards performance and our stakeholders.

TOP We measure the achievement of our goals using key performance indicators.

Overview of financial publications 2019

Integrated Annual Report 2019

The report contains the combined management report of the EnBW Group and EnBW AG, as well as the condensed version of the consolidated financial statements without the notes to the financial statements. It is available in print and in PDF format. Selected content from this report and additional information on aspects of sustainability can be found in the online report at www.enbw.com/report2019.

Integrated Annual Report 2019 – Extended Version

The extended version of the Integrated Annual Report 2019 comprises the full set of financial statements of the EnBW Group including the notes to the consolidated financial statements and the Declaration of Corporate Management. This document is exclusively available in PDF format.

Declaration of Corporate Management 2019

of the EnBW Group and EnBW AG including the Corporate Governance Report 2019. This document is contained in the Integrated Annual Report 2019 – Extended Version but is also available separately in PDF format.

Financial statements of EnBW AG 2019

This report is published in PDF format and contains the annual financial statements of EnBW AG.

All documents relating to the financial statements for the 2019 financial year can be found at www.enbw.com/report2019-downloads. We publish the quarterly statements and the six-monthly financial report at www.enbw.com/financial-publications.

Together with existing legal requirements for strengthening non-financial reporting by companies in their management reports and Group management reports (CSR Directive Implementation Act), the reporting principles and elements of the IIRC create the foundations for integrated reporting. The Integrated Annual Report 2019 of EnBW contains the combined management report of the EnBW Group and EnBW AG in accordance with the regulations found in commercial law. The full consolidated financial statements including the notes to the

consolidated financial statements and the (Group) declaration of corporate management including the corporate governance report are not included in this report and they are available to download at www.enbw.com/report2019-downloads.

The contents of this Integrated Annual Report exclusively serve to provide information and do not constitute an offer or an investment recommendation. Please take this into consideration and also refer to the other important notes on p. 262.

Important aspects of reporting

Main elements of reporting in 2019

Topic	Further development	Page reference
Business model	› Adapting the business model according to the ongoing strategic development	page 32 ff.
Strategy	› Ongoing strategic development: continuing the EnBW 2020 strategy and the achievement of its goals, introduction of the EnBW 2025 strategy	page 41 ff.
Materiality analysis	› Stabilising the materiality analysis process › Closely linked to the process for developing the company's strategy	page 51 f.
Interdependencies	› Presenting the interrelationships between key performance indicators	page 46 f.

In our concise and transparent reporting, we aim to meet the increased needs of stakeholders for more information. We use our regular materiality analysis process to ensure that all of the key issues from the past financial year are included in the Integrated Annual Report. We are introducing the new EnBW 2025 strategy in parallel to the existing EnBW 2020 strategy. In this context, we will continue to report transparently on the achievement of the goals for the EnBW 2020 strategy.

Through the participation of the EnBW Chief Financial Officer on the international Task Force on Climate-related Financial Disclosures (TCFD) (Glossary, from p. 257), EnBW actively supports the strengthening of climate-related risk reporting by companies (www.enbw.com/responsibility). An overview of the contents for this complex range of topics can be found in the index on TCFD recommendations on p. 122.

We will also strive in future years to continuously improve our integrated reporting. Our plans for 2020 thus include the continuous further development of the content of this report in accordance with the requirements for a non-financial declaration and the disclosures recommended by the TCFD.

Basis for the presentation of the report

The information about the net assets, financial position and results of operations of the EnBW Group is based on the requirements of the International Financial Reporting Standards (IFRS), and, where applicable, German commercial law and German accounting standards (GAS). We have fully integrated the non-financial declaration pursuant to sections 298b and 315b HGB into the combined management report based on our integrated reporting. Internal control mechanisms ensure the reliability of

the information presented in this report. Furthermore, this Integrated Annual Report is based on the recommendations for reporting principles and reporting elements contained within the IIRC framework.

The selection of topics and the level of detail given to them in this Integrated Annual Report is based, as in previous years, on their materiality. The materiality analysis process pays particular attention to the key themes discussed internally in the management bodies and addressed in the external communication (p. 51 f.) and is anchored within the strategy process.

This report was created in accordance with the GRI standards: "Core" option. The reporting of sustainability issues has been based since the 2017 financial year on the GRI standards, including the Electric Utilities Sector Supplement. Further information on the GRI Content Index can be found at www.enbw.com/gri-index. Further information on the fulfilment of other sustainability standards is available on our website at www.enbw.com/performance-indicators. Our sustainability reporting also complies with the Communication on Progress requirements for the UN Global Compact and is based to an increasing extent on the UN Sustainable Development Goals (www.enbw.com/green-bond). These two framework standards, as well as the UN 2030 Agenda for Sustainable Development, have been used as the basis for the non-financial declaration.

All data and calculation methods used for this Integrated Annual Report are based on German and international standards for financial and sustainability reporting. The responsible specialist units applied representative methods in each case for the collection of all data and information for the reporting period. The reporting period comprises the 2019 financial year.

We took into account all relevant information up to 4 March 2020. Along with EnBW AG, with its headquarters in Karlsruhe, Germany, the group of consolidated companies of EnBW for financial reporting also includes all of its key subsidiaries. The reporting limits for the non-financial performance indicators correspond to the scope of consolidation for financial reporting, unless otherwise stated. In addition, we have also taken other issues into account in various chapters of this Integrated Annual Report, especially against the background of the legal requirement for a non-financial declaration, in order to provide a holistic representation of the performance of the company. The index for the non-financial declaration of the EnBW Group and EnBW AG is presented on p. 121.

As we were preparing the Integrated Annual Report 2019, our aim was to write the text in a concise and understandable way and thus to make it easy to read and more personal. It is for this reason that we have generally used the term “we” and only sporadically the name “EnBW” when we are reporting on our company. The EnBW Group is meant in both cases. For statements about EnBW Energie Baden-Württemberg AG, we have explicitly used either the full name or the short form EnBW AG.

Independent auditing and evaluation

At the Annual General Meeting of EnBW Energie Baden-Württemberg AG on 8 May 2019, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft was elected as the new auditor and Group auditor. The condensed financial statements for the 2019 financial year that form part of the Integrated Annual Report do not include the notes to the consolidated financial statements or the (Group) declaration of corporate management 2019 which includes the corporate governance report 2019. The full set of consolidated financial statements – including the notes to the consolidated financial statements – and the management report for the company and the Group are included in the extended version of the Integrated Annual Report 2019 and were all audited by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft for the 2019 financial year. As in the previous year, a complete audit of the non-financial declaration was carried out in accordance with an extension of the auditing mandate made by the Supervisory Board. Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft arrived at the overall conclusion that the entire audit did not lead to any reservations and issued an unqualified audit opinion. The high level of integration in the whole reporting process is underlined by this audit of the complete Integrated Annual Report with reasonable assurance. The full set of consolidated financial statements and the combined management report for the company and the Group for the 2019 financial year, as well as the unqualified audit opinion issued by the auditor, are accessible to the public on the website of EnBW Energie Baden-Württemberg AG at www.enbw.com/report2019-downloads.

Combined management report

of the EnBW Group and EnBW AG

Fundamentals of the Group

Business model

Business principles	32
Assessment of the robustness of our business model in terms of climate protection	33
Value added	34
Our operating segments	36
Group structure and business radius	38

Strategy, goals and performance management system

Strategy	41
Goals and performance management system	43

Corporate governance

Corporate management	48
Management and supervision	48
Compliance	49

In dialogue with our stakeholders

Our stakeholders	51
Materiality analysis	51
Sustainability ratings	53
Social engagement	53
Dialogue with citizens	54
In dialogue with our stakeholders	55

Research, development and innovation

Research and development: Goals, guidelines and processes	56
Research and development: Selected activities	56
Innovation management: Goals, guidelines and processes	57
Innovation: Selected activities	58
Expenditure and personnel	58

Procurement

Efficient and sustainable procurement processes	59
Responsible raw materials procurement in the coal sector	60

Business report

General conditions

Macroeconomic trends	62
Development of the sector and competitive situation	62
Cross-segment framework conditions	63
Sales segment	64
Grids segment	65
Renewable Energies segment	65
Generation and Trading segment	66

The EnBW Group

Finance and strategy goal dimensions	68
Customers and society goal dimension	81
Employees goal dimension	83
Environment goal dimension	87

EnBW AG

Results of operations of EnBW AG	91
Net assets of EnBW AG	92
Financial position of EnBW AG	93
Overall assessment of the economic situation of EnBW AG and the development of EnBW AG	94
Opportunities and risks	94
Comments on reporting	94
EnBW share and dividend policy	94

Overall assessment of the economic situation of the Group	95
---	----

Forecast

Expected trends in the finance and strategy goal dimensions	96
Expected trends in the customers and society goal dimension	98
Expected trends in the employees goal dimension	99
Expected trends in the environment goal dimension	99
Overall assessment of anticipated developments by the management	99

Report on opportunities and risks

Principles of the integrated opportunity and risk management system	100
Structure and processes of the integrated opportunity and risk management system	101
Structure and processes of the accounting-related internal control system	102
Non-financial declaration	103
Opportunity and risk position	104
Overall assessment by the management	109

Remuneration report

Board of Management remuneration	110
Supervisory Board remuneration	117

Disclosures pursuant to sections 289 a (1) and 315 a (1) German Commercial Code (HGB) and explanatory report of the Board of Management	119
---	-----

Index for the non-financial declaration of the EnBW Group and EnBW AG	121
---	-----

Index for the Task Force on Climate-related Financial Disclosures (TCFD)	122
--	-----

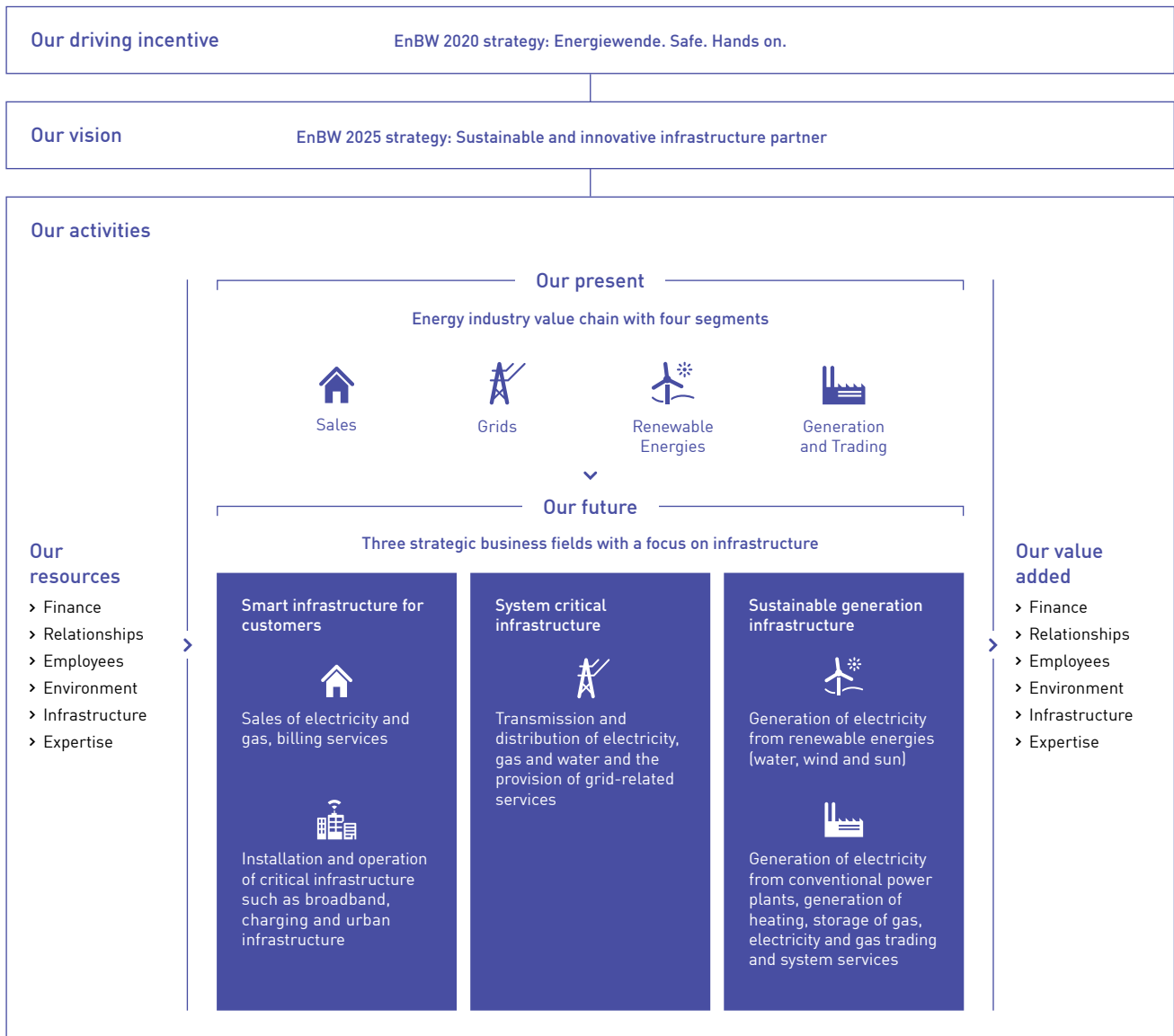
Declaration of the legal representatives	123
--	-----

Fundamentals of the Group

Business model

Business principles

Business model



As an integrated energy company, EnBW is active in the four segments Sales, Grids, Renewable Energies and Generation and Trading and is transforming into a sustainable and innovative infrastructure partner. We draw on a variety of resources – from finance through to expertise – for our corporate activities. As a result of the efficient application of these resources, we create value for ourselves and our stakeholders. In response to the Energiewende in Germany, we developed our **EnBW 2020 strategy**

in 2013 with the guiding principle “Energiewende. Save. Hands on.” The main focus of this strategy was the transformation of the business portfolio. The aim was to compensate for the fall in earnings in the Generation and Trading segment with growth in the three other segments: Sales, Grids and Renewable Energies. The resolute implementation of the EnBW 2020 strategy is now on the home straight and has significantly strengthened the future viability of the company.

In view of the permanent change to the framework conditions in the energy industry, we will continue to push forward the strategic development of EnBW and its business portfolio. The new planning horizon is 2025 and our vision is to become a sustainable and innovative infrastructure partner for our customers and other stakeholders. In the **EnBW 2025 strategy**, the focus will be increasingly placed on the aspect of infrastructure within our existing business fields. In addition, we want to exploit new opportunities for growth outside of the energy sector. Our transformed business portfolio will be combined within three strategic business fields from 2021: The Sales segment and the new infrastructure businesses – also outside of the energy sector – will become the new strategic business field “Smart infrastructure for customers”, while the Grids segment will become the business field “System critical infrastructure”. Finally, the strategic business field “Sustainable generation infrastructure” will be formed from the existing “Renewable Energies” and “Generation and Trading” segments. The aim is to develop a balanced business portfolio that has diverse potential for growth, a high proportion of stable, regulated business and an attractive risk-return profile. You can find more about the further development of the EnBW strategy in the chapter “Strategy, goals and performance management system” from p. 41 ff.

An important component of the further development of our business portfolio is **digitalisation**, which is having a greater and greater influence on the way we think and act in our company. We are pushing forward numerous digitalisation initiatives and are focussing here on three main areas: products and processes, technologies, and people and organisation. In 2019, we focussed mainly on products and processes and, in particular, on the development of new, digital approaches for the existing business and new, digital business models.

The year 2019 was characterised by political and social debate on **climate change**. In the Green Deal, the EU wants to introduce comprehensive measures and legal obligations for achieving climate neutrality by 2050. The German federal government also announced in 2019 its aim to become climate neutral by the middle of the century. The Climate Action Plan 2050 that was passed by the German government in October 2019 represented a step in this direction with corresponding intermediate and sector targets. In this context, we have closely examined the significance of sustainability and climate protection themes for our business model and want to support international and national targets for a climate neutral economy in the development of our future measures and goals.

Assessment of the robustness of our business model in terms of climate protection

We have been analysing the robustness of our business model for many years – with an increasing focus on the recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD) (Glossary, from p. 257) in the last few years. We take account of the special requirements of the Energiewende and its effect on the expansion of renewable energies, supply reliability, electricity consumption, grid stability and the supply of heating in our strategic considerations. In particular, we examine the **climate protection requirements and their impact on the business model**. Accordingly, evaluating the different ways the Energiewende could possibly develop, including the opportunities and risks for our business over the coming years, will be a main focus of our market analyses (p. 104).

The **future development of the European electricity and gas markets** plays a major role here. We draw up consistent future scenarios based on all of the different aspects of the Energiewende mentioned above. Major drivers of these scenarios are how much economic growth there will be in the long term and the political and corporate ambitions for protecting the climate in the energy markets. The various risks associated with the transition to a low-carbon economy are reflected within the scenarios. Relevant parameters include estimates on the development of demand, changes to the power plant portfolio, the development of the transmission grids, and prices and price structures for fuel – as well as other relevant market trends such as in the areas of renewable energies and electromobility. On this basis, possible future paths for the long-term development of, amongst other things, the wholesale market prices for electricity and gas as well as CO₂ prices are derived for the scenarios with simulated calculations using computer models. The simulations also take into account physical risks such as uncertainties about meteorological influences on the electricity market in the future due to the availability of wind and sunlight.

Various parameters and assumptions are used to assess the robustness of the business model with respect to climate protection. These include international climate protection targets, especially limiting the rise in temperature to a level acceptable for the global ecosystem, as well as targets for complying with maximum greenhouse gas concentrations (Glossary, from p. 257), such as the IEA 450 ppm (parts per million) scenario. The targets have been defined based on science but can be translated into global carbon budgets for acceptable levels of CO₂ emissions and can thus be used to define a framework for the future size of the markets for fossil fuels. These **scenarios** not only provide information on the market prices for electricity and gas but also enable us to assess the robustness of our strategic planning, for example, with respect to the size of relevant markets for renewable energies or the infrastructures for electromobility. The scenarios and the assumptions on which they are based are updated at regular intervals, whereby the debate about ambitious climate protection targets plays a decisive role.

Value added

Value added for EnBW and its stakeholders

The aim of our corporate activities is to add value in the short, medium and long term. Value added reflects corporate success, as well as competitiveness and future viability, and does not only depend on the company itself but also on the business environment, relationships with stakeholders (p. 51 ff.) and the application of a variety of different resources. As a result of the efficient use of these resources within the scope of our activities, we create value for ourselves and our stakeholders. We associate the concept of sustainable economic development with our aspiration to conduct all of our business activities in a responsible way. This is closely associated with our reputation, that is, the public opinion our stakeholder groups hold about EnBW (p. 81). Information on the interdependencies between the key performance indicators can be found on p. 46 f.

Value added statement

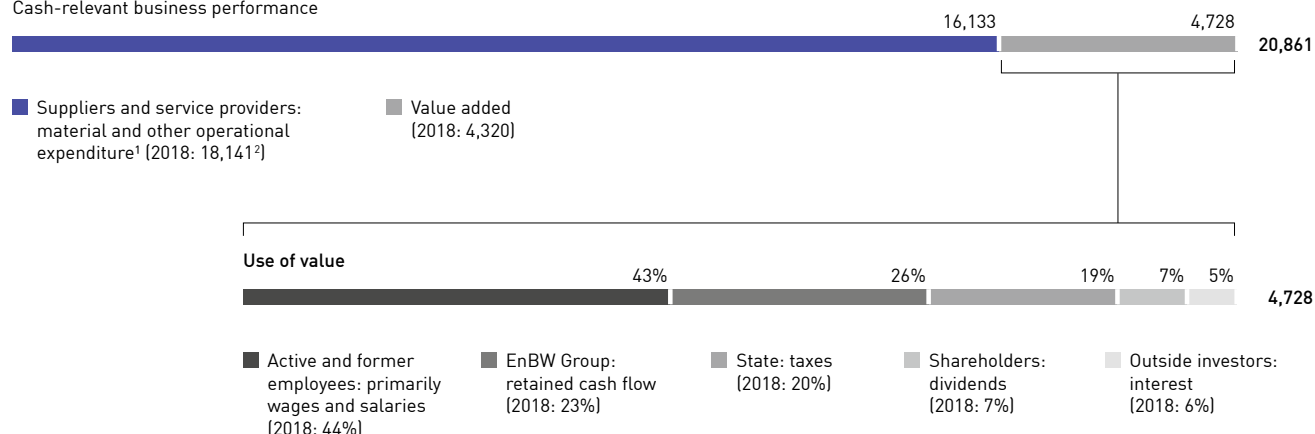
The value added statement indicates the degree to which we contribute to the continuing economic development of the company and our stakeholders using our financial resources. Further information on the dialogue with our stakeholders is summarised in the chapter “In dialogue with our stakeholders” (p. 51 ff.).

We define value added as our cash-relevant business performance in the past financial year minus cash-relevant expenses. The value added is derived from the cash flow statement and corrected based on the use of funds. In the reporting year, we generated value added of 22.7% (previous year restated: 19.2%). As well as being used in the form of wages, salaries and pension payments for active and former employees, a further share is dedicated to payments to the state in the form of income taxes and electricity and energy taxes. After consideration of all stakeholder groups, the retained cash flow is available to the company for future investments without the need to raise additional debt (p. 77).

Value added of the EnBW Group in € million

Creation of value

Cash-relevant business performance



1 Includes interest and dividends received, as well as the dedicated financial assets contribution.

2 The figure for the previous year has been restated.

Value added for EnBW and its stakeholders

Resources

Finance
 A constantly solid financial structure (equity, debt, positive cash flow levels) for financing our business activities

Relationships
 Our customers are the central focus of our philosophy and actions. We actively promote dialogue with our stakeholders and thus build trust and social acceptance.

Employees
 The expertise, experience and diversity of our employees contribute to the success of the company, supported by an effective and efficient HR policy.

Environment
 Using the natural resources wind, water, sun, biomass and geothermal energy to generate energy

Infrastructure
 We are one of the most important energy companies in Germany and Europe thanks to our power plants, electricity and gas grids and gas storage systems.

Expertise
 We develop models for new future business fields through our research and innovation activities.

Value added

For EnBW

- > **TOP** Securing profitability
- > **TOP** High level of financial discipline
- > **TOP** Increasing Group value

- > **TOP** Increasing share of result from "Customer proximity"/Sales
- > **TOP** Increasing customer satisfaction: "Customer proximity"
- > **TOP** Improving reputation
- > Customer loyalty: strengthen trust in EnBW as a partner and supplier

- > **TOP** Increasing employee commitment (ECI)
- > **TOP** Improving occupational safety (LTIF)
- > Always having the right employees with the right skills in the right place

- > **TOP** Expanding renewable energies (RE)
- > **TOP** Increasing Group value
- > **TOP** Reducing CO₂ intensity
- > Improving the carbon footprint
- > Safe dismantling of nuclear power plants

- > **TOP** Expanding renewable energies (RE)
- > **TOP** Increasing Group value
- > **TOP** Reducing CO₂ intensity
- > Driving the Energiewende
- > Opening up new business fields

- > **TOP** Securing profitability and increasing share of result from "Customer proximity"/Sales by identifying new sources of revenue
- > Early identification of medium to long-term market opportunities and trends

For our stakeholders

- > Appropriate dividends for our shareholders
- > Paying interest punctually to our third-party lenders
- > Wages, salaries and pensions for active and former employees
- > Tax payments to the state

- > **TOP** Increasing customer satisfaction: "Customer proximity"
- > **TOP** Maintaining supply reliability (SAIDI)
- > Engaging in social issues through activities for our end customers, business partners, local authorities and their citizens

- > **TOP** Measuring employee identification with the company based on the Employee Commitment Index (ECI)
- > Engagement in the area of diversity
- > Offering trainee and degree places
- > Multi-stage career integration programme for refugees and migrants

- > **TOP** Expanding and integrating RE for customers and society
- > **TOP** Reducing CO₂ intensity
- > Energy-efficient products for our customers
- > Responsible handling of resources
- > Sustainable and responsible procurement

- > **TOP** SAIDI: Supply reliability for our customers (maintained by investments in upgrading grids and expanding transmission grids through our grid subsidiaries)
- > **TOP** Reducing CO₂ intensity
- > **TOP** Investing in the expansion of RE for customers and society
- > Contracting third-party companies and suppliers

- > New smart products for the benefit of our customers
- > EnBW as a provider of venture capital for the development of the portfolio

As a result of the efficient use of our resources within the scope of our activities in the 2019 financial year, we create value for ourselves and our stakeholders.

Our operating segments

Overview of the segments



Sales

Tasks

Sale of electricity, gas, energy industry services and energy solutions; energy supply and energy-saving contracting; cooperations with local authorities; collaboration with municipal utilities; telecommunications

Significant events in 2019

- > Strengthening of the telecommunications business with the acquisition of the broadband company Plusnet
- > EnBW customers switch over to the new sales and billing system EnPower
- > Further partnerships with trading partners and filling station operators for the expansion of the charging infrastructure for electromobility
- > Conclusion of the funded project SAFE to establish a core charging and quick-charging network in Baden-Württemberg with EnBW as the head of the consortium
- > As the largest operator of quick-charging stations in Germany, EnBW places its first quick-charging park into operation at the junction of the A7 and A8 motorways
- > Introduction of a transparent and uniform kWh charging tariff at more than 30,000 charging points in Germany, Austria and Switzerland



Grids

Tasks

Transmission and distribution of electricity and gas as well as expansion of HVDC connections; provision of grid-related services; water supply; guaranteeing the security of supply and system stability

Significant events in 2019

- > Start of the preliminary work for the ULTRANET converter station in Philippsburg
- > Further preparations for SuedLink as part of the approval process
- > "EnBW connects" participation model offers local authorities in Baden-Württemberg the opportunity to acquire a share of Netze BW for the first time
- > Invitation to tender for special technical equipment for grids by TransnetBW
- > Completion of the first section of the European gas pipeline EUGAL
- > End of the "E-Mobility Avenue" project from Netze BW to examine charging behaviour and the effects on the electricity grid; start of two follow-up projects "E-Mobility-Carré" and "E-Mobility-Chaussee"

Sales in 2019

73.6 billion kWh gas (B2C/B2B)



35.3 billion kWh electricity (B2C/B2B)

Number of B2C and B2B customers 2019

Around 5.5 million

Key figures in 2019

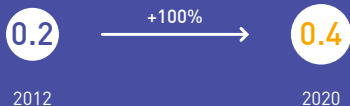
4,394 employees (as of 31/12/2019)

€294.3 million adjusted EBITDA in 2019

€389.4 million investment in 2019

12.1% share of adjusted EBITDA in 2019

Development of adjusted EBITDA (in € billion)



Grid lengths in 2019

144,000 km Electricity transmission and distribution grid

25,000 km Gas transmission and distribution grid

Transmission volumes in 2019

62.4 billion kWh electricity

34.2 billion kWh gas

Key figures in 2019

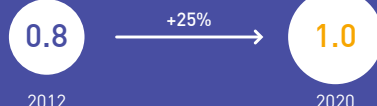
9,254 employees (as of 31/12/2019)

€1,311.2 million adjusted EBITDA in 2019

€1,230.9 million investment in 2019

53.9% share of adjusted EBITDA in 2019

Development of adjusted EBITDA (in € billion)





Renewable Energies

Tasks

Project development and management, construction and operation of renewable energy power plants

Significant events in 2019

- > Completion and commissioning of the offshore wind farm EnBW Hohe See with an output of 497 MW
- > Completion of the offshore wind farm EnBW Albatros with an output of 112 MW; commissioning in January 2020
- > Acquisition of the French project developer and operator of wind farms and solar parks Valeco
- > Investment decision for the Weesow-Willmersdorf solar park with an output of more than 180 MW and without EEG funding
- > Opening of a representative office in Taiwan for developing offshore wind farm projects as part of selective internationalisation
- > Opening of two offices in Jersey City and Boston in the USA to participate in the expansion of offshore wind power on the East Coast of the USA

Generation portfolio in 2019¹

8,858 GWh
generation

2,615 MW
installed output

Key figures in 2019

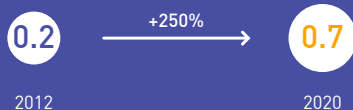
1,384 employees
(as of 31/12/2019)

€482.8 million
adjusted EBITDA in 2019

€1,552.6 million
investment in 2019

19.8%
share of adjusted EBITDA in 2019

Development of adjusted EBITDA (in € billion)



Generation and Trading

Tasks

Advisory services, construction, operation and dismantling of thermal power plants; storage of gas; trading of electricity and gas, provision of system services; operation of reserve power plants; gas midstream business, district heating; waste management/environmental services; direct distribution of renewable energy power plants

Significant events in 2019

- > Final decommissioning of Block 2 of the Philippsburg nuclear power plant on 31 December 2019
- > Approval for the dismantling of Block 2 of the Philippsburg nuclear power plant
- > Extension of the inspection of Block II of the Neckarwestheim nuclear power plant for maintenance work
- > Inauguration of the dismantling infrastructure at the site in Philippsburg
- > EnBW has its bid for the construction of a gas turbine power plant in Marbach am Neckar as special technical equipment for grids accepted
- > Official inauguration of the combined gas heat and power plant in Stuttgart-Gaisburg
- > Conclusion of a gas procurement contract with Gazprom
- > Conclusion of an LNG procurement contract with Novatek

Generation portfolio in 2019¹

38,788 GWh
generation

11,172 MW
installed output

Key figures in 2019

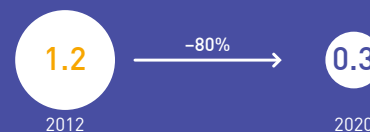
5,499 employees
(as of 31/12/2019)

€383.8 million
adjusted EBITDA in 2019

€98.3 million
investment in 2019

15.8%
share of adjusted EBITDA in 2019

Development of adjusted EBITDA (in € billion)



¹ The sums stated for the generation and installed output in the Renewable Energies and Generation and Trading segments are not identical to the totals for the EnBW Group. Several power plants are allocated to the Sales segment. The total generation of the EnBW Group is 47,807 GWh, of which 9,988 GWh or 20.9% is generated from renewable energy sources. The total installed output of the EnBW Group is 13,849 MW, of which 4,398 MW or 31.8% is from renewable energy power plants. The totals for generation and installed output for the Group are illustrated in detail on p. 88.

Sales segment

The Sales segment encompasses sales of electricity and gas, as well as the provision of energy industry services such as billing services, energy supply, energy saving contracting (Glossary, from p. 257) and new energy solutions. In this area, we exploit our broad energy industry and process-based expertise, as well as our existing relationships with our customers. Against the background of advancing digitalisation, we are optimising, amongst other things, our customer processes and expanding our digital range of products (p. 81 f.). The expansion of the quick-charging infrastructure for electromobility (Glossary, from p. 257) and our activities in the telecommunications business are part of our strategy to develop our company into a provider of smart and sustainable infrastructure.

Grids segment

The Grids segment encompasses the transmission and distribution of electricity and gas, the provision of grid-related services and the supply of water by our grid subsidiaries. Value added in the Grids segment is based on the existing infrastructure and process know-how. Furthermore, value added is anchored in the numerous close relationships with local authorities and citizens. The grid business will be expanded further in the course of the Energiewende and will thus contribute to supply reliability. At the level of the transmission grids, this includes the construction of the two north-south connections SuedLink and ULTRANET by our subsidiary TransnetBW and its partners. Partnerships will also play a more important role in the distribution grid in future as our grid companies efficiently manage our customers' grid installations and facilities and prepare them to meet the new requirements.

Renewable Energies segment

Activities in the area of power generation from renewable energies are combined under the Renewable Energies segment. We are expanding renewable energies significantly, above all in the areas of onshore and offshore wind energy as well as photovoltaics and biogas. The principle of partnership plays a central role in this context and we offer potential investors such as local authorities and private citizens, whom we attract with the aid of targeted models, the chance to participate in renewable energy projects. The value we add in this segment encompasses project development, construction and efficient operation, as well as the repowering (Glossary, from p. 257) of the plants in the future.

Generation and Trading segment

The Generation and Trading segment encompasses electricity generation, the storage of gas, the trading of gas and electricity, the gas midstream business, the provision of system services (Glossary, from p. 257) for the operators of transmission grids, the operation of reserve power plants, district heating, environmental services and the dismantling of power plants. This business is primarily based on the generation of electricity and heat from our coal, gas, pumped storage and nuclear power plants and our operational and optimisation expertise. Electricity generation from fossil fuel power plants remains under pressure. The power plants operating on the market, as well as those

power plants transferred to the grid reserve, make a significant contribution here to the security of supply in Germany. We support our customers in the integration of their power plants into the market using our services and expertise, such as in the area of direct distribution.

Group structure and business radius

EnBW is organised according to the model of an integrated company. EnBW AG is managed through business units and functional units: Core operating activities along the entire energy industry value chain are concentrated in the business units. The functional units carry out Group-wide support and governance tasks. The EnBW Group consists of EnBW AG as the parent company and 192 fully consolidated companies, 22 companies accounted for using the equity method and 3 joint operations. Further information on the organisational structure can be found in the chapter "Corporate governance" under "Management and supervision" on p. 48 f.

Baden-Württemberg

Our roots lie in Baden-Württemberg, where we are positioned as a market leader. We rely here on EnBW AG, Netze BW and a series of other important subsidiaries.

Germany, Europe and developing markets

We also operate throughout the rest of Germany and abroad. The acquisition of the French project developer and operator of wind farms and solar parks Valeco in June 2019 was another step in continuing our strategy of **selective internationalisation** in the area of renewable energies. We are also represented by our subsidiaries Connected Wind Services in Denmark and EnBW Sverige in Sweden. In Turkey, we are active in the renewable energies sector with our Turkish partner Borusan. Our first activities in Taiwan and the USA round off our strategy for selective internationalisation.

The acquisition of the telecommunications company Plusnet based in Cologne in June 2019 enabled us to further expand our portfolio in the **broadband business** across Germany (Glossary, from p. 257). Our subsidiary NetCom BW will continue to have its main focus in this business in Baden-Württemberg.

Our **most important participating interests** in relation to the value added chain and their contribution to the result of the EnBW Group include the following groups of companies:

Energiedienst (ED), based in Laufenberg, Switzerland, has around 900 employees and is an ecologically oriented German-Swiss listed company with various subsidiaries that is active in South Baden and Switzerland. ED exclusively generates green electricity primarily using hydropower. Alongside the supply of electricity, this group of companies offers its customers smart, networked products and services, including photovoltaic plants, heat pumps, electricity storage systems, electromobility and e-car sharing.

Pražská energetika (PRE), based in Prague, Czech Republic, has almost 1,600 employees and its core business activities include the sale of electricity and gas, the distribution of electricity in Prague, the generation of electricity from renewable energies and the provision of energy services. PRE is the third largest electricity supplier in the Czech Republic and the operator of a reliable distribution grid. As part of its activities, PRE promotes the use of modern technological solutions and advises on the implementation of innovative technologies and achieving energy savings.

Stadtwerke Düsseldorf (SWD) is one of the largest municipal energy supply companies in Germany. With around 3,200 employees, SWD and the companies in which it holds a majority shareholding supply customers in Düsseldorf and the surrounding region with electricity, natural gas, district heating and drinking water, as well as providing waste disposal and street cleaning services in the metropolitan area of Düsseldorf. In addition, the company's focus is placed on the needs-based development of networked urban infrastructures in the areas of energy, mobility and property.

VNG is based in Leipzig and has around 1,200 employees. It is a horizontally and vertically integrated corporate group with more than 20 companies in six countries and a broad portfolio of services in the gas and infrastructure sectors. Along the gas value added chain, VNG concentrates on its business areas of Gas Trading & Sales, Gas Transport and Gas Storage. Using this core expertise as a basis, VNG is increasingly placing its focus on new business fields. These include, amongst others, biogas, digital infrastructure and district solutions (Glossary, from p. 257). ONTRAS Gastransport operates and markets the second largest German gas transmission grid as an independent transmission system operator.

Customers and sales brands

We supply **around 5.5 million customers** with energy and provide them with energy solutions and energy industry services. We are one of the leading providers of energy and environmental services in Germany. Another focus is the development of our cooperation with municipal utilities and local authorities. The supply of district heating and drinking water is also part of the range of services we offer.

EnBW and its subsidiaries differentiate between two customer groups: The **B2C** customer group includes retail customers, small commercial enterprises, the housing industry and agriculture. The **B2B** customer group encompasses major commercial enterprises and industrial customers, as well as redistributors, municipal utilities, local authorities and public entities.

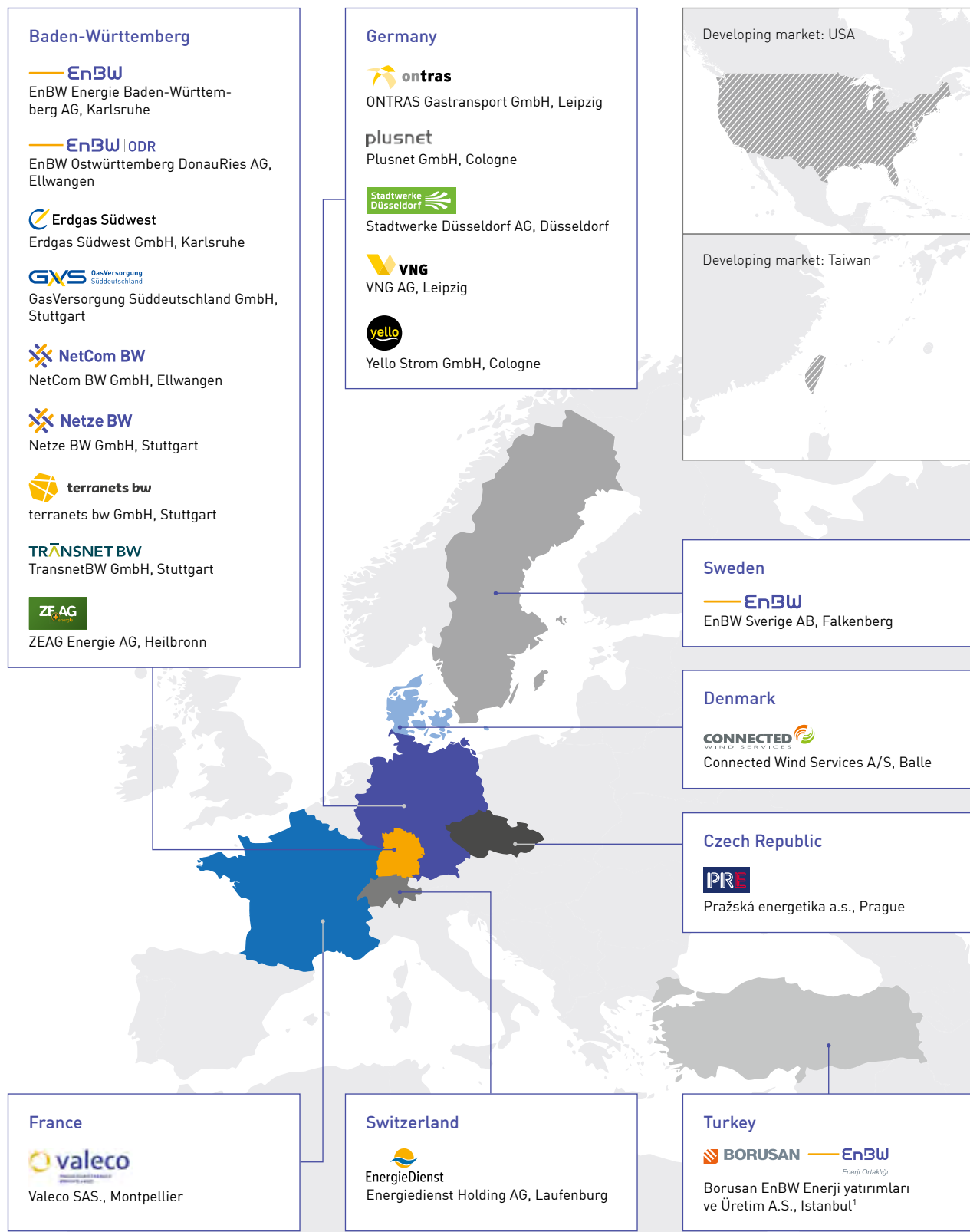
With our sales brands, we are close to our customers and consistently oriented to their needs. As an active partner for the energy system of the future, we sell electricity, gas, district heating, energy industry services, energy solutions and drinking water in the B2C sector under the **EnBW brand** (www.enbw.com). These products and services focus on Baden-Württemberg. We primarily sell electricity and gas, as well as solutions and digital services related to energy, to retail and commercial customers throughout Germany through the **Yello brand** (www.yello.de).

In addition, some of our subsidiaries are active in the B2B sector under the **GVS brand** and in the B2C and B2B sectors under the **Erdgas Südwest, ODR and ZEAG brands**.

Under the **NaturEnergie brand** (www.naturenergie.de), ED sells green electricity across Germany and gas to retail customers in South Baden. In Switzerland, the ED Group provides electricity to business customers. PRE sells electricity, gas, energy services and mobile communication services to retail and commercial customers in Prague and the surrounding region under the **PRE brand** (www.pre.cz). PRE also supplies electricity, gas and energy services to industrial customers across the Czech Republic under the PRE brand. Electricity and gas are sold in the Czech Republic under the **Yello brand** (www.yello.cz), primarily via online channels to households and commercial customers. SWD supplies retail and commercial customers in the B2C sector, as well as customers in the agricultural sector, with electricity, gas, heating and drinking water under the **Stadtwerke Düsseldorf brand** (www.swd-ag.de). In the B2B sector, the range of services is directed at business and industrial customers and marketed across Germany, with a focus on North Rhine-Westphalia. The company goldgas, a subsidiary of VNG, sells gas and electricity – especially to private households, commercial customers and property management companies in Germany – under the **goldgas brand** (www.goldgas.de).

Selected companies

Selected EnBW companies in Baden-Württemberg, Germany, Europe and developing markets



1 Not fully consolidated, accounted for using the equity method.

The full list of shareholdings can be found in the notes to the consolidated financial statements under [37] "Additional disclosures". The full set of consolidated financial statements is published at www.enbw.com/report2019-downloads. Further information: www.enbw.com/shareholdings.

Strategy, goals and performance management system

Strategy

Business environment

The energy sector is undergoing a period of profound change. This process of change is dependent on numerous factors and often does not progress linearly, thus making it difficult to predict. An important element of the Energiewende in Germany is the phasing out of nuclear electricity generation by 2022. The goal of decarbonising the economy is setting the political and regulatory agenda. The German government wants to end coal-fired power generation in Germany by 2038 at the latest. Renewable energies and smart grids will be the focus of future decentralised energy systems. Beyond the energy industry, the willingness in society to try and prevent the emission of greenhouse gases (Glossary, from p. 257) is growing in all aspects of life. To achieve this, cross-sector concepts (Glossary, from p. 257) are needed, such as the linking of energy and infrastructure themes, which are accelerated by digitalisation and new technologies. New value added chains and modified customer behaviour are creating room for innovative business models and new players on the market. The onus is thus on energy supply companies to quickly and flexibly develop a future-oriented business portfolio for their companies.

EnBW 2020 strategy largely implemented

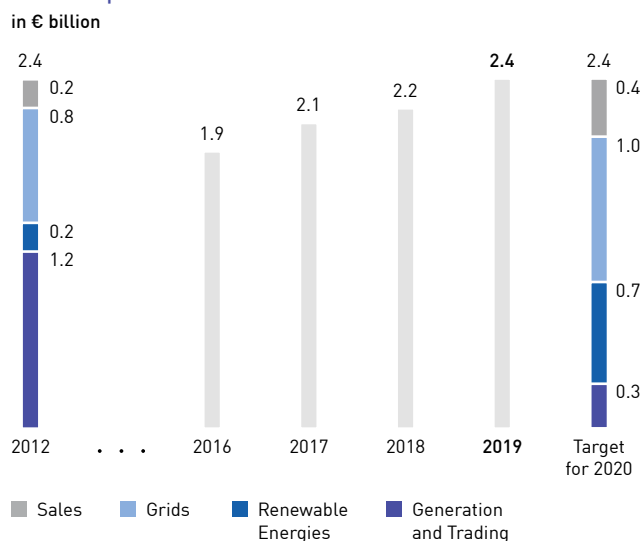
The EnBW 2020 strategy is guided by the principle “Energiewende. Safe. Hands on.” It describes our positioning and how we differentiate ourselves from our competitors. Sustainability is an integral component of our Group strategy so that we can guarantee the creation of economic, ecological and social value added for our stakeholders. We associate the concept of sustainable economic development with our aspiration to conduct our business activities in a responsible way (p. 52).

We aim to more than double the share of our generation capacity accounted for by renewable energies from 19% (based on the reference year of 2012) to over 40% in 2020. We have increased the capacities of our onshore wind farms significantly in Germany and selected foreign markets, while the same is true for the growth field of offshore wind energy. By investing extensively in grid expansion, we are making a substantial contribution to the infrastructure required by the energy system and thus to the security of supply. The overall share of adjusted EBITDA accounted for by the regulated grid business and renewable energies has increased from around 40% (reference year of 2012) to more than 70% in 2019 and has thus already reached the target value for 2020. This will improve the risk-return profile of our company. Innovative products and services will

become another important pillar of the company’s business. By generating an adjusted EBITDA of €2.4 billion in 2019, we were already able to achieve our earnings target for 2020 early.

To implement our strategy, we planned total investment of €14.1 billion (reference year of 2012) by 2020. In order to obtain the financial headroom required for such extensive investments, we have significantly extended our divestiture programme – involving divestitures, cash inflow from participation models, the disposal of assets and subsidies – through our EnBW 2020 strategy to around €5.1 billion (based on the reference year of 2012). We realised investments of €14.8 billion and divestitures of €5.1 billion in the period up to and including 2019. The over-fulfilment of our investment target was primarily due to the accelerated growth investment used for the acquisitions of Valeco and Plusnet.

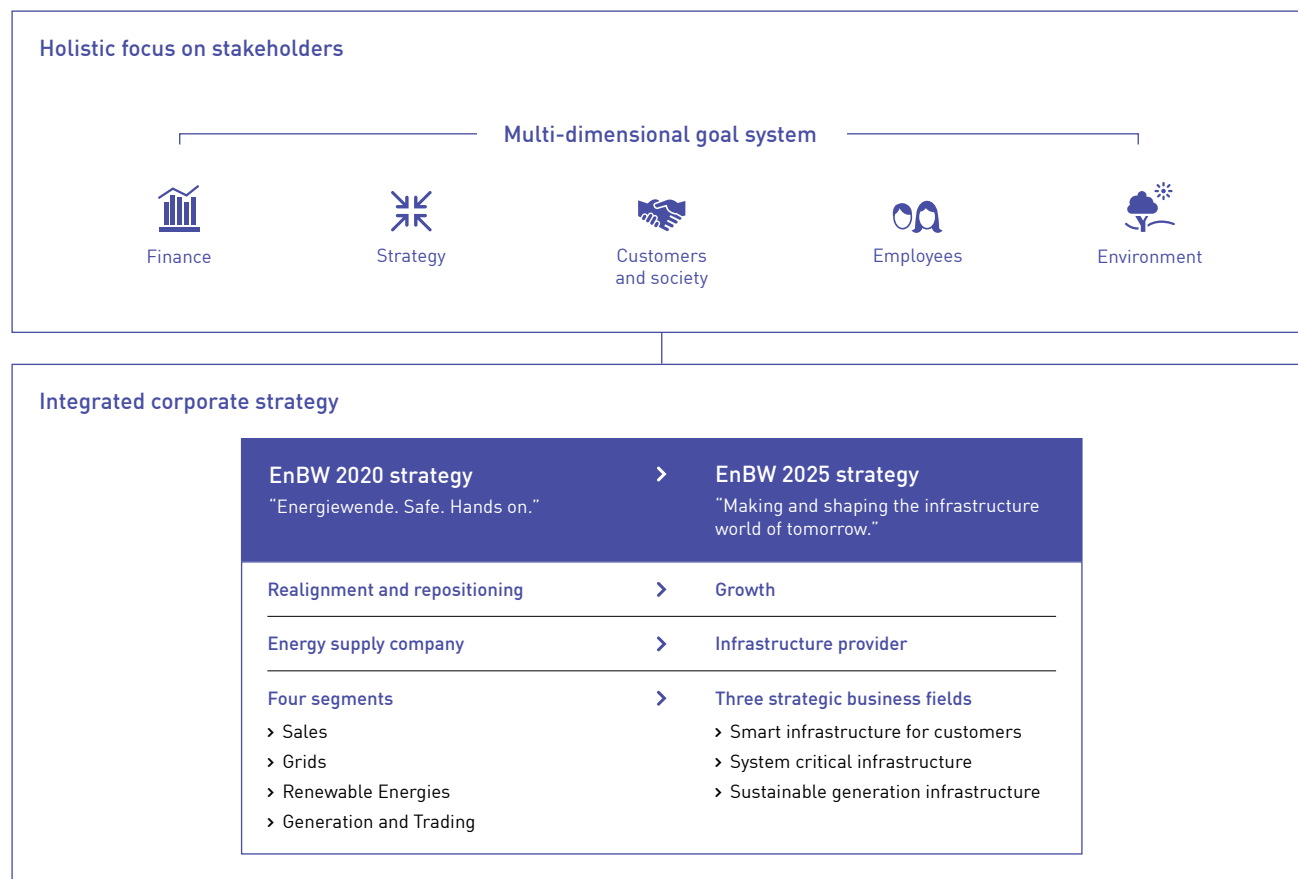
Transformation of the portfolio and development of adjusted EBITDA up to 2020



We developed our EnBW 2020 strategy back in 2013 in the wake of the profound changes impacting the energy industry as part of the Energiewende. We have rigorously and sustainably implemented this strategy since then. In view of the upcoming planning horizon, the following is now clear: The improvements in efficiency, the transformation of the business portfolio and the growth initiatives designed to place the company on new foundations ready for the future have largely been implemented or are on the home straight. We will now make the switch from “realignment and repositioning” to “growth” in the EnBW 2025 strategy.

The EnBW 2025 strategy: The path to becoming a sustainable and innovative infrastructure partner

Ongoing strategic development



After the first phase of the Energiewende was characterised above all by political and regulatory measures, the changes in the energy sector will now be increasingly driven by market developments and shaped by cost reductions and technical advances. Under the motto "Making and shaping the infrastructure world of tomorrow", the EnBW 2025 strategy will increasingly place the company's focus onto the infrastructure aspects of existing business fields – for example, networking small decentralised power plants to form virtual power plants (Glossary, from p. 257) or the networking of the energy sector (Glossary, from p. 257) with neighbouring sectors such as transport or communications infrastructure. Furthermore, we will use our core expertise to exploit new growth opportunities above and beyond the energy sector. Our core expertise – what we do well and do better than many others – lies in the safe and reliable construction, operation and management of critical infrastructure in the energy sector, such as efficient, low-carbon power plants or transmission and distribution grids that meet the requirements of an energy industry based on renewable energies. This distinctive expertise can be transferred to other infrastructure sectors. Our dedication and commitment have already enabled us to make significant progress in, for example, the broadband business (Glossary, from p. 257), the expansion of quick-charging infrastructure (Glossary, from p. 257) as the basis for electromobility and in the area of urban infrastructure.

Urban infrastructure, as we understand it, involves the smart networking of energy supply, heating, telecommunications, mobility, traffic management and parking space management, as well as security in the public sphere. We are developing our company into a modern and flexible organisation. Performance, creativity, freedom for independent action, quick decisions made as closely oriented to the business as possible and a consistent focus on the customer and their needs will define the requirements for independent action in the future.

We are transforming ourselves into a sustainable and innovative infrastructure partner for our customers and other stakeholders. Following the successful implementation of the EnBW 2020 strategy, we will combine our business portfolio from 2021 – in accordance with the rationale behind the EnBW 2025 strategy – within **three strategic business fields**:

- > In the strategic business field **Smart infrastructure for customers**, we will develop new and digital business models, launch them onto the market and scale them up – even beyond the traditional energy industry value chain. The main focus will be placed here on the expansion of the quick-charging infrastructure, activities in the areas of telecommunications and broadband and other fields such as urban infrastructure.

- > In the strategic business field **System critical infrastructure**, our grid subsidiaries for electricity and gas will further expand the transmission grids into an important cornerstone of our earnings alongside the distribution grids. In addition, we will upgrade the electricity distribution grids so that they are ready to meet the requirements of the future and ensure they are optimally prepared for the demands that will be placed on them by electromobility. We want to significantly develop and expand the business involving grid-related services – the operation of grids for third parties, payment and billing services and charging networks for electromobility – especially in partnership with local authorities and public utilities.
- > In the strategic business field **Sustainable generation infrastructure**, we will be dominant in renewable energies – with offshore and onshore wind power as our spearhead. We will also continue with our strategy of selective internationalisation and the expansion of the portfolio of major photovoltaic projects, enabling us to specifically target the expansion of low-carbon generation. In addition, we will build on our strong position in the gas business, especially in the area of green and synthetic gases. In contrast, we will gradually withdraw from coal-based conventional generation while preserving value at the same time. The last nuclear power plants operated by EnBW will be decommissioned in 2022.

market in Germany in 2019 with the acquisition of Plusnet. Both transactions will contribute to the EnBW 2025 growth strategy.

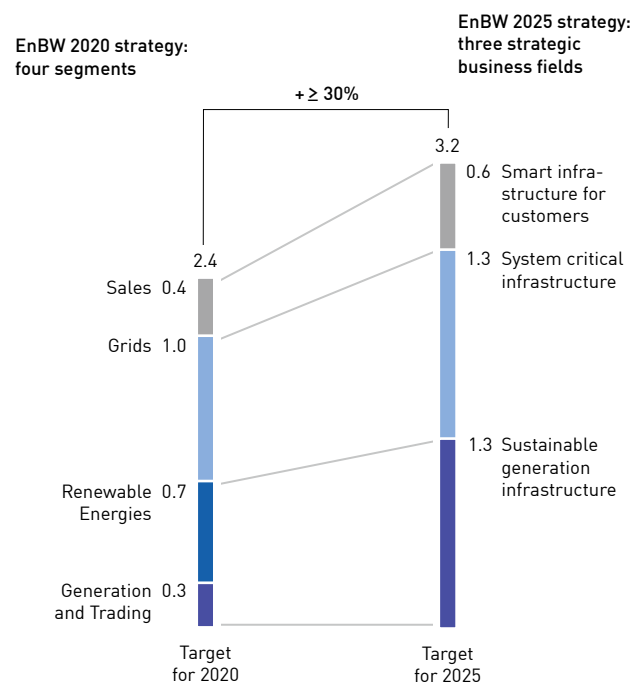
The central goal of the EnBW 2025 strategy is to increase adjusted EBITDA to €3.2 billion, whereby all three strategic business fields should make a significant contribution to this increase in earnings.

EnBW is planning to invest around €12 billion in total between 2021 and 2025. The main focus of the investment will be on the expansion of the grids, especially the central SuedLink and ULTRANET projects of our grid subsidiary TransnetBW for the future energy supply in Germany, the expansion of renewable energies, such as the realisation of the EnBW He Dreiht offshore wind farm, and the further development of smart infrastructure for customers, for example, in the areas of broadband, telecommunications and electromobility. In accordance with the EnBW 2025 growth strategy, 80% of our overall investment will be accounted for by growth projects.

This **growth strategy** will be financed by the retained cash flow and, where necessary, through the use of external funds. By using sustainable financing instruments, we are taking account of our transformed business portfolio and have gained access to new groups of investors who place importance on the sustainable use of their investments. We will continue to strive to maintain a balanced financing structure, solid financial profile and thus solid investment-grade ratings (Glossary, from p. 257).

Realignment and growth

Adjusted EBITDA in € billion








Goals and performance management system

Performance management system

The management of the company comprises financial, strategic and non-financial goals and, as well as the finance and strategy goal dimensions, includes the dimensions customers and society, employees and the environment. The centrepiece of this integrated corporate management is the performance management system (PMS). The most important financial and non-financial Group goals have been broken down into target agreements, insofar as they are considered a sensible performance indicator for the respective area. In the quarterly performance reviews conducted at a Board of Management level, the value drivers for the most important operating performance indicators that contribute to the achievement of targets for the key performance indicators (finance, strategy and environment goal dimensions) are reported. In terms of external communication, the PMS feeds into the integrated reporting of the financial and non-financial performance of the company based on the reporting framework of the International Integrated Reporting Council (IIRC). This Integrated Annual Report 2019 incorporates the financial and non-financial aspects of our business activities. The key performance indicators enable us to measure the degree to which goals are achieved and to manage our company.

Following the successful implementation of the EnBW 2020 strategy, there will be a smooth transition between the strategy periods: We already strengthened our business activities in the area of renewable energies in 2019 with the acquisition of the French project developer and operator of wind farms and solar parks Valeco. We also took a significant step in building a strong position for ourselves on the nationwide telecommunications

TOP Financial and non-financial key performance indicators and targets

Goal dimension	Goal	Key performance indicator	2019	Target for 2020	Target for 2025
 Finance	Secure profitability	Adjusted EBITDA in € billion	2.4	2.3–2.5	3.2
	High level of financial discipline	Internal financing capability in %	82.6	≥ 100	– ¹
		Debt repayment potential in %	–	–	> 14 ¹
Increasing Group value	ROCE in %	5.2	8.5–11	6.5–8	
The EnBW Group, page 68 ff. Forecast, page 96 ff. Report on opportunities and risks, page 100 ff.					
 Strategy	Share of result accounted for by "Customer proximity"/ Sales	Share of overall adjusted EBITDA in € billion/in %	0.3/12.1	0.4/15.0	0.6/20.0 (Smart infrastructure for customers ²)
	Share of result accounted for by Grids	Share of overall adjusted EBITDA in € billion/in %	1.3/53.9	1.0/40.0	1.3/40.0 (System critical infrastructure ²)
	Share of result accounted for by Renewable Energies	Share of overall adjusted EBITDA in € billion/in %	0.5/19.8	0.7/30.0	1.3/40.0 (Sustainable generation infrastructure ²)
	Share of result accounted for by Generation and Trading	Share of overall adjusted EBITDA in € billion/in %	0.4/15.8	0.3/15.0	
The EnBW Group, page 70 f. Forecast, page 97 Report on opportunities and risks, page 100 ff.					
 Customers and society	Reputation	Reputation Index	53	55	58 to 62
	Customer proximity	EnBW/Yello Customer Satisfaction Index	116/157	> 136/> 159	125 to 136/ 148 to 159
	Supply reliability	SAIDI (electricity) in min./year	15	< 25	< 20
The EnBW Group, page 81 ff. Forecast, page 98 f. Report on opportunities and risks, page 103					
 Employees	Employee commitment	Employee Commitment Index (ECI) ³	66	65	≥ 66
	Occupational safety	LTIF for companies controlled by the Group ⁴	2.1	≤ previous year	2.1
		LTIF overall ⁵	3.8	–	3.5
The EnBW Group, page 83 ff. Forecast, page 99 Report on opportunities and risks, page 103 f.					
 Environment	Expand renewable energies (RE)	Installed output of RE in GW and the share of the generation capacity accounted for by RE in %	4.4/31.8	5.0/>40	7.5 to 8.0/> 50
	Climate protection	CO ₂ intensity in g/kWh	419	-15% to -20% (reference year 2015: 609 g/kWh)	-10% to -20% (reference year 2020)
The EnBW Group, page 87 ff. Forecast, page 99 Report on opportunities and risks, page 104					

1 Following the transition to the growth strategy, the key performance indicator internal financing capability will be replaced by the new key performance indicator debt repayment potential from 2021. Therefore, no target value has been defined for the internal financing capability for 2025. To ensure EnBW achieves its ratings target, the target value will be examined annually based on the requirements of the rating agencies.

2 The four segments of Sales, Grids, Renewable Energies and Generation and Trading will become the three strategic business fields of Smart infrastructure for customers, System critical infrastructure and Sustainable generation infrastructure from 2021.

3 Variations in the group of consolidated companies [all companies with more than 100 employees are generally considered [except ITOs]].

4 Variations in the group of consolidated companies [all companies with more than 100 employees are generally considered except for companies in the area of waste management as well as external agency workers and contractors].

5 Variations in the group of consolidated companies [all companies with more than 100 employees are generally considered except for external agency workers and contractors].

TOP Definition and target values for the key performance indicators

We safeguard the implementation of our strategy by means of a holistic goal and performance management system. This system reflects the overall performance of the company and strengthens integrated thinking within it. At the same time, it underpins our comprehensive and transparent focus on performance and stakeholders. Our goal system comprises the five dimensions of finance, strategy, customers and society, employees and environment. A number of specific targets have been defined in each goal dimension, whose achievement is continuously measured using key performance indicators. Linked with this goal system and the centrepiece of our corporate management is the performance management system (PMS). Quantitative target values are currently set for the key performance indicators for the 2020 strategy horizon and have now also been set for the first time for 2025. The key performance indicators are the same as those used in the previous year, although two key indicators will be reported for LTIF from 2019.

The financial and strategic key performance indicators within the PMS are the adjusted EBITDA, the shares of the adjusted EBITDA accounted for by the segments, the internal financing capability and ROCE.

- › The **adjusted EBITDA** is the earnings before the investment and financial results, income taxes and amortisation and adjusted for non-operating effects. Adjusted EBITDA is a key performance indicator for the finance goal dimension, while the key performance indicators for the strategy goal dimension, which describe the **shares of adjusted EBITDA accounted for by the segments**, are derived directly from it (p. 70 and 97). The operating result in 2020 will return to the average level achieved before the Energiewende. The overall share of earnings accounted for by the regulated grid business and renewable energies is around 70%. In 2025, we aim to achieve an operating result of €3.2 billion.
 - › The **internal financing capability** is the key performance indicator for the Group's ability to finance its activities internally: It describes the adjusted retained cash flow in relation to the adjusted net (cash) investment (p. 78 and 97 f.). After covering ongoing costs and dividend payments, the adjusted retained cash flow is available to the company for net investment without the need to raise additional debt. Since the 2017 financial year, we have adjusted the retained cash flow to take account of the extraordinary effect of the reimbursement of the nuclear fuel rod tax (Glossary, from p. 257) (adjusted retained cash flow) and since 2019 we have also adjusted the net (cash) investment to take into account the accelerated growth investment used for the acquisitions of Valeco and Plusnet that already contribute to the EnBW 2025 growth strategy. As it will not be possible to exclusively finance this growth phase using funds from our internal financing capability, we will manage our creditworthiness from 2021 using the **debt repayment potential** (retained cash flow in relation to the net debt). The key performance indicator internal financing capability will be retained until 2020.
 - › **ROCE (return on capital employed)** is the ratio of adjusted EBIT including the adjusted investment result to the average capital employed. It should exceed the capital costs and is used for determining the value added, reflecting the development of the company's value from a financial point of view (p. 79 f. and 98). Due to the sharp fall in interest rates, the cost of capital (WACC) has reduced from 8.7% in 2012 to 5.2% in 2019. We do not expect any changes to the interest rate environment up to 2025.
- In addition to the financial key performance indicators, the PMS also includes non-financial key performance indicators:
- The customers and society goal dimension comprises the Reputation Index, the Customer Satisfaction Index and the SAIDI (System Average Interruption Duration Index).
- › In order to calculate the **Reputation Index**, a total of around 5,000 people – from the stakeholder groups relevant for the EnBW brand of customers, the wider public, industrial companies, opinion leaders and investors – are asked about their impressions of the EnBW brand by an external market research institute. Results are collected for each stakeholder group about the distinctiveness of the brand and the assessment of the competence of and emotional attitude towards the EnBW brand. These are merged together to form a Reputation Index. The individual reputation indices for each stakeholder group are weighted equally to form a consolidated and reported Reputation Index (p. 81 and 98). We aim to continuously improve our reputation.
 - › The key performance indicator **Customer Satisfaction Index** assesses the average satisfaction of private end consumers of electricity over the year, which is directly linked to customer loyalty. The information is compiled using customer surveys about the two brands EnBW and Yello conducted by an external service provider. The Customer Satisfaction Index allows us to draw conclusions about how well we are meeting the needs and wishes of the surveyed customers with customised solutions and products (p. 81 f. and 98). Climate protection measures will make energy more expensive for customers in the next few years. Despite the new skills, offers and services that EnBW has developed, this will in all likelihood negatively impact the perception of the energy sector. The target value for the Customer Satisfaction Index in 2025 is thus below the level in 2020.
 - › **SAIDI** serves as the key performance indicator of supply reliability. It expresses the average length of supply interruption in the electricity distribution grid experienced annually by each connected customer. SAIDI includes all unscheduled interruptions to supply that last more than three minutes for the end consumer. The definition and calculation of this performance indicator is based on the guidelines issued by the Network Technology/Network Operation Forum (FNN) of the VDE (German Association for Electrical, Electronic & Information Technologies) (p. 83 and 98). Maintaining the quality of supply to our customers is of central importance to us in the further development of the grids of our grid subsidiaries. The reliability of the supply in the grid areas operated by our grid subsidiaries builds on our comprehensive investment in grids and facilities as well as our system expertise.

The Employee Commitment Index (ECI) and LTIF (Lost Time Injury Frequency) are utilised as performance indicators in the employees goal dimension.

- › The **ECI** expresses the degree to which employees identify with EnBW. It is compiled using employee surveys and is based on standardised questions that address the degree to which employees identify with the company, including satisfaction with their employer-employee relationship, attractiveness of the employer, identification with the company, motivational climate, competitiveness and future viability. The ECI is generally compiled every two to three years for all companies with more than 100 employees (excluding the ITOs) (Glossary, from p. 257) as part of a full survey carried out by an external, independent service provider. Representative random sample surveys are completed in the periods between the full surveys – as was also the case in 2019 (p. 83 f. and 99). We want to further strengthen the commitment of our employees to EnBW and their trust in the future viability of the company.
- › **LTIF** is calculated on the basis of LTI (Lost Time Injuries) which denotes the number of accidents during working hours which have occurred exclusively because of a work assignment from the company and result in at least one day of absence. LTIF indicates how many LTI occurred per one million working hours performed. The calculation of the LTIF overall generally includes all companies with more than 100 employees. For the calculation of the LTIF for companies controlled by the Group, those companies engaged in the area of waste management are excluded because the number of accidents deviates significantly from that in the core business in the energy industry. External agency workers and contractors are not taken into account in either performance indicator (p. 86 f. and 99). The number of accidents at work and the resulting days of absence should remain consistently stable or fall.

The key performance indicators in the environment goal dimension are the installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE and CO₂ intensity.

- › The **installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE** are measures of the expansion of renewable energies and refer to the installed output of the power plants and not to their weather-dependent contribution to electricity generation (p. 87 and 99). We aim to double the share of the generation capacity accounted for by renewable energies by 2020 compared to 2012 (19%) and increase this figure further by 2025.
- › The emissions of CO₂ from own generation of electricity for the Group, as well as the volume of electricity generated by the Group without the contribution made by the nuclear power plants, form the basis for the calculation of the key performance indicator **CO₂ intensity** (Glossary, from p. 257). This performance indicator is calculated as the ratio between the emissions and the generated volume of electricity and thus specifically describes the amount of CO₂ released per

kilowatt hour. By discounting the electricity generated by nuclear power plants, the performance indicator will not be influenced by the phasing out of nuclear energy in the coming years (p. 88 and 99). We are actively contributing to climate protection by reducing the CO₂ intensity of our own generation of electricity (excluding nuclear power) by 15% to 20% by 2020 compared to the reference year 2015.

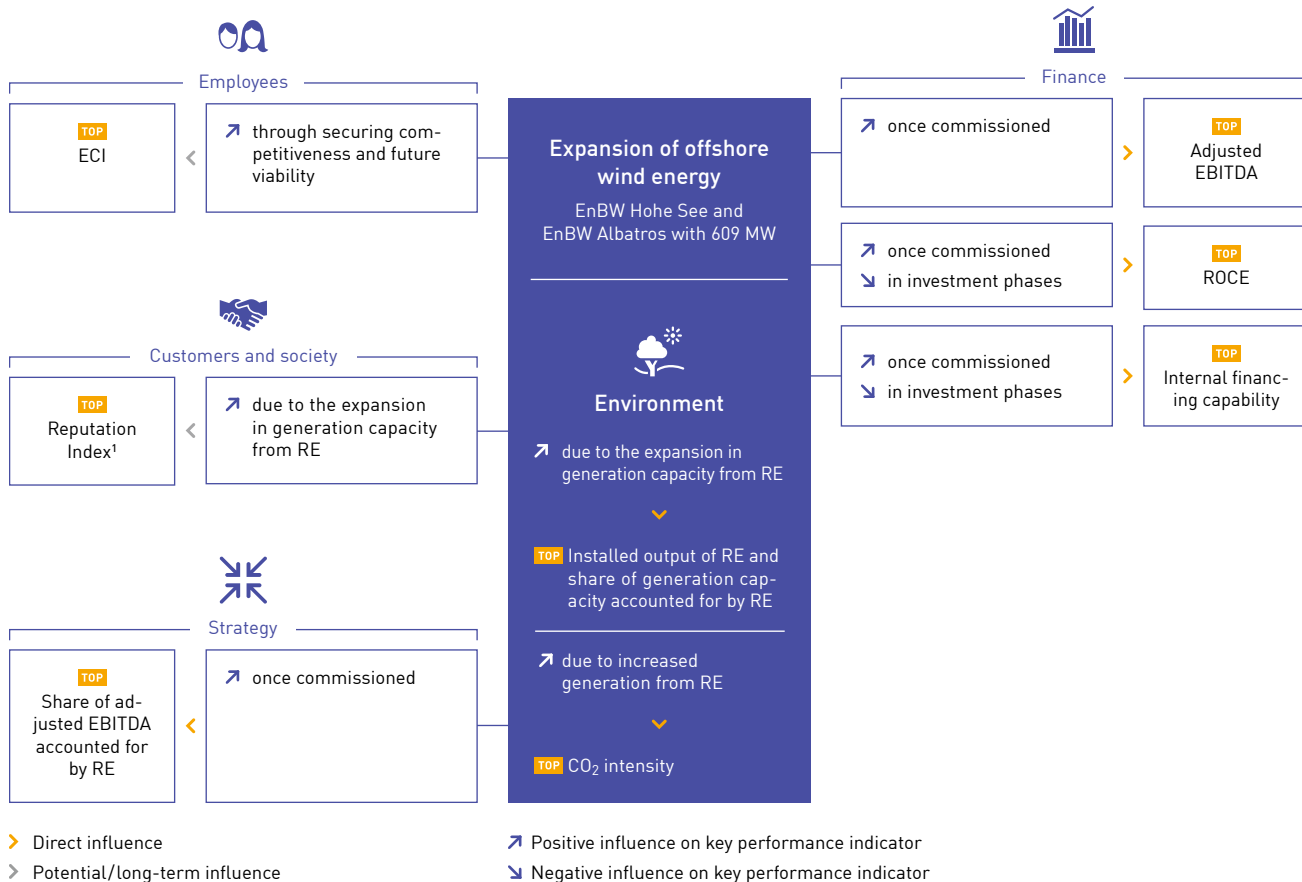
TOP Interdependencies between the goal dimensions, targets and key performance indicators

We are convinced that in order to give a comprehensive portrayal of the company, it is not only necessary to describe the economic, ecological and social context but also to illustrate and provide an analysis of interdependencies in this report. Linking together the various goal dimensions is an important element of integrated reporting. At the same time, this type of reporting encourages a holistic corporate management approach within EnBW. In order to illustrate these interdependencies, the key performance indicators for the goal and performance management system are used. The basic assumption for illustrating interdependencies is that a change in one key performance indicator can also lead, in many cases, to changes in one or more other key performance indicators. Reciprocal relationships thus exist between the key performance indicators – in the most extreme case, all of the key performance indicators can even influence each other.

In order to illustrate the interdependencies in 2019, we have selected two themes: the **expansion of offshore wind energy** using the EnBW Hohe See and EnBW Albatros wind farms as an example, and the **expansion of the telecommunications business** using the acquisition of Plusnet as an example. The commissioning of the offshore wind farms EnBW Hohe See in 2019 and EnBW Albatros in January 2020 have a direct positive effect on the key performance indicators in the environment goal dimension. The acquisition of Plusnet has a direct effect on the key performance indicator “share of adjusted EBITDA accounted for by Sales” in the strategy goal dimension. In addition, we anticipate that there will be a direct or potential influence on other key performance indicators for both examples.

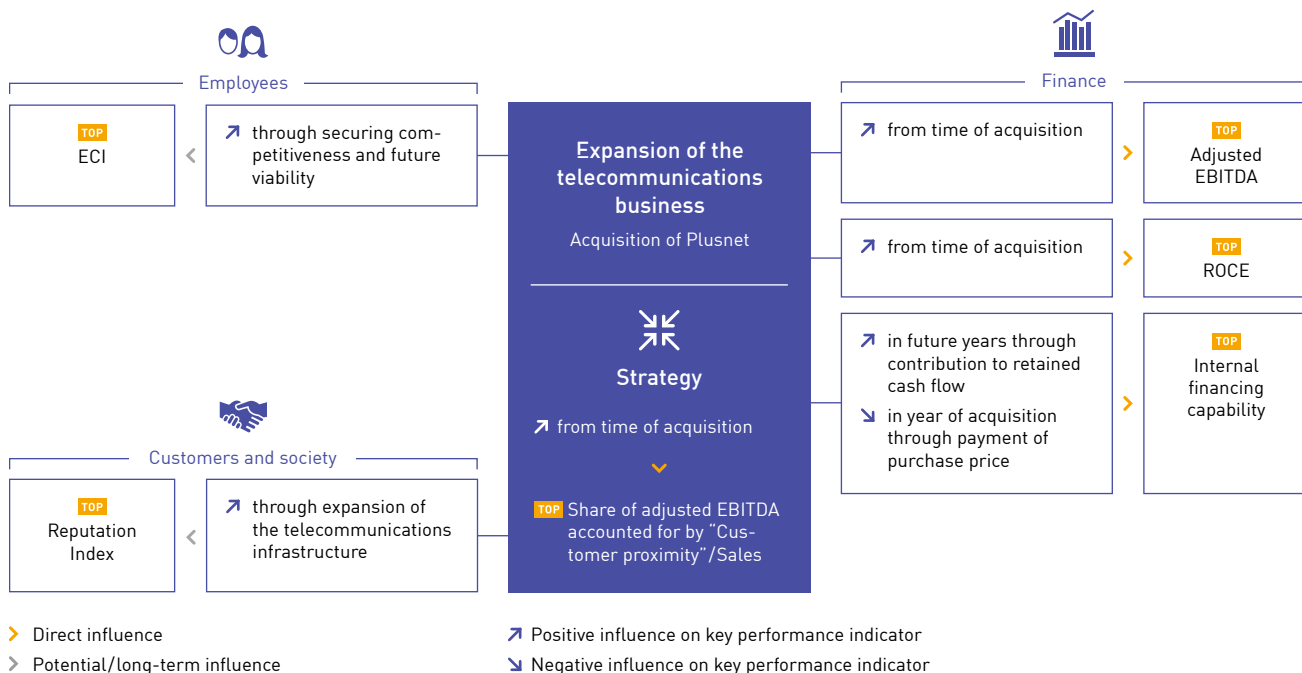
The key performance indicators that are directly influenced are positioned in the centre of the diagram and should essentially be directly measurable. The interdependencies between the financial and strategy key performance indicators are also essentially directly measurable and are represented in the example diagrams by orange arrows. The interdependencies with the other non-financial key performance indicators are difficult to measure and generally tend to be potential or long term in nature. They are represented by grey arrows. In the 2019 financial year, these interdependencies were not measured individually. They are presented based on internal discussions with the relevant specialist areas and those responsible for the performance indicators. The upward pointing arrows show a positive influence on the key performance indicator, while the downward pointing arrows show a negative influence.

Interdependencies between key performance indicators using the expansion of offshore wind energy as an example



1 We also anticipate a potential negative influence on the Reputation Index due to the risk of social opposition with respect to environmental aspects. However, this type of risk is more than compensated for by the overall potential positive influence of the expansion of renewable energies on the Reputation Index.

Interdependencies between key performance indicators using the expansion of the telecommunications business as an example



Corporate governance

Corporate management

Good corporate governance is an essential part of the corporate culture at EnBW. We are convinced that responsible and transparent corporate governance strengthens the trust and confidence that customers, capital providers, employees and the general public place in the company, thereby contributing to its long-term success. The Board of Management and Supervisory Board are committed to managing and supervising the company above and beyond merely fulfilling statutory requirements, but to do it in accordance with recognised benchmarks for good corporate governance and in harmony with the principles of a social market economy, guaranteeing the continued existence of the company and ensuring a sustainable increase in its added value. Therefore, we also meet all the recommendations of the German Corporate Governance Code (DCGK) in the version from 7 February 2017 (www.enbw.com/corporate-governance).

Conformity with the German Corporate Governance Code at EnBW was monitored by Dr. Bernhard Beck up to 30 June 2019 and by Colette Rückert-Hennen from 1 July 2019 as the members of the Board of Management responsible for corporate governance. Colette Rückert-Hennen reported extensively to the Board of Management and Supervisory Board on all current themes pertaining to corporate governance. Both boards acknowledged her report and addressed the recommendations and suggestions in the Code. They subsequently approved the company's annual declaration of compliance pursuant to section 161 German Stock Corporations Act (AktG) on 4 December 2019. The current declaration of compliance and the declarations from previous years are published at www.enbw.com/

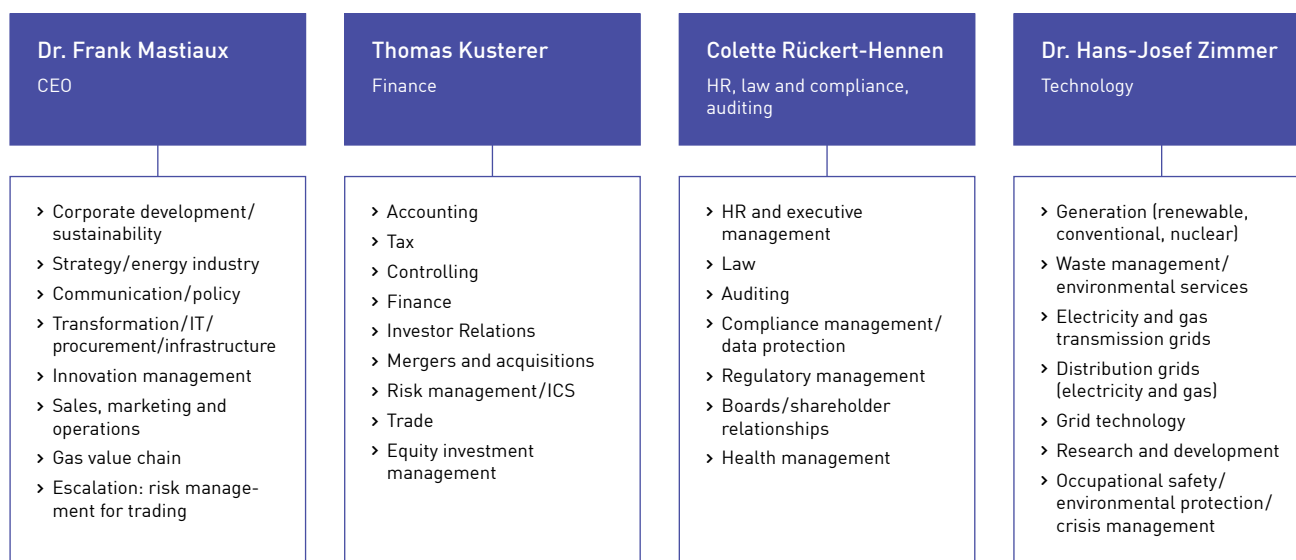
declaration-of-compliance. The declaration of compliance is based on the German Corporate Governance Code in the version from 7 February 2017 and not the current version submitted for review and publication by the DCGK Commission of the Federal Ministry of Justice and Consumer Protection from 23 January 2020, because this will only come into force after the annual declaration was made. The remuneration report is contained in the management report on p. 110 ff. of this report.

Management and supervision

Board of Management

The Board of Management is jointly responsible for managing Group business. In addition to the role of CEO, the tasks performed by the Board of Management are split into the remits of “finance”, “HR, law and compliance, auditing” and “technology”. As of 31 December 2019, the Board of Management of EnBW AG consisted of four members. Colette Rückert-Hennen joined the Board of Management as the replacement for Dr. Bernhard Beck on 1 March 2019 and took over responsibility from this point onwards for the areas of personnel, executive management and health management. Since the end of Dr. Bernhard Beck's period in office on 30 June 2019, Colette Rückert-Hennen has also been responsible for the areas of law, auditing, compliance management/data protection, regulatory management and boards/shareholder relations. Thomas Kusterer has been responsible for the area of equity investment management since this point in time.

Allocation of responsibilities at Board of Management level (as of 31/12/2019)



Supervisory Board

The Supervisory Board of EnBW AG consists of 20 members in accordance with article 8 (1) of the Articles of Association. In accordance with the German Co-determination Act (MitbestG), an equal number of members represent shareholders and employees. Three employee representatives are nominated by the ver.di trade union. The Supervisory Board appoints the members of the Board of Management and advises them on their management of the company. It discusses business performance, planning and strategy of the company together with the Board of Management at regular intervals and ratifies the annual financial statements. The Supervisory Board is always involved in decisions of fundamental importance to the company. Legal transactions and measures subject to the approval of the Supervisory Board are defined in its rules of procedure. In order for the Supervisory Board to optimally perform its functions, it has formed the following standing committees: a personnel committee, a finance and investment committee, an audit committee, a nomination committee and a mediation committee in accordance with section 27 (3) MitbestG, a digitalisation committee and an ad-hoc committee.

Further information on the Board of Management and Supervisory Board can be found in this report under the section on “Corporate bodies” (p. 249 ff.) as well as in the Declaration of Corporate Management 2019 of the EnBW Group and EnBW AG including the Corporate Governance Report 2019 and in the Report of the Supervisory Board (www.enbw.com/corporate-governance).

Annual General Meeting

Shareholders exercise their rights with regard to company matters at the Annual General Meeting. The Annual General Meeting passes resolutions on the discharge of Board of Management and Supervisory Board members, the appropriation of earnings and selection of the auditor. Resolutions of the Annual General Meeting only require a simple majority of votes in most cases. Each bearer share is equivalent to one vote. Further information on the Annual General Meeting is available at <http://hv.enbw.com>.

Shares of EnBW AG are listed on the General Standard segment of the Frankfurt Stock Exchange. A stake of 46.75% of the share capital in EnBW AG is owned by each of both the Federal State of Baden-Württemberg – via its wholly owned subsidiary NECKARPRI GmbH and, in turn, via its wholly owned subsidiary NECKARPRI-Beteiligungsgesellschaft mbH – and by Zweckverband Oberschwäbische Elektrizitätswerke (Zweckverband OEW) via its wholly owned subsidiary OEW Energie-Beteiligungs GmbH.

Overall, the shareholder structure is unchanged as of 31 December 2019 when compared to the previous year.

Shareholders of EnBW

Shares in % ¹	
OEW Energie-Beteiligungs GmbH	46.75
NECKARPRI-Beteiligungsgesellschaft mbH	46.75
Badische Energieaktionärs-Vereinigung	2.45
Gemeindeelektrizitätsverband Schwarzwald-Donau	0.97
Neckar-Elektrizitätsverband	0.63
EnBW Energie Baden-Württemberg AG	2.08
Other shareholders	0.39

¹ The figures do not add up to 100% due to rounding differences.

Compliance

Compliance management systems

Natural compliance with the relevant legal regulations and internal company rules forms the basis for our business activities, is part of our corporate culture and is laid out in the code of conduct. The compliance management systems (CMS) and functions of EnBW are individually designed: They are based on company and sector-specific priorities and risks, the size of the company and other factors. They are designed to support each company – and thus the whole Group – in avoiding risks, liability claims and damage to reputation.

Depending on the type of corporate control over a company, the compliance-relevant companies with employees are either directly or indirectly integrated into the compliance management system of EnBW.

The CMS is continuously examined and updated internally as part of the audit or by the compliance organisation itself. It covers the directly controlled companies. The department's activities focus on the prevention, detection and sanctioning of corruption, the prevention of violations against competition and antitrust laws, the prevention of money laundering and data protection – which falls under the area of compliance and data protection at EnBW. In the reporting year, there were 29 companies directly integrated into the CMS from a compliance perspective. New companies are integrated into the CMS using a risk-based approach.

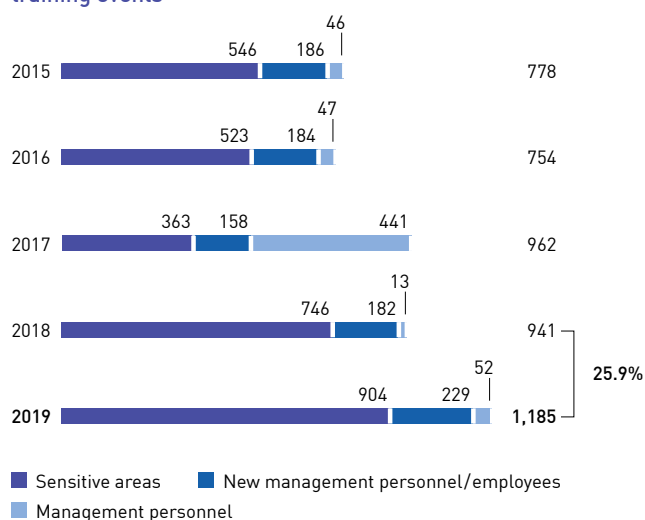
Companies indirectly integrated into the CMS of EnBW have their own CMS. Relevant participating interests held by these companies are also integrated into their CMS. Two companies in the ED Group were integrated into the CMS for Energiedienst (ED), while four subsidiaries have independent control over compliance. Seven companies with employees were integrated into the CMS at Pražská energetika (PRE), three at Stadtwerke Düsseldorf (SWD), two at ZEAG and 19 at the VNG Group.

We want to safeguard our commercial success by combating compliance risks – especially corruption and bribery. Preventative risk assessment methods, advisory services and training concepts have been set up at EnBW, the compliance-relevant companies and the ITOs (Independent Transmission Operator) (Glossary, from p. 257).

Activities this year

Face-to-face training courses were held in relevant areas in 2019. The focus across the Group was placed on **training** the large group of employees with assistant or secretarial functions, as well as EnKK. In addition, face-to-face training courses on anti-trust law were held in other sensitive areas of the company. The completion of an e-learning course or participation in face-to-face introductory training courses is obligatory for new EnBW employees. All of the indirectly integrated companies held training courses to increase awareness amongst employees. The companies were able to choose whether to use either **face-to-face or online training courses**.

Number of participants in face-to-face compliance training events¹



¹ At EnBW AG and directly integrated companies.

EnBW holds a **compliance day** every year. The event was held on 27 November 2019 in Karlsruhe and provided the around 110 participants with a varied programme including motivational talks and workshops. In line with the motto of “responsibility”, the importance of taking independent action with respect to compliance at a company was emphasised.

The integration of the companies that were newly acquired in the reporting period is currently in progress.

The annual **compliance risk assessments** at EnBW investigate the corruption, antitrust, fraud and data protection risks and form the basis for the work relating to compliance and data protection. In 2019, they were carried out at those companies directly and closely integrated into the CMS. The summary of the material compliance risks is contained in the “Report on opportunities and risks” (p. 103 and 106). Such risks are also systematically identified in the indirectly integrated companies and the ITOs.

The **advisory services** offered by the EnBW compliance department are available to companies directly integrated into the CMS and represent another key element of prevention. They were also highly utilised in 2019. These services include a compliance hotline, which can be contacted in person, by e-mail or telephone. In 2019, the compliance hotline received around 1,250 enquiries relating to the key issues of gifts, donations and sponsoring, as well as to further topics such as conflicts of interest and the auditing of business partners. The advisory services dealing with compliance themes at the indirectly integrated companies have also been used to good effect.

Compliance breaches

EnBW and the directly integrated companies have established reporting channels via which internal, and also external, whistle-blowers can report suspected cases while remaining anonymous. Alongside EnBW, the companies ED, PRE, SWD and TransnetBW have also established a whistle-blower system.

In the reporting year, there were nine breaches at directly integrated companies although none of them were material breaches. There was one compliance breach each at terranets bw and TransnetBW in the reporting year, while one suspected case at VNG proved to be well-founded. There were two compliance breaches at PRE. There was no evidence of any cases of corruption.

The EnBW Group faced neither antitrust law penalty procedures nor third-party antitrust lawsuits in the 2019 financial year. Law enforcement agency investigations of individual employees and former members of corporate bodies relating to the so-called Russian deals and sales tax carousel in CO₂ allowance trading (Glossary, from p. 257) were continued in 2019. It is not possible to say at the present time when these proceedings will end.

Data Protection

The EU General Data Protection Regulation (GDPR) has resulted in greater awareness of data protection issues. The resulting demand for advice was covered by the compliance department. The new e-training course developed in 2018 was made obligatory also in 2019 for all employees with access to the e-training course. Employees in sensitive areas were trained accordingly in face-to-face training courses. In addition, the range of information made available online is being improved continuously. As the data subjects have now been afforded more rights by the GDPR, a large number of requests for information were received in 2019.

In dialogue with our stakeholders

Our stakeholders

Continuous and systematic dialogue with our internal and external stakeholders is an important element for determining key issues as part of our business activities. The most important stakeholder groups include shareholders and the capital market, employees, customers, local authorities and municipal utilities, society and environment, suppliers, business partners, the political community and the media. A fundamental aspect of our dialogue with stakeholders is the identification and prioritisation of stakeholder groups relevant to strategically significant and current issues, particularly with regards to the Energiewende and mobility transition.

This dialogue is conducted using a variety of communication channels ranging from conferences to social media platforms. In direct dialogue with our stakeholders, we listen to their interests and their expectations of EnBW. This information is taken into account in the decision-making process for the strategic positioning of the company and when making business decisions. At the same time, we inform important stakeholders about the company's needs and the prerequisites for providing an efficient, reliable and sustainable supply of energy. As part of this dialogue, it is also important for us to listen to critical opinions such as those expressed at events held by our Energy & Climate Protection Foundation. It is our belief that mutual understanding, social acceptance and trust are increased further through this purposeful exchange of insights and perspectives. In addition, it can also help us to identify central developments and key topics at an early stage.

Materiality analysis

We have continuously expanded our processes over the last few years for identifying material topics and linking them simultaneously with the development of the company's strategy. Material aspects are determined via the framework provided by the International Integrated Reporting Council (IIRC), as well as in accordance with the GRI standards for sustainability reporting issued by the Global Reporting Initiative (GRI). Other current developments flow into the determination of future key issues, such as the work of the Task Force on Climate-related Financial Disclosures (TCFD) (Glossary, from p. 257) on climate-related risk reporting.

On the one hand, topics are considered material if they have a significant influence on long-term value added and thus the performance and future viability of our company. Contribu-

tions to the strategic orientation as a sustainable and innovative infrastructure partner are of particular importance in this context. On the other hand, aspects reflecting any important economic, environmental and social impacts the organisation may have and that significantly influence the perception of stakeholders are also taken into account.

Material themes are continuously implemented in the functional and business units, as well as in the individual companies of EnBW. In addition, the findings from the materiality analysis flow into, for example, the strategy process and stakeholder management.

The materiality analysis process comprises three steps: the creation of an overview of the themes relevant to strategy and communication, the development of a list of themes relevant from the perspective of sustainability and the derivation of material themes from the reputation analysis. During each step of the process, the themes identified were continuously compared to the key themes that were dealt with by the Supervisory Board in the reporting year. Every step leads to a distinct prioritisation of themes and ultimately to a final list of the top themes that can be allocated to the categories of transformation of the portfolio, growth and sustainability.

The **transformation of the portfolio** is shaped by the following themes:

- › **Expansion of renewable energies:** Completion and commissioning of the offshore wind farms EnBW Hohe See in 2019 and EnBW Albatros in January 2020 with a total capacity of 609 MW (p. 70 and 76). In addition, the final investment decision for construction of the Weesow-Willmersdorf solar park in Brandenburg was taken – we will thus realise the first major solar project with an installed capacity of more than 180 MW without EEG funding (p. 99).
- › **Supply reliability:** The subsidiaries of EnBW will continue to guarantee a high level of supply reliability in their grid areas and for their customers through the gradual modernisation of the distribution grids for electricity (p. 83).
- › **Infrastructure provider:** We are continuously expanding electromobility through the further development of the charging infrastructure (Glossary, from p. 257), also together with national and international cooperation partners (p. 82).
- › **Dismantling of nuclear power plants:** The environmentally friendly dismantling of the nuclear power plants is gradually being implemented. The Philippsburg nuclear power plant was shut down for good on 31 December 2019. Our stakeholders are regularly informed about the progress (p. 54 and 67).

The following themes are material in the three strategic business fields in the **growth** category:

› **Smart infrastructure for customers:**

- › We achieved a significant step in the expansion of our telecommunications business with the acquisition of Plusnet (p. 82).
- › We reorganised our IT and process landscape for sales and aligned it to meet the individual requirements of customers in the EnPower digitalisation project (p. 81).

› **System critical infrastructure:**

- › The expansion of the distribution grid for the integration of renewable energies is a key aspect for the success of the Energiewende for us and our grid subsidiaries (p. 43).
- › The transmission system operator TransnetBW is developing the transmission grids to bring wind energy from the north to the south in the SuedLink and ULTRANET grid expansion projects (p. 43).

› **Sustainable generation infrastructure:**

- › We are pursuing the goal of expanding renewable energies in France and exploiting opportunities for growth with the acquisition of the French project developer and operator of wind farms and solar parks Valeco (p. 43).
- › As part of our selective internationalisation strategy, we opened a representative office in Taiwan and two offices in the USA in 2019. The main focus in both countries is the expansion of offshore wind power (p. 38).

Sustainability is an integral component of our Group strategy (p. 41 ff.). The sustainability concept is aligned with the strategic guiding principles of the company and defines areas of action, targets and measures. Areas of action include, amongst others, the expansion of renewable energies, guaranteeing a reliable supply and increasing employee commitment. The concept takes into account external demands for sustainable corporate activities, derived from leading sustainability standards and ratings, as well as the integration of ecological and social aspects into the operating business. This process is oriented towards the strategic principles with respect to sustainability:

- › **Sustainable economic development:** We endeavour to conduct all of our activities in a sustainable way, from the responsible procurement of raw materials (p. 60 f.) through to the provision of smart energy solutions for our customers (p. 81 f.). In addition, we are actively involved in the area of sustainable finance, which is exemplified by, amongst other things, the membership of our Chief Financial Officer, Thomas Kusterer, in the Technical Expert Group on Sustainable Finance (TEG) (Glossary, from p. 257) and his position on the Task Force on Climate-related Financial Disclosures (TCFD) (Glossary, from p. 257) (p. 63). As part of the cooperation in these climate protection initiatives, he regularly reports to internal bodies on climate-related opportunities and risks.
- › **Climate and environmental protection:** We continue to advocate the setting of a national minimum price for CO₂ emissions in the European Emissions Trading System with moderate increases in price over time. This would provide all those involved with planning security, especially for the expansion of renewable energies. We make an important contribution to climate protection through our significant investment in climate-friendly projects and business models (p. 63 and 74).
- › **Commitment to our stakeholders and willingness to engage in dialogue:** We are actively integrating our stakeholders into the energy world of the future – by providing comprehensive information and opportunities for dialogue, such as the Energy & Climate Protection Foundation (p. 51).
- › **Customer proximity:** In order to fulfil the needs of our customers to an even better extent, we develop innovative products such as in the area of telecommunications (p. 82) or the supply of climate-friendly gas (p. 56).
- › **Commitment to our employees:** We want to ensure that the people at EnBW as well as our company have the opportunity for growth, development and a future (p. 85). We provide our employees with attractive offers, for example, in the areas of healthcare, pension provision and climate-friendly mobility (p. 83 ff.).
- › **Regional roots:** Our roots lie in Baden-Württemberg and we recognise our special responsibility to this region – by investing in existing infrastructure (p. 76) and also through our voluntary and charitable work (p. 53 f.).

Sustainability ratings

We maintain close contacts with leading sustainability rating agencies and take their analyses and evaluations of the corporate strategy, the company situation and its business prospects into account in our decision-making process. In the selection of agencies, the main focus is placed on, amongst other things, transparent and plausible evaluations and efficient working processes between the rating agencies, companies, investors and sustainability analysts. EnBW strives to continuously improve

its ratings from recognised agencies in the area of sustainability. We thus aim to strengthen our position as a responsible and sustainable company and also want to address those financial investors whose investment decisions are based wholly or partially on sustainability criteria. We were able to maintain our above-average results within the energy sector for important sustainability ratings in 2019.

Current sustainability ratings

	CDP	ISS ESG	MSCI	Sustainalytics
Earnings	B/Management (2019)	B- (2019)/Prime ¹	AA (2019)	77 (2019)/Outperformer
Scale	A to D-	A+ to D-	AAA to CCC	0 to 100
Relative position	"Electric Utilities" sector globally: EnBW achieved a place in the top 25%.	"Utilities/Multi Utilities" sector globally: EnBW achieved a place in the top 10%.	"Utilities" sector globally: EnBW achieved a place in the top 24%.	"Utilities" sector globally: EnBW achieved a place in the top 14%.
Evaluation focus	Climate aspects	Social, governance and environmental aspects	Social, governance and environmental aspects	Social, governance and environmental aspects

¹ The ratings were last updated on 21/12/2018. As of 31/12/2019, EnBW still held Grade B- and Prime status.

Further information on the sustainability ratings is available at www.enbw.com/sustainability. Further details on non-financial performance indicators are presented on p. 81 ff., while information on the financial ratings from the rating agencies Moody's, Standard & Poor's and Fitch can be found on p. 72 f.

Social engagement

We are acutely aware of our responsibility towards society. Our commitment to addressing the concerns and interests of society focuses on the target groups of end customers, business partners and local authorities within our primary business sphere of influence in Baden-Württemberg. Support for super-ordinate social issues is concentrated on the **core areas** of popular sport, education, social issues, the environment and art and culture.

The Group guidelines on corporate sponsoring, memberships, donations and involvement with universities govern the goals, responsibilities, standards, principles and processes for all companies in which EnBW AG holds a majority of either the shares or voting rights. **Donations** are documented on a yearly basis in the donation report that is presented to the Board of Management. In 2019, donations made by the EnBW Group came to €3.6 million, following €2.2 million in the previous year. Donations worth €1.8 million (2018: €604,000) were attributable to EnBW AG. The increase at both an EnBW AG and Group level was mainly attributable to donations made to foundations that are actively involved in our current and also future business fields. In addition, Netzte BW has been requesting that customers submit their electricity meter readings electronically rather than by post since 2018. The postage saved was donated to numerous charitable organisations in the respective communities in 2019.

In 2019, **Pražská energetika (PRE)** supported the Charta 77 Foundation – Barriers Account – and the Jedlička Institute, which provides apprenticeships and social services for physically handicapped young people. **Stadtwerke Düsseldorf (SWD)** has helped schools with the task of guiding young people towards a career for many years. In addition, it participates in interschool competitions such as the "Düsseldorf School Prize" for outstanding school projects focussing on social, health or cultural topics. SWD makes a Christmas donation to four charitable associations in Düsseldorf that are selected each year. Through the VNG Foundation, **VNG** supports the "Network of Warmth" that promotes charitable work in Germany and the internationally renowned children's music project "OPEN WORLD" in Leipzig for German-Russian cultural exchange. The VNG subsidiary ONTRAS Gastransport supports charitable projects from associations and initiatives via its "ONTRAS.Stadt-bekannt" programme and has participated in the "Foundation for volunteering and civic involvement in Mecklenburg-West Pomerania" since 2018.

The EnBW Board of Management decided a number of years ago not to send Christmas gifts to business partners but instead to make donations to social projects in Baden-Württemberg. As part of the **Christmas donations** in 2019, a total of €32,000 was given to eight charitable campaigns or campaigns initiated by readers of regional newspapers in Baden-Württemberg.

As part of the EnBW project "We're making it happen" (www.enbw.com/wir-machen-das-schon), EnBW AG also supported social or charitable projects with the **Making it happen bus** in 2019. Further information on this subject can be found at www.enbw.com/macherbus.

EnBW AG regularly offers young artists space in its buildings for their **exhibitions**. The “Jahresgaben” (Annual Gifts) exhibition from release Stuttgart e. V. has been a guest of ours for 20 years. The concept behind this sales exhibition is to give young and well-known artists the opportunity to present their works of art. The artists receive 50% of the sales proceeds for their work, while the other 50% goes to fund the work carried out by release Stuttgart e. V. This association based in Stuttgart is a reputable institution that provides help and advice to people with drug-related problems.

The immigration of refugees into Germany remains a major social, political and economic challenge. We already developed a training concept for refugees in 2015, with the goal of providing sustainable support with an eye to the future for the people affected. We have been running a multi-stage **career integration programme** since 2016. Since the beginning of 2019, 74 participants have been introduced to technical careers in introductory days and work placements during the first stage. A total of 41 participants then took part in the second stage from September 2019 to obtain an introductory qualification. In the third stage, 17 participants from last year’s programme have been training for an IHK-certified technical profession in dual vocational training since September 2019.

The **“Let’s Volunteer” initiative** was launched in 2019. This initiative supports employees who volunteer in their local communities by giving two employees €1,000 to donate to a charitable association each month.

We also refer you to the details provided in the “Report on opportunities and risks” (p. 103).

Dialogue with citizens

The **expansion of renewable energies** is an important goal that we are pursuing with great commitment. We plan, construct and operate wind farms and photovoltaic power plants in direct partnership with or with the participation of local authorities and citizens. At various sites, we offer free tours for visitors and visitor groups throughout the year.

In the **expansion of the transmission grids** for the purpose of connecting up renewable energies, the central infrastructure

projects SuedLink and ULTRANET of our subsidiary TransnetBW are at the focus of public attention. There is a comprehensive range of opportunities for citizens to participate in both projects, e.g. in the form of public events held in the federal states and districts affected by the plans.

In October 2019, we also informed citizens about the expansion plans for the **pump storage power plant** in Forbach as part of a public consultation for citizens. Netze BW held a public information event in April about the planned construction of a new 110 kV **transformer station** in Tiefenbronn and also participated in the public consultations organised by the regional council for the 110 kV **grid expansion projects** in Ellwangen and Rot am See.

In 2020, we have ceased our operations at the **Stöckach site** in the east of Stuttgart and have thus created space for urban development. As a company with majority public ownership and a long history in Stuttgart, EnBW wants to make a contribution to affordable and innovative living. It wants to develop the new Stöckach site (www.der-neue-stoeckach.de) itself. The site will be used to construct up to 800 apartments with a total of at least 60,000 m² of living space, of which up to 40% will be subsidised housing. We plan to create opportunities for social interaction, leisure, local supply structures, health, energy supplies and mobility – supported by technological solutions. The participation of citizens will continue to play a central role in the project: Ideas from a series of workshops for citizens flowed into the urban planning competition that was concluded at the end of 2019.

Alongside economic and technical aspects, the Energiewende and the associated phasing out of nuclear energy also encompass elements of social responsibility. We unequivocally assume responsibility for the safe **dismantling** of the nuclear power plants we operate. Dialogue with the local population includes, for example, the annual information days on the dismantling work – an established platform that we used for the seventh time in 2019. Any interested citizens were invited to attend the events held at the sites in Philippsburg, Neckarwestheim and Obrigheim. In addition, those responsible for the dismantling work were available to answer questions at public meetings of the municipal councils, public hearings and information events. There was also dialogue with many citizens and functionaries who took part in the visitor tours at the nuclear power plants in 2019.

In dialogue with our stakeholders

Selected activities in dialogue with our stakeholders

Stakeholder	Opportunity for dialogue	Main themes	Further information
 Shareholders/ capital market	Financial reports	Financial and non-financial performance of the company	www.enbw.com/financial-publications
	Annual General Meeting	Dialogue with shareholders	http://hv.enbw.com
	Telephone conferences/ discussions with analysts and investors	Corporate economic development, positioning on capital market	www.enbw.com/conferencecall www.enbw.com/investor-update
	Bankers' Day and Capital Market Day	Latest developments at EnBW and in the energy sector	www.enbw.com/bankersday www.enbw.com/capital-markets-day
 Employees	Employee communication	New social Intranet, Yammer, four events by "EnBW aktuell", "Team" employee magazine	
	Compliance Day	Varied programme on the theme of "Responsibility" with around 100 participants	page 50
	Diversity campaigns	Diversity Week, Diversity Days, women's network meeting, participation in Christopher Street Day	page 84 www.csd-stuttgart.de
	"Let's Volunteer" initiative	Supporting the social engagement of employees	page 54
	"Making it happen" bus campaign	Employees of EnBW support social and charitable projects	page 53 www.enbw.com/macherbus
 Customers	Participation in trade fairs and congresses	"Aktionstag Elektromobilität", Hannover Messe, Flotte! The sector meeting place, Interchange Network Conference, KEA Contracting Congress, EXPO REAL, etc.	
	Platforms for dialogue and discussion with customers	E.g. customer interviews and energy efficiency networks with seven meetings with various themes	
	Customer magazine, customer blog, social media channels, newsletter and local presence	Information on latest news, products, services and events from EnBW	www.twitter.com/enbw www.facebook.com/enbw www.enbw.com/blog
	Customer blog, social media channels, newsletter, Yello campaign "Expect more"	Information on latest news, offers and services from Yello	www.facebook.com/yello.de instagram.com/yello_de https://youtube.com/yellostrom
 Local authorities/ public utilities	Meeting of the regional advisory council	Invitation of a total of around 600 local authorities to eleven meetings of the regional advisory council	
	Meeting of the heads of public utilities	Specialist talks on current themes in the energy industry, e.g. e-mobility, district development	
 Society/ environment	Climate protection campaigns	Discussion with the "Fridays for Future" movement, 1st Alumni Day for Junge Stiftung, employee campaign "EnBW'ers for climate protection"	www.energie-klimaschutz.de
	Energy on Tour	Educational project on the energy supply of the future for high schools	www.enbw.com/energie-auf-tour
	Tours, information and open days	More than 30,000 visitors to EnBW info centres and events at power plants	www.enbw.com/besichtigungen
	Biodiversity: funding programme "Stimuli for Diversity"	Realisation of further nine funding projects in the reporting year	page 90 www.enbw.com/biodiversitaet
	Stöckach Ideas Room	Information office and campaigns for the future use of the Stöckach site for interested citizens	www.der-neue-stoekach.de
 Suppliers/ business partners	Dialogue on handling coal procurement responsibly	Study on the working and living conditions in the Cesar coal mining region in Colombia, EnBW delegation visits Russia	page 60f. www.enbw.com/responsible-coal-procurement
	AUGENHÖHEcamp #Companies in Karlsruhe	The Innovation Campus is the host for the unconference for organisations undergoing change	www.augenhoehe-ka.de
 Politics/ media	Discussion events on energy industry and climate protection topics	Urban Mobility Talks 2019, five debate evenings, cooperation events: "The future of mobility", presentation of the "Berghülen Solar Park" project	www.energie-klimaschutz.de
	EnBW Energy and Business Club (EWC)	Events on the themes: results from the structural change commission and the effects on the sector, expansion of renewable energies	
	Active and transparent communication via the media	Major articles in daily newspapers and magazines such as "Spiegel", "Süddeutsche Zeitung", "taz" or "ZEIT" and via social media channels; presentations at the Handelsblatt Conference and the BDEW Congress	www.enbw.com www.twitter.com/enbw www.facebook.com/enbw

Research, development and innovation

Research and development: Goals, guidelines and processes

The goal of our research and development is to identify technological trends at an early stage, assess their economic potential and build up expertise in the business units. For this purpose, we carry out pilot and demonstration projects together with partners or customers directly at the site of their subsequent application. This ensures that successful research projects deliver innovations for our company.

Research, development and innovation also lead in many cases to inventions and patents. The portfolio of patents grew by 36 patents (previous year: 25) in 2019; the EnBW Group held 244 patents (previous year: 208) at the end of the year. The patents held by EnBW focus mainly on the areas of smart solutions and electromobility.

Research and development: Selected activities

Wind energy: Offshore wind power plants with fixed foundations are limited to shallow waters with water depths of up to around 50 m. Floating platforms could be used to exploit the wind power potential in deeper waters. In cooperation with partners, we are investigating several different concepts for floating offshore wind farm projects that would be suitable for opening up new international offshore wind energy regions. We signed a technology partnership agreement with the engineering company aerodyn based in northern Germany at the end of 2019. Together, the partners will realise a novel design for floating wind turbines that offers the potential for cost savings because of the way it is constructed. The small-scale test that began in 2020 in Germany has immediately led to a test under real conditions, which will be carried out by the Chinese renewable technologies company Ming Yang from Shanghai. We want to develop another floating platform concept in cooperation with European partners and construct a pilot plant in Europe. The two demonstration projects will help us to identify which type of floating platform is especially suited for future projects.

In addition, we are a member of a consortium that is designing a prototype for an offshore power plant with an output of more than 10 MW and aims to construct it as a pilot plant with funding from the EU. Following the insolvency of Senvion, General Electric has joined the consortium and the project is being continued.

Photovoltaics: The University of Stuttgart has developed a laser process that enables the inexpensive production of non-toxic silicon solar cells with a high level of efficiency. We have been participating in this research project funded by the federal government since August 2017 and founded our subsidiary EnPV in December 2017 to prepare for the commercialisation of the results. EnPV investigated the industrial feasibility of the process in cooperation with factory outfitters in 2019. It is expected that it will then be possible to produce non-toxic PV modules at a cost that is commercially viable in comparison to current market prices. Some outstanding issues relating to individual steps of the patented process will be evaluated in 2020 so that it can be demonstrated in a pilot factory on industrial machines.

Geothermal energy: In addition to the production of electricity, geothermal energy has the potential to reduce the use of fossil fuels in heating networks. We support our partners, such as local authorities, in decarbonising their heating networks using geothermal energy. A project in Bruchsal has now come to fruition: The heating supply for a police station from the nearby geothermal power plant was inaugurated on 4 December 2019. We gained our experience in the provision of heating from geothermal energy through partnerships, in which we and our partners planned and constructed the geothermal power plants in Bruchsal (since 2012) and Soultz, France, (since 2016) and still operate them today.

Green gases and hydrogen: We also want to provide our customers with carbon-neutral gaseous energy sources in the long term. The experience gained from various pilot and demonstration projects will help us achieve this. Since the beginning of 2020, our subsidiary ZEAG has been generating green hydrogen with the aid of state funding. It is using a 1 MW PEM electrolyser (PEM = proton exchange membrane) that directly converts electricity from the “Harthäuser Wald” wind farm into green hydrogen. Our subsidiary Energiedienst Holding (ED) already opened an alkaline hydrogen electrolysis plant with an electrical output of 1 MW in Wyhlen in November 2018 – operated with green hydropower. In 2019, ED had its bid to expand the plant to up to 5 MW accepted as part of the “Reallabore” tender process of the German Federal Ministry for Economic Affairs and Energy (BMWi), with the aim of supplying districts, industrial premises and customers with hydrogen produced from electricity for their mobility needs. The project is due to start in 2020.

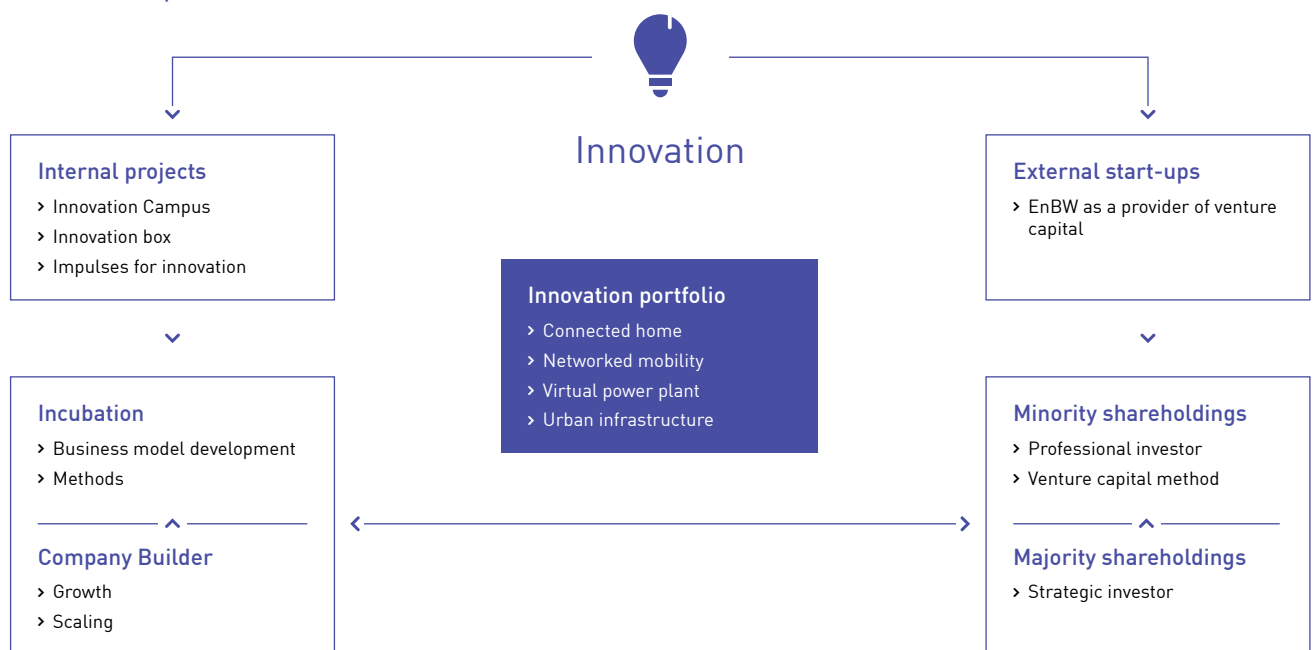
New technologies for the charging infrastructure (Glossary, from p. 257): Following preliminary studies, we will demonstrate a new method for contactless charging during journeys and test its suitability for everyday use in 2020. To this end, we entered into partnership in December 2019 with the young company ElectReon from Israel, which has developed an induction system for roads. It will be used for the first time on a test track in Baden-Württemberg. We are investigating how to speed up conventional charging without damaging the batteries using a special vehicle and a charging station with a capacity of up to 320 kW.

Load management for electromobility: The “E-Mobility Avenue” project carried out by Netze BW in Ostfildern near Stuttgart ended in October 2019. The aim was to test the impact of the broad use of electromobility on the electricity grid. For this purpose, ten households on one street were provided with e-cars and the required charging infrastructure (Glossary, from p. 257). Netze BW believes that the results demonstrate that the challenges faced by the distribution grid operators as a result of

the ramping up of electromobility can be overcome. In particular, the project showed that there is great potential for both smart load management to avoid bottlenecks and the temporary use of different types of battery storage systems to reduce the load on the grid. In addition, it was possible to gain valuable insights into the charging and user behaviour of drivers of electric cars. Follow-up projects in Tamm (“E-Mobility-Carré”, p. 58) and a test field in a rural setting (“E-Mobility-Chaussee”) have been launched.

Innovation management: Goals, guidelines and processes

The innovation process at EnBW



We develop new business models outside of our core business using the central innovation management department in order to quickly identify new sources of revenue and bring them to the market. The **innovation strategy** focuses on two main approaches: the generation and scaling up of new business models within the company in internal and external projects and investments in external start-ups by EnBW New Ventures.

Alongside the development of new business models and supporting start-up projects during the incubation phase, innovation management also accompanies mature projects during their growth phase with the **Company Builder**. In the reporting year, the focus was primarily placed on professionalising processes and scaling up existing projects. Following the successful development of new business models, the start-up teams then face further challenges in the growth and scaling-up phase. In order to efficiently support the teams and their growth, the Company Builder provides start-ups with additional skills in the form of controlling, sales and marketing experts.

EnBW New Ventures invests in start-ups that develop digital solutions for infrastructures. It focuses on companies who realise value added through scalable business models and new technologies. The aim is to use the total available investment volume of €100 million to secure minority shareholdings of between 10% and 30% in up to 20 start-ups, with an investment period of four to eight years in each case. EnBW New Ventures plays the role of an active investor, supports the start-ups as a business coach or kind of “sparring partner” and is represented on their boards. The start-ups receive access to professional investor expertise via EnBW New Ventures. In addition, commercial cooperation with the operating units at EnBW is also possible.

In future, EnBW will also secure majority shareholdings in quickly growing mature companies with the aim of achieving substantial growth.

Innovation: Selected activities

A successful early start-up from our idea factory is **ChargeHere**, which offers inexpensive charging infrastructure solutions for car parks and large parking facilities to promote the further expansion of electromobility. Instead of equipping every parking space with its own wallbox, the solution from ChargeHere only requires a central switching cabinet from which the charging cables are laid to the individual parking spaces. The concept also enables optimised, dynamic load management and controlled charging of the vehicles. ChargeHere is now in the growth phase and has twelve employees. We are also using ChargeHere to expand the charging infrastructure (Glossary, from p. 257) at our own sites; a total of 264 charging points were installed at six large sites in 2019. ChargeHere is also participating in the iLIME project (smart charging infrastructure management for e-mobility), which is being supported by the Ministry for the Environment, Climate Protection and the Energy Industry, Baden-Württemberg. In cooperation with its partners, ChargeHere is developing a concept in the project for a multi-level smart load management system for e-mobility. The ChargeHere charging solution with dynamic load management has also been used since autumn 2019 at a housing estate with apartment buildings and shared underground parking facilities in Tamm. Around two thirds of the parking spaces in this “NETZlabor E-Mobility-Carré” were equipped with ChargeHere charging points for a practical test to examine the best way to integrate electromobility into an existing grid infrastructure.

SMIGHT was one of our first start-ups and was able to continue its positive growth in 2019. Originally founded as a supplier of smart, multifunctional street lights, SMIGHT has since changed its business model significantly. As well as recording traffic flows in medium-sized German cities using sensors installed on existing street lights, it is increasingly focusing on the target group of distribution grid operators. A smart electricity sensor has been developed for these customers that supplies real time data about the actual grid load and thus supports the needs-based expansion of the grid. The first major customer was Netze BW,

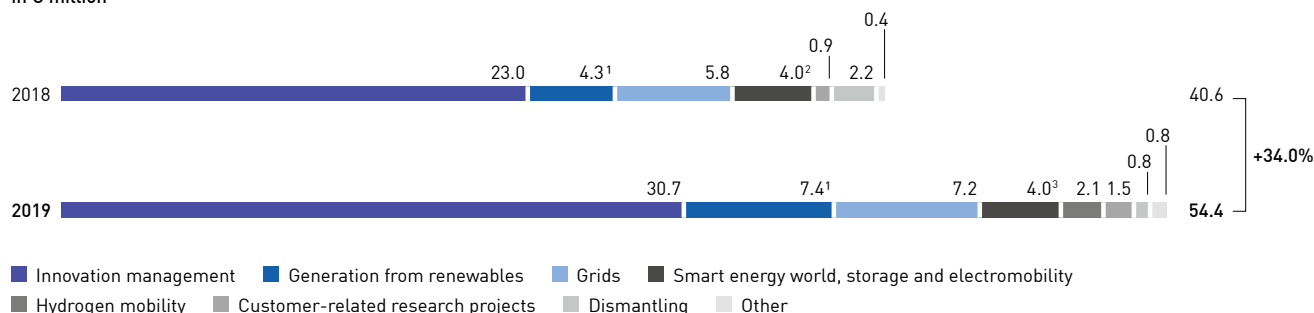
which has equipped 550 local transformer stations with the SMIGHT Grid electricity sensor. This has created 18,000 measurement points. Alongside traffic solutions, the grid sensor business remains a lucrative second pillar for SMIGHT.

The **Virtual Power Plant** (Glossary, from p. 257) is another mature start-up from the Company Builder. It collects and bundles together the renewable energy from smaller decentralised power plants such as wind turbines, photovoltaic plants or biomass power plants via its digital platform. The volumes of electricity that are collected are then sold on the electricity market. At the same time, the Virtual Power Plant also supplies consumers such as commercial customers or our quick-charging stations. It is growing constantly with the addition of new plant operators and cooperation partners. Electricity producers benefit from the fact that they have a competent partner to handle the sale and remuneration of the green energy. The Virtual Power Plant was founded in 2016 and has since developed into an established supplier on the market with around 30 employees and more than 1,000 customers. In 2019, we upgraded the Virtual Power Plant from an innovation project to a Micro Business Unit – a company within the company. Micro Business Units are mature projects that have already generated their first sales with a marketable business model.

Expenditure and personnel

We spent €54.4 million (previous year: €40.6 million) on research, development and innovation in the 2019 financial year. The increase was primarily due to the growth in innovation management; the corresponding sales increased to €11.1 million (previous year: €6.4 million). We received government research grants of €0.9 million (previous year: €2.3 million). There were 81 employees (previous year: 63) in the areas of research, development and innovation in 2019. 236 employees (previous year: 169 employees) were involved in research and development projects as part of their operational work. A further 130 employees (previous year: 110) were involved in innovation projects.

Expenditure on research, development and innovation in € million



1 Also includes green gases.
 2 Includes hydrogen mobility.
 3 Excluding hydrogen mobility.

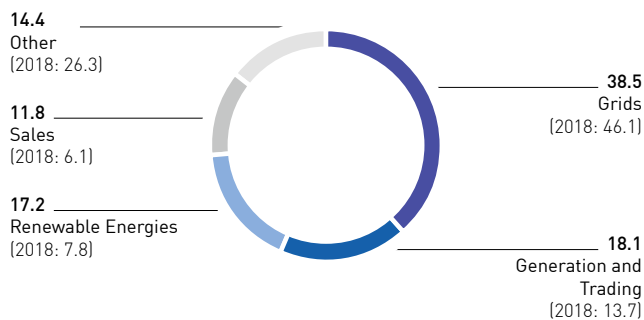
Procurement

Efficient and sustainable procurement processes

Our purchasing department views itself as a **partner for generating added value within the Group**. Its goal is to ensure the supply of materials and services at the best possible quality/cost ratio and thus strengthen the competitiveness of the company. We place great emphasis on the efficient design of our procurement processes for achieving cost-effective purchasing results, as well as on sustainable procurement taking into account the requirements of national laws, EU law and the Group’s internal guidelines. In order to manage the procurement processes, a system using various different performance indicators is used. It continually delivers a realistic picture of the current situation in purchasing and enables a comparison of the target and actual situation, as well as the prompt implementation of control measures.

The **procurement volume** of the EnBW Group in 2019 (without ITOs) (Glossary, from p. 257) amounted to around €2.8 billion (previous year: around €2.5 billion).

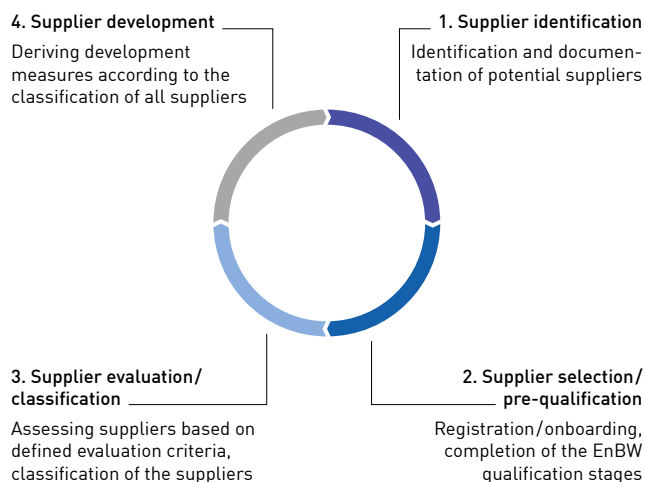
Procurement volumes of the EnBW Group by segment in %



A large number of suppliers and service providers contribute to the services we render. They play an important role in our efforts to achieve a leading position on the energy market. **Supplier management** promotes successful cooperation with our suppliers because it makes the performance of the suppliers transparent and also makes continuous optimisation in partnership possible. The careful selection of our business partners is a part of our risk management system and supports the observance of legal regulations and internally defined quality standards. Especially with regard to the selective internationalisation of the business, central purchasing is also developing an integrated **supply chain management system** in close cooperation with the business and functional units.

Sustainable procurement begins with the careful selection of business partners. Central purchasing at EnBW AG uses a standardised **pre-qualification process for this purpose**. Suppliers are required to provide a self-assessment via our supplier portal on whether they practise sustainable measures in the areas of data protection, quality management, environmental management, the respect for human rights, the fight against corruption and occupational health and safety. This self-assessment was completed by almost 90% of our suppliers by the end of 2019 (measured by procurement volume). The General Terms of Purchase of the EnBW Group and the additional purchasing regulations regarding occupational safety define other detailed requirements for our suppliers.

Supplier management process



Our **subsidiaries** that are not overseen by central purchasing address non-financial aspects in purchasing using their own mechanisms.

Energiedienst Holding (ED) works together closely with central purchasing at EnBW AG to procure important product groups using joint invitations to tender and framework contracts, as well as in the associated pre-qualification processes. In addition, orders are placed largely with regional suppliers from Germany, Switzerland or neighbouring EU countries.

Purchasing at the companies of **Pražská energetika (PRE)** ensures that suppliers pay social security contributions, settle their tax liabilities and do not engage in money laundering, amongst other things. Potential suppliers must verify their compliance with these aspects by either submitting a sworn declaration or by presenting corresponding certificates when bidding for invitations to tender. The fulfilment of these obligations is also stipulated in supplier contracts.

At **Stadtwerke Düsseldorf (SWD)**, sustainability aspects are anchored in the compliance guidelines, environmental management system manuals and process descriptions. In the area of procurement, SWD pays particular attention to the use of environmentally friendly and sustainable products. It also uses clauses in its supplier contracts as a way to reinforce the fight against corruption and bribery and to ensure observance of labour and social laws.

The fundamental principles for procurement at **VNG** are regulated by a code of conduct, the management handbook and Group guidelines. Aspects such as the prevention of corruption – which is embedded in the compliance management system and environmental protection are – a fixed component of procurement processes.

Responsible raw materials procurement in the coal sector

Origin of coal supplies

Hard coal will continue to play an important role for EnBW as a source of energy to ensure a reliable and economic supply of electricity. A total of 3.16 million t of coal was delivered to our power plants in 2019 (previous year restated: 3.81 million t of coal). This corresponds to a procurement volume of €170 million (previous year: almost €300 million).

Russia was able to further strengthen its leading position on the generally declining market in Western Europe due to its geo-

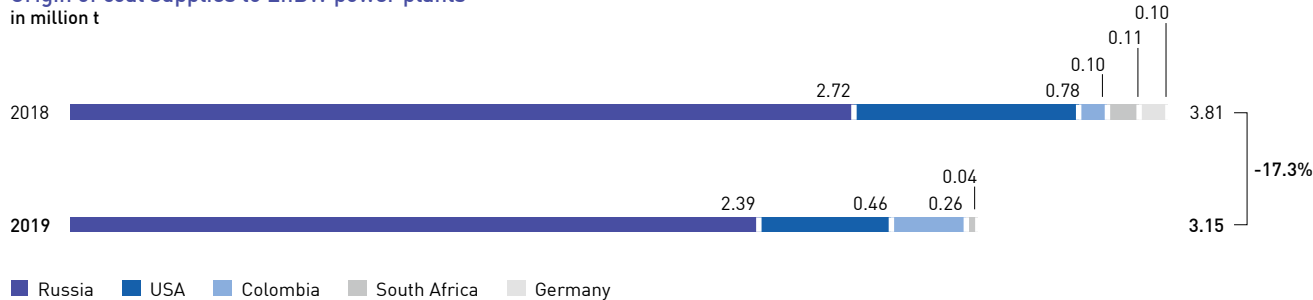
graphical proximity of the shipping ports. In contrast, Colombian coal has generally become less significant in Western Europe, in particular, because Colombian mining companies have been able to secure higher prices for their coal in America, Asia and the Mediterranean region. Due to these general market developments, we sourced the majority of our coal from Russia and the USA.

We place importance on maintaining a balanced procurement portfolio to avoid becoming dependent on individual producing countries, producers or traders, and the associated price and supply risks. 82% of our coal requirements are covered by contracts held directly with selected producers. The remainder is sourced from contracts concluded with trade intermediaries which generally define a quality standard but not the source of the coal. In addition, we maintain close contacts with other potential producers and traders to avoid any dependency on one single producer.

The Russian coal was sourced from the mining region of the Kuznetsk Basin (Kusbass) and was primarily mined by the producers SUEK and Kuzbassrazrezugol (KRU). The American coal was sourced from underground mines in the Illinois Basin and the northern Appalachians. The main producers were Murray Energy and Consol Energy. The Colombian coal was supplied by the company Drummond. The South African coal was supplied to us as part of a trading contract and was sourced from the Mpumalanga Province.

Further information on our coal procurement is available at www.enbw.com/coal-procurement. The opportunities and risks in relation to procurement and raw materials procurement can be found in the “Report on opportunities and risks” (p. 103).

Origin of coal supplies to EnBW power plants¹



¹ The figure for the previous year has been restated.

Positioning, overarching concepts and due diligence for the protection of human rights

In accordance with the Guiding Principles on Business and Human Rights of the United Nations, we strive to procure coal responsibly and thus to fulfil our human rights responsibilities. Due to the special challenges faced in the area of coal procurement, the ongoing CSR performance (Glossary, from p. 257) of current and potential coal suppliers is regularly discussed on the basis of the **EnBW rules of conduct** governing the responsible procurement of hard coal and other raw materials (www.enbw.com/verhaltenskodex) and used to determine any future action, especially requesting further specific information from selected

suppliers. The coal suppliers are evaluated on the basis of relevant international standards, such as the UN Global Compact. The latest studies by competitors and international initiatives flow into the evaluation of producers, as do specific information and contributions from civil society organisations.

Our rules of conduct in combination with internal guidelines act as the foundation for our business activities. The annual assessment of coal producers is carried out using the EnBW sustainability index, which covers all areas of the rules of conduct. In addition to regular auditing of the sustainability performance of coal suppliers, a multi-stage auditing process will come into force in the event of suspected breaches of the rules,

which can lead to the termination of the business relationship or exclusion from our procurement process. When new contracts are due to be concluded, the results of the analyses in the sustainability index are discussed with participation from all relevant specialist areas including representatives from the trading, compliance and sustainability departments. Findings from discussions with external stakeholder groups, such as representatives from civil society, legal experts for the individual countries and human rights experts, also flow into these analyses. If any deviations from the minimum standards are identified, corrective measures are implemented in cooperation with the producers for existing supply contracts. In 2019, there were several meetings of these representatives to discuss, in particular, the sustainability performance (Glossary, from p. 257) of the Russian coal producers on the basis of existing findings from the sustainability index, as well as current issues related to the import of raw materials.

Current developments

We have used extended measures to focus particularly on the coal producers from Russia and Colombia in the reporting year.

Russia

Due to the continuous increase in coal imports from Russia, we have also continuously intensified our efforts to fulfil our human rights responsibilities with respect to the Russian coal suppliers over the past three years. In the process, we are able to call on our experience from and the approaches we took in our engagement in Colombia.

We want to obtain better information on the working and living conditions in the mining regions in Russia, continue to strengthen our relationships with stakeholders and clearly communicate our minimum requirements for responsible coal procurement to our coal suppliers. We have thus carried out more in-depth research into the most important coal producers for our Russian coal supplies, sought direct contact with companies with requests for information about selected sustainability issues such as environmental protection and work standards and also carried out a business partner audit of the coal suppliers again in 2019 in cooperation with the compliance department due to enhanced public reporting requirements. In individual cases, we needed to verify the ownership structure and obtain further information about public controversies. For this purpose, we consulted with our competitors in order to increase the level of information on Russian coal producers in the Kusbass region and clarify how we can continue to positively influence the sustainability performance of the producers through dialogue and on-site inspections. Moreover, we are including CSR clauses in all direct business contracts concluded with Russian companies.

In November 2019, EnBW representatives travelled to Moscow and the Kusbass region to discuss sustainability issues with the producers relevant to us, namely SUEK and KRU. We discussed our requirements for occupational safety and compliance and, in particular, environmental protection, resettlement and compen-

sation issues with both governmental and non-governmental players. The itinerary also included a tour of the mines from which we receive our main supplies. This allowed us to gain our own impression of additional measures being taken for water purification and the rules for maintaining an appropriate distance between residential areas and the mines. We were also able to address different solutions for environmental protection and for handling the concerns of residents. There are plans to examine the implementation of further measures in future trips to Russia in 2020 and to revisit the coal suppliers from the Kusbass region from whom we source our coal, so that we can examine the progress being made in respecting human rights along the value added chain.

Colombia

Although imports from Colombia have generally fallen sharply since 2018, we have continued the dialogue with Colombian producers in order to achieve ongoing and long-term improvement in their CSR performance (Glossary, from p. 257). The main focus of the engagement in Colombia was the completion of our previously announced progress and development report. The results presented in this report demonstrate how the Colombian mining companies in the Cesar region have set up and expanded the internal structures for complying with international human rights standards over the last five years. This includes a clear commitment to respecting human rights and internal management systems. The report analyses the most important effects with respect to sustainability along the coal supply chain. The main focus is placed on the areas of occupational safety and health, relationships with unions, resettlement of communities, environmental and health protection and security and combating violence. Overall, the progress and development report shows that the mining companies that were investigated had made progress over the last few years within their sphere of influence, even though there is still a need for these issues to be continuously addressed, also in cooperation with other producers, the government and above all local residents. On the basis of the results of the report, we are working with producers on further plans for action to improve the situation in these mining areas. Some representatives from civil society have criticised the results of the report and terminated their previously constructive dialogue with EnBW about coal procurement. We do not agree with the sweeping accusations that we have played down the severity of the issues and have handled the situation in Colombia uncritically and point instead to the extensive data and facts presented in the report. We are also available for objective dialogue with the NGOs in the future.

Other issues

In addition, we carried out (preliminary) investigations into the sustainability and compliance of producers from various countries with whom we may conclude (liquid) gas contracts in the future. From a sustainability perspective, we have not yet identified any anomalies with those companies with which we currently have an existing contractual relationship that would necessitate a more in-depth investigation into the companies.

Business report

General conditions

Macroeconomic trends

Economies

The global economy slowed down in 2019. The decline in economic growth had an impact on all of the economies relevant to us. The reasons for this slowdown in growth were primarily of a political nature: the trade disputes between the USA and China as well as the EU, uncertainties with respect to the United Kingdom exiting the EU and the threat of military conflict in the Near and Middle East. Structural problems in the automotive industry, which is highly important for the whole economy, also had a negative impact in Germany. In Turkey, the inflow of foreign investment has decreased and the tourism industry has declined due to the increasing political uncertainty.

The economic situation in Europe and Germany is expected to improve slightly in 2020 compared to 2019. This expectation is based on a recovery in foreign demand, primarily from high-growth emerging economies, and easing of the political risks, for example with respect to the trade disputes. The macroeconomic trends are not expected to have a either a particularly positive or negative influence on the business performance of EnBW in 2020.

Development of gross domestic product (GDP)

in %	2020	2019	2018 ¹
World	3.4	3.0	3.6
Eurozone	1.4	1.2	1.9
Germany	1.2	0.5	1.5
France	1.3	1.2	1.7
Sweden	1.5	0.9	2.3
Switzerland	1.3	0.8	2.8
Czech Republic	2.6	2.5	3.0
Turkey	3.0	0.2	2.8

¹ The figures for the previous year have been restated.

Development of interest rates

Although it appeared for a long time that the US Federal Reserve would increase the base interest rate again, there was a reversal in policy in the summer in the USA. The European Central Bank (ECB) continued its expansive monetary policy against the background of an economic slowdown.

The discount rates applied to company pension provisions and nuclear provisions fell further in 2019 so that the present value of the pension obligations of EnBW, in particular, rose due to interest rate-driven reasons.

The consensus forecast for the ECB interest rate on the main refinancing operations remained unchanged at 0.00%.

Development of the sector and competitive situation

Selection of international, national, regional and new competitors

Established competitors		New competitors			
National and international ALPIQ, EDF, EDPR, Enel, Engie, E.ON, Equinor, EVN, Fortum, Iberdrola, Ørsted, RWE, Vattenfall, Verbund	Regional Badenova, Entega, EWE, Mainova, MVV, N-Ergie, SWM, Thüga	Commodity suppliers/solution suppliers/ start-ups 1&1, bliss.energy, Deutsche Telekom, Fastned, Kesselheld, Lichtblick, NEXT Kraftwerke, Sonnen, stromio	Renewable Energies BayWa r.e., Encavis, ENERTRAG, PNE Wind, theolia, wpd	Other industries Daimler, Google, Shell, Tesla, VW/Elli	Financial investors Capital Stage, KGAL, Talanx
<ul style="list-style-type: none"> > Main focus on the areas of renewable energies, grids, sales/solutions > Some specialisation amongst international competitors 		<ul style="list-style-type: none"> > Entry of new market participants increases competition and leads to a deconstruction of the value chain > New competitors with strong focus/specialisation on one business field 			

The energy sector is currently experiencing a period of great upheaval. There is particular pressure for change due to the Energiewende. However, digitalisation, sector coupling (Glossary, from p. 257) and the desire of local authorities to become self-sufficient, for example, are also putting the sector under great pressure.

A significant factor is that the energy sector is highly regulated, which means that political policies strongly influence developments in the sector. In particular, this is currently affecting the restructuring of the generation landscape. Most importantly, renewable energies will increase their share of the transport and heating sectors in the long term. The business models of energy supply companies are changing at the same time, while new players from outside the sector are also entering the energy market. This is especially true for the commodity and solutions business. In addition, companies are repositioning themselves along the sector's traditional value chain and specialising in individual business fields.

The RWE subsidiary innogy has been split between E.ON and RWE in a deal that includes asset swaps between the two companies. This is having a major influence on the German and also the European energy market.

Traditional energy supply companies need to re-examine their competitiveness in individual business areas, exploit the potential offered by a changed market environment and align their strategies for the future.

Cross-segment framework conditions

Climate protection

The issue of climate protection is receiving a greater and greater amount of public attention. Clear examples of this can be found in the “Fridays for Future” movement and the results of the European elections.

In Germany, it is anticipated that the national climate targets for 2020 will be missed by a large margin. The climate action package introduced by the German government includes the phase-out of coal power, the introduction of charges for CO₂ emissions in the transport and heating sectors and numerous other measures, such as subsidies to promote electromobility. The aim is to increase the share of gross energy consumption accounted for by renewable energies to 65% by 2030. Despite the new climate protection measures it is, however, still not expected that the 65% target will be achieved – especially in view of the slow expansion of onshore wind energy.

We will continue to advocate the introduction of a minimum CO₂ price in the electricity sector and climate-based reform of the tax, duty and levy systems in order to help steer investment towards climate-friendly technologies.

The EnBW Chief Financial Officer, Thomas Kusterer, is a member of the EU Technical Expert Group on Sustainable Finance (TEG) (Glossary, from p. 257) which is developing a legal framework for sustainable financing opportunities. He is also engaged as a member of the Task Force on Climate-related Financial Disclosures (TCFD) (Glossary, from p. 257) in the development of climate-related risk reporting by companies.

Our strategy of concentrating investment on renewable energies, expanding the grids and developing new and increasingly digitalised business models supports the national climate protection targets and the international efforts for climate protection.

EU Green Deal

The framework conditions for achieving climate neutrality by 2050 are currently being defined at an EU level. At the end of 2018, the European Commission had already presented a revised analysis of possible climate pathways up to 2050. The EU now aims to enshrine the 2050 climate neutrality target, which was announced in its comprehensive Green Deal, into law. In addition, it will continue investigations into the effects of increasing the 2030 climate targets to at least 50% or 55% until autumn 2020 and make corresponding proposals for legislation in 2021. While the climate neutrality target is supported by the European Parliament and all member states except for Poland, and it is, therefore, probable that the legislation will pass quickly, further negotiations on the precise increase to the target for 2030 are expected.

In terms of the framework conditions facing EnBW and other players in the energy industry, further measures are expected as part of the Green Deal in future, such as a revision of the financial instruments and capital market guidelines as well as regulations and measures to decarbonise the gas and transport sectors.

Coal Commission

On 26 January 2019, the Coal Commission presented its final report, on the basis of which the Federal Government prepared a draft law and adopted it in the Federal Cabinet at the end of January 2020. This Act recommends the end of coal-fired power generation in Germany by 2038. German brown and hard coal capacities in the energy industry should be reduced to 15 GW each by 2022 (currently around 42 GW in total) and then to 17 GW in total by 2030. Incentives for the decommissioning of coal power plants should also be created by funding a fuel switch from coal to more climate-friendly energy sources.

The Cabinet decision of the Act deviates from the recommendations of the Coal Commission in some critical points. Due to the “late” decommissioning of brown coal power plants proposed by the law, it is expected that modern hard coal power plants will be removed from the grid relatively early. Negative implications for the operators of hard coal power plants are expected as a result of the intended “early” decommissioning of hard coal capacities without any compensation even for modern power plants.

It is feared that the proposed reform to the Combined Heat and Power Act (KWKG) that was also announced in the legislative package will not deliver sufficient incentives for promoting investment in the conversion of the supply of heating from coal to more climate-friendly fuels. EnBW will advocate that amendments are made to the draft law during the parliamentary process.

Sales segment

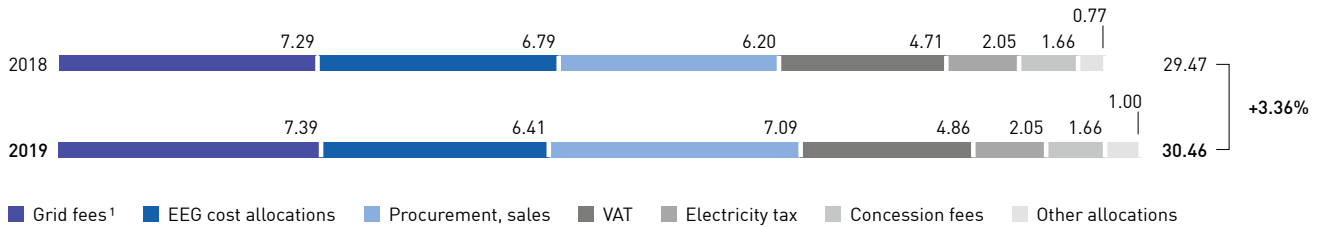
Electricity and gas prices for retail and industrial customers

According to an analysis of electricity prices by the German Association of Energy and Water Industries (BDEW) published in

January 2020, the average monthly electricity bill for a household with an annual consumption of 3,500 kWh in 2019 came to €88.84 compared to €85.94 in the previous year. Taxes and levies account for more than half of this amount. EnBW increased the price for the basic supply of electricity by around €37 per year on 1 January 2019. The reason for this was the increased costs for the procurement of electricity. For industrial customers receiving a medium-voltage supply, the average electricity price including electricity taxes increased according to calculations made by BDEW by 2.6%, from 17.96 ct/kWh in the previous year to 18.43 ct/kWh in 2019.

According to calculations by the German Federal Statistical Office, natural gas prices for private households in 2019 rose by 3.9% compared to the previous year; in contrast, the price of gas for industrial customers fell by 7.5%.

Average electricity price for a 3-person household (annual consumption of 3,500 kWh) in ct/kWh



¹ Including metering and metering station operation. Source: BDEW | As of January 2020

Structural changes

The Climate Action Programme that was introduced by the German government and passed in October 2019 set a target for the provision of one million charging points for electric vehicles by 2030. This will be achieved with the “**Charging Infrastructure Master Plan**”. It contains measures for quickly establishing a comprehensive and user-friendly charging infrastructure (Glossary, from p. 257) for up to ten million e-cars by 2030. Furthermore, there are plans to simplify the regulations for the installation of charging infrastructure in the Act on the Ownership of Apartments and the Permanent Residential Right (WEG) and in tenancy law. The aim will be to make it obligatory for landlords to tolerate the installation of charging infrastructure.

In addition, the German government has increased the **subsidies for purely electric cars** with a list price of below €40,000 from €4,000 to €6,000. The subsidy increases to €5,000 for more expensive cars up to a limit of €65,000. Additional government subsidies, such as the tax exemptions for electric company cars that are valid from January 2019, create further incentives to purchase these e-cars.

We are engaged in the expansion of the charging infrastructure for household customers and also for commercial and local authority partners. As part of a programme in the Federal State of Baden-Württemberg to establish a **core charging network for electric vehicles in Baden-Württemberg (SAFE)**, a consortium

of 81 partners under our leadership has established a comprehensive charging network for e-cars in Baden-Württemberg based on a grid with a mesh size of 10 km by 10 km (p. 82).

Another goal of the German government is to develop a climate-neutral building stock by 2050. Achieving high levels of **energy efficiency in buildings** is a key factor in this area. The Building Energy Act (GEG), which was passed at the end of 2019, brings together various legal requirements for the energy-related properties of buildings. As a consequence, there will be stricter standards for the installation of oil heating systems from 2026 and related to this, a 40% subsidy for exchanging an oil heating system for a more climate-friendly alternative. In addition, the already existing government subsidies will be increased by 10% and a tax incentive to subsidise energy-related renovation measures of 20% of the investment costs will be introduced in 2020. Many new buildings actually already meet these stricter energy-related requirements. Due to the lower heating demands in these buildings, heat pumps can be used as an energy-efficient form of heating and their use in new buildings has been increasing for a number of years. It is also possible to improve the energy efficiency of existing buildings by replacing the heating system. Due to the age structure of heating systems, this replacement rate is set to increase in the coming years. The replacement of a heating system is often also accompanied by a switch in energy source to natural gas, district heating or renewable energy sources. We believe that there are huge opportunities for growth as a result of the dynamics in the heating market.

Grids segment

On 9 July 2019, the German Federal Court of Justice (BGH) decided that the **rates of return on equity for electricity and gas grid operators** for the third regulatory period did not need to be corrected upwards. The Higher Regional Court (OLG) in Düsseldorf had previously annulled the rates of return on equity set by the Federal Network Agency (BNetzA) because they were set too low.

On 10 July 2019, the OLG Düsseldorf annulled the **general sectoral productivity factor (Xgen)** (Glossary, from p. 257) for gas grid operators that was defined by the BNetzA on 21 February 2018. The BNetzA filed an appeal against the judgement with the BGH on 10 October 2019. A decision on the Xgen for electricity grid providers defined by the BNetzA has not yet been handed down by the OLG Düsseldorf.

The reform of the **Grid Expansion Acceleration Act (NABEG 2.0)** was approved on 4 April 2019. The act aims to simplify and accelerate the approval process for the new construction and reinforcement of electricity lines at the high and extra-high voltage level in Germany. EnBW is hoping for improved framework conditions that will allow the transmission system operators (TSO) in particular to implement the urgently required grid expansion measures on time.

On 20 December 2019, the BNetzA completed its examination of the **Network Development Plan Electricity (NDP Electricity)** (Glossary, from p. 257) 2030 that had been drafted by the TSO. The approved NDP will act as the basis for the legally prescribed amendment to the Federal Requirements Plan. An additional HVDC connection (Glossary, from p. 257) to Baden-Württemberg that was planned for the grid area covered by our transmission system operator TransnetBW has been rejected by the regulatory authorities at this point in time as they do not believe that its approval is merited.

Aside from the expansion of the grids, the German TSOs are focussing on other measures to ensure security of supply. This includes an invitation to tender for the construction of 1,200 MW of new power plant capacity as **special technical**

equipment for grids. In the tendering process held by TransnetBW for the construction and operation of a 300 MW power plant in south-western Germany, EnBW had its bid accepted in August 2019. The new power plant will be constructed at the EnBW power plant site in Marbach am Neckar. It will be placed into operation from 1 October 2022 in special emergency situations as a “safety buffer” for the supply of electricity and to support grid stability.

On 5 December 2019, the Federal Network Agency confirmed the framework scenario for the **Network Development Plan Gas (NDP Gas)** (Glossary, from p. 257) 2020 to 2030. For the first time, the framework scenario includes a separate presentation of the forecast for demand in Baden-Württemberg because the need for greater capacity here is growing constantly and the grid operated by our subsidiary terranets bw is heavily used. In comparison to the current demand for capacity, it is anticipated that over 30% more capacity will be required by 2030.

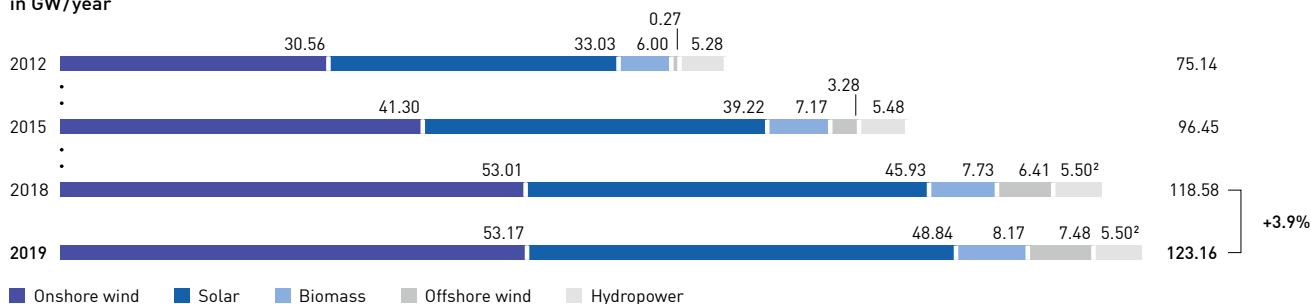
An increasing level of tension is expected overall in the regulated grid business. Investment in the expansion of the grids may reduce the earnings pressure on the grid operators but appropriate returns are necessary in order to continue pushing forward the expansion of the grids and to guarantee the security of supply in Germany. Overall, we anticipate that the grid business of the EnBW grid subsidiaries will be faced with more economically challenging framework conditions in the future.

Renewable Energies segment

Germany

Electricity generation from renewable energies overall in Germany rose significantly in 2019. According to Fraunhofer ISE (www.energy-charts.de) the proportion of total German electricity generation accounted for by renewable energies increased to almost 46% (2018: around 40%). Although there was a small rise in the installed output, this increase in comparison to the previous year is mainly attributable to better weather conditions.

Installed net output for electricity generation from renewable energies in Germany¹
in GW/year



1 The figures for the previous year have been restated.
2 Correction to the value for hydropower from 4.8 GW to 5.50 GW by EnBW.
Source: Fraunhofer ISE (www.energy-charts.de) | As of 03/01/2020

The climate action package introduced by the German government increases the target for the expansion of **offshore wind power plants** in Germany from 15 GW to 20 GW by 2030. We view

this as an important contribution towards achieving the climate targets and an opportunity for us to expand our offshore wind

portfolio beyond the projects we already have in operation and those currently under development.

In 2019, the growth in **onshore wind power capacity** slowed considerably due to the difficult approval conditions. Only around 700 MW of new output was placed into operation, which is around 75% less than in 2018. In the auctions held in 2019, only about half of the output available in the auctions was covered by projects. We were also considerably impacted by this development. In order to achieve the target of 65% generation from renewable energies by 2030, around 4,000 MW of new output will need to be added every year. The climate action package passed by the German government in December 2019 is not expected to accelerate the current slow expansion in onshore wind energy but will instead make this expansion more difficult due to the planned uniform minimum distance regulations. EnBW is campaigning strongly for an improvement in the approval conditions.

Due to the elimination of the 52 GW funding cap and progressively lower costs for PV modules, we anticipate that the **photovoltaic output** in Germany will continue to expand at an increasing rate. The construction of the Weesow-Willmersdorf solar park by EnBW – one of the first major projects without funding in Germany – demonstrates that photovoltaics have now also become economically viable here. The high appeal and availability of open-field photovoltaic plants in Germany was demonstrated by the fact that the auctions in 2019 were significantly oversubscribed.

France

We successfully entered the French market for renewable energies with the acquisition of Valeco in 2019. We expect dynamic growth in renewable energies in France, both in the wind power and photovoltaic sectors. The framework conditions in France, which are mainly centred around auction-based invitations to tender, guarantee continued and reliable funding for renewable energies.

Sweden

Sweden offers very favourable conditions and a competitive environment for renewable energies. In particular, onshore wind energy will play an increasingly important role on the Swedish generation market in the next few years. Since our entry onto the market in 2018, we have consistently expanded our wind power portfolio. The quota-based funding system for renewable energies that currently exists in Sweden means that power plants primarily generate their revenues on the electricity market. The sale of CO₂ allowances (Glossary, from p. 257) could be an additional source of revenue.

Turkey

The current funding mechanism in Turkey for the generation of electricity from renewable sources is valid for power plants that are placed into operation up until the end of 2020. Funding for

all other power plants has been switched over to an auction-based system. Under this new system, a total of around 1,000 MW of onshore wind capacity will be awarded, for example, in 2019. We are expanding the wind power portfolio of our joint venture with our Turkish partner Borusan with two projects that are currently under construction. These wind power plants are due to be completed in 2020. We still believe that the Turkish market is an attractive proposition for the future, although we are monitoring the current political and economic developments in Turkey very closely.

Generation and Trading segment

Electricity wholesale market

Despite the significantly higher prices for CO₂ allowances (Glossary, from p. 257), the average spot market price (Glossary, from p. 257) in 2019 was around €7/MWh below the level in 2018. It is important to note in this context that the second half of 2018 was characterised by a sharp increase in prices due to low water levels and the associated bottlenecks in the supply of coal. In contrast, the average price on the forward market (Glossary, from p. 257) in 2019 was around €4/MWh higher than the average price in the previous year due to the increase in CO₂ prices.

Forward market prices (Glossary, from p. 257) reflect the expectation that prices will continue to increase. The reasons for this are the phasing out of nuclear power and the expected decommissioning of coal power plants. A decisive factor for the future development of electricity prices will be the development of fuel and CO₂ prices and the trends in the electricity generation mix.

Development of prices for electricity (EPEX), base load product

in €/MWh	Average 2019	Average 2018
Spot	37.67	44.47
Rolling front year price	47.79	43.84

Gas market

The spot market price (Glossary, from p. 257) fell considerably in 2019. On the one hand, the global supply of liquefied natural gas (LNG) increased due to new production facilities in the USA and Australia, which led to a noticeable increase in LNG deliveries to north-west Europe, while on the other hand, above-average temperatures led to a much lower demand for heating. The fall in prices on the spot market also had an impact on annual prices.

Negotiations on a new gas transit contract between Russia and the Ukraine will be very significant for the further development of gas prices. In addition, it is possible that the LNG supply to Europe will increase further due to the commissioning of additional LNG facilities in the USA.

Development of prices for natural gas on the TTF (Dutch wholesale market)

in €/MWh	Average 2019	Average 2018
Spot	13.51	22.98
Rolling front year price	18.19	20.70

Oil market

Crude oil prices increased from US\$55/bbl to US\$75/bbl during the course of 2019. Production cuts by OPEC and some non-OPEC countries such as Russia eliminated the oversupply on the global market and supported prices. The conflict between Iran and the USA, combined with the threat made by Iran to block the Strait of Hormuz which is important to the oil trade, and the drone and rocket attacks on important oil facilities in Saudi Arabia also contributed to the higher prices. In contrast, concerns about the global economy and thus the demand for oil also had an effect on the development of the market in 2019. In this context, oil prices were negatively influenced, in particular, by the ongoing trade dispute between the USA and China.

Forward market prices are reflecting the expectation that prices will continue to fall. This expectation is due to fears of an excess supply on the oil market because of, amongst other things, the sharp rise in oil production in non-OPEC countries and lingering concerns regarding the economy and the associated fall in global demand for oil. However, there is also great potential for prices to spike if the ongoing conflict between Iran and the USA and Saudi Arabia escalates in the future.

Development of prices on the oil markets

in US\$/bbl	Average 2019	Average 2018
Crude oil (Brent) front month (daily quotes)	64.16	71.69
Crude oil (Brent), rolling front year price (daily quotes)	61.31	68.94

Coal market

Both the front year price and the spot market price fell significantly during the course of 2019. The main reasons for this fall in prices were the oversupplied global market and the considerable decrease in demand in Europe. In Europe, coal-fired electricity generation is being replaced to a large extent by renewable energies and often by cheaper gas-fired electricity generation due to the very low gas prices and relatively high emission allowance prices. In addition, China introduced restrictions on imported coal in the fourth quarter of 2019.

If the described trends continue, coal prices on both the spot market and the forward market (Glossary, from p. 257) will remain under pressure. As by far the largest consumer of coal in the world, China has a dominant influence on the international coal market. The increasing expansion of domestic coal production in China will continue to have a significant effect on coal imports into the country and thus on the global market.

Development of prices on the coal markets

in US\$/t	Average 2019	Average 2018
Coal – API #2 rolling front year price	69.54	87.03
Coal – API #2 spot market price	60.75	91.91

CO₂ allowances

Under the European emissions trading system, proof must be provided of the correct number of CO₂ allowances (Glossary, from p. 257) for the corresponding CO₂ emissions from power plants. The reduction in supply (so-called market stability reserve, MSR) for emissions allowances agreed in 2018 resulted in a further increase in the price for EUA certificates (Glossary, from p. 257) in 2019. The number of certificates available in 2019 was reduced by around 400 million, which was almost 50% less.

Further increases in the prices for EUA certificates are expected in the next few years. The largest driver of prices will continue to be the reduction in supply via the MSR.

Development of prices for emission allowances/daily quotes

in €/t CO ₂	Average 2019	Average 2018
EUA – rolling front year price	24.88	15.62
CER – rolling front year price	0.21	0.24

Nuclear power

The coalition agreement of the German government sets out the framework for current nuclear power policy. The main targets are the retention of specialist personnel and expertise, quick progress in the search for a final storage site for highly radioactive waste (by 2031) and the rapid commissioning of the final storage site for low- and medium-level radioactive waste (2027 according to the current plans). This should prevent the intermediate storage at the power plant sites becoming, to all intents and purposes, the final storage sites. On the basis of a ruling by the German Federal Constitutional Court from 6 December 2016, operators of nuclear power plants should receive compensation payments for investment in the period between the decision to extend the lives of the nuclear power plants (28 October 2010) and the reversal of this decision (from 16 March 2011), as well as for residual volumes of electricity remaining at power plants that can no longer be distributed. On the basis of the public law contract according to the Act for the Reorganisation of Responsibility in Nuclear Waste Management, EnBW has submitted an application for the approval of the return transport of radioactive waste from the reprocessing centre in France to the intermediate storage site at the Philippsburg nuclear power plant. A precise date for the transport has still not been agreed. On the basis of the same public law, the intermediate storage facility for highly radioactive waste was handed over to the German government on 1 January 2019. The waste storage facilities for low- and medium-level radioactive waste will follow on 1 January 2020. The authorisation to operate the Philippsburg 2 nuclear power plant for the purpose of generating power expired on 31 December 2019.

The EnBW Group

Finance and strategy goal dimensions

Results of operations

Electricity sales increase, gas sales fell compared to the previous year

Electricity sales (without Grids)

in billions of kWh ¹	Sales		Renewable Energies		Generation and Trading		Total (without Grids)		Change in %
	2019	2018	2019	2018	2019	2018	2019	2018	
Retail and commercial customers (B2C)	14.8	14.9	0.0	0.0	0.0	0.0	14.8	14.9	-0.7
Business and industrial customers (B2B)	20.5	21.9	0.0	0.0	0.0	0.0	20.5	21.9	-6.4
Trade	2.0	0.9	2.9	2.4	112.4	96.7	117.3	100.0	17.3
Total	37.3	37.7	2.9	2.4	112.4	96.7	152.6	136.8	11.5

¹ The figures for the previous year have been restated.

In the 2019 financial year, electricity sales were higher than in the previous year. Due to the changed classification of three companies, there was a slight shift in the figures for the previous year for the Sales and Generation and Trading segments. In a persistently challenging competitive environment, electricity sales to retail and commercial customers (B2C) stood at the same level as in the previous year. Sales to business and indus-

trial customers (B2B) fell slightly as a result of the withdrawal from the B2B commodity business under the EnBW and Watt brands. Increased trading activities resulted in an increase in sales. However, the effect of the trading activities on the earnings potential of our company is limited. Adjusted for the effects of changes in the consolidated companies, the increase in electricity sales was 11.2%.

Gas sales (without Grids)

in billions of kWh ¹	Sales		Renewable Energies		Generation and Trading		Total (without Grids)		Change in %
	2019	2018	2019	2018	2019	2018	2019	2018	
Retail and commercial customers (B2C)	17.4	17.1	0.0	0.0	0.0	0.0	17.4	17.1	1.8
Business and industrial customers (B2B)	56.2	50.8	0.0	0.0	0.0	0.0	56.2	50.8	10.6
Trade	0.5	0.3	0.1	0.1	222.8	260.4	223.4	260.8	-14.3
Total	74.1	68.2	0.1	0.1	222.8	260.4	297.0	328.7	-9.6

¹ The figures for the previous year have been restated.

Gas sales decreased in 2019 in comparison to the previous year. Due to the changed classification of three companies, there was a shift in the figures for the previous year for the Sales and Generation and Trading segments. In addition, there was also a reclassification within the Generation and Trading segment. In a challenging competitive environment, gas sales in the retail customer business (B2C) were slightly above the level in the previous year. In the 2019 financial year, sales to business and industrial customers (B2B) exceeded the level in the previous

year due to higher sales to existing customers and the acquisition of new customers by individual brands. This was offset to some extent by the withdrawal from the B2B commodity business under the EnBW and Watt brands. Trading activities fell compared to the previous year. However, the effect of the trading activities on the earnings potential of our company is limited. There were no effects due to changes in the consolidated companies.

External revenue lower than previous year especially due to decrease in gas sales

External revenue by segment

in € million ^{1,2}	2019	2018	Change in %
Sales	7,679.0	7,347.7	4.5
Grids	3,459.7	3,215.4	7.6
Renewable Energies	653.1	477.5	36.8
Generation and Trading	6,970.1	9,767.8	-28.6
Other/Consolidation	3.2	7.0	-54.3
Total	18,765.0	20,815.4	-9.9

1 The figures for the previous year have been restated.

2 After deduction of electricity and energy taxes.

Adjusted for the effects of the changes in the consolidated companies, external revenue fell by 10.7% or €2.237.4 million in comparison to the previous year. The figures for revenues in the previous year were restated due to the IFRIC agenda decision “Physical settlement of contracts to buy or sell a non-financial item (IFRS 9)”. The application of the agenda decision only resulted in a reporting change and had no effect on EBITDA. Due to the changed classification of three companies in the previous year, there was also a slight shift between the segments.

Sales: In the 2019 financial year, external revenue in the Sales segment increased in comparison to the previous year. Adjusted for the effects of the changes in the consolidated companies, this would have been an increase of 2.3% or €173.5 million. This was primarily due to higher gas sales.

Grids: External revenue in the Grids segment in 2019 was higher than the figure in the previous year, especially due to higher earnings from the use of the grids. Adjusted for the effects of the changes in the consolidated companies, this would have been an increase of 8.4% or €266.8 million.

Renewable Energies: Revenue in the Renewable Energies segment in the 2019 financial year exceeded the level in the previous year. This increase was attributable to the commissioning of our EnBW Hohe See offshore wind farm, as well as higher generation volumes from our other offshore and onshore wind farms and our run-of-river power plants due to the weather. Adjusted for the effects of the changes in the consolidated companies, this would have been an increase of 13.0% or €75.0 million.

Generation and Trading: Revenue in the Generation and Trading segment decreased significantly in comparison to the previous year. Adjusted for the effects of the changes in the consolidated companies, there was a decrease in revenue of 28.3% or €2,746.8 million. This decrease was mainly due to a fall in sales and lower prices in the area of gas trading.

Material developments in the income statement

The fall in the cost of materials corresponds to the decrease in gas revenues. The balance from other operating income and other operating expenses in the reporting period increased from €-95.2 million in the previous year to €251.1 million in the reporting year. This increase was mainly attributable to valuation effects from derivatives (Glossary, from p. 257). The financial result improved in 2019 in comparison to the previous year by €284.6 million to €-95.8 million (previous year: €-380.4 million). Higher expenses caused by the drop in the discount rate for nuclear provisions were more than compensated for by the positive effect from the market valuation of securities. The improvement in the investment result was attributable to the revaluation of the shares in EnBW Hohe See, which since 1 October 2019 has no longer been accounted for using the equity method but was instead fully consolidated. Overall, earnings before tax (EBT) stood at €902.2 million in the 2019 financial year, after €596.3 million in the previous year. The complete consolidated financial statements can be found at www.enbw.com/report2019-downloads.

Earnings

The Group net profit/loss attributable to the shareholders of EnBW AG increased from €334.2 million in 2018 by €400.0 million to €734.2 million in the reporting period. Earnings per share amounted to €2.71 in the 2019 financial year compared to €1.23 in the previous year.

Adjusted earnings and non-operating result

The sum of the adjusted earnings figures and non-operating figures gives the figures on the income statement. The non-operating result includes effects that cannot be predicted or cannot be directly influenced by us and as such are not relevant to the ongoing management of the company. The effects are presented and explained in the section “Non-operating EBITDA”. The business activities relevant to the ongoing management of the company are of particular importance for internal management and for the external communication of the current and future earnings potential. We use the adjusted EBITDA – earnings before the investment and financial results, income taxes and amortisation, adjusted for non-operating effects – as the key reporting indicator for disclosing this information.

Adjusted EBITDA and the share of the adjusted EBITDA accounted for by the segments

Adjusted EBITDA by segment

in € million ¹	2019	2018	Change in %	Forecast 2019
Sales	294.3	268.4	9.6	€225 to €300 million
Grids	1,311.2	1,176.9	11.4	€1,300 to €1,400 million
Renewable Energies	482.8	297.7	62.2	€425 to €500 million
Generation and Trading	383.8	430.8	-10.9	€350 to €425 million
Other/Consolidation	-39.6	-16.3	-142.9	-
Total	2,432.5	2,157.5	12.7	€2,350 to €2,500 million

¹ The figures for the previous year have been restated.

Share of adjusted EBITDA accounted for by the segments

in % ¹	2019	2018	Forecast 2019
Sales	12.1	12.4	5% to 15%
Grids	53.9	54.5	50% to 60%
Renewable Energies	19.8	13.8	15% to 25%
Generation and Trading	15.8	20.0	10% to 20%
Other/Consolidation	-1.6	-0.7	-
Total	100.0	100.0	

¹ The figures for the previous year have been restated.

The adjusted EBITDA increased in 2019 compared to the previous year. This positive earnings performance was within the forecasted range for the 2019 financial year. The first-time application of the leasing standard IFRS 16 led to an increase in adjusted EBITDA of €114.2 million or 5.3%. Adjusted for the effects of the changes in the consolidated companies, the adjusted EBITDA was 8.1% higher than the level in the previous year. Due to the changed classification of three companies, there was a slight shift in the figures for the previous year for the Sales and Generation and Trading segments. All segments achieved a result within their forecasted range for 2019. The share of the adjusted EBITDA accounted for by each of the segments was also within the forecasted range.

Sales: The adjusted EBITDA in the Sales segment increased in the 2019 financial year in comparison to the previous year. Plusnet has been contributing to earnings since the beginning of the third quarter. Adjusted for the effects of the changes in the consolidated companies, earnings stood at almost the same level as in the previous year (-0.5%). Even without these largely unplanned effects, the result still stood in the middle quantile of the forecasted range.

Grids: In the Grids segment, the adjusted EBITDA increased in the 2019 financial year in comparison to the previous year. Adjusted for the effects of changes in the consolidated companies, the increase was 11.3%. The main factor influencing this positive earnings performance was higher revenue from the use of the grids, especially due to the increased investment that is necessary for ensuring the security and reliability of supply of the grids as well as the first-time application of the new leasing standards IFRS 16 in the 2019 financial year.

Renewable Energies: The adjusted EBITDA in the Renewable Energies segment for the 2019 financial year exceeded the level in the previous year. Adjusted for the effects of the changes in the consolidated companies which mainly involved the EnBW Hohe See offshore wind farm and the acquisition of Valeco, the increase was 23.3%. Our EnBW Hohe See offshore wind farm has been contributing to earnings since it was commissioned at the beginning of the fourth quarter. The acquisition of Valeco resulted in a contribution to earnings from the beginning of the third quarter. In addition, better wind conditions at our offshore and onshore wind farms and higher water levels at our run-of-river power plants contributed to the positive earnings performance.

Generation and Trading segment: In the Generation and Trading segment, the adjusted EBITDA fell in the 2019 financial year compared to the previous year. Adjusted for the effects of the changes in the consolidated companies which mainly involved the sale of VNG Norge and its subsidiary VNG Danmark in 2018, the decrease was 4.4%. As forecast, this development was largely attributable to lower out-of-period earnings in comparison to the previous year. In contrast, the higher availability of the nuclear power plants had a positive effect. In addition, we sold our electricity deliveries on the forward market at higher wholesale market prices than in the previous year (Glossary, from p. 257).

Development of non-operating EBITDA influenced by increased allocations to provisions for onerous contracts for electricity procurement agreements

Non-operating EBITDA

in € million	2019	2018	Change in %
Income/expenses relating to nuclear power	-61.9	-132.1	53.1
Income from the reversal of other provisions	48.2	11.8	-
Result from disposals	18.4	89.0	-79.3
Reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	-54.8	39.2	-
Income from reversals of impairment losses	4.5	22.1	-79.6
Restructuring	-41.0	-49.1	16.5
Other non-operating result	-100.7	-48.8	-106.4
Non-operating EBITDA	-187.3	-67.9	-

The fall in non-operating EBITDA in comparison to the previous year was due to, amongst other things, allocations to provisions for onerous contracts for long-term electricity procurement agreements. In the previous year, there were higher reversals of provisions. In addition, the sale of VNG Norge and its subsidiary

VNG Danmark had a positive effect on earnings in the previous year. The reason for the fall in the other non-operating result was the allocations to risk provisions for a possible obligation to pay EEG cost allocations (Glossary, from p. 257) for the company's own energy deliveries within the EnBW Group.

Significant increase in Group net profit compared to previous year

Group net profit

in € million	2019			2018		
	Total	Non-operating	Adjusted	Total	Non-operating	Adjusted
EBITDA	2,245.2	-187.3	2,432.5	2,089.6	-67.9	2,157.5
Amortisation and depreciation	-1,648.5	-160.7	-1,487.8	-1,213.8	-13.8	-1,200.0
EBIT	596.7	-348.0	944.7	875.8	-81.7	957.5
Investment result	401.3	270.9	130.4	100.9	-50.6	151.5
Financial result	-95.8	-176.0	80.2	-380.4	-18.6	-361.8
EBT	902.2	-253.1	1,155.3	596.3	-150.9	747.2
Income tax	2.1	191.0	-188.9	-128.7	51.9	-180.6
Group net profit/loss	904.3	-62.1	966.4	467.6	-99.0	566.6
of which profit/loss shares attributable to non-controlling interests	(170.1)	(-9.5)	(179.6)	(133.4)	(5.1)	(128.3)
of which profit/loss shares attributable to the shareholders of EnBW AG	(734.2)	(-52.6)	(786.8)	(334.2)	(-104.1)	(438.3)

The increase in impairment losses was primarily attributable to impairment losses on power plants – due to the quicker phase-out pathway for hard coal. The improvement in the non-operating investment result was mainly due to the revaluation of the shares in EnBW Hohe See, which has been fully consolidated in the EnBW consolidated financial statements since 1 October

2019. The company was accounted for using the equity method until this point in time. The increase in the financial result in comparison to the previous year was the result of, amongst other things, the market valuation of securities. In contrast, the development of the discount rate for nuclear provisions had a negative effect.

Financial position

Financial management

Basis and objectives

The purpose of our financial management system is to ensure that EnBW is able to meet its payment obligations at all times without restriction. In order to minimise risk, optimise costs and increase transparency, financial transactions are managed within the Group finance department as far as possible.

In the operating business, derivatives [Glossary, from p. 257] are generally deployed for hedging purposes only: for example, for forward contracts for electricity and primary energy source trading. This also applies for foreign exchange and interest rate derivatives. Proprietary trading is only permitted within narrow, clearly defined limits.

Interest rate risk management involves the management and monitoring of interest-sensitive assets and liabilities. The included companies regularly report on the existing risk position via the rolling liquidity planning. An interest rate risk strategy is developed in an analysis conducted every quarter on an aggregated basis. The purpose is to limit the impact of fluctuations in interest rates and interest rate risks on the results of operations and net assets.

The interest rates on financial liabilities are predominantly fixed. We use interest rate derivatives to keep the relationship between fixed and variable interest rates within predefined limits in order to optimise interest income. The potential risk is determined on the basis of current interest rates and possible changes in these interest rates.

Generally, currency positions resulting from operations are closed by appropriate forward exchange contracts. Overall, currency fluctuations from operating activities do not have any major effect on our operating result. Foreign exchange risks are

monitored on a case-by-case basis within the framework of the currency management system. Details on the risk management system are presented in note 25 of the notes to the consolidated financial statements at www.enbw.com/report2019-downloads.

We continue to strive to maintain a balanced financing structure, solid balance sheet ratios and solid investment-grade ratings [Glossary, from p. 257].

The ongoing strategic development of our company is designed to continuously increase the operating result (adjusted EBITDA). Our target value for adjusted EBITDA of €2.4 billion in 2020 has been raised to €3.2 billion in 2025. To maintain a good credit-worthiness at the same time, we stick to a high level of financial discipline.

Until the transformation of our portfolio has been completed by the end of 2020, the internal financing capability serves as an important performance indicator for the Group. It describes the adjusted retained cash flow in relation to the adjusted net (cash) investment and measures our company's ability to finance its activities internally. In the growth phase post 2020, internal financing capability will be replaced by the debt repayment potential – the ratio of the retained cash flow to net debt. This performance indicator is oriented to the relevant key ratios used by the rating agencies and should allow controlled growth.

Rating and rating trends

We aim to hold solid investment-grade ratings in order to:

- › ensure unrestricted access to capital markets
- › offer reliable opportunities for financing partners
- › be regarded as a dependable business partner in our trading activities
- › achieve the lowest possible capital costs
- › implement an appropriate number of investment projects and thereby maintain the future viability of the company

Development of credit ratings – rating/outlook

	2019	2018	2017	2016	2015
Moody's	A3/negative	A3/stable	Baa1/stable	A3/negative	A3/negative
Standard & Poor's	A-/stable	A-/stable	A-/stable	A-/negative	A-/stable
Fitch	A-/stable	A-/stable	A-/stable	A-/stable	A-/stable

In the middle of June 2019, Moody's confirmed its A3 rating for EnBW but lowered the outlook to negative. In its rationale for the negative outlook, the rating agency pointed to the acquisitions of Valeco and Plusnet. Moody's believes that the two acquisitions support the strategic development of our company, however they have come too early. In addition, the low interest

rate environment is having a negative effect on the present value of the pension and nuclear provisions. In its regular update, Standard & Poor's (S&P) confirmed its EnBW rating of A- with a stable outlook at the end of July 2019. The EnBW rating from Fitch remains unchanged at A-/stable.

Assessment by the rating agencies

Moody's (14/06/2019)	Standard & Poor's (26/07/2019)	Fitch (28/09/2018)
Leadership position as vertically integrated utility within Baden-Württemberg	Increasing share of operating income from low-risk regulated activities and long-term contracted renewables	Continued evolution towards a more regulated and contracted business profile
Around 50% of EBITDA from low-risk regulated distribution and transmission activities and growing share of renewables under contracts, as EnBW continues to invest in line with its strategy	Well-diversified sources of cash flow	High earnings visibility in grids and renewables partly offset by residual nuclear decommissioning risk; payment of €4.8 bn for transferring responsibility for nuclear waste storage has substantially reduced these risk
Historically balanced financial policy and demonstrated commitment to maintaining a robust credit quality	Geographical diversification in the renewables segment in Taiwan, the U.S. and France	Average forecast credit metrics are generally stronger than peers, with some exceptions with respect to funds from operations (FFO) fixed charge cover
Evolving operating environment in Germany for conventional generation and challenging environment in retail markets	Difficult operating environment in Germany for conventional power generation	If the share of regulated EBITDA exceeds 50% on a sustained basis, Fitch may apply a one-notch uplift to the senior unsecured rating
Certain execution risks relating to large investment programme	Still significant exposure to volatile and commodity-driven wholesale power prices	
Anticipated erosion of financial flexibility following acquisitions of VALECO and Plusnet in 2019	Debt increase following the integration of new acquisitions, in line with the company's strategy	
Strong shareholder support	Prudent financial policy	
	Moderate likelihood of government support	

Financing strategy

We manage the financing needs of our operating activities separately from the Group's pension and nuclear obligations. As part of the financing strategy, we constantly assess capital market trends with regard to the current interest rate environment and to any potentially favourable refinancing costs. On this basis, we decide on further financing steps.

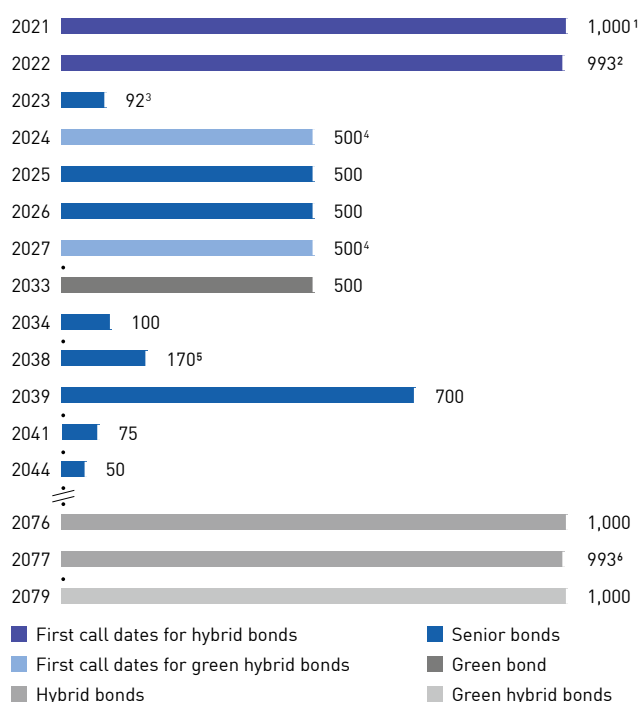
Alongside the internal financing capability and our own funds, we have the following financing instruments at our disposal to cover the financing needs for the strategic development of the operating business:

- ▶ Debt Issuance Programme (DIP) (Glossary, from p. 257), via which bonds are issued: €2.7 billion of €7.0 billion has been drawn
- ▶ Hybrid bonds: €3.0 billion. In July, EnBW issued two green hybrid bonds with a volume of €500 million each.
- ▶ Commercial paper (CP) programme (Glossary, from p. 257): €2.0 billion undrawn
- ▶ Syndicated credit line: €1.5 billion undrawn with a term until 2021
- ▶ Bilateral free credit lines: €0.7 billion of €1.4 billion drawn
- ▶ Project financing and low-interest loans from the European Investment Bank (EIB)

Documentation of short-term and long-term borrowings on the capital markets under the established DIP and CP programme, as well as all other credit documentation with banks (e.g. syndicated lines of credit) include internationally standardised clauses. The issuing of a negative pledge, as well as a pari passu clause (Glossary, from p. 257), to all creditors form essential key elements of our financing policy. The use of undrawn credit lines is not subject to restrictions. Details on financial liabilities are presented in note 22 and explanations on other financial commitments are presented in note 26 of the notes to the consolidated financial statements at www.enbw.com/report2019-downloads.

The maturities of the EnBW bonds have been further diversified.

Maturity profile of EnBW bonds in € million



1 First call date: hybrid maturing in 2076.

2 First call date: hybrid maturing in 2077; includes US\$300 million (swap in €), coupon before swap 5.125%.

3 CHF 100 million, converted in € as of 31/12/2019.

4 First call date: hybrid maturing in 2079.

5 JPY 20 billion (swap in €), coupon before swap 5.460%.

6 Includes US\$300 million, converted in € at rate on 05/10/2016.

Green bonds

We issued our first two green hybrid bonds with a total volume of €1 billion on 29 July 2019. EnBW was thus the first German issuer to launch a green hybrid bond. The rating agencies classify half of the hybrid bonds as equity, which has a positive effect on the credit profile.

In line with our strategy, we are increasingly investing in climate-friendly growth projects. This was the reason why we executed a second green transaction after we had already issued the first green bond (Glossary, from p. 257) with a volume of €500 million in October 2018. The proceeds from the green hybrid bonds will be used for the expansion of offshore and onshore wind power and photovoltaic projects.

We were the first company to issue bonds according to the EU Prospectus Regulation from 21 July 2019. The sustainability rating agency ISS ESG and the Climate Bonds Initiative (CBI) examined and certified the two green hybrid bonds according to sustainability criteria.

The two bonds each have a volume of €500 million and a term of around 60 years. We have the right to redeem the bond with

a starting coupon of 1.125% for the first time in a three month period before 5 November 2024 and it can then be redeemed early at every coupon date. The bond with a starting coupon of 1.625% can be redeemed for the first time in a three month period before 5 August 2027. It can then be redeemed early at every coupon date. The bonds are junior to all other financial liabilities but have an equal ranking to our existing hybrid bonds.

The green bonds contribute to selected sustainability goals of the United Nations (United Nations Sustainable Development Goals (SDGs)). The business activities and projects of EnBW focus, in particular, on the following four SDGs: SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure), SDG 11 (sustainable cities and communities) and SDG 13 (climate action). The green bonds also support our non-financial key performance indicators. Further information on our green bonds and the Impact Report can be found at www.enbw.com/green-bond.

Asset liability management model

We ensure the timely coverage of the pension and nuclear obligations using our asset liability management model (Glossary, from p. 257).

The aim is to cover the Group's pension and nuclear provisions within an economically feasible period of time by means of appropriate financial assets. We ensure this using our cash flow-based asset liability management model. For this purpose, we determine the effects on the cash flow statement, income statement and balance sheet over the next 30 years. Alongside the anticipated return on financial assets, the actuarial reports on pension provisions and sector-specific appraisals by external experts on costs for nuclear decommissioning and disposal are taken into account. The aim of this model is to limit the impact of payments for the pension and nuclear obligations on the operating business to €300 million a year (plus an inflation supplement) by taking funds from the financial assets.

If the provisions are fully covered by the financial assets, no further funds will be taken from the cash flow from operating activities as part of the model.

This model also allows simulations of various alternative scenarios. As of 31 December 2019, the dedicated financial assets (Glossary, from p. 257) for pension and nuclear provisions totalled €6,328.7 million (previous year: €6,279.8 million). Alongside the dedicated financial assets, there are plan assets to cover certain pension obligations with a market value of €974.3 million as of 31 December 2019 (previous year: €987.8 million).

We strive to reach the defined investment targets with minimum risk. We also further optimised the risk/return profile of the financial assets in 2019. The main part of the dedicated financial assets is distributed as investments across nine asset classes. The financial assets are bundled in two master funds with the following investment targets:

- Risk-optimised investments, with a performance in line with market trends
- Consideration of the effects on the balance sheet and income statement
- Broad diversification of the asset classes
- Reduction of costs and simplification of administrative processes

Net debt

As of 31 December 2019, net debt increased significantly by €3,265.8 million compared to the figure posted at the end of 2018. This increase was due to the acquisition of the two companies Valeco and Plusnet as well as their subsidiaries. In addition, net debt increased due to the issuing of two green hybrid bonds

with a total volume of €1 billion and the first-time application of the leasing standard IFRS 16 in the 2019 financial year.

The decrease in the interest rate for pension provisions from 1.8% to 1.1% and the interest rate for nuclear provisions from 0.6% to 0.03% also resulted in an increase in net debt.

The coverage ratio (Glossary, from p. 257) describes the dedicated financial assets (Glossary, from p. 257) in relation to the net pension and nuclear obligations. As of 31 December 2019, this ratio stood at 48.1%, which was around the same level as in the previous year (51.8%). Within the scope of the ALM model (Glossary, from p. 257), EnBW is still in a position to cover its future cash outflows for pension and nuclear provisions without excessively burdening the cash flow from operating activities.

Net debt

in € million	31/12/2019	31/12/2018	Change in %
Cash and cash equivalents available to the operating business	-1,127.7	-1,954.0	-42.3
Current financial assets available to the operating business	-139.7	-200.6	-30.4
Bonds	5,702.7	4,869.4	17.1
Liabilities to banks	2,021.7	1,482.8	36.3
Other financial liabilities	466.4	644.0	-27.6
Lease liabilities	699.6	0.0	-
Valuation effects from interest-induced hedging transactions	-85.4	-88.8	-3.8
Restatement of 50% of the nominal amount of the hybrid bonds ¹	-1,496.3	-996.3	50.2
Other	-19.7	-18.1	8.8
Net financial debt	6,021.6	3,738.4	61.1
Provisions for pensions and similar obligations ²	7,655.3	6,550.9	16.9
Provisions relating to nuclear power	5,864.6	5,848.2	0.3
Liabilities relating to nuclear power	0.0	63.3	-100.0
Receivables relating to nuclear obligations	-360.4	-334.4	7.8
Net pension and nuclear obligations	13,159.5	12,128.0	8.5
Long-term securities and loans to cover the pension and nuclear obligations ³	-5,517.7	-4,864.4	13.4
Cash and cash equivalents to cover the pension and nuclear obligations	-236.1	-295.4	-20.1
Current financial assets to cover the pension and nuclear obligations	-299.4	-569.1	-47.4
Surplus cover from benefit entitlements	-251.5	-208.8	20.5
Long-term securities to cover the pension and nuclear obligations directly associated with assets classified as held for sale	0.0	-298.9	-100.0
Other	-24.0	-43.2	-44.4
Dedicated financial assets	-6,328.7	-6,279.8	0.8
Net debt relating to pension and nuclear obligations	6,830.8	5,848.2	16.8
Net debt	12,852.4	9,586.6	34.1

1 The structural characteristics of our hybrid bonds meet the criteria for half of the hybrid bonds to be classified as equity, and half as debt, by the rating agencies Moody's and Standard & Poor's.

2 Less the market value of the plan assets (excluding the surplus cover from benefit entitlements) of €974.3 million (31/12/2018: €987.8 million).

3 Includes equity investments held as financial assets.

Investment analysis

Net cash investment

in € million ^{1,2}	2019	2018	Change in %
Investments in growth projects ³	2,807.3	1,340.4	109.4
Investments in existing projects	507.9	446.0	13.9
Total investments	3,315.2	1,786.4	85.6
Divestitures ⁴	-471.3	-371.3	26.9
Participation models	-74.2	51.9	-
Disposals of long-term loans	-0.7	-3.6	-80.6
Other disposals and subsidies	-140.5	-163.4	-14.0
Total divestitures	-686.7	-486.4	41.2
Net (cash) investment	2,628.5	1,300.0	102.2

1 The figures for the previous year have been restated.

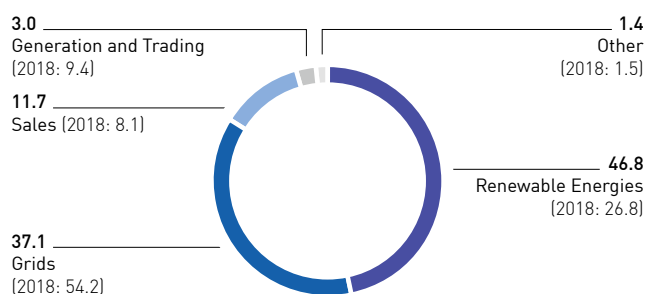
2 Excluding investments held as financial assets.

3 Does not include cash and cash equivalents acquired with the acquisition of fully consolidated companies. These amounted to €77.8 million in the reporting period (previous year: €0.4 million).

4 Does not include cash and cash equivalents relinquished with the sale of fully consolidated companies. These amounted to €40.2 million in the reporting period (previous year: €61.5 million).

Investment by segment¹

in %



1 The figures for the previous year have been restated.

Investment by the EnBW Group in 2019 was significantly higher than in the previous year. This increase is mainly due to the investments in Valeco and Plusnet in the second quarter of 2019. Around 84.7% of overall gross investment was attributable to growth projects; the proportion of investment in existing facilities stood at 15.3%.

Investment in the **Sales** segment of €389.4 million was significantly higher than the level in the previous year (restated: €144.2 million) due to the acquisition of Plusnet.

Investment in the **Grids** segment stood at €1,230.9 million, compared to €967.7 million (restated) in the previous year. It was primarily used for the expansion of the electricity grids in both years. The increase in 2019 compared to the previous year is primarily attributable to the expansion of the transmission grid by our Group subsidiaries TransnetBW and ONTRAS Gas-transport, the expansion and renovation of the distribution grid and investment in the area of electromobility.

Investment in the **Renewable Energies** segment of €1,552.6 million was considerably higher than the figure in the previous year (restated: €478.8 million). The main reasons for this were the acquisition of Valeco and the construction of the EnBW Hohe See and EnBW Albatros offshore wind farms.

Investment in the **Generation and Trading** segment fell significantly in 2019 in comparison to the previous year to €98.3 million. In the previous year, investment stood at €168.0 million (restated) and was mainly attributable to the exploration and production business of VNG and the modernisation of the combined gas heat and power plant in Stuttgart-Gaisburg.

Other investments in 2019 of €44.0 million were above the level in the previous year (restated: €27.7 million).

Divestitures increased in comparison to the level in the previous year; this increase was primarily due to the sale of the remaining shares in EWE, the sale of the shares in EMB Energie Mark Brandenburg and VNG Slovakia, and divestitures from participation models. Shares were sold in the Buchholz III and Aalen-Waldhausen wind farms.

Investment obligations for the acquisition of intangible assets and property, plant and equipment amounted to €1,213.8 million as of 31 December 2019 (previous year: €1,142.7 million). Commitments from corporate acquisitions totalled €535.5 million (previous year: €476.1 million).

Investment decisions will take climate goals into account to a greater extent in the future. In this context, the investment guidelines were adapted in the 2018 financial year: For significant investment projects, their influence on the environmental and climate protection targets and figures – in the sense of the TCFD recommendations (Glossary, from p. 257) – will be illustrated in the future. This additional information will provide a basis for the approval by the investment committee of the Board of Management.

Liquidity analysis

Condensed cash flow statement

in € million	2019	2018	Change in %
Cash flow from operating activities	707.0	827.6	-14.6
Cash flow from investing activities	-2,317.1	-895.8	-
Cash flow from financing activities	551.9	-907.3	-
Net change in cash and cash equivalents	-1,058.2	-975.5	-8.5
Change in cash and cash equivalents due to changes in the consolidated companies	169.3	6.6	-
Net foreign exchange difference	3.1	5.5	-43.6
Change in cash and cash equivalents due to risk provisions	0.2	0.2	0.0
Change in cash and cash equivalents	-885.6	-963.2	8.1

The reduction in cash flow from operating activities in comparison to the previous year was mainly caused by the increase in the net balance of assets and liabilities from operating activities as well as by higher income tax payments in comparison to the previous year.

Cash flow from investing activities returned a significantly higher outflow of cash in the reporting period compared to the previous year. This was due, in particular, to the acquisitions of Valeco and Plusnet and payments associated with the construction of the EnBW Hohe See offshore wind farm, which has since been fully consolidated.

Cash flow from financing activities returned a cash inflow in the reporting period, which was mainly due to the issuing of two

green hybrid bonds, a bond as part of the Debt Issuance Programme (Glossary, from p. 257) and short-term loans. This was offset to some extent by the repayment to the commercial paper programme (Glossary, from p. 257) and repayments for short-term loans from the previous year. The outflow of cash in the previous year was mainly attributable to planned repayments on two bonds and the simultaneous issuing of the green bond (Glossary, from p. 257) as well as the utilisation of the commercial paper programme.

The solvency of the EnBW Group was ensured at all times throughout the 2019 financial year thanks to the company's available liquidity and its internal financing capability, as well as external sources available for financing. The company's future solvency is secured by its solid financial position (p. 72 ff.).

Retained cash flow

in € million	2019	2018	Change in %
EBITDA	2,245.2	2,089.6	7.4
Changes in provisions	-416.0	-394.6	5.4
Non-cash-relevant expenses/income	46.3	-116.0	-
Income tax paid	-409.1	-270.7	51.1
Interest and dividends received	286.5	284.6	0.7
Interest paid for financing activities	-214.9	-247.0	-13.0
Dedicated financial assets contribution	19.2	-34.0	-
Funds from operations (FFO)	1,557.2	1,311.9	18.7
Dividends paid	-316.5	-312.8	1.2
Retained cash flow	1,240.7	999.1	24.2

Funds from operations (FFO) increased compared to the previous year, which was due primarily to an increase in the cash-relevant EBITDA. A positive dedicated financial assets contribution and lower interest payments in the reporting period also contributed to the increase. This was offset to some extent by higher income

tax payments in the reporting period. The increased FFO led to an increase in the retained cash flow. The retained cash flow reflects our internal financing capability after all stakeholder needs have been settled. It is available to the company for investment without the need to raise additional debt.

Internal financing capability¹

	2019	2018	Change in %
Adjusted retained cash flow in € million ²	1,485.7	1,199.1	23.9
Adjusted net (cash) investment in € million ³	1,797.9	1,300.0	38.3
Internal financing capability in %	82.6	92.2	-

1 The figures for the previous year have been restated.

2 Adjusted for the effects from the reimbursement of the nuclear fuel rod tax of €245.0 million (previous year: €200.0 million).

3 Adjusted for accelerated growth investment of €830.6 million (previous year: €0.0 million).

We have translated the retained cash flow into the adjusted retained cash flow, in order to take the adjustment due to the reimbursement of the nuclear fuel rod tax (Glossary, from p. 257) into account. This resulted in an increase of €685.0 million in the period from 2018 to 2020 (nuclear fuel rod tax adjusted for debt repayment). The remaining amount will be distributed on a straight-line basis in 2019 and 2020. The reimbursement of the nuclear fuel rod tax of €1,520.8 million in the 2017 financial year was used by EnBW for the debt repayment in 2018 of €835.8 million and for investments of €200.0 million, as well as for investments of €245.0 million in 2019.

We have adjusted the net (cash) investment to take account of the accelerated growth investment in Valeco and Plusnet, which will contribute to the EnBW 2025 growth strategy.

As there was a sharp rise in adjusted net investment compared to the previous year in combination with a less sharp increase in the adjusted retained cash flow, the internal financing capability fell. Although the adjusted retained cash flow exceeded the forecasted range of €1.3 billion to €1.4 billion in the reporting period, we just missed the target for internal financing capability of $\geq 85\%$ in 2019.

Net assets

Condensed balance sheet

in € million	31/12/2019	31/12/2018	Change in %
Non-current assets	31,622.5	26,746.0	18.2
of which intangible assets	(3,347.4)	(1,748.7)	91.4
of which property, plant and equipment	(18,552.7)	(15,867.5)	16.9
of which entities accounted for using the equity method	(1,064.0)	(1,600.2)	-33.5
of which other financial assets	(6,356.9)	(5,426.5)	17.1
of which deferred taxes	(1,214.0)	(1,059.3)	14.6
Current assets	11,664.7	12,520.7	-6.8
Assets held for sale	0.9	342.3	-99.7
Assets	43,288.1	39,609.0	9.3
Equity	7,445.1	6,273.3	18.7
Non-current liabilities	24,739.7	22,036.9	12.3
of which provisions	(14,333.1)	(13,246.0)	8.2
of which deferred taxes	(890.0)	(774.8)	14.9
of which financial liabilities	(7,360.7)	(6,341.4)	16.1
Current liabilities	11,103.3	11,277.6	-1.5
of which provisions	(1,535.9)	(1,549.9)	-0.9
of which financial liabilities	(830.2)	(654.8)	26.8
Liabilities directly associated with assets classified as held for sale	0.0	21.2	-100.0
Equity and liabilities	43,288.1	39,609.0	9.3

As of 31 December 2019, the total assets were higher than the level at the end of the previous year. Non-current assets increased by €4,876.5 million. The main reasons for this were the full consolidation of EnBW Hohe See and the first-time consolidation of Valeco and Plusnet. In addition, property, plant

and equipment increased due to the first-time application of the leasing standard IFRS 16 in the 2019 financial year. The increase in financial assets was due to the securities. The decrease for entities accounted for using the equity method was primarily caused by the full consolidation of EnBW Hohe See

since October 2019. Current assets fell by €856.0 million; this was mainly attributable to the payment of the purchase prices for Valeco and Plusnet. Lower trade receivables due to volume and price effects and a decrease in the current financial assets in the area of securities were more than compensated for by the change in derivatives (Glossary, from p. 257). The decrease in assets held for sale was primarily the result of EWE-Verband exercising its right to buy the 6% of the shares in EWE that were previously held by EnBW. The contractually agreed sale of shares in Stuttgart Netze Betrieb, which resulted in a loss of control of the company, also had an effect.

The equity increased by €1,171.8 million as of the reporting date of 31 December 2019. The main reasons for this development were the increase in non-controlling interests due to the first-time full consolidation of EnBW Hohe See and an increase in revenue reserves. This was offset by the increase in losses in other comprehensive income, which was mainly caused by the fall in the discount rate for the pension provisions from 1.8% at the end of 2018 to 1.1% as of the reporting date. The equity ratio increased from 15.8% at the end of 2018 to 17.2% on the reporting date. Non-current liabilities increased by €2,702.8 million. This was attributable, on the one hand, to the increase in the pension provisions because of the fall in the discount rate as well as the increase in financial liabilities due to the issuing of

two green hybrid bonds with a total volume of €1 billion, while on the other hand, there was an increase in other liabilities and subsidies because of the first-time application of IFRS 16 in the 2019 financial year. The decrease in liabilities directly associated with assets held for sale was the result of the sale of shares in Stuttgart Netze Betrieb.

Other financial indicators

TOP ROCE and value added

The cost of capital before tax represents the minimum return on average capital employed (calculated on the basis of the respective quarterly figures for the reporting year and the year-end figure for the previous year). Positive value is added when the return on capital employed (ROCE) exceeds the cost of capital. The cost of capital is determined based on the weighted average cost of equity and debt together. The value of equity is based here on a market valuation and thus deviates from the value recognised in the balance sheet. The cost of equity is based on the return of a risk-free investment and a company-specific risk premium. The latter is calculated as the difference between a risk-free investment and the return for the overall market, weighted with a company-specific business field risk. The terms according to which the EnBW Group can raise long-term debt are used to determine the cost of debt.

Value added for 2019 by segment

	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result ¹ in € million	174.0	839.7	267.1	-178.0	-91.2	1,011.6
Average capital employed in € million	1,308.8	8,033.3	4,840.6	2,044.0	3,088.4	19,315.1
ROCE in %	13.3	10.5	5.5	-8.7	-	5.2
Weighted average cost of capital before tax in %	7.6	4.2	5.3	7.8	-	5.2
Value added in € million	74.6	506.1	9.7	-337.3	-	0.0

1 Investment result of €47.2 million, adjusted for taxes (investment result/0.706 - investment result; with 0.706 = 1 - tax rate 29.4%). Does not include impairment losses and reversals to impairment losses on investments, the result from the sale of equity investments, the share of the result from entities accounted for using the equity method not relevant to the ongoing management of the company and the result from equity investments held as financial assets.

Value added for 2018 by segment¹

	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result ² in € million	218.0	768.4	123.7	-21.9	-46.6	1,041.6
Average capital employed in € million	1,067.1	7,019.8	3,667.4	2,109.0	2,190.0	16,053.3
ROCE in %	20.4	10.9	3.4	-1.0	-	6.5
Weighted average cost of capital before tax in %	7.7	5.3	6.1	8.0	-	6.3
Value added in € million	135.5	393.1	-99.0	-189.8	-	32.1

1 The figures for the previous year have been restated.

2 Investment result of €59.4 million, adjusted for taxes (investment result/0.706 - investment result; with 0.706 = 1 - tax rate 29.4%). Does not include impairment losses and reversals to impairment losses on investments, the result from the sale of equity investments, the share of the result from entities accounted for using the equity method not relevant to the ongoing management of the company and the result from equity investments held as financial assets.

There are various factors that influence value added. The level of ROCE and value added depend not only on the development of the operating result but above all on the capital employed. Large-scale investments tend to significantly increase the capital employed in the early years, while the effect on income that boosts value, however, only filters through over a lengthier period of time, often long after the investments were initially made. This is especially true of capital expenditure on property, plant and equipment relating to the construction of new power plants, which do not have any positive effect on the operating result of the Group until after they are commissioned. Capital expenditure on power plants, on the other hand, is already taken into account in the capital employed during the construction phase. In a comparison of individual years, the development of ROCE and value added is, to a certain extent, cyclical in nature, depending on the investment volume. This effect is therefore inherent in the system and results in lower ROCE in phases of strong growth or phases of investment.

In the 2019 financial year, value added fell in comparison to the previous year by €32.1 million to €0.0 million. The adjusted EBIT including the adjusted investment result fell, while the average capital employed rose. The risk-adjusted weighted average cost of capital was below the level in the previous year at 5.2%. The ROCE of 5.2% was below our forecasted range for the 2019 financial year (forecast 2019: 6.0% to 7.0%).

Sales: Value added in the Sales segment decreased in 2019 by €60.9 million. This was attributable to the increase in the average capital employed, which was primarily due to the first-time consolidation of Plusnet on 30 June 2019. In addition, the lower adjusted EBIT including the adjusted investment result contributed to the fall in value added.

Grids: Value added in the Grids segment increased by €113.0 million in comparison to 2018. Both the adjusted EBIT including the adjusted investment result and also the capital employed were above the figures in the previous year. The increase in capital employed was primarily attributable to the investment in the transmission and distribution grids and also the first-time application of the leasing standard IFRS 16.

Renewable Energies: Value added in the Renewable Energies segment of €9.7 million was higher than the value in the previous year. The adjusted EBIT including the adjusted investment result increased to €267.1 million. The capital base grew due to the construction of the EnBW Hohe See offshore wind farm and its revaluation as part of its full consolidation, as well as due to the acquisition of Valeco.

Generation and Trading: Value added in the Generation and Trading segment of €-337.3 million was below the level in 2018. This was caused by the decrease in adjusted EBIT including the adjusted investment result. The average capital employed in the reporting year remained at approximately the same level as in the previous year.

Performance indicators relevant to remuneration

The performance indicators relevant to remuneration are derived as follows. The remuneration of the members of the Board of Management is described in full in the remuneration report (p. 110 ff.).

EBT relevant to remuneration

in € million	2019	2018
EBT	902.2	596.3
Less outstanding items for derivatives allocated under trading within EBITDA	2.7	-4.1
Less the measurement of financial assets and outstanding items for derivatives allocated under trading within the financial result	-323.7	38.8
Less changes to the inflation rate and discount rate for nuclear provisions	475.3	133.3
EBT relevant to remuneration according to the new regulations¹	1,056.5	764.3

¹ The EBT relevant to remuneration was above the forecast of €850 million to €950 million due primarily to the revaluation of the shares in EnBW Hohe See.

Funds from operations (FFO) relevant to remuneration

in € million	2019	2018
Funds from operations (FFO)	1,557.2	1,311.9
Less income tax paid	409.1	270.7
Funds from operations (FFO) relevant to remuneration	1,966.3	1,582.6

Intangible assets and property, plant and equipment (net) relevant to remuneration

in € million	2019	2018
Intangible assets	3,347.4	1,748.7
Property, plant and equipment	18,552.7	15,867.5
Investment properties	30.3	31.6
Investment cost subsidies	-6.7	-7.7
Construction cost subsidies	-901.6	-876.8
Intangible assets and property, plant and equipment (net)	21,022.1	16,763.3
Average intangible assets and property, plant and equipment (net)¹	18,327.1	16,371.6

¹ Average calculation based on the relevant quarterly values for the reporting year and the year-end value for the previous year.

ROA (return on assets) relevant to remuneration

in € million	2019	2018
EBIT	596.7	875.8
Less outstanding items for derivatives allocated under trading within EBITDA	2.7	-4.1
EBIT relevant to remuneration	599.4	871.7
Less changes to the inflation rate and discount rate for nuclear provisions	297.8	-
EBIT relevant to remuneration according to the new regulations	897.2	871.7
Average intangible assets and property, plant and equipment (net)	18,327.1	16,371.6
ROA (return on assets) relevant to remuneration in %	4.9	5.3

Customers and society goal dimension

Reputation

A strong reputation is an important factor for the sustainable success of a company. The good social reputation of a company reflects the trust placed by the general public and relevant stakeholders in the competent and responsible actions of a company.

We assume our responsibilities for the economy and society and aspire to be a driver of the Energiewende. In the process, we want to gain social acceptance and improve our reputation. A good reputation signals the willingness of society and its different stakeholder groups to cooperate with and invest in the company.

We aim to continuously improve our reputation. The focal point of this concept is the stakeholder team, which was set up on the initiative of the Board of Management in 2017. It consists of representatives from all important areas of the company. The stakeholder team communicates and maintains dialogue with relevant stakeholder groups both directly and indirectly.

TOP Reputation Index

Reputation is measured by means of the key performance indicator Reputation Index using a standardised survey that is carried out by an external market research institute. It is measured in accordance with the requirements of the EnBW Group standard for market research and surveys (p. 45).

Key performance indicator

	2019	2018	Change in %	Forecast 2019
Reputation Index	52.8	51.3	2.9	54.1

Our Reputation Index increased to 52.8 index points in the reporting year. The most positive changes in comparison to the previous year were in the B2C target group – customers and the wider public. The EnBW image campaign in autumn 2019 was another positive development that strengthened above all the aspect of sympathy. However, we were unable to achieve the target value for 2019 of 54.1 points. The values for comparable large companies, whose reputation index was below our value, did not improve as strongly as our reputation. In other words: We were able to improve our relative position with respect to comparable large companies. The reputation values for municipal utilities and regional suppliers generally lie significantly higher than the values for EnBW and comparable large companies. More details on reputational risks can be found in the “Report on opportunities and risks” on p. 103.

Customer proximity

We aim to become a sustainable and innovative provider of infrastructure. A sustainable contribution could be made, for example, in the form of cooperative partnership models with local authorities, municipal utilities and suppliers. Our company also has great opportunities for generating additional revenue and for acquiring new customers using digital services and solutions.

An important step in this direction was the introduction of the new IT and process landscape for sales called **EnPower**. After it was introduced at Yello in the previous year, the EnBW brand also switched over to the new system in the middle of July 2019. On the one hand, EnPower facilitates better interaction between customers and the brands, while on the other hand, it lays the foundations for the digitalisation, automation and streamlining of settlement processes for the supply of electricity.

In parallel to the introduction of EnPower, the website www.enbw.com was also updated and given an even more customer-oriented design. The focus was placed on creating a user-friendly interface, ensuring clear navigation and providing information that is particularly relevant to customers.

TOP Customer Satisfaction Index

The energy sector is helping to push forward major social changes. The new energy world offers us great opportunities that we want to exploit and the main point of focus is our customers. We strive to maintain **long-term customer relationships** by offering networked products and new product combinations, continuous open communication and the best possible quality of service. Customer loyalty is based on high customer satisfaction, which is measured in accordance with the requirements of the EnBW Group standard for market research and surveys. The Customer Satisfaction Indices for EnBW and Yello are compiled from customer surveys carried out by an external provider (p. 45).

Key performance indicator

	2019	2018	Change in %	Forecast 2019
Customer Satisfaction Index for EnBW/Yello	116/157	120/152	-3.3/3.3	114–141/ 148–159

The satisfaction of the customers of EnBW fell slightly in 2019 but still reached a good level at 116 points – and was thus also within our forecasted range for 2019 of 114 to 141 points. A good level is reached when half of those surveyed indicate that overall they are particularly satisfied with EnBW. This is the case from 114 points upwards. A very good level of satisfaction is achieved from 136 points upwards. A possible cause for the slight decrease in the Customer Satisfaction Index for EnBW was, on the one hand, a price adjustment applied at the turn of the year 2018/2019 for the majority of those customers surveyed, while on the other hand, the switch over to the new EnPower platform had temporary effects on the service process and could also have had an impact on customer satisfaction.

The satisfaction of Yello customers remained at a high level (157) in 2019 and was thus at the higher end of our forecast (148–159). In comparison to the previous year, the value increased from 152 to 157. We believe that this high value could, amongst other things, be due to the diverse range of products for the Yello Plus tariff and a larger proportion of kWhapp users. kWhapp is an energy check app that helps users check their consumption regularly and adjust their advance payments at an early stage in the event of any changes.

Selected activities

Following the successful switchover of the system and process landscape in 2018, Yello benefited from new functionalities that increased its competitiveness in 2019. For example, products and services can be brought to the market more quickly and customers can be addressed individually. In October 2019, the **Digital Service Centre** also went online. It is a central digital contact point for customers and other interested parties. It combines content, services, contact options and answers to frequently asked questions.

With the continuation of our **corporate campaign**, we are demonstrating – under the revised slogan of “We’re making E happen” – that electromobility is not just a future theme for the company but has already been part of our everyday lives and those of our customers for a long time. The campaign illustrates this with facts and information on the services provided by EnBW in the area of e-mobility. The aim of the campaign is to improve our reputation and prominence as a leading provider of e-mobility solutions, as well as for being a company that is making the Energiewende happen.

A main focus of the activities in the goal dimension “Customer proximity” in 2019 was **electromobility**. As a full-service provider together with our subsidiaries, our company covers the complete spectrum of services for the development and expansion of electromobility from the supply of electricity and the operation of a comprehensive charging infrastructure (Glossary, from p. 257) through to digital services for the consumer. In particular, the main focus was placed in 2019 on the comprehensive expansion of quick-charging stations. We were the largest operator of quick-charging infrastructure in Germany at the end of 2019 with around 290 quick-charging stations and we plan to operate up to 1,000 quick-charging stations across the country by the end of 2020. In addition, we offer drivers of electric cars access to more than 35,000 charging points in Germany, Austria and Switzerland via the EnBW mobility+ app. Following the introduction of the purely kWh-based EnBW mobility+ tariff, customers can use the app to pay for the electricity used to charge their e-cars at these charging points very easily and transparently. Yello also introduced e-mobility services in 2019. Anyone who is interested can, for example, rent a selection of vehicle models and test them under everyday conditions. In the yubee electromobility app, customers can use a driving simulator to find out whether an e-car would suit them at all and if so, which one would suit them best.

In the **SAFE project** (core charging network for e-cars in Baden-Württemberg), which was funded by the State of Baden-Württemberg, 77 municipal utilities and suppliers as well as three local authorities worked together with us to develop a core charging network (Glossary, from p. 257) in Baden-Württemberg. We coordinated the project as the head of the consortium. Following the conclusion of the funded project at the end of September 2019, Baden-Württemberg now has a comprehensive charging and quick-charging network for electric vehicles.

EnBW Telekommunikation GmbH is responsible for the main **telecommunications activities** of EnBW AG. As of 1 April 2019, it acquired around 55% of the shares in **NetCom BW** from Netze BW. NetCom BW has a strong market position with a focus on Baden-Württemberg. In order to expand our business in the telecommunications market across Germany, we acquired the company **Plusnet** on 30 June 2019. The company is active across the whole of Germany and has around 25,000 business customers.

The EnBW subsidiary **Senec** based in Leipzig is a specialist in equipping customers so that they are able to meet their own energy needs with solar electricity. According to a survey conducted by the market research company EuPD Research, the company was able to increase its market share on the German home electricity storage market from 9% to 14% in the first half of 2019. In the reporting year, Senec more than doubled its sales of electricity storage systems from 4,800 to 10,000 systems.

Our **contracting department** offers solutions to customers from industry, the real estate sector and local authorities for their on-site energy infrastructure. Depending on the customer’s requirements, it provides, for example, heating, steam, cooling or compressed air as well as electricity from combined heat and power blocks based on long-term contracting agreements. We thus support our customers not only with modern energy infrastructure but also in the achievement of their targets with respect to supply reliability, energy and cost savings and CO₂ reductions. We can also help them make use of funding opportunities. These approaches were also used, for example, for three contracting projects that were concluded with local authorities in 2019.

Our company views itself as an experienced and powerful **partner for local authorities and public utilities**. Via our concessions in the electricity and gas sectors and numerous local authority holding companies in which we are active as a shareholder, we have extensive and strong connections throughout Baden-Württemberg. Alongside electricity and gas, other areas of cooperation in 2019 included the water and broadband networks (Glossary, from p. 257), the development of district projects (Glossary, from p. 257), the integration of charging infrastructure (Glossary, from p. 257) into local authority mobility concepts and assisting local authorities with their digital agendas.

In July 2019, we started a participation model for cities and communities in Baden-Württemberg called “**EnBW connects**”. Around 550 local authorities can acquire shares in Netze BW. The prerequisite for taking part is that Netze BW must be the owner and also operator of the local electricity and/or gas distribution grid in the local authority as of 1 July 2019. We aim to further expand our role as a partner for cities and communities in Baden-Württemberg using this model.

Supply reliability

As an energy company and distribution grid operator, we are tasked with guaranteeing a reliable supply of electricity to our customers. The fact that the energy is increasingly being generated decentrally is a real challenge for the supply of electricity. This means that the electricity is being fed into our grid at many different points. In addition, the feed-in of energy from renewable sources fluctuates because it is dependent on the weather and other factors that are outside of our sphere of influence. We have set ourselves the goal of preparing our transmission grids so that they can handle this decentralised energy world. To this end, we are adding so-called smart grid technologies (Glossary, from p. 257) to the existing conventional infrastructure. This will enable us to better manage the generation, distribution and storage of the energy.

Our grid companies are responsible for the safe and reliable operation of the transmission grids. Processes are managed by these companies at their grid control centres. These are also responsible for resolving any unplanned outages in the respective region. As part of the investment and maintenance programmes, we maintain the grids and expand them according to demand. Depending on its volume, the investment must be approved by the Board of Management, along with the overall annual budget for the realisation of all investment and maintenance measures. The measures are carried out over one or multiple years and are realised independently by our grid companies. Some of the investment budget is used for the gradual expansion of smart grids. The increasing use of smart grid technology (Glossary, from p. 257) enables us to avoid or delay expensive investment in conventional grids. Besides the reliability and security of supply, the efficiency of the measures is also taken into account when making investment decisions. This is because grid investment also has an influence on the grid charges that make up part of the electricity price paid by customers.

TOP SAIDI

We record all unscheduled interruptions to supply at our distribution grid operators. This data flows into the “System Average Interruption Duration Index” (SAIDI) for electricity. It states the average duration of supply interruptions per connected customer in minutes per year (p. 45).

Key performance indicator

	2019	2018	Change in %	Forecast 2019
SAIDI (electricity) in min./year	15	17	-11.8	15-20

A better value for SAIDI was achieved in 2019 in comparison to previous years and it thus stood encouragingly at the lower end of the forecasted range. This was due to the fact that all of our grid subsidiaries were able to reduce the average length of the interruptions to supply in 2019.

Employees goal dimension

Employees are responsible for the business development of EnBW and shape the future of our company. Therefore, the key tasks of HR are recruiting employees for the company, including the promotion of young talent, encouraging loyalty to the company amongst employees and maintaining and fostering their motivation, satisfaction and employability. As part of the EnBW 2020 strategy, we believe that the value drivers for our HR policy can be found in the following areas of focus: leadership, safeguarding and promoting expertise, employment conditions and structures, and health management.

The further development of our corporate strategy in the period up to 2025 (p. 42f.) will place new requirements on our HR policy. In future, the strategic focus will be placed on growth, infrastructure, selective internationalisation and new business also outside of the energy sector. Using a revised HR strategy that is valid from 2020, we want to give the people at EnBW – and at the same time our company – the opportunity for growth, development, a future and thus success.

Employee commitment

TOP Employee Commitment Index (ECI)

The key performance indicator ECI is an important indicator for us as it reflects the degree to which employees identify with the company. The annual measurement of this indicator enables us to respond specifically to any negative trends at an early stage. The key performance indicator ECI is taken into account in the remuneration and corresponding target agreements for the Board of Management (p. 46).

Key performance indicator

	2019	2018	Change in %	Forecast 2019
Employee Commitment Index (ECI) ¹	66	62	6.5	63

¹ Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered [except ITOs]).

The fifth short survey for monitoring the ECI – MAB-Blitzlicht (Employee Flashlight) – was carried out between 16 September and 4 October 2019. As in the previous year, the MAB-Blitzlicht survey comprised twelve questions and was carried out by taking a random representative sample by an external, independent service provider. As in the full surveys, it collected information on the level of commitment of the employees to the EnBW Group and to their respective company. The already very high level of participation increased for the third year in a row to 74% (2018: 73%). This demonstrates that the employee survey enjoys a consistently high level of acceptance as a tool for providing feedback. The ECI from MAB-Blitzlicht 2019 showed a clear improvement to 66 points. The target set for 2019 was thus far exceeded. In general, commitment improved across all management and employee levels. According to an assessment carried out by our service provider, the ECI level achieved by our company is at a very high level in comparison to other companies in the sector. We believe that this positive development reflects the increasing level of trust in the future viability and competi-

tiveness of our company as well as our attractiveness as an employer overall. Both are decisive factors for retaining high-performing employees and also for acquiring new talent.

Selected activities in the HR areas of focus

Leadership: As part of the “Next Level Leadership” initiative, we offer employees with leadership roles the chance to take advantage of learning and development opportunities and provide space for the concrete practical implementation of modern leadership approaches in an increasingly complex and digital environment. In 2019, new teaching content was added into the syllabus for this programme that was launched back in 2018 (including delegating responsibility to a team, leading myself, resilience). A total of more than 1,100 employees and managers have used the different learning and development opportunities since the start of the programme (2019: 829 participants).

The new talent development programme “SP4RK for Pioneers”, which was launched in 2019, combines the development of leadership skills with the development of innovative business models. Talent from across the company work for several months in cross-functional teams on projects with a start-up character in order to identify strategically relevant business models. At the same time, they learn methods for developing customer-centric business models and have the opportunity to develop important skills for the future in the context of modern leadership expertise.

A comprehensive cultural and transformation project was launched at ED at the beginning of 2019 to develop a common leadership culture and common principles, as well as to strengthen mutual trust. In numerous cross-hierarchical workshops, five leadership principles were developed that will be implemented across the whole ED Group and regularly evaluated in the individual departments.

Safeguarding and promoting expertise: We believe that **diversity** acts as a lever for successfully implementing our strategy. Under the motto “Diversity generates success”, we rely on a diverse workforce in terms of numerous different criteria such as gender, age, interculturality, sexual orientation and people with disabilities, as well as sector backgrounds, different working models and work organisation. Strengthening diversity in the composition of the workforce and the leadership team is an important factor for success in many areas of the company. It promotes innovative strength, internationalisation and customer orientation, and thus also the successful implementation of our strategy. In recognition of this diversity, we took part in the Christopher Street Day in Stuttgart for the second time in 2019 with our own float. To promote diversity, we have introduced a process in which specific targets for particularly relevant diversity characteristics in various areas of the company have been agreed together with measures for their implemen-

tation. For example, language training courses have been offered to a greater extent to ensure the successful integration of many new employees with an international background. The Diversity Week 2019 was held in June with numerous campaigns and events also focussing on this complex theme.

SWD held a Diversity Day for the second time this year, this time on the theme of “Experience diversity”. The main focus on this day was placed on the diversity of the workforce. The aim was to raise awareness for diversity and promote appreciative cooperation without any prejudice.

Proportion of women in management positions at EnBW AG

in %	2019	2018
First level below the Board of Management	0.0	0.0
Second level below the Board of Management	17.2	15.1

The Board of Management has set the goal for EnBW AG of further increasing the proportion of women at both management levels below the Board of Management in the period from 1 January 2017 to 31 December 2020. At both the first level (top management) and second level (upper management), the proportion of women should increase to at least 20%. Despite a great deal of effort, these targets were not yet achieved in 2019.

Another part of the HR policy is promoting young talent. Our company employed 1,014 trainees and students from the Cooperative State University (DH) as of 31 December 2019. This represents an increase of 8.1% compared to the previous year. There are plans to take on 409 new trainees and DH students in 2020. Our goal is to employ all of them after they have successfully completed their training. More than 80% of our trainees and DH students receive the guarantee of a job. In addition, we employed 1,333 working students and interns in 2019, which was 15.5% more than in 2018.

The **EnBW employer brand** was developed further in 2019 in order to achieve a stronger position on the job market and differentiate the company from the competition. Around 500 employees participated in the feedback campaign “Give our employer brand an image” in September 2019. The EnBW employer brand that was developed received a high level of acceptance at almost 90%.

We introduced the new **online application management system** Avature in 2019. It simplifies the process overall for applicants and offers them various different options when making an application, such as the automated scanning of a CV or adding links to social networks. In addition, it will provide better support to our internal processes dealing with the recruitment of new employees.

To recruit employees in growth fields, PRE is actively working together with specialist schools and carried out a special recruitment campaign for IT specialists and electrical fitters in 2019. Another main focus was placed on the promotion of young talent by offering, for example, internships and work placements abroad.

Employment conditions and structures: The Employers Association for Electricity Power Plants in Baden-Württemberg and the service trade union ver.di reached a **collective bargaining agreement** with a term of 24 months on 28 February 2019 after intensive negotiations. In accordance with the agreement, remuneration was increased by 2.5% from 1 March 2019 and by a further 1.9% from 1 November 2019. There will be another increase of 1.9% from 1 July 2020. Monthly remuneration for trainees in all year groups increased or will increase on the same dates by €80.00, €50.00 and €50.00, respectively. At EnBW AG and companies that come under the scope of the FOKUS collective bargaining agreement, the increases for trainees are €77.12, €48.20 and €48.20, respectively.

Health management: As part of occupational health and safety management, we offer a variety of preventative medical services for occupational safety and health protection at several sites. In 2019, the focus was placed on issues such as intestinal health. Health campaigns for the early detection of colorectal cancer were run throughout the year. In the area of mental health, a large range of preventative measures were also offered on the themes of stress, conflict situations and psychological disorders.

At PRE, the focus of health management is placed on primary prevention. This includes offering company sporting activities and holding sports events and is supplemented by a broad range of social measures. At VNG, there is a wide range of preventative services as part of occupational healthcare provision on the themes of heart, circulation, metabolism and musculoskeletal illnesses. Eye and hearing tests, as well as ECG and laboratory testing, are also available.

The sickness ratio of 4.9% was slightly below the figure in the previous year of 5.1%.

Outlook for the HR strategy

The revised HR strategy, which will be valid from 2020, supports the company's EnBW 2025 strategy (p. 42f.). In defining the future direction of our HR policy, we assume that routine tasks and standardised processes will gradually become less significant due to digitalisation. Human strengths such as creativity, flexibility and curiosity will become more important in the workplace in future and employees will be called upon more strongly as idea generators and progressive thinkers. Our newly designed HR policy will support employees in this process of change, for example by developing new forms and formats for cooperation and opportunities for further training and education. In addition, we want to promote innovative thinking and action and strengthen networking opportunities. We will place a particular emphasis on the potential offered by the internationality and diversity of our employees.

The new HR strategy will focus on six key areas, which will be underpinned by a total of 21 strategic areas:

- › HR processes, services & digitalisation
- › Employer brand & recruiting
- › Leadership and skills
- › Qualification@EnBW
- › Internationalisation
- › Transformation into a modern working world

EnBW has set itself the following goal for its HR policy: We want to make every employee at our company an enthusiastic architect of their own individual development – and thus pivotal shapers of EnBW 2025.

On the basis of this goal, a new **future competence model** for the area of leadership has been designed in cooperation with the Board of Management at EnBW, which will act as a common standard for all people in leadership roles at EnBW – irrespective of their precise role. The central focus will be placed on skills such as customer orientation, entrepreneurship, innovative strength and team empowerment. The new future competence model will be consolidated by our entire leadership team in 2020 and operationalised in all relevant leadership processes.

Other performance indicators

Employees¹

	31/12/2019	31/12/2018	Change in %
Sales ²	4,394	3,718	18.2
Grids	9,254	8,920	3.7
Renewable Energies	1,384	1,144	21.0
Generation and Trading ²	5,499	5,358	2.6
Other	2,762	2,635	4.8
Total	23,293	21,775	7.0
Number of full-time equivalents ³	21,843	20,379	7.2

1 Number of employees excluding apprentices/trainees and inactive employees.

2 The figures for the previous year have been restated.

3 Converted into full-time equivalents.

As of 31 December 2019, our company had 23,293 employees, which was 7.0% more than at the end of 2018. This increase was primarily due to acquisitions and taking on new employees in strategic growth fields. The number of employees in the Sales segment thus increased due to the first-time consolidation of Plusnet and Senec. In the Grids segment, the increase in the number of employees was due to the growing importance of the regulated business. However, this expansion was offset to some extent by the sale of shares in Stuttgart Netze Betrieb, which resulted in a loss of control of the company. In the Renewable Energies segment, the increase was mainly attributable to the acquisition of Valeco. The increase in the number of employees in the Generation and Trading segment was attributable to restructuring within the Group and an increase in employees in the area of recycling of residual nuclear material. Digitalisation and the transformation of the company led to an increase in the number of employees in the Other segment; this effect was offset to some extent by restructuring measures. The employee turnover ratio stood at 6.3% in 2019 and was thus 0.2 percentage points lower than the figure in the previous year.

Further performance indicators for employees, such as the regional distribution or age structure of our employees, can be found on our website at www.enbw.com/performance-indicators. We also refer you to the details provided in the “Report on opportunities and risks” (p. 103).

Occupational safety

Our main goals in the area of occupational safety are to avoid accidents and work-related illness and to create a safe working environment. Responsibilities, roles and processes are defined in the Group guidelines “Occupational safety and health protection”, which also documents the EnBW guidelines for occupational safety and health protection. The Occupational Safety Working Group (AK KAS) has the task of regulating issues that affect all companies uniformly within the Group. AK KAS is headed by the Chief Technical Officer of EnBW and has the power to make binding decisions in accordance with the company’s rules of procedure.

TOP LTIF

The key performance indicator LTIF is used to measure the number of LTI according to the definition on p. 46. Every Group company included in the consolidated companies for the LTIF receives an individual target from the Board of Management on an annual basis – the fulfilment of this LTIF target flows into the monetary assessments for the achievement of targets in each case. The companies can also set their own individual targets that go beyond those set by the Board of Management.

Key performance indicator

	2019	2018	Change in %	Forecast 2019
LTIF for companies controlled by the Group ¹	2.1	2.3	-8.7	< 3.7
LTIF overall ²	3.8	3.6	5.6	-

1 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except for companies in the area of waste management as well as external agency workers and contractors).

2 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except for external agency workers and contractors).

In 2019, the LTIF for companies controlled by the Group once again improved in comparison to the previous year. The average days of absence per accident at 19.0 fell in comparison to the previous year (22.2). We believe that the significant improvement in occupational safety at EnBW is the result of consistent and effective activities in the area of occupational safety and health protection. The LTIF overall increased slightly in comparison to the previous year. This performance indicator includes subsidiaries in the area of waste management. However, the number of accidents in this area are at a good level in comparison to other companies in the sector.

In the reporting year, there was a fatal accident in relation to loading work.

The measures for achieving targets are independently defined by the Group companies. Various different **activities focussing on occupational safety** were carried out in 2019:

We work continuously on minimising danger in the workplace, which could result in accidents or work-related illnesses, through training and a programme of measures. In the first half of 2019, the focus was placed on the successive roll-out of the EHS software Quentic (formerly called EcoWebDesk, EWD) that had already begun in 2018. Important elements of Quentic are the documentation of risk assessments and hazardous substance management. A uniform hazardous substance register is being gradually collated from various existing sources which have existed for years. The internal audit department carried out an audit on the topic of “Risk assessments of work activities (HSSE)” in the first half of 2019. The audit did not result in any objections. In addition, two workshops for all occupational safety experts on the subject of “Talking about near accidents” were held in the reporting period. At Netze BW, a series of campaigns to further improve the safety culture were carried out in 2019:

- ▶ The management systems for occupational safety, environmental protection and energy management were integrated further.
- ▶ The grid-wide roll-out of the Quentic database is currently being realised.
- ▶ A meeting of the safety officers to discuss the latest issues was held in December 2019.
- ▶ To support the theme of health protection, first aid courses were offered to all employees. The target group was those employees who had not yet completed this type of course as part of their work activities.

In the area of conventional and renewable generation, numerous events were held at the power plant sites in 2019. The themes covered included simulator and safety training as well as fire-extinguishing exercises. At the nuclear power plants, more in-depth information was provided about best practice examples and reporting near accidents, and the exchange about experiences with partner companies was intensified in 2019. In addition, the “100 days without accidents” campaign started in 2015 was continued. This is a good tool for motivating employees to act safely.

The main focus at SWD was placed on the following activities:

- ▶ Building on the occupational safety and health protection programme 2015plus, a concept for the new programme 2020plus was developed further.
- ▶ A concept for dealing with near accidents was implemented in the first pilot areas.
- ▶ As part of the “RheinSchiene” project, a meeting of safety officers was held in Düsseldorf in cooperation with the Employer’s Liability Insurance Association for the Energy, Textile and Electronics Sectors (BG ETEM).

We also refer you to the details provided in the “Report on opportunities and risks” [p. 104].

Environment goal dimension

Our Group environmental targets – which are integrated into the EnBW 2020 and EnBW 2025 Group strategies – are related to the expansion of renewable energies and to making our contribution to climate protection. These targets are measured using the key performance indicators “installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE” and CO₂ intensity (Glossary, from p. 257). Alongside EnBW AG, the main subsidiaries that have to deal with environmental issues include SWD and ED. In particular, both subsidiaries and EnBW AG have an environmental management system certified according to DIN EN ISO 14001:2015. This creates the prerequisites for ensuring that environmental requirements are systematically and continuously taken into account. It is used to manage the required guidelines and regulations, define and monitor environmental targets and establish the necessary testing processes. The consistent implementation and further development of the environmental management system ensures that any material negative impacts on the environment can be avoided as well as possible. Risks generally exist in the area of environmental protection due to the operation of power generation plants and transmission facilities and the possible consequences for air, water, soil and nature. We counter these risks using organisational and procedural measures to reduce their impact, as well as with emergency planning and hazard prevention measures.

Expansion of Renewable Energies

Key performance indicator

	2019	2018	Change in %	Forecast 2019
Installed output of RE in GW and the share of the generation capacity accounted for by RE in %	4.4/31.8	3.7/27.9	18.9/-	4.4–4.5/ 31–32

TOP Installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE

In the reporting year, the installed output of renewable energies increased to 4.4 GW and was thus within the range of the forecast. This increase was primarily attributable to the commissioning of our EnBW Hohe See offshore wind farm with an output of 497 MW and the onshore wind farms and solar parks added through the acquisition of Valeco. We also constructed 54 MW of output from photovoltaic power plants. Overall, the share of the generation capacity accounted for by RE increased – within the range of our forecast – to 31.8%.

Breakdown of the generation portfolio¹ (as of 31/12)

Electrical output ^{2,3} in MW	2019	2018
Renewable Energies	4,398	3,738
Run-of-river power plants	1,006	1,006
Storage/pumped storage power plants using the natural flow of water ³	1,507	1,507
Onshore wind	826	718
Offshore wind	834	336
Other renewable energies	225	171
Thermal power plants⁴	9,451	9,649
Brown coal	875	875
Hard coal	3,586	3,491
Gas	1,165	1,458
Other thermal power plants	347	347
Pumped storage power plants that do not use the natural flow of water ³	545	545
Nuclear power plants ⁵	2,933	2,933
Installed output⁶	13,849	13,387
of which renewable in %	31.8	27.9
of which low CO ₂ in % ⁷	12.3	15.0

- 1 The generation portfolio includes long-term procurement agreements and generation from partly owned power plants.
- 2 The figures for the previous year have been restated.
- 3 Output values irrespective of marketing channel, for storage: generation capacity.
- 4 Including pumped storage power plants that do not use the natural flow of water.
- 5 The output from Block 2 of the Philippsburg nuclear power plant is included in the generation portfolio in 2019 because it was not shut down until the evening of 31/12/2019.
- 6 In addition, power plants with an installed output of 1,706 MW were registered for decommissioning. However, they were classified as system-relevant by the Federal Network Agency and TransnetBW and are thus used by TransnetBW as reserve grid capacity.
- 7 Excluding renewable energies; only gas power plants and storage power plants that do not use the natural flow of water.

Own generation fell in 2019 compared to the previous year to 47.8 TWh. The main reason for this development was the lower deployment of our thermal power plants because of prices on the market. In contrast, generation based on renewable energies increased significantly, mainly due to the commissioning of our EnBW Hohe See offshore wind farm and the acquired wind turbines in France and Sweden. In addition, the greater volumes of electricity generated due to the better wind conditions and also at the run-of-river power plants due to higher water levels had a positive effect on this development. The proportion of own generation from renewable energy sources thus increased in comparison to 2018 to more than 20%.

Own generation¹ by primary energy source

in GWh	2019	2018
Renewable Energies	9,988	8,414
Run-of-river power plants	5,342	4,846
Storage/pumped storage power plants using the natural flow of water	959	1,030
Onshore wind	1,522	996
Offshore wind	1,806	1,233
Other renewable energies	359	309
Thermal power plants²	37,819	45,078
Brown coal	2,598	6,048
Hard coal	8,758	12,868
Gas	3,634	3,518
Other thermal power plants	188	198
Pumped storage power plants that do not use the natural flow of water	1,608	1,790
Nuclear power plants	21,033	20,656
Own generation	47,807	53,492
of which renewable in %	20.9	15.7
of which low CO ₂ in % ³	11.0	9.9

- 1 Own electricity generation includes long-term procurement agreements and partly owned power plants.
- 2 Including pumped storage power plants that do not use the natural flow of water.
- 3 Excluding renewable energies; only gas power plants and storage power plants that do not use the natural flow of water.

Climate protection

Key performance indicator

	2019	2018	Change in %	Forecast 2019
CO ₂ intensity in g/kWh	419	553	-24.2	-10% to 0%

TOP CO₂ intensity

The CO₂ intensity [Glossary, from p. 257] of own generation of electricity excluding nuclear power fell significantly in comparison to the previous year by 24.2% to 419 g/kWh and was thus appreciably below our forecasted range. This decrease was due, on the one hand, to higher generation from renewable sources in comparison to 2018 and, on the other hand, to the fact that our electricity generation from our fossil fuel-fired power plants fell much more sharply than forecast due to market-driven developments.

Climate neutrality: 2019 was characterised by political and social debate on climate change. In its Green Deal, the EU wants to introduce comprehensive measures and legal obligations for becoming climate neutral by 2050. Therefore, we have closely examined the significance of sustainability and climate protection themes for the business model and aim to support the international and national targets for climate neutral economic activities when developing our future measures and targets.

Our subsidiary ED was one of the first integrated energy companies in Germany and Switzerland to become climate neutral already at the beginning of 2020. For this purpose, ED implemented a comprehensive range of measures over the last few years, such as producing its own green electricity, increasing the energy efficiency of its buildings, reducing the CO₂ emissions from its vehicle fleet and compensating for grid transmission losses using green electricity.

In addition to the key performance indicators in the area of the environment, we utilise a broad range of additional environmental indicators for measuring, controlling and presenting the other results of our environmentally relevant activities. The most important performance indicators are presented in the following table on p. 90. A comprehensive presentation of our environmental performance indicators can be found on the Internet at www.enbw.com/umweltschutz. There is also information available here on our wide-ranging measures to improve energy efficiency, conserve biological diversity and protect nature and species, such as our EnBW amphibian protection programme, or on ecological enhancement measures in the area of our hydroelectric power plants. In addition, further information in conformity with the Global Reporting Initiative (GRI standards) can be found on the Internet.

Carbon footprint: Direct CO₂ emissions are determined mainly by the deployment of power plants. In particular, the sharp decrease in electricity generation from coal in combination with a significant increase in electricity generation from renewable sources led to a corresponding reduction in direct CO₂ emissions from 16.6 to 10.8 million t CO₂eq. Lower indirect CO₂ emissions from grid losses led to a fall in Scope 2 CO₂ emissions from 1.0 to 0.9 million t CO₂eq. Scope 3 CO₂ emissions are mainly influenced by the gas consumption of our customers. The moderate increase in gas sales led to a corresponding rise in Scope 3 emissions from 16.8 to 17.6 million t CO₂eq. The figure for the previous year was restated due to a reclassification within the Generation and Trading segment. Primarily as a result of the increased generation from renewable energy sources, CO₂ emissions avoided rose from 6.9 to 8.3 million t CO₂eq.

Energy consumption: Total final energy consumption includes the consumption of final energy for our business activities. It does not include conversion losses during energy generation or grid losses. Total final energy consumption is mostly influenced by pump energy as well as the company's own consumption requirements and the operating consumption of the power plants. Due to the lower level of own generation overall, the total final energy consumption fell by around 10% in comparison to the previous year from 3,252 GWh to 2,919 GWh.

The proportion of renewable energies in final energy consumption increased from 51% in 2018 to 53% in 2019. This was primarily due to an increase in electricity generation from renewable energies with a correspondingly higher proportion of renewable energies used for the company's own consumption requirements and the operating consumption of the power plants.

The energy consumption of our buildings covers the energy required for heating rooms, providing hot water and electricity. The energy consumption of buildings per employee decreased from 10,482 kWh in 2018 to 9,606 kWh in 2019. This decrease was the result of a diverse range of measures for increasing the energy efficiency of our buildings.

Environmental protection expenditure: We report environmental protection expenditure in line with the requirements of the statistical offices and using the guidelines published by our sector association, BDEW. According to these reporting requirements, investments and current expenditure for the use of renewable energies should be reported in full as expenditure for climate protection. Investment in climate protection increased at an above-average rate from €535 million in the previous year to €1,535 million in 2019. The reasons for this development were the investments associated with the construction of the EnBW Hohe See and EnBW Albatros offshore wind farms and the acquisition of the project developer and operator of wind farms and solar parks Valeco, which are included as expenses for climate protection in accordance with the reporting requirements. The increase in current environmental protection expenses to €301 million (previous year: €268 million) was mainly attributable to higher expenditure in the area of renewable energies.

Mobility: Alongside the expansion of the public charging infrastructure (Glossary, from p. 257) (p. 82), we are also continuously expanding the charging options for electric cars at our sites for our employees. A total of around 580 charging points were thus installed at 65 sites across Germany in 2019. By expanding the charging infrastructure at our sites, we want to make it easier for our employees to switch over to electromobility and thus also push forward the mobility transition internally within the company.

Environmental performance indicators

	Unit	2019	2018
Carbon footprint			
Direct CO ₂ emissions (Scope 1) ¹	millions of t CO ₂ eq	10.8	16.6
Indirect CO ₂ emissions (Scope 2) ²	millions of t CO ₂ eq	0.9	1.0
Other indirect CO ₂ emissions (Scope 3) ^{3,4}	millions of t CO ₂ eq	17.6	16.8
CO ₂ emissions avoided ⁵	millions of t CO ₂ eq	8.3	6.9
CO ₂ intensity of business journeys and travel ⁶	g CO ₂ /km	169	181
Energy consumption			
Total final energy consumption ⁷	GWh	2,919	3,252
Proportion of renewable energies in final energy consumption ^{3,8}	%	53	51
Energy consumption of buildings per employee ⁹	kWh/MA	9,606	10,482
Environmental protection expenditure¹⁰			
Investment in environmental protection	€ million	1,535	535
Current environmental protection expenses	€ million	301	268

1 Preliminary data.

2 Includes greenhouse gas emissions through electricity grid losses and through electricity consumption of plants in the gas and electricity grid, water supplies and buildings.

3 The figures for the previous year have been restated.

4 Includes greenhouse gas emissions through consumption of purchased electricity volumes by customers, consumption of gas by customers, fuel provision, supply chains for gas sales and business travel.

5 Includes CO₂ emissions avoided through the expansion of renewable energies, through energy efficiency projects with customers/partners and through the generation and sale of biogas.

6 Includes all business travel activities (Scope 1 and Scope 3).

7 Includes final energy consumption of production including pump energy, energy consumption of grid facilities (electricity, gas and water) excluding grid losses, energy consumption of buildings and vehicles.

8 For electricity consumption for which the proportion of renewable energies is unknown, a proportion of renewable energies in accordance with the current Bundesmix (federal mix) label for electricity of 35% is assumed. For fuels, a proportion of 5% bioethanol is generally assumed.

9 Calculated partially on the basis of assumptions and estimations.

10 Pursuant to the German Environmental Statistics Act (UStatG) and BDEW guidelines on the recognition of investment and ongoing expenditure relating to environmental protection (April 2007).

Selected activities

Hydropower: Electricity generated from hydropower protects the climate. At the same time, the use of hydropower also encroaches on nature. Therefore, we are committed to harmonising hydropower with ecology. If power plants cause changes to the natural landscape, we compensate for these effects through ecological enhancement measures. For example, we ensure or improve the continuity of watercourses by constructing or optimising fish passes and fish ladders for fish to ascend or descend the river. We are constantly working on new, innovative solutions for ensuring that fish can ascend rivers and for protecting the fish. This can be seen, for example, in our project to enable fish to migrate along the River Murg at the sites in Kirschbaumwasen and Forbach (low-pressure power plant). As the local conditions do not allow the use of traditional solutions for fish to ascend or descend the river, a new type of fish lift is being used. This makes a valuable contribution to achieving the targets in the EU Water Framework Directive for the River Murg, which is classified as a salmon programme waterway. By constructing additional weir turbines at the sites of the fish lifts, we ensure a continuous supply of residual and weir water while generating climate-friendly energy at the same time.

Conservation of biological diversity: We initiated the programme “Stimuli for Diversity” for the protection of amphibian species together with LUBW (Baden-Württemberg State Institute for the Environment) in 2011, which has also included funding for protective measures for reptiles since 2016. The programme is part of the project “The economy and business for nature”, which is a component of the state initiative “Active for biological diversity”. It still remains the only conservation programme from a company nationwide that not only funds the protection of one single species but two whole groups of species across the state. In the reporting year, nine further projects were realised. More than 110 measures have been implemented in total across Baden-Württemberg since the start of the funding programme, which have successfully improved the living conditions for many endangered species in the state.

EnBW Ostwürttemberg DonauRies has planted a total of 10,600 native deciduous and conifer trees in Ostwürttemberg and the DonauRies region in the last three years. It works together with eight local authorities and the Association for the Protection of German Forests (SDW) on this initiative, which makes a contribution to biodiversity and regional climate protection.

We also refer you to the details provided in the “Report on opportunities and risks” [p. 104].

EnBW AG

The financial statements of EnBW AG have been prepared in accordance with the regulations in the German Commercial Code (HGB), the German Stock Corporation Act (AktG) and the law governing the electricity and gas industries in Germany (German Energy Industry Act – EnWG). The regulations for large corporations apply.

The financial statements as audited by the Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, as well as the management report of EnBW AG contained in the Group management report, will be published in the German Federal Gazette (Bundesanzeiger).

For statements that are necessary to understand the position of EnBW AG and which are not explicitly described in the following sections, especially those relating to the strategy of the company and economic and political conditions, please refer to the information provided for the EnBW Group (p. 41 ff. and 62 ff.). The full financial statements of EnBW AG are available for download at (www.enbw.com/report2019-downloads).

The annual net profit which indicates the company's ability to pay a dividend is an important performance indicator for EnBW AG.

Results of operations of EnBW AG

Condensed income statement of EnBW AG

in € million ¹	2019	2018	Change in %
Revenue	38,220.6	24,883.1	53.6
Cost of materials	-37,385.9	-24,364.2	-53.5
Amortisation and depreciation	-569.3	-458.1	-24.3
Other operating result	-39.6	-502.6	92.1
Earnings before interest and taxes	225.8	-441.8	-
Financial result	-29.3	-73.0	59.9
Tax	84.1	-285.9	-
Annual net profit/loss	280.6	-800.7	-

¹ In accordance with German commercial law.

EnBW AG reported an annual net profit of €280.6 million. The substantial increase in comparison to the previous year was mainly influenced by €667.6 million higher earnings before interest and taxes and the increase in the tax result of €370.0 million.

The operating result of EnBW AG is primarily determined by the revenues generated from electricity and gas sales, as well as by the associated cost of materials.

In the earnings before interest and taxes, the increase in revenue of €13,337.5 million was offset by an increase in the cost of materials of €13,021.7 million.

The revenue (after the deduction of electricity and energy taxes) of €38,220.6 million primarily includes revenue from electricity sales of €17,345.5 million and gas sales of €19,592.5 million. Electricity and gas sales comprise both the trading business, involving deliveries to trading partners and stock exchanges, and sales activities in the form of the direct delivery of energy to end customers.

As a result of the further expansion in trading activities in 2019, the trading business recorded an increase in revenue of €13,630.5 million to €35,415.2 million. In the gas trading business, the increase in trading volume more than offset lower market prices. In the electricity trading business, the higher trading volume was also positively influenced by increasing prices on the energy markets. The increase in revenue was also offset by the increase in the cost of materials of €13,515.3 million to €34,727.2 million.

Revenues from sales activities were split into €1,668.6 million for electricity and €200.6 million for gas, which represented an overall drop of €35.8 million.

In the retail and end customer sector (B2C), electricity sales of 6.9 billion kWh were at the same level as in the previous year. Gas sales increased in the same period by 0.2 billion kWh to 4.1 billion kWh due to the growing contract portfolio and were thus higher than the previous year. The increase in energy sector costs was passed on to customers in both business segments, which resulted in higher revenues.

The sales to business customers (B2B) includes supplying customers within the Group and redistributing and holding reserve supplies for B2B customers. Sales in the B2B electricity business fell by 0.3 billion kWh to 0.5 billion kWh due primarily to the decrease in sales to redistribution customers. Gas sales to business customers fell in the same period by 0.1 billion kWh to 0.2 billion kWh, which was mainly due to lower demand from customers within the Group.

The cost of materials includes costs for electricity procurement of €15,986.9 million and costs for gas procurement of €19,607.7 million.

Alongside scheduled amortisation and depreciation, the amortisation and depreciation item includes impairment losses of €236.5 million.

The significant improvement in the other operating result was primarily attributable to higher income from the disposal of assets of €848.2 million in comparison to the previous year.

This was offset primarily by lower income from reversals of impairment losses of €189.7 million and lower income from the reversals of provisions of €153.9 million in comparison to the previous year.

The positive development of the financial result was mainly influenced by lower impairment losses on financial assets of €13.2 million, the fall in the interest expenses for nuclear provisions of €44.7 million, a fall in the interest expenses for affiliated entities of €60.7 million and the accrual of tax provisions of €24.0 million. This was offset to some extent by the decrease of €109.9 million in investment income.

There was a positive tax result in the financial year of €84.1 million. The taxes mainly comprise the reversal of provisions for tax audit risks of €107.0 million. In the previous year, there was an allocation to the provisions for tax audit risks of €133.8 million and lower out-of-period tax expenses of €159.0 million. The option of recognising a surplus of deferred tax assets was not exercised.

Net assets of EnBW AG

Balance sheet of EnBW AG

in € million ¹	31/12/2019	31/12/2018	Change in %
Assets			
Non-current assets			
Intangible assets	519.6	635.4	-18.2
Property, plant and equipment	933.7	1,248.4	-25.2
Financial assets	22,125.6	20,130.5	9.9
	23,578.9	22,014.3	7.1
Current assets			
Inventories	494.5	446.7	10.7
Receivables and other assets	2,530.5	3,336.4	-24.2
Securities	45.8	119.2	-61.6
Cash and cash equivalents	169.5	628.1	-73.0
	3,240.3	4,530.4	-28.5
Prepaid expenses	366.5	1,226.3	-70.1
Surplus from offsetting	315.8	268.1	17.8
	27,501.5	28,039.1	-1.9
Equity and liabilities			
Equity			
Subscribed capital	708.1	708.1	-
Treasury shares	-14.7	-14.7	-
Issued capital	(693.4)	(693.4)	-
Capital reserve	776.0	776.0	-
Revenue reserves	1,872.5	1,872.5	-
Retained earnings	383.6	279.1	37.4
	3,725.5	3,621.0	2.9
Extraordinary items for investment cost subsidies and grants	23.4	24.0	-2.5
Provisions	11,204.4	11,032.4	1.6
Liabilities	12,094.2	12,414.7	-2.6
Deferred income	454.0	947.0	-52.1
	27,501.5	28,039.1	-1.9

¹ In accordance with German commercial law.

The net assets of EnBW AG as of 31 December 2019 are significantly influenced by the non-current assets (particularly the financial assets), the receivables and other assets, as well as by cash and cash equivalents. These are primarily offset by non-current liabilities and provisions relating to nuclear power and for pensions and similar obligations.

Financial assets primarily consist of shares in affiliated entities to the amount of €15,437.0 million, securities held as non-current assets to the amount of €2,726.6 million and investments to the amount of €1,607.0 million. The increase in financial assets of €1,995.1 million includes, on the one hand, shares in affiliated entities primarily as a result of restructuring within the Group and payments into the capital reserve of subsidiaries. In addition, loans to affiliated entities increased by €353.5 million in comparison to the previous year.

Trade receivables to the amount of €715.6 million mainly comprise receivables from trading activities and consumption accruals for electricity and gas deliveries not yet invoiced and were €68.6 million below the figure in the previous year. Receivables from affiliated entities fell by €505.4 million in comparison to the previous year. This was primarily due to the reclassification of loans to affiliated entities.

The cash and cash equivalents of EnBW AG totalling €169.5 million mainly consist of bank deposits, which are invested as time deposits to the amount of €50.0 million. More details on the development of this item can be found in the section “Financial position of EnBW AG”.

The provisions for pensions and similar obligations held by EnBW AG to the amount of €5,285.8 million combine obligations from the company pension scheme and other company agreements made by major subsidiaries and EnBW AG. The resulting annual expenses for retirement benefits are paid by the subsidiaries concerned in each case. The increase in the provisions for pensions and similar obligations of €517.3 million was mainly due to the effect of the further decrease in the discount rate as in the previous year. In addition, provisions relating to nuclear power of €3,939.7 million are disclosed, which arise due to public law obligations and requirements in the operating licences.

Of the liabilities totalling €12,094.2 million, €6,635.6 million have a residual term of more than one year. Overall, there are liabilities of €7,347.5 million to affiliated entities, which primarily result from intercompany settlement transactions within the framework of the centralised financial and liquidity management, as well as from loan agreements.

The decrease in liabilities by €320.5 million was mainly due to the reduction in other liabilities from margin payments of €308.9 million and to the decrease of €70.9 million in option premiums received. In addition, there were repayments totalling €70.5 million to bank loans.

Non-current liabilities exist to the amount of €2,700.4 million to EnBW International Finance B.V. as part of the Debt Issuance Programme (DIP) (Glossary, from p. 257), to the amount of €2,992.6 million from the issuing of five hybrid bonds and to the amount of €597.7 million from loan agreements with credit institutions. The main changes in comparison to the previous year were the issuing of two green hybrid bonds with a total volume of €1,000.0 million.

The aim is to cover the non-current pension and nuclear provisions with appropriate financial assets within an economically feasible time period. Overall, financial assets of €22,125.6 million are offset by long-term debt of €15,339.4 million.

The liquidity of EnBW AG on the reporting date guarantees the solvency of the company for the payment of current liabilities from the operating business.

Financial position of EnBW AG

In comparison to the reporting date in the previous year, the liquidity of EnBW AG decreased from €628.1 million by €458.6 million to €169.5 million.

The cash flows of EnBW AG fundamentally arise from both its own operating business and also the operating business of the subsidiaries which balance payments received and made via the bank accounts of EnBW AG as part of the intercompany cash pooling system (Glossary, from p. 257) within the framework of the central financing and liquidity management.

Important business transactions that had an effect on the financial position of EnBW AG in the financial year are summarised below:

Material liquidity-related business transactions in the reporting year were investments in the area of renewable energies and telecommunications totalling €1,189.9 million. These were offset by the sale of an investment resulting in a cash inflow of €342.8 million.

Other significant events were the issuing of two green hybrid bonds with a total volume of €996.5 million and the issuing of a bond with a volume of €74.8 million via EnBW International Finance B.V. This was offset by repayments to bank loans of €70.5 million.

There was a cash outflow of €561.5 million in connection with the utilisation of the nuclear power and pension provisions.

A total of €176.1 million was distributed to the shareholders of EnBW AG in dividends.

This was offset by the receipt of dividends with an impact on liquidity of €271.6 million.

In the 2019 financial year, EnBW AG paid tax arrears for income tax from previous years (including the associated interest) and prepayments for the following year totalling €208.0 million.

Overall assessment of the economic situation of EnBW AG and the development of EnBW AG

In our judgement, the development of the results of operations, financial position and net assets of EnBW AG as of 31 December 2019 is satisfactory after taking into account the effects described below that are not relevant to the ongoing management of the company. In the previous year, an annual net profit of €200 million was expected in 2019. The annual net profit for 2019 stands at €280.6 million and was significantly influenced by effects not relevant to the ongoing management of the company, which arose both at EnBW AG itself and also at its subsidiaries which had an impact on EnBW AG due to profit and loss transfer agreements.

The main effects not relevant to the ongoing management of the company were higher interest expenses for pension provisions and provisions relating to nuclear power totalling €611.6 million (€566.3 million of which is reported under interest expense of EnBW AG) resulting from the drop in the discount rate and were thus €194.6 million higher than expected. Furthermore, allocations to the provisions relating to nuclear power, mainly due to adjustments in cost estimates, of €122.1 million (of which €71.2 million was reported under the cost of materials of EnBW AG) had a negative effect. Other negative effects arose from impairment losses on intangible assets and property, plant and equipment totalling €236.5 million, impairment losses on financial assets of €91.1 million and allocations to provisions for onerous contracts of €60.9 million.

This was primarily offset by income from the disposal of assets of €858.9 million, the reversal of other provisions of €182.4 million and tax provisions of €129.0 million, as well as adjustments to the provisions for onerous contracts of €81.7 million.

Based on the annual net profit of €280.6 million and taking into account the profit carried forward of €103.0 million, there are retained earnings of €383.6 million.

We anticipate an annual net loss of around €250 million in 2020. The net result for the year will be negatively influenced by high interest expenses for non-current provisions. As a result of the low-interest phase, the average interest rate will fall further in the future. We anticipate that this will have a negative impact on earnings of €600 million in 2020. After it has been adjusted for this effect, the annual net profit will be around €350 million. The amount from the valuation of the provisions for pension obligations and the valuation of the dedicated financial assets (Glossary, from p. 257) in the CTA that

is ineligible for distribution as dividends will stand at around €900 million by 31 December 2020. Due to a fall in the average interest rate, we expect a negative impact on earnings of a similar magnitude in 2021. We anticipate that this negative impact on earnings will decrease in 2022.

Opportunities and risks

As the business performance, economic situation and opportunities and risks relating to the future development of EnBW AG do not deviate from the business performance, economic situation and opportunities and risks relating to the future development of the EnBW Group, the management report of EnBW AG is combined with that of the EnBW Group (p. 100 ff.).

Comments on reporting

The consolidated financial statements of EnBW AG are prepared in accordance with section 315 e (1) HGB using the International Financial Reporting Standards (IFRS) set by the International Accounting Standards Board (IASB), the adoption of which is mandatory in the EU as of the reporting date. As a vertically integrated energy company in the sense of EnWG, EnBW AG engages in other activities within the electricity sector, other activities within the gas sector and other activities outside of the electricity and gas sectors in accordance with section 6 b (3) sentence 3 and sentence 4 EnWG.

EnBW share and dividend policy

As a result of the small proportion of EnBW shares in free float (www.enbw.com/shareholder-structure), events on the financial markets and the development of the DAX generally only have a minor influence on the development of the EnBW share price. The price of EnBW shares was €29.20 at the start of 2019 and stood at €50.50 by the end of the year (www.enbw.com/stock-chart).

The trust placed in EnBW by capital market participants is based on the value generated by the company. Against this background, EnBW manages the development of value using ROCE and its creditworthiness using the key performance indicators internal financing capability (up to 2020) and debt repayment potential (from 2021). EnBW strives to generally pay a dividend payout ratio of between 40% and 60% of adjusted Group net profit. Based on the annual net profit of EnBW AG of €280.6 million and taking into account the profit carried forward of €103.0 million, there is retained earnings of €383.6 million for the financial year and thus dividends will be paid for the 2019 financial year. If approved by the Annual General Meeting, the dividend to be distributed for the 2019 financial year will be €0.70 per share. Adjusted for IFRS 9 valuation effects, this corresponds to a payout ratio of 40%.

Overall assessment of the economic situation of the Group

The energy sector is currently experiencing a period of great upheaval. There is particular pressure for change due to the Energiewende, digitalisation, sector coupling (Glossary, from p. 257) and the desire of local authorities to become self-sufficient. In addition, the issue of climate protection is receiving greater public attention. The European Commission announced its target of climate neutrality by 2050 in a comprehensive Green Deal in 2019. In 2020, it will investigate the effects of increasing the 2030 climate targets to at least 50% or 55%. With regards to the framework conditions facing EnBW and other players in the energy industry, other measures can be expected as part of the Green Deal in future.

Following the successful implementation of the EnBW 2020 strategy, there will be a smooth transition between the strategy periods: We already strengthened our business activities in the area of renewable energies in 2019 with the acquisition of the French project developer and operator of wind farms and solar parks Valeco. We also took a significant step in building a strong position for ourselves on the nationwide telecommunications market in Germany in 2019 with the acquisition of Plusnet. Both transactions will already contribute to the EnBW 2025 growth strategy.

The operating business developed overall in 2019 as expected and forecast at the start of the year: The adjusted EBITDA of the EnBW Group increased by 12.7% in comparison to the previous year. Adjusted for the effects of the changes in the consolidated companies, the adjusted EBITDA would have increased by 8.1%. The result in the Sales segment developed positively in the reporting year and was at the higher end of our forecast. The acquisition of Plusnet made a significant contribution in this area. The result in the Grids segment increased in line with our forecast. The main factor influencing this positive earnings performance was the higher revenue from the use of the grids, above all due to the increased investment that was necessary for ensuring the security and reliability of supply of the grids. In the Renewable Energies segment, the result improved significantly and was within the forecasted range. In particular, the commissioning of our EnBW Hohe See offshore wind farm and the earnings contributions from the acquired wind farms in France had a positive effect. The result in the Generation and Trading segment fell as forecast due to the loss of the earnings contribution made by VNG Norge and its subsidiary VNG Danmark which were sold in 2018 and lower out-of-period earnings. In total, the Grids and Renewable Energies segments contributed around three quarters of the adjusted EBITDA of EnBW. The adjusted EBITDA for the Group in 2020 will increase further and be between €2.75 billion and €2.9 billion. It will lie above the strategic target as a result.

The non-operating EBITDA decreased further in 2019 compared to the previous year. This decrease is mainly attributable to allocations to provisions for onerous contracts for long-term electricity procurement agreements and risk provisions for a possible obligation to pay EEG cost allocations for the company's own energy deliveries within the EnBW Group.

In total, the Group net profit attributable to the shareholders of EnBW for the 2019 financial year improved by €400.0 million to €734.2 million. Earnings per share amounted to €2.71 in the 2019 financial year, compared to €1.23 in the previous year.

The financial position of the company remains sound. Solvency was ensured at all times throughout the 2019 financial year thanks to the company's available liquidity and its internal financing capability, as well as external sources available for financing. On 29 July 2019, we issued our first two green hybrid bonds with a total volume of €1 billion. EnBW was thus the first German company to issue a green hybrid bond. The adjusted retained cash flow exceeded the forecasted range of €1.3 billion to €1.4 billion in the reporting period, while we just missed the target value for internal financing capability of $\geq 85\%$ due to the sharp increase in net investment adjusted for growth investment. The fall in ROCE was mainly due to the increase in the average capital employed.

In the customers and society goal dimension, the Reputation Index of EnBW improved in 2019 compared to the previous year; the most positive changes here were amongst customers and the wider public. The satisfaction of the customers of EnBW fell in 2019 as a result of the general trend in the sector, as well as individual measures such as a price adjustment and a system migration. The satisfaction of Yello customers remained at a high level in 2019. Supply reliability improved in 2019. In the employees goal dimension, the Employee Commitment Index rose due to the improved perception of the current competitiveness of our company and employees having greater trust in the future viability of the Group. In the area of occupational safety, the LTIF for companies controlled by the Group fell further. However, the LTIF overall increased slightly. In the environment goal dimension, the expansion of renewable energies is continuing according to plan. The CO₂ intensity (Glossary, from p. 257) of our own generation of electricity fell significantly in comparison to the previous year and was thus well below the forecasted range.

In the estimation of the Board of Management, the operating business of our company developed positively in 2019. Overall, the operating result increased as expected. EnBW is also generally on course in the non-financial goal dimensions.

Forecast

In our forecast we take a look, insofar as is possible, at the expected future growth and development of EnBW in the years 2020 to 2022.

The expected economic, political and regulatory conditions are presented in the chapter “General conditions” (p. 62 ff.). Potential factors influencing the forecast are described in detail in the “Report on opportunities and risks” (p. 100 ff.).

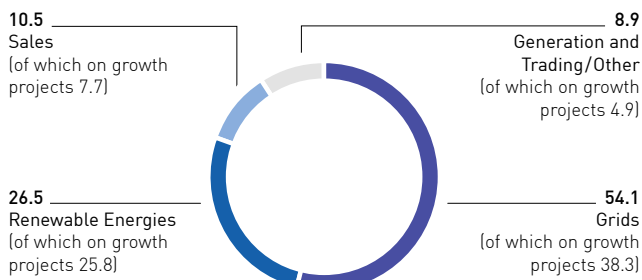
Expected trends in the finance and strategy goal dimensions

Investment over a three-year period

In order to continue to play an active role in shaping the Energiewende, **total investment** of €7.0 billion is planned for the 2020 to 2022 period. This represents on average €2.3 billion per year. €1.6 billion (23%) of this investment will be on existing projects and €5.4 billion (77%) on growth projects. The majority of the total investment will be made in the regulated business (Renewable Energies and Grids).

Total investment 2020–2022

in %



Around 54% of the investment will flow into the **Grids** segment, of which around 38% will be for growth projects and 16% for existing projects. In order to make the transport of renewable energies from the north to the south of Germany possible, funds have been allocated to the transmission grid for the realisation of the two HVDC projects (Glossary, from p. 257) ULTRANET and SuedLink that involve our subsidiary TransnetBW and are part of the Network Development Plan (Glossary, from p. 257). In addition, extensive investment in the expansion and upgrading of the existing grids is planned.

Around 27% of the total investment will be attributable to the **Renewable Energies** segment – of which 26% will be for growth investment. This includes funds for the realisation of further offshore wind farms after 2019. In addition, funds have been allocated for the construction of onshore wind farms both at home and abroad to achieve the 1,000 MW target by 2020 and for solar parks (including three large photovoltaic parks with a total output of around 460 MW) from our comprehensive project pipeline (p. 42).

Around 11% of the investment will be attributable to the **Sales** segment, of which approximately 8% will be for growth investment. This growth investment is mainly intended for the expansion of electromobility, as well as for the development of energy solutions.

Around 9% of the total investment will be attributable to the **Generation and Trading** segment and Other. Growth investment will account for a little more than half of this amount. This mainly comprises investment relating to the accepted bid for the construction of a gas turbine power plant in Marbach am Neckar as special technical equipment for grids.

The investment programme of the EnBW Group thus reflects our strategy for expanding renewable energies and ensuring security of supply in the regulated areas of the transmission and distribution grids.

In order to finance the entire investment volume of around €7.0 billion, **divestitures** amounting to almost €0.7 billion are planned in the years 2020 to 2022. This includes divestitures in the onshore and photovoltaic sectors, which will build on our already realised participation models. The remaining divestitures will involve the receipt of construction cost subsidies and the participation model “EnBW connects”. This local authority participation model is currently attracting a great deal of interest from local authorities (p. 82).

The balance of gross investment and divestitures gives the net investment, which is €6.3 billion or €2.1 billion on average per year.

It is expected that the target set in the EnBW 2020 strategy of making a gross investment of €14.1 billion in the period 2012 to 2020 (based on the reference year of 2012) (p. 41) will be exceeded by around €3 billion.

In view of the around €5.1 billion in already realised divestitures by the end of 2019 and the divestitures planned for 2020, we expect that the target set in the EnBW 2020 strategy of €5.1 billion in divestitures (based on the reference year of 2012) (p. 41) will be slightly exceeded.

TOP Adjusted EBITDA and TOP the share of the adjusted EBITDA accounted for by the segments

Development in 2020 (adjusted EBITDA and the share of adjusted EBITDA accounted for by the segments) compared to the previous year

	Earnings performance (adjusted EBITDA) compared to the previous year		Development of the share of adjusted EBITDA for the EnBW Group accounted for by the segments	
	2020	2019	2020	2019
Sales	€325 to €400 million	€294.3 million	10% to 15%	12.1%
Grids	€1,300 to €1,400 million	€1,311.2 million	40% to 55%	53.9%
Renewable Energies	€825 to €925 million	€482.8 million	25% to 35%	19.8%
Generation and Trading	€425 to €500 million	€383.8 million	10% to 20%	15.8%
Other/Consolidation		€-39.6 million		-1.6%
Total	€2,750 to €2,900 million	€2,432.5 million		100.0%

In the **Sales** segment, we expect an adjusted EBITDA in 2020 above the level in the previous year. This development will be due to increased earnings from the area of telecommunications as a result of the acquisition of Plusnet in the 2019 financial year, as well as to efficiencies related to the introduction of a new billing system. Therefore, we expect a stable share of the adjusted EBITDA for the Group accounted for by this segment.

The adjusted EBITDA for the **Grids** segment in 2020 is set to reach the same level as the 2019 financial year and it will thus continue to be the segment with the highest earnings. Revenue from the use of the grids which will come from returns on the increased investment activity in projects that are included in the Network Development Plan Electricity and Network Development Plan Gas (Glossary, from p. 257) is expected to remain stable in comparison to the previous year. We expect a stable or decreasing share of the adjusted EBITDA for the Group accounted for by this segment.

The adjusted EBITDA for the **Renewable Energies** segment will increase significantly in 2020. Our offshore wind farms EnBW Hohe See and EnBW Albatros – which were commissioned in autumn 2019 and at the beginning of 2020, respectively – will make full-year earnings contributions. In addition, the expansion and acquisition of onshore wind farms and photovoltaic power plants realised during the course of 2019 and planned in 2020 will make a positive contribution to earnings. Our forecasts are generally based on wind yields that correspond to the long-term average. As the wind conditions were slightly below the long-term average in 2019, this will result in slightly higher earnings in 2020 in comparison to the previous year. We expect an increase in the share of the adjusted EBITDA for the Group accounted for by this segment.

In the **Generation and Trading** segment, we expect an adjusted EBITDA in 2020 above the level in the previous year. We sold our electricity deliveries for 2020 on the forward market at higher wholesale market prices than in the previous year (Glossary, from p. 257). This will be offset to some extent by the decommissioning of Block 2 of our Philippsburg nuclear power plant. The share of the adjusted EBITDA for the Group accounted for by this segment should remain stable.

In Other/Consolidation, an adjustment to the management concept in connection with the reorganisation of the SAP system will have an effect in the 2020 financial year in comparison to the previous year. The expenses for the Group functions will no longer be split between the operating segments. This will have a positive effect on the adjusted EBITDA in all segments.

The **adjusted EBITDA** for the EnBW Group in 2020 will increase further and be between €2.75 billion and €2.9 billion. Earnings will thus lie between €350 million and €500 million above the strategic target value. We expect a slight increase in adjusted EBITDA for the Group in 2021 in comparison to 2020. This will be due to a constant increase in earnings in all segments.

The **EBITDA** in 2020 and 2021 will develop in line with the adjusted EBITDA. We do not make any forecasts relating to material non-operating effects.

The **EBT** relevant to remuneration is expected to be between €1.05 billion and €1.15 billion in 2020 as a result of the rise in adjusted EBITDA and will thus increase in comparison to the previous year. A further slight increase in EBT is expected in 2021. The accuracy of the forecast for EBT is, however, still dependent on other exogenous factors that cannot be planned for, such as impairment losses, the reversal of impairment losses or impending losses for onerous contracts for electricity procurement agreements.

Assuming an adjusted EBITDA in the range of €2.75 billion to €2.9 billion, we expect to achieve an **adjusted retained cash flow** (p. 78) of between €1.9 billion and €2.0 billion. This includes an increase of €245 million from the reimbursement of the nuclear fuel rod tax (Glossary, from p. 257). Adjusted for this effect, the anticipated dividend payment of around €340 million (including payments from investments to third parties) and the income tax payments, we expect an FFO of between €2.2 billion and €2.3 billion. The adjusted retained cash flow is expected to fall in 2021 in comparison to 2020, which will be primarily due to the elimination of the adjustment for the repayment of the nuclear fuel rod tax.

TOP Internal financing capability

Key performance indicator

	2020	2019
Internal financing capability in %	around 100	82.6

We expect an internal financing capability in 2020 of around 100% because planned net investment and the adjusted retained cash flow will be at a comparable level. We continue to strive to maintain an internal financing capability of around 100% for the period from 2017 to 2020. However, it is possible that the internal financing capability may fall below 100% in individual years. Following the transition to the growth strategy, the key performance indicator internal financing capability will be replaced by the new key performance indicator debt repayment potential from 2021 on.

TOP ROCE

Key performance indicator

	2020	2019
ROCE in %	5.5–6.0	5.2

In the 2020 financial year, ROCE is expected to be above the level in the previous year and at between 5.5% and 6.0%. In general, investments tend to lead at first to a fall in ROCE due to a low initial contribution to earnings. Investment in our offshore wind farm EnBW Hohe See and the acquisition of Valeco and Plusnet had a strong negative impact on ROCE in 2019. The ROCE is expected to recover in 2021. The forecast for the ROCE in 2020 is below the stated strategic target for 2020 due to higher capital employed – in comparison to the strategy – but without a corresponding increase in EBIT. The capital employed is significantly higher due to an increase in the cumulative investment volume (€3.0 billion) and the revaluation of EnBW Hohe See. Alongside a lower weighted average cost of capital (WACC) compared to 2012, increased impairment losses on additional investments, a significant fall in the discount rate for the nuclear provisions and the revaluation of EnBW Hohe See have a negative impact on EBIT.

The ROA will develop in line with the ROCE. In 2020, the ROA is expected to be between 5.2% and 6.2%, while we anticipate that it will increase slightly in 2021 compared to 2020 as things currently stand.

Expected trends in the customers and society goal dimension

Key performance indicators

	2020	2019
Reputation Index	55.4	52.8
Customer Satisfaction Index for EnBW/Yello	114–136/ 148–159	116/157
SAIDI (electricity) in min./year	15–20	15

TOP Reputation Index

EnBW will strive to noticeably improve its reputation continuously over the next few years. The Reputation Index is an important non-financial performance indicator because this index value is influenced by a whole series of factors that are important to the future viability of our company. The existing reputation management department and the stakeholder team at EnBW can recommend measures for optimising the reputation of the company.

TOP Customer Satisfaction Index

We also continue to expect a high level of competitive pressure in 2020 both from direct competitors within the energy industry and, to an increasing extent, competitors from other sectors that have already entered the energy market or will do so shortly. In addition, exogenous factors could negatively impact customer satisfaction more and more in the future, such as discussions about the future of coal-fired power generation, the development of state levies, the proposed gradual increase in CO₂ prices up to 2023 included in the German government's climate action package, increasing costs or delays to the expansion of the grids. To improve the satisfaction of our customers, we are also expanding our range of sustainable energy industry services and energy solutions and targeting our sales activities in this direction in 2020. We will combine traditional energy products (electricity and gas) with household and energy-related products to offer our customers a range of "ecosystem solutions". One example is an EnBW mobility+ offer that bundles an electric car with a green electricity tariff, a charging box for the home and other e-mobility services. On the basis of the goals described above, we are striving to achieve a Customer Satisfaction Index for EnBW of between 114 and 136 points in the 2020 financial year.

The aim is to continue to keep the index value for the satisfaction of Yello customers within our forecast. Therefore, there will be a greater focus on the expansion of personalised customer contact and customised offers in 2020. In addition, new electricity and gas products, more content in the Yello Magazine and the further development of digital services should increase the attractiveness of the Yello portfolio even more. On this basis, we are striving to achieve an index value for Yello of between 148 and 159 points in the 2020 financial year – as in the previous year.

It is anticipated that we will not fully achieve the target values in 2020 that were defined in our EnBW 2020 strategy for a Customer Satisfaction Index of >136 for EnBW and >159 for Yello. We believe that the main reason for this is that climate protection measures have made the consumption of energy increasingly expensive for customers. Despite the fact that we have developed new skills, offers and services in this area, this has negatively impacted the perception of the energy sector overall.

TOP SAIDI

The grid subsidiaries of EnBW have always achieved a highly reliable supply throughout their grid area and for their customers. The corresponding key performance indicator SAIDI, which states the average duration of supply interruptions per connected customer per year, stood at 15 minutes in 2019. We are striving to achieve a value of between 15 and 20 minutes in the 2020 financial year and subsequent years.

Expected trends in the employees goal dimension

Key performance indicators

	2020	2019
Employee Commitment Index (ECI) ¹	≥ 66	66
LTIF for companies controlled by the Group ²	≤ 2.1	2.1
LTIF overall ³	≤ 3.8	3.8

- Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered [except ITOs]).
- Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except for companies in the area of waste management as well as external agency workers and contractors).
- Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except for external agency workers and contractors).

TOP Employee Commitment Index

The Employee Commitment Index (ECI) reached 66 points and thus clearly exceeded the target we set for 2019 of 63 points. In 2020, we have set ourselves the goal of maintaining this high level and matching at least the level achieved in 2019. We anticipate that we will achieve or even exceed the target value defined in the EnBW 2020 strategy for 2020 of 65 points.

TOP LTIF

We are committed to our goal of continuously improving occupational safety within the company for both our own employees and third-party employees who carry out work on behalf of EnBW. Therefore, we have implemented numerous accident prevention measures. The main focus of our measures will be placed on the roll-out of the new Quentic software as well as a heightened awareness for unsafe situations and conditions. Consistent reporting of these types of occurrences and communication amongst employees about hazardous situations will help us to increase the awareness of employees. We intend to continuously reduce the LTIF for companies controlled by the Group and LTIF overall.

Expected trends in the environment goal dimension

Key performance indicators

	2020	2019
Installed output of RE in GW and the share of the generation capacity accounted for by RE in %	5.0/>40	4.4/31.8
CO ₂ intensity in g/kWh	16%–23%	419

TOP Installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE

The installed output of renewable energies will increase to 5 GW in 2020, which will primarily be due to the EnBW Albatros off-shore wind farm that was placed into operation at the beginning of 2020 and the Weesow-Willmersdorf solar park that is currently being realised. In addition, there are plans to further expand onshore wind and photovoltaic power plants. As a result, and also because of the shutdown of Block 2 of the Philippsburg nuclear power plant, the share of the generation capacity of the Group accounted for by renewable energies will increase. In subsequent years, we also expect a continuous increase in the installed output of renewable energies. This will also increase the share of the generation capacity accounted for by RE further.

TOP CO₂ intensity

In 2020, we expect an increase in own electricity generation from renewable energy sources due to the further expansion of renewable energies. At the same time, we expect an increase in the use of our thermal power plants in comparison to the previous year as they were utilised far less than expected in 2019 due to the prevailing market prices. Important factors for uncertainty in the 2020 forecast include the volatility of the wind and water supplies, the further development of the clean dark spread (Glossary, from p. 257) and the utilisation of the power plants for redispatch. As a result of the low CO₂ intensity (Glossary, from p. 257) in 2019, an increase of between 16% and 23% in comparison to the previous year is expected in the 2020 financial year. This forecast nevertheless corresponds to our defined target for 2020 of a reduction in CO₂ intensity of between 15% and 20% compared to the reference year 2015.


















Overall assessment of anticipated developments by the management


We expect an increase in adjusted EBITDA for the Group in 2020 compared to 2019. The shift in earnings between the segments laid out in our strategy will continue in 2020. We will exceed our target values for 2020 at a Group level and at least achieve the targets at a segment level. This means that we will be able to continue to make sufficient investment funds available internally to enable us to play an active role in shaping the Energiewende. We continue to strive to maintain a balanced financing structure, solid financial profile and thus solid investment-grade ratings (Glossary, from p. 257). With respect to our non-financial key performance indicators, we expect a stable to positive development in 2020.

Report on opportunities and risks

Principles of the integrated opportunity and risk management system

Opportunity and risk map

Strategic/sustainability		Operative			Financial		Compliance
Strategy	Sustainability	Business activity	Infrastructure	Implementa-tion of growth fields	Financial management	Corporate financing	Compliance
Sustainable generation structure  	Climate change  	Business processes	Plants/grids/storage/IT	Renewable Energies  	Market prices	Capital market	Corruption 
Market developments/social trends 	Environmental protection 	Operating activities	Information security/confidentiality	Gas/biogas business	Liquidity management	Rating	Antitrust law
System critical infrastructure	Weather/natural events 	Products/contracts	Crime/sabotage/terrorism	E-mobility/digitalisation	Earnings management		Data Protection
Smart infra-structure for customers	HR 	Operational projects		Expansion of the grids	Investment management		Fraud
	Occupational safety/health protection 	Approvals/licences/patents					Taxes and levies
	Human rights 	Legislation/regulation/litigation 					
	Social issues 						
	Reputation  						

 Task Force on Climate-related Financial Disclosures (TCFD)  Corporate social responsibility (CSR)

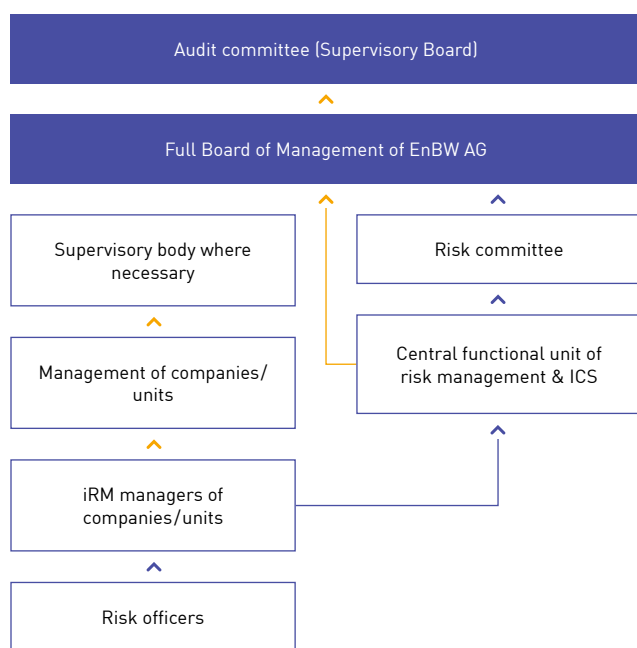
The integrated opportunity and risk management system (iRM) of EnBW is based on the internationally established COSO II framework as a standard for risk management systems that span entire companies. The iRM aims, through a holistic and integrated approach, to effectively and efficiently identify, evaluate and manage opportunities and risks (including monitoring) and report on the opportunity/risk position, as well as to ensure the appropriateness and functionality of related processes. Risk management involves measures for avoiding, reducing or transferring risk through adequate accounting pro-

visions, as well as measures for managing risk tolerance. For this purpose, we define an opportunity/risk as an event that might cause a potential over-attainment/non-attainment of strategic/sustainability, operational, financial and compliance goals in the future. The iRM process also takes into account the guidelines for a non-financial declaration. In order to identify and categorise opportunities and risks, the opportunity and risk map that is well-known throughout the Group is utilised. The risk map is used to explicitly consider possible opportunities and risks that affect the sustainable orientation of our company.

As well as focusing on the fulfilment of the requirements for a non-financial declaration, the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) (Glossary, from p. 257) are also taken into account. In addition, the iRM process is also subject to ongoing development within the scope of digitalisation.

Structure and processes of the integrated opportunity and risk management system

Structure and process of the iRM system



- Formal reporting
- Coordination of Group reporting

The structures and processes of the iRM are well-known throughout the Group. The central risk management & ICS functional unit is responsible for specifying methods, processes and systems for the whole Group, determining the opportunity and risk position of the Group and for reporting. The central steering body is the risk committee, which – with the involvement of specially selected units/companies – is responsible for clarifying relevant issues from various Group perspectives, as well as for determining selected top opportunities/risks.

The iRM is tested annually by the Group auditing department with a focus on different main themes each year and the results of the test are then presented to the Supervisory Board in the form of a so-called effectiveness report. All opportunities and risks are firstly assessed with the help of the iRM relevance filter

before and after consideration has been taken of both implemented and envisaged management instruments. In the process, they are allocated to one of seven relevance categories on the basis of quantitative and qualitative criteria for each of the four dimensions: strategic/sustainability, operational, financial and compliance.

The opportunities and risks are evaluated within the medium-term planning period. As long as a financial evaluation of the opportunities and risks is possible, they are allocated to relevance classes 0 to 4 if they have a value in the range from less than €0.2 million up to less than €50 million within the medium-term planning period. From relevance class 5 and above and with a probability of occurrence of over 50%, the opportunities and risks are generally included in the Group report on opportunities and risks. This corresponds to €50 million within the medium-term planning period. The top risks/opportunities and the long-term opportunities and risks that are of particular importance are then added. The reports are submitted on a quarterly basis in standardised form. In the case of any significant changes, a special report is immediately issued.

Those opportunities or risks relevant to the Group report on opportunities and risks are generally evaluated in relation to the current planning period using quantitative methods (e.g. scenario techniques and distribution functions) for the purpose of stochastic modelling. Any possible effects on the adjusted EBITDA, the adjusted EBIT and the capital employed (with any associated impact on the ROCE), the retained cash flow or the adjusted retained cash flow, the net investment or the adjusted net investment (with any associated impact on the internal financing capability) and the net debt are considered. Alongside these financial effects, opportunities and risks can also have impacts on the other key performance indicators (p. 43 ff.), which are discussed with those responsible in the specialist areas.

Any opportunities and risks with a probability of occurrence of up to 50% are subject to an individual review to determine whether they should be taken into account in the next planning session. Opportunities and risks with a probability of occurrence of over 50% are generally taken into account in the planning process and, as far as possible, appropriate accounting measures are taken in the consolidated financial statements in accordance with IFRS.

Alongside the top opportunities/risks, there are a wide variety of other opportunities and risks facing the Group that are allocated to relevant risk categories on the opportunity and risk map (p. 100) and evaluated with the aid of the iRM relevance filter. Alongside the key performance indicators in the finance and strategy goal dimensions, these effects can also have an impact on the key performance indicators in the customers and society, employees and environment goal dimensions. Any impact on the areas of compliance, social engagement and procurement is also examined in the process.

Relevance filter for classifying opportunities and risks

Strategic/sustainability	Operative	Financial	Compliance	Group reporting level
Achievement of strategic targets, sustainability targets, e.g. climate protection, environmental protection, reputation	Achievement of business targets, functional processes, retaining added value, customer/external effects	Achievement of financial targets, generally in accordance with medium-term planning or approved (project) budgets	Compliance with legal/official regulations and internal regulations	
Relevance class 5				
One strategic/sustainability target for the EnBW Group is not achieved	<ul style="list-style-type: none"> > One key operational target for the EnBW Group is not achieved > The value added is massively disrupted across the company/business units/functional units 	≥ €50 million (relevance threshold for functional units and EnBW Group)	Breach of legal/official regulations and/or internal regulations with negative consequences for the EnBW Group	
Relevance class 6				
Several or all strategic/sustainability targets for the EnBW Group are not achieved	<ul style="list-style-type: none"> > Several or all operational targets for the EnBW Group are not achieved > Value added throughout the whole Group is massively disrupted 	≥ €250 million	Breach of legal/official regulations and/or internal regulations with serious negative consequences for the EnBW Group	

Structure and processes of the accounting-related internal control system

Principles

An accounting-related internal control system (ICS) has been established at EnBW that is designed to ensure proper and reliable financial reporting. In order to guarantee that this ICS is effective, the appropriateness and functionality of the Group-wide control mechanisms are tested regularly at the level of the individual companies and at a Group level.

If any existing weaknesses are identified in the control system and are considered relevant to the financial statements, they are promptly remedied. This accounting-related ICS methodology is based on the COSO II standard.

Once the control mechanisms have reached a standardised and monitored degree of maturity, and no material control weaknesses can be identified, the accounting-related ICS is deemed to be effective. The materiality of control weaknesses is measured as the probability of occurrence and the extent to which there could be a potential misstatement in connection with those financial statement items concerned. The accounting-related risk management system defines measures for identifying and assessing risks that jeopardise the preparation of compliant financial statements as part of the accounting-related ICS.

Despite having established an ICS, there is no absolute certainty that it will attain its objectives or that it will be complete. In individual cases, the effectiveness of the ICS can be impaired by unforeseeable changes in the control environment, fraud or human error.

Structure

The accounting-related ICS at EnBW is organised at both a centralised and decentralised level. All key companies, business units and functional units have an ICS officer. These officers monitor the effectiveness of the ICS and evaluate any control weaknesses that may arise. A report on the effectiveness of the ICS is prepared on an annual basis. The ICS officer at Group level assists the companies/units with the implementation of standardised procedures and also consolidates collected data.

Processes

Standardised procedures ensure completeness and consistency in the preparation of the financial statements and financial reporting. The accounting-related ICS defines controls designed to ensure compliance with the accounting policies used by the Group, and with the procedures and deadlines for the individual accounting and consolidation processes. During the Group consolidation process, the rigorous implementation of the four-eye principle is observed, while random samples and deviation analyses improve quality. An annual control cycle monitors whether the documentation is up to date and also checks the appropriateness and functionality of the controls. In addition, it identifies and evaluates any control weaknesses that may arise.

A risk-based selection process defines relevant companies/units, significant items in the financial statements and processes including their associated control measures.

The defined processes and controls are recorded in a central documentation system. The effectiveness of the various control activities is then assessed. If any control weaknesses are identified, their effect on the financial statements is evaluated. The results are reported at both company or unit level and at Group level. Furthermore, the Group auditing department performs ICS reviews as part of its risk-oriented audit planning.

Non-financial declaration

As part of the non-financial declaration, we closely analyse the related opportunities and risks in the areas of compliance, social engagement and procurement, as well as in the customers and society, employees and environment goal dimensions. In order to guarantee that the requirements for a non-financial declaration are fulfilled, the established iRM methods and the associated process are used. In this context, the iRM also identifies opportunities and risks relating to climate protection and thus provides important impetus for the implementation of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) (Glossary, from p. 257). You can find further information on this subject on p. 122.

Risks associated with the non-financial declaration

The non-financial declaration describes, amongst other things, the fundamental opportunities and risks connected with the EnBW business model and the activities based upon it that could have a possible impact on one of the individual issues. Material individual risks with a very high probability of a serious negative impact in relation to any of the following issues do not exist at EnBW.

Compliance

The observance of relevant legal regulations and internal company rules forms the basis of our business activities. Managing compliance risks at EnBW (with a main focus on corruption, antitrust and data protection risks) is the task of the compliance management system, which comprises regular risk assessments of this type. Risks related to fighting corruption and bribery are addressed on p. 49 f. in a cross-segment manner.

Social engagement

There are no risks in the area of social engagement. In fact, we take our social responsibility for civic and social engagement seriously (p. 53 f.).

Procurement

Sustainable procurement – purchasing: In the area of procurement, risks cannot be excluded due to increasing levels of complexity and the large number of suppliers. Purchasing utilises an active risk management system, counters procurement risks and implements the necessary measures for safeguarding against and avoiding risk. These risks are managed using defined processes and, in this context, especially through the pre-qualification process (p. 59 f.).

Raw materials procurement – coal and gas: In the area of raw materials procurement and thus in the associated supply chain, there are, above all, potential human rights risks. Respect for human rights is ensured using a multi-stage auditing process as part of the procurement process – with all existing and potential suppliers being regularly subjected to a screening process.

Other measures that form part of the assessment are carried out in direct cooperation with the compliance department. In coal mining, there are possible human rights risks related to the working and living conditions of people in the coal mining regions. An increase in civil society activity in this context can in turn result in an increase in reputational risks. We are in constant contact with representatives from civil society and keep them informed about the advances made and challenges faced in all sustainability topics (p. 60 f.).

In preparation for future (liquid) gas contracts, we carried out further (preliminary) assessments of the sustainability and compliance of producers from different countries as part of the process for auditing business partners. No material human rights risks were identified in the supply chain for the USA as a potential source of supply. We identified no issues in connection with other producers either that would necessitate a more in-depth analysis.

Customers and society goal dimension

Reputation: All opportunities and risks, as well as non-financial issues, can have a positive or negative impact on reputation and thus on the key performance indicator, the Reputation Index (p. 81). The reputation management department thus identifies opportunities and risks related to reputation, develops measures to protect and improve reputation, advises the Board of Management and management and provides recommendations for action.

Customer proximity: Risks exist especially in connection with the still high level of competitive pressure both from direct competitors within the energy industry, and to an increasing extent, competitors from other sectors that have already entered the energy market or will do so shortly. This is associated with the risk of a negative impact on the customer base and sales volumes. Opportunities exist above all through the provision of a broader range of customer-specific products and services such as offering hardware bundles (Glossary, from p. 257) and product options, as well as through processes more oriented to the customer. EnBW also continued to expand its range of sustainable energy industry services and energy solutions in 2019 and targeted its sales activities in this direction (p. 81 f.).

Employees goal dimension

Employee commitment: Due to competition on the job market, there is a risk when recruiting employees that the company will not be able to secure a sufficient number of employees with the necessary qualifications and expertise in the relevant target groups. In addition, this risk is exacerbated by demographic trends and the stricter conditions facing the energy industry. We believe that regular anonymous employee surveys, from which we derive the Employee Commitment Index (ECI) as a key performance indicator, are an important tool for seizing opportunities early in the areas of employee development and employee loyalty (p. 83 f.).

Occupational safety: Risks generally exist in the areas of occupational safety and health protection in our business activities. We counter these risks using comprehensive organisational and procedural measures, such as workplace-specific hazard analyses, to protect employees as well as possible against any adverse consequences. We also view these measures as an opportunity to preserve the capacity of our employees to do their work and to maintain the position of EnBW as an attractive employer. Occupational safety is measured in the form of the key performance indicator LTIF for companies controlled by the Group and LTIF overall (p. 86 f.) in the employees goal dimension.

Environment goal dimension

Expansion of renewable energies: Risks generally exist in the approval and auction process. These risks can result in delays to the further expansion of renewable energies. Due to the fact that the auctions are held on equal terms, we continue to expect a high level of competition. We measure the expansion of renewable energies with our key performance indicator “installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE” (p. 87 f.).

Climate protection: Risks generally exist in the area of environmental protection due to the operation of power generation and transmission plants with possible consequences for the air, water, soil and nature. The importance of climate protection is taken into account in, for example, the key performance indicator CO₂ intensity [Glossary, from p. 257] (p. 88 f.).

We counter these risks using, amongst other things, an environmental management system certified according to DIN EN ISO 14001:2015, which has been established at key subsidiaries (p. 87). We take the safety of the population and the protection of the environment very seriously. In this context, risks also exist due to external circumstances, such as extreme weather conditions. We counter these risks using comprehensive organisational and procedural measures to reduce their impact. We ensure that the risks posed by crisis and emergency situations are mitigated quickly, effectively and with a coordinated approach through regular crisis management exercises and other measures. Through our diverse range of activities in the areas of environmental, nature and species protection, we also utilise the opportunity – beyond our core activities – to make a substantial contribution to improving environmental protection. Thanks to the positive public perception of these activities, they can also have a positive impact on our key performance indicator Reputation Index (p. 81).

At the same time, EnBW also faces potential risks due to the ongoing process of climate change. For example, more frequent extreme weather conditions leading to highly fluctuating water levels or limits being placed on emissions locally could have a negative impact especially on the operation of power plants and thus the security of supply (electricity grids). The operation of hydropower plants can be restricted by both a lack of or also an abundance of water. The output from thermal power plants that must be cooled could possibly be impacted by temperature limits on discharged water. Increasing volatility in the availabil-

ity of wind, water and sun presents challenges in terms of planning certainty for the operation of power plants and the sale of volumes of electricity (p. 41 ff.). For this reason, the top opportunity/top risk wind fluctuations has been reported since the Integrated Annual Report 2016, although these opportunities/risks have no material effect on non-financial issues. In addition, there is uncertainty due to increasing environmental restrictions for the realisation of projects for sustainable energy generation and for the operation of power plants. These risks are managed and mitigated through internal processes using targeted control measures.

Alongside changes in physical climate parameters and other developments relating to or governed by environmental factors, regulatory guidelines and changes in the market also flow into the risk evaluation process. However, there are also opportunities such as changing customer needs (p. 81 ff.) and an increasing demand for climate-friendly products such as e-mobility. These opportunities and risks are regularly and systematically identified Group-wide. The first recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) [Glossary, from p. 257] have been implemented and are communicated in the report on opportunities and risks. Building on the revision of the risk map in 2016, special focus is placed on sustainability aspects – especially climate protection targets – and they will be anchored more deeply in the risk evaluation process in future. Therefore, we have closely examined the significance of sustainability and climate protection themes for the business model and aim to implement measures and set targets to orientate our risk management system even more towards climate-related risks (p. 33 and 87).

Opportunity and risk position

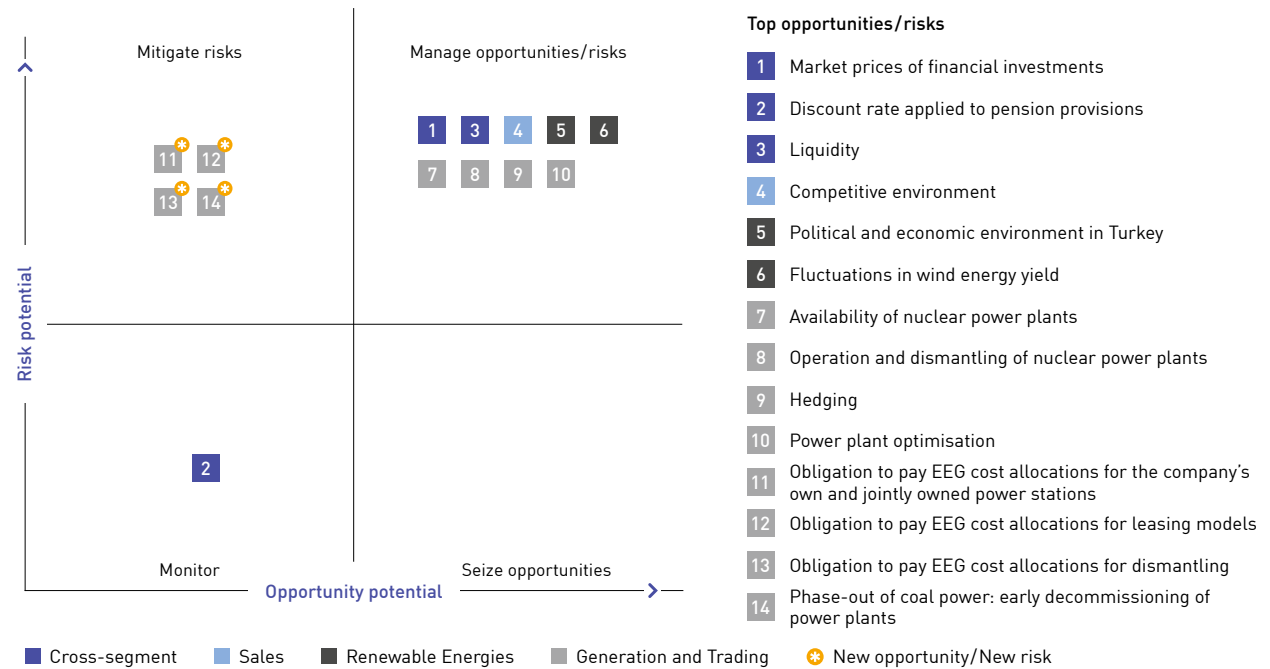
The diagram on the following page illustrates how the opportunity and risk position is reported to the Board of Management and the audit committee of the Supervisory Board. The arrangement of the top opportunities/risks in the quadrants indicates how EnBW can employ control measures to exploit the opportunities or to counteract the risks.

The individual evaluations of the top opportunities/risks tell us – based on the relative level of opportunity/risk – what effects they could have with a high probability of occurrence on our key performance indicators in the finance goal dimension: adjusted EBITDA, internal financing capability, ROCE and net debt. The risks are depicted after the implementation of the risk limitation measures.

The following opportunities and risks were new in 2019:

- › Obligation to pay EEG cost allocations [Glossary, from p. 257] for the company's own and jointly owned power stations
- › Obligation to pay EEG cost allocations for leasing models
- › Obligation to pay EEG cost allocations for dismantling
- › Phase-out of coal power: early decommissioning of power plants

Top opportunities/risks as of 31/12/2019



Details on the top opportunities/risks, as well as other opportunities/risks relevant to the report, and their potential effects on the relevant performance indicators are listed in the following section.

Cross-segment opportunities and risks

Our company faces general **risks from legal proceedings due to our contractual relationships with customers, business partners and employees**. To a lesser extent, we are also conducting legal proceedings relating to topics in the area of corporate law. For this purpose, adequate accounting provisions are made or, in the event of a probability of occurrence of < 50% adequate contingent liabilities. As a consequence, there is also an opportunity of positive effects on earnings if these provisions can be reversed once again. In addition, various court cases, official investigations or proceedings and other claims are pending against EnBW. The probability of these actions being successful is, however, considered very low and thus they are not reported under contingent liabilities and other financial obligations.

In connection with these types of legal proceedings, we also recognise the **water concession risk in Stuttgart**. In the court proceedings dealing with the takeover of the water grid after the water concession in the state capital Stuttgart expires, the state capital and EnBW are still striving to reach an amicable settlement. The court proceedings have been suspended several times, namely from January 2015 until the end of 2016 and from April 2018 until the end of January 2019, to give the parties the opportunity to reach an amicable settlement. Unfortunately, it was not possible to reach such an agreement due to a difference of opinion on the valuation. The next court hearings are expected to be held in March 2020. Therefore, there continues to be a risk in 2020 of losing the water grid without receipt of adequate compensation.

Financial opportunities and risks

1 Market prices of financial investments: The financial investments managed by the asset management system (Glossary, from p. 257) are subject to opportunities and risks due to price changes and other valuation changes as a result of the volatile financial market environment (p. 72). A significantly higher amount of securities allocated to the dedicated financial assets must, since 2018, be measured at fair value through profit or loss in accordance with IFRS 9. The fluctuation in the value of these securities is recognised in profit or loss and stood at €335.5 million in the reporting year (previous year: €-38.5 million). Through corresponding effects, this could have either a positive and negative impact in 2020 and 2021 on net debt in the low to mid three-digit million euro range. For the market prices for financial investments, we currently identify an equal level of opportunity and risk due to the increased volatility on the financial markets.

2 Discount rate applied to pension provisions: There is a general opportunity and risk due to any change in the discount rate applied to the pension provisions because the present value of the pension provisions falls when the discount rate increases and increases when the discount rate falls. On the reporting date for the annual financial statements of the Group in 2019, the discount rate stood at 1.1% in comparison to the previous year (1.8%). The future development of interest rates could have a positive impact in the low four-digit million euro range or a negative impact in the low to mid three-digit million euro range on the development of net debt in 2020 and 2021. Against the background of the expected development of interest rates in future, we currently identify an increased level of opportunity and a lower level of risk.

3 Liquidity: Due to unforeseeable developments, especially margin payments, unused project funds or tax issues as well as financial market crashes, the Group's liquidity planning is subject to uncertainty that could lead to deviations between actual payments and planned payments. In general, there is also a risk of additional liquidity requirements if the rating agencies downgrade the credit rating of EnBW (p. 72 f.). The risk of margin payments is increasing primarily as a result of rising trading volumes and greater volatility on the energy market. These effects could have a total positive or negative impact in the mid three-digit million euro range on net debt in 2020 and 2021, as well as an indirect impact on the key performance indicator ROCE via capital employed and on internal financing capability via the adjusted net investment. We currently identify a balanced level of opportunity and risk in this area.

Compliance opportunities and risks

Compliance risk assessments focus, in particular, on assessing risks and defining appropriate preventative measures in the compliance risk areas of corruption, antitrust law and data protection.

Risks for which we derive measures for fighting corruption and bribery primarily exist in sales activities relating to local authority/political business when dealing with public officials. Important preventative measures, especially training and advisory services, are described on p. 49 f.

In addition, there are antitrust risks in the sales activities of some subsidiaries that could result in fines and damaged reputation and also have significant strategic implications. This risk is countered by the joint preventative measures of the compliance and legal departments.

The incorrect handling or illicit disclosure or use of personal data poses data protection risks. These risks exist in view of the digital transformation of many business activities. Advisory and awareness services and process controls are in place to guarantee adherence to legal data protection requirements in the Group. Company-specific measures are coordinated via the compliance and data protection department.

Sales segment

Financial opportunities and risks

4 Competitive environment: There is a risk that the continued tense competitive situation for all EnBW brands in the electricity, gas and energy solutions business could have a negative effect on the customer base, sales volumes and price levels. In the future, there will still be pressure on prices and a willingness amongst customers to switch suppliers. The EnBW 2020 strategy also covers the development and expansion of system solutions and complete solutions that are specifically tailored to the various customer segments (p. 41 ff.). Alongside the traditional supply of electricity and gas, we see good opportunities here also for offering our customers innovative energy solutions in the areas of energy technology in the home, e.g. with products such as photovoltaic storage systems, the area of corporate energy efficiency and also electromobility (p. 81 ff.). The EnBW subsidiaries Plusnet and NetCom BW should grow

together and play an even stronger role on the market in the future. We believe that this is also an important step in the expansion of sustainable infrastructure and should achieve corresponding earnings contributions for our company. This could have both a positive or negative impact in the low single-digit million euro range on the key performance indicator adjusted EBITDA in 2020 and 2021 and thus an indirect impact on the key performance indicator internal financing capability via the adjusted retained cash flow and on the key performance indicator ROCE via the adjusted EBIT. We currently identify a low level of opportunity and risk in this area.

Grids segment

Strategic opportunities and risks

Recognition of costs for high-voltage direct current (HVDC) transmission technology: TransnetBW plans to set up new connections using high-voltage direct current transmission technology (HVDC) (Glossary, from p. 257) with other transmission system operators. A regulation stipulating the use of underground cabling also applies to the SuedLink project. In both projects, there are currently general risks of potential delays and additional costs, as well as a low level of risk that the necessity for these transmission lines might no longer be confirmed in a new Network Development Plan.

Financial opportunities and risks

Year-end balance on the EEG bank account: The EEG bank account is a separately managed bank account in accordance with section 5 of the German Compensation Mechanism Ordinance (AusglMechV) and is thus kept separate from other areas of activity. In accordance with AusglMechV, a deficit or surplus on the account balance can have a temporary positive or negative effect on the calculation of the net debt of EnBW, respectively. As of the reporting date on 31 December 2019, there was a surplus in the low three-digit million euro range on the EEG bank account of our subsidiary TransnetBW. Due to the EEG cost allocations (Glossary, from p. 257) defined for 2020, we anticipate that the bank account balance will tend to fall in 2020 and 2021.

Renewable Energies segment

Strategic opportunities and risks

5 Political and economic environment in Turkey: We have been commercially active in Turkey for many years in the expansion of energy generation from wind power and hydro-power. In the past few years, the economic and political framework conditions in Turkey have deteriorated noticeably. We continue to monitor these developments very closely, especially because we have a duty of care for those employees working in Turkey. There has been an increased security risk for a number of years, although no immediate risk to local employees can currently be identified. We are still in regular contact with the German embassy, the German Consulate General, our partner Borusan and other German companies active in Turkey so that we will be able to identify any negative developments as early as possible and respond in good time. This risk could have an effect on the key performance indicator ROCE in 2020 and 2021. We currently identify a low level of opportunity and risk in this area.

Financial opportunities and risks

6 Fluctuations in wind energy yield: There is a general opportunity or risk for wind power plants due to wind energy yield fluctuations because the amounts of electricity generated by them are subject to variations in the mean annual wind speed. These fluctuations naturally grow as we acquire more and more wind turbines. In order to take these wind fluctuations into account in our planning, wind reports were created. In addition, measurement campaigns are being carried out up to the end of 2020 to evaluate wind speeds. Nevertheless, these wind fluctuations could naturally have both a positive or negative impact in the high double-digit million euro range on the key performance indicator adjusted EBITDA in 2020 and 2021 and thus an indirect impact on the key performance indicator internal financing capability via the adjusted retained cash flow and on the key performance indicator ROCE via the adjusted EBIT. Following the expansion of our wind portfolio with the addition of the wind turbines at EnBW Hohe See and EnBW Albatros, we currently identify an increasing level of opportunity and risk in this area.

Generation and Trading segment

There are general risks associated with the operation and dismantling of nuclear power plants. During the dismantling of nuclear power plants, there is an additional risk of a delay in the return of waste to the local **intermediate storage facilities**, with possible additional costs as a result of the waste being stored for a longer period of time in Great Britain and France, as well as the risk of further costs for approval and authorisation procedures.

At the end of 2019, the remaining provisions held by EnBW were revalued as part of the regular examination of the discount rate and escalation rate. Due to changes in these kinds of assumptions in the future, we currently identify a low level of opportunity and risk for the remaining **nuclear provisions**.

Depending on market developments and the framework conditions related to the Energiewende, there is a general risk of a negative impact on earnings due to **impairment losses on power plants and impending losses for onerous contracts for electricity procurement agreements**.

Operative opportunities and risks

7 Availability of nuclear power plants: There is a general risk that exogenous and endogenous factors will have an influence on the availability of these power plants. We strive to counter these risks using preventive measures. Depending on their duration, interruptions to the operation of the power plants can positively or negatively impact the operating result. The availability of nuclear power plants could have a negative effect in the low single-digit million euro range and a positive effect in the low double-digit million euro range on the key performance indicator adjusted EBITDA in 2020 and 2021, and thus an indirect impact on the key performance indicator internal financing capability via the adjusted retained cash flow and on the key performance indicator ROCE via the adjusted EBIT. We currently identify a rather higher level of opportunity in this area.

8 Operation and dismantling of nuclear power plants: For long-term major projects such as the remaining operation and dismantling of a nuclear power plant, there is a general risk that delays and additional costs may arise over the course of time

due to changed framework conditions. The following issues can arise, amongst other things: delays to approvals, an increase in the amount of preparation work required for dismantling, developing buffer zones and retrofitting work and bottlenecks in the supply of the necessary resources. In addition, there is an opportunity to make cost savings due to synergies over time and also due to learning effects for subsequent dismantling activities. There could be opportunities in the mid double-digit million euro range and risks in the high double-digit million euro range that have an effect on the development of net debt in 2020 and 2021. We currently identify a balanced level of opportunity and risk in this area.

Financial opportunities and risks

9 Hedging: When selling generated electricity volumes, EnBW is exposed to the risk of falling electricity prices and the risk of the unfavourable development of fuel prices in relation to electricity prices. The concept underlying our hedging strategy not only limits risk but also seeks to exploit opportunities. The hedging instruments utilised in 2019 were forwards, futures and swaps. The EnBW Group has exposure to foreign exchange risks from procurement and the hedging of prices for its fuel requirements, as well as from gas and oil trading business. This could have both a positive or negative impact in the low double-digit million euro range on the key performance indicator adjusted EBITDA in 2021, and thus an indirect impact on the key performance indicator internal financing capability via the adjusted retained cash flow and on the key performance indicator ROCE via the adjusted EBIT. We currently identify a balanced level of opportunity and risk in the area of hedging (Glossary, from p. 257) due to increasing fuel and CO₂ prices. Further information can be found in the section "Accounting for financial instruments" in the notes to the consolidated financial statements at www.enbw.com/report2019-downloads.

10 Power plant optimisation: Following the conclusion of the hedging of generation activities, the Trading business unit will manage the further deployment of the power plants. This is being carried out as part of power plant optimisation on the forward market (Glossary, from p. 257), through the sale of system services (Glossary, from p. 257) and through placements on the spot and intraday trading platforms (Glossary, from p. 257). However, regulatory interventions continue to have a strong influence. In particular, fluctuating revenues from system services and volatility on the forward and spot markets (Glossary, from p. 257) could have both a positive or negative impact in the mid double-digit million euro range on the key performance indicator adjusted EBITDA in 2020 and 2021, and thus an indirect impact on the key performance indicator internal financing capability via the adjusted retained cash flow and on the key performance indicator ROCE via the adjusted EBIT. We currently identify a low level of risk and opportunity that is dependent on the development of market prices.

11 Obligation to pay EEG cost allocations for the company's own and jointly owned power stations: Both for its own power plants, including nuclear power plants, and for power plants in joint ownership, EnBW AG utilises the exemption from EEG cost allocations (Glossary, from p. 257) for end usage for the respective share of the power plants. There are a number of different arguments that suggest that the German Federal Network Agency and the transmission system operators could define the role of the operator differently. Possible back payments for EEG

cost allocations in previous years could have a negative impact in the low three-digit million euro range in 2020 and a negative impact in the high double-digit million euro range in 2021 on the key performance indicator adjusted EBITDA and thus an indirect impact on the key performance indicator internal financing capability via the adjusted retained cash flow and on the key performance indicator ROCE via the adjusted EBIT. We currently identify an increased level of risk in this area.

12 Obligation to pay EEG cost allocations for leasing models: Certain virtual slices of power plants were leased to third parties in the past. EnBW as the operator and the third party as the co-operator have assumed up to now that, due to this leasing relationship, the third party was the plant operator at the relevant site according to the EEG and was permitted to consume electricity in the spatial context of their plants free of EEG cost allocations. In general, there is a risk with these leasing models that the transmission system operators will demand back payment for the EEG cost allocations. Possible back payments for EEG cost allocations in previous years could have a negative effect in the mid double-digit million euro range in 2020 on the key performance indicator adjusted EBITDA and thus an indirect impact on the key performance indicator internal financing capability via the adjusted retained cash flow and on the key performance indicator ROCE via the adjusted EBIT. We currently identify an increased level of risk in this area.

13 Obligation to pay EEG cost allocations for dismantling: In the existing planning of the dismantling costs for nuclear power plants, it was assumed that the so-called “self-supply entitlement” can be used for the electricity supplied to the blocks

during the post-operation and dismantling stages. Therefore, the costings for the consumption of electricity do not contain any EEG cost allocations. There is a risk that the self-supply entitlement cannot be applied, which will result in increased dismantling costs. This could have a negative effect in 2020 and 2021 on the net debt in the low three-digit million euro range. We currently identify an increased level of risk in this area.

14 Phase-out of coal power: early decommissioning of power plants: The version of the Coal Phase-out Act adopted by the German cabinet and its framework parameters (plans for operators regarding replacement power plants and decommissioning) are open to varying interpretations with respect to the phase-out path. In general, the later decommissioning of brown coal power plants will mean that hard coal power plants are shut down more quickly and thus even new hard coal power plants will be removed from the grid earlier. The German government does not plan to provide compensation for any power plants decommissioned after 2027. We currently identify an increased level of risk in this area.

No opportunities or risks relevant to the report have been eliminated in comparison to the previous year.

Link to the key performance indicators

The top opportunities/risks can have an impact on our key performance indicators, whereby the effects on the non-financial key performance indicators are potential and long-term in nature and more difficult to measure. They have thus been shown less boldly in the following diagram. In the past financial year, these links were not monitored individually.

Linking the top opportunities/risks with the key performance indicators

Top opportunities/risks		Key performance indicators													
		Financial performance indicators			Strategic performance indicators				Non-financial performance indicators						
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Market prices of financial investments														
2	Discount rate applied to pension provisions														
3	Liquidity		●	●											
4	Competitive environment	●	●	●	●				○	○	○	○			
5	Political and economic environment in Turkey								○						
6	Fluctuations in wind energy yield	●	●	●		●									○
7	Availability of nuclear power plants	●	●	●			●	○							
8	Operation and dismantling of nuclear power plants														
9	Hedging	●	●	●			●								
10	Power plant optimisation	●	●	●			●								○
11	Obligation to pay EEG cost allocations for the company's own and jointly owned power stations	●	●	●			●								
12	Obligation to pay EEG cost allocations for leasing models	●	●	●			●								
13	Obligation to pay EEG cost allocations for dismantling														
14	Phase-out of coal power: early decommissioning of power plants	○	○	○			○	○	○						○

<ul style="list-style-type: none"> ■ Cross-segment ■ Sales ■ Renewable Energies ■ Generation and Trading ● Direct effect ○ Potential/long-term effect 	<ul style="list-style-type: none"> A Adjusted EBITDA B Internal financing capability C ROCE 	<ul style="list-style-type: none"> Total share of adjusted EBITDA: D “Customer proximity”/ Sales E Grids F Renewable Energies G Generation and Trading 	<ul style="list-style-type: none"> H Reputation Index I EnBW/Yello Customer Satisfaction Index J SAIDI (electricity) K Employee Commitment Index (ECI) 	<ul style="list-style-type: none"> L LTIF for companies controlled by the Group/LTIF overall M Installed output of RE and share of generation capacity accounted for by RE N CO₂ intensity
---	--	---	--	--

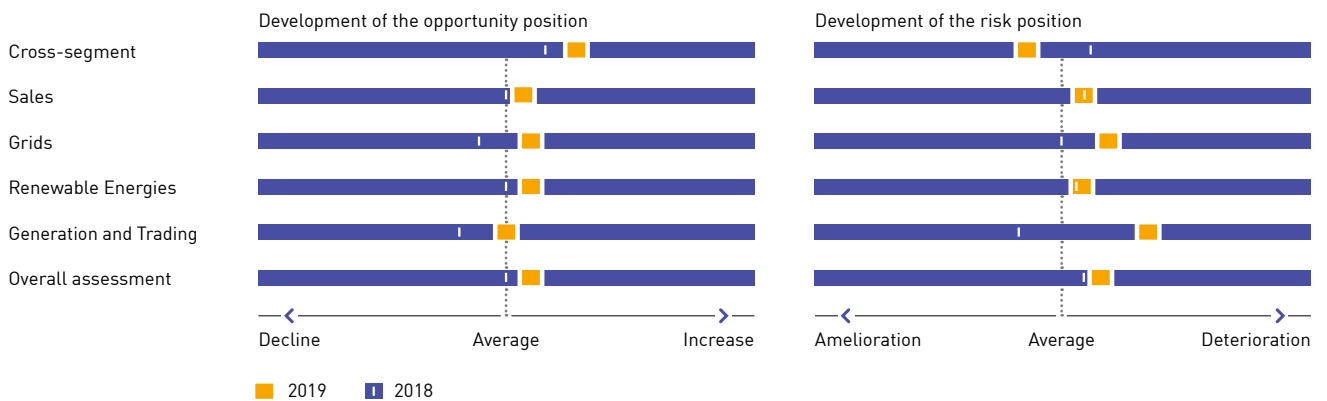
Overall assessment by the management

The risk situation for our company increased further in 2019. However, we also identify increased potential for opportunities at the same time. EnBW still faces numerous factors that pose a danger to planning certainty and thus the achievement of its economic targets, and that have high risk potential, such as regulatory requirements and legislation dealing with sustainable energy generation. This has far-reaching consequences for the operating business of the EnBW Group and places a burden on its earnings potential. The expansion of renewable energies is thus subject to factors that are just as difficult to plan for, as the latest developments in the area of energy generation from coal power plants demonstrate. The persisting competitive and market risks could influence the operating result, financial position and net assets.

At the same time, the Energiewende offers a multitude of opportunities to develop new models for future business segments. We will resolutely pursue these with our revised post-2020 strategy – which is based on the EnBW 2020 strategy that has been successfully implemented up to now. For example, we believe that there are opportunities in a diverse range of customer-oriented measures such as innovative energy solutions, as well as in the areas of electromobility and telecommunications. The commercial development of environmentally friendly and CO₂-efficient energy solutions will be resolutely pushed forward. The implementation of our post-2020 strategy aims to secure the future viability of the company and tap into this potential for growth.

No risks currently exist that might jeopardise the EnBW Group as a going concern.

Opportunity and risk position 2019



Remuneration report

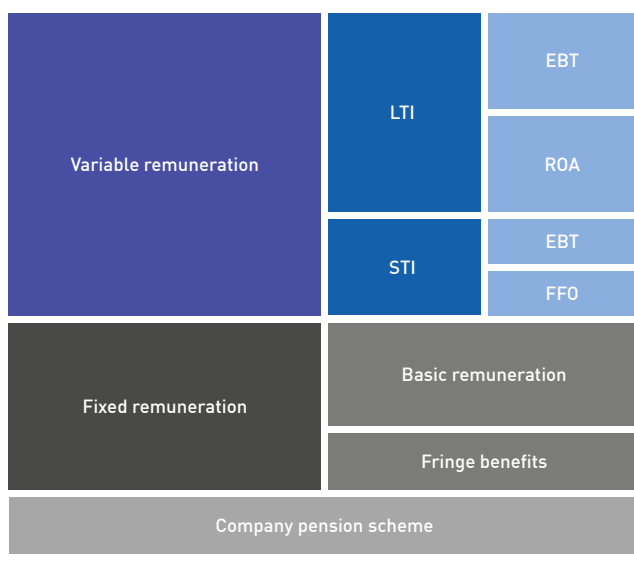
The remuneration report summarises the principles relevant for determining the remuneration of the members of the Board of Management and explains the structure and level of both Board of Management and Supervisory Board remuneration. The remuneration report takes the recommendations of the German Corporate Governance Code (DCGK) in the version from 7 February 2017 and the German Accounting Standard (GAS) 17 (amended in 2010) into consideration in this respect. It also contains disclosures required by German commercial law to be included in the notes pursuant to section 314 HGB and the management report pursuant to section 315 HGB.

Board of Management remuneration

Based on proposals of the personnel committee, the Supervisory Board passes resolutions on the remuneration of the Board of Management, including the main contract elements, and reviews it on a regular basis. The criteria for determining appropriate remuneration include the responsibilities and performance of the members of the Board of Management, the economic situation, the success and sustainable development of the company and the relationship between the remuneration of the Board of Management and the remuneration of senior management and the workforce as a whole, as well as its development over time.

The Board of Management remuneration system in the following form has been valid since 1 January 2018. The definitions of the performance indicators were changed on 5 December 2018 with effect from 1 January 2019 (see explanation for the performance indicator EBT). The following diagram shows the structure of the total remuneration:

Components of target remuneration



The remuneration in the reporting year comprises basic remuneration, one-year and multi-year variable remuneration, as well as contributions as part of the company pension scheme. The ratio of single-year to multi-year variable remuneration is approx. 40% to 60%, depending on the individual target income for the member of the Board of Management, so that multi-year variable remuneration significantly outweighs single-year variable remuneration. In general, the variable remuneration components have a multi-year measurement basis in accordance with section 4.2.3 sentence 4 DCGK (in the version from 7 February 2017). The single-year variable remuneration component is described below as the Short Term Incentive (STI) while the multi-year variable remuneration component is described as the Long Term Incentive (LTI).

Fixed remuneration

The fixed remuneration comprises basic remuneration and fringe benefits.

Variable remuneration

Short-term variable remuneration (Short Term Incentive – STI)

The STI is paid for a period of one financial year in each case and paid out in the following financial year. The measurement period for the STI is the financial year for which it is paid.

The performance indicators for calculating the extent to which the target for the STI has been achieved are the following non-adjusted corporate performance indicators for the EnBW Group determined for one financial year:

- › EBT (earnings before taxes), adjusted for earnings from the measurement of financial assets allocated to the financial result and outstanding items for derivatives allocated under trading as well as (since the resolution passed by the Supervisory Board of EnBW Energie Baden-Württemberg AG on 5 December 2018 with effect from 1 January 2019) for effects due to the adjustment of the nuclear provisions and to the change in the inflation rate for costs for the operation, dismantling and disposal of the nuclear power plants and in the discount rate
- › FFO (funds from operations), adjusted for the items of income tax paid and income tax received

The Supervisory Board will define the target values for the performance indicators EBT and FFO each year before the start of the single-year measurement period.

The target value for the performance indicator EBT is generally defined on the basis of the figure actually achieved in the previous year, whereby the Supervisory Board can, at its own discretion, make the achievement of the target easier or more difficult by adjusting the figure from the previous year, taking into account extraordinary events in the previous year and general considerations on the development of earnings (target-actual comparison).

The target value for the performance indicator FFO corresponds to the value defined for the performance indicator in the single-year budget plan approved in the year before the start of the measurement period (plan-actual comparison).

The target remuneration for the STI consists of two equally weighted partial remuneration amounts (50 : 50). Each partial remuneration amount will be achieved if the target value for the respective performance indicator is achieved to 100%.

The extent to which the individual targets for each of the performance indicators are achieved is based, in the case of the underachievement or overachievement of the target value, on the ratio of the defined target value and the actual value for the performance indicator in the measurement period as defined in the consolidated financial statements for the year of payment.

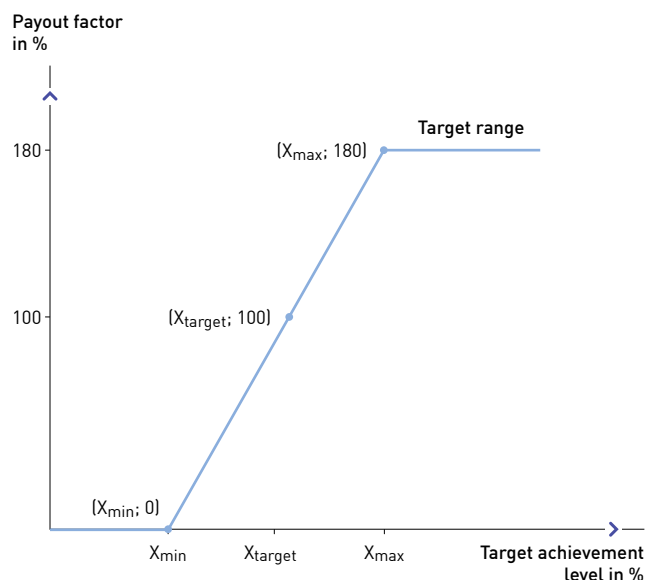
In the event of the overachievement of the target, the maximum possible remuneration that can be paid is limited to 180% of the partial target remuneration defined for each performance indicator (partial remuneration cap). The sum of both partial remuneration caps gives the total STI remuneration cap, which is 180% of the total amount for the STI target remuneration. In the event of the underachievement of the target, STI remuneration has no lower limit and can fall to an amount of €0.

When defining the target values for the short-term remuneration components, the Supervisory Board can also separately define a minimum and maximum value – at its own discretion – and thus the target range for each of the performance indicators on an annual basis.

The target range corresponds to a piecewise linear function, as shown in the adjacent diagram, which is determined by the value of the lowest achievement level X_{min} in relation to the lowest payout factor and the value of the highest achievement level X_{max} in relation to the highest payout factor. The relationship between the target value and the minimum and maximum values can be used to determine the lowest and highest achievement levels (X_{min} and X_{max}), respectively, while the relationship between the target remuneration and the minimum and maximum remuneration can be used to determine the lowest and highest payout factors, respectively. The partial amount of the short-term variable remuneration for each performance indicator based on the achievement level is calculated by multiplying the actual payout factor by the target remuneration defined for the respective performance indicator.

The actual payout factor is derived using the actual value achieved for the performance indicator and the piecewise linear function for the target range.

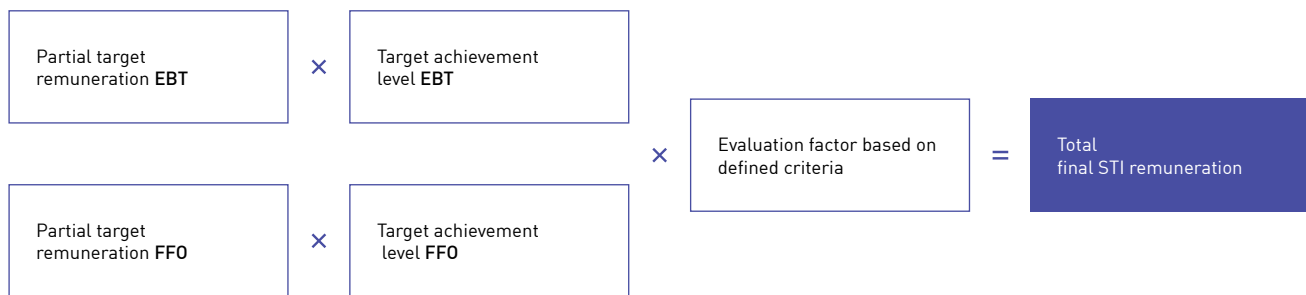
Target range



If the definitions for the performance indicators or accounting policies change, especially as a result of amendments to accounting standards, the target values and ranges will be adjusted correspondingly during the ongoing measurement period, insofar as these changes cause the relevant achievement level to differ by more than +/- 5 percentage points in comparison to the value that would have been achieved without these changes. The sum of the partial remuneration amounts for each performance indicator gives the total preliminary STI remuneration.

The amount of the total preliminary STI remuneration, which is calculated exclusively on the basis of financial performance indicators, is then evaluated qualitatively using additional criteria. The adjustment is carried out by multiplying the total preliminary remuneration by a certain factor, whose lowest value is 0.7 and highest value is 1.3. Only one decimal place is used for this factor. If not defined otherwise by the Supervisory Board, the default factor is 1.0. The level of this factor is primarily determined by the Supervisory Board on the basis of an evaluation of criteria that are defined in advance on an annual basis. The sustainable growth of the company is an aspect that is particularly taken into account.

Calculation of the Short Term Incentive (STI)



In the event of extraordinary performance by the whole Board of Management or one member of the Board of Management, the Supervisory Board can at its own discretion grant special remuneration as part of the short-term variable remuneration.

As part of a final evaluation of the short-term variable remuneration, the Supervisory Board also has the discretionary power to appropriately adjust the amount of the STI to take into account extraordinary and unforeseeable events that cannot be controlled by the Board of Management that have had a considerable impact on the financial performance indicators on which the remuneration system is based. This discretionary power does not apply to the success targets or comparative values, the subsequent adjustment of which should be excluded according to the recommendations in section 4.2.3 (2) DCGK in the version from 7 February 2017.

If remuneration is granted in accordance with the two previous paragraphs, the total STI remuneration cap of 180% of the target STI remuneration still applies.

Long-term variable remuneration (Long Term Incentive – LTI)

The LTI is paid for a period of one financial year and paid out in the financial year following the conclusion of the measurement period. The measurement period for calculating the LTI covers a period of three financial years which includes the year for which the remuneration is being paid and the two subsequent financial years (performance period).

The performance indicators for calculating the extent to which the target for the LTI has been achieved are the following non-adjusted corporate performance indicators for the EnBW Group determined for one financial year in each case:

- › EBT (earnings before taxes), adjusted for earnings from the measurement of financial assets allocated to the financial result and outstanding items for derivatives allocated under trading as well as (since the resolution passed by the Supervisory Board of EnBW Energie Baden-Württemberg AG on 5 December 2018 with effect from 1 January 2019) for effects due to the adjustment of the nuclear provisions and to the change in the inflation rate for costs for the operation, dismantling and disposal of the nuclear power plants and in the discount rate
- › ROA (return on assets = return on the capital expenditure for intangible assets and property, plant and equipment based on the relationship between the non-adjusted EBIT [adjusted in line with the regulations for deviations in the performance indicator EBT] and the sum of the intangible assets and property, plant and equipment [adjusted for subsidies related to capital expenditure])

The target values for the performance indicators EBT and ROA for a performance period are defined by the Supervisory Board at its own discretion on an annual basis based on the corporate strategy and with effect for the next performance period that begins in the following year.

The target remuneration for the LTI consists of two equally weighted partial remuneration amounts (50 : 50). Each partial remuneration amount will be achieved if the target value for the respective performance indicator is achieved to 100%.

The extent to which the individual targets for each of the performance indicators are achieved is based, in the case of the underachievement or overachievement of the target value, on the ratio of the defined target value and the arithmetic mean of the actual values for the performance indicator as defined in the consolidated financial statements for each individual year of the performance period.

In the event of the overachievement of the target, the maximum possible remuneration that can be paid is limited to 180% of the partial target remuneration defined for each performance indicator (partial remuneration cap). The sum of both partial remuneration caps gives the total LTI remuneration cap, which is 180% of the total amount for the LTI target remuneration. In the event of the underachievement of the target, LTI remuneration has no lower limit and can fall to an amount of €0.

When defining the target values for the long-term remuneration components, the Supervisory Board can also separately define a minimum and maximum value – at its own discretion – and thus the target range for each of the performance indicators on an annual basis (see here the information provided for the STI).

The partial amount of the long-term variable remuneration for each performance indicator based on the achievement level is calculated by multiplying the actual payout factor by the target remuneration defined for the respective performance indicator. The actual payout factor is derived using the actual value achieved for the performance indicator and the piecewise linear function for the target range. The sum of the partial remuneration amounts for each performance indicator gives the total LTI remuneration.

If the definitions for the performance indicators or accounting policies change, especially as a result of amendments to accounting standards, the target values and ranges will be adjusted correspondingly during the ongoing measurement period, insofar as these changes cause the relevant achievement level to differ by more than +/-5 percentage points in comparison to the value that would have been achieved without these changes.

The regulations for the Board of Management remuneration system that were valid up to 31 December 2017 apply for the long-term variable remuneration in the measurement periods 2015 to 2017, 2016 to 2018 and 2017 to 2019, whereby the Supervisory Board of EnBW Energie Baden-Württemberg AG passed a resolution on 12 July 2018 that a remuneration cap for the total LTI of 110% of the total target remuneration will be introduced for the measurement periods 2016 to 2018 and 2017 to 2019. The LTI value appreciation bonus according to the old remuneration system consisted of a basic LTI, a competition component and a sustainability component. The total value appreciation bonus is the sum of the variable remuneration payments that are calculated from these three components. Target values, lower limits and upper limits are defined in advance by the Supervisory Board. The basic LTI is determined by the accumulated contribution to value added derived from the three-year medium-term planning. It is calculated from the difference between the performance indicators ROCE and WACC (weighted average cost of capital) multiplied by the average capital employed. The competition component measures the relative performance of the EnBW Group in the respective three-year performance period against a peer group of competitors on the basis of the value spread (= ROCE – WACC). The goal of the sustainable growth of the company in its strictest sense is also taken into account through the LTI sustainability component. In this component, the impact of the sustainable growth of the company on the areas of customers, employees and environment/society is taken into account. The extent to which the targets for all three components have been achieved is determined after the conclusion of the three-year planning period that acts as the basis for the calculations in each case. The Supervisory Board is entitled to adjust the targets if events arise that are not relevant to the ongoing management of the company and thus outside of the sphere of influence of the Board of Management. The size of the value appreciation bonus for 100% achievement of the targets, as well as the maximum and minimum values for the overachievement or underachievement of the agreed targets, can also be found in the table “Target income of members of the Board of Management”. The amount based on the achievement of the relevant targets is paid out after the conclusion of the three-year measurement period. With a view to maintaining the previous level of target income, interest of 3% per annum is accrued on the calculated bonus payment for two years and is paid after the conclusion of the three-year calculation period.

Remuneration of members of the Board of Management in the 2019 financial year

in €	Dr. Frank Mastiaux, Chairman		Dr. Bernhard Beck, LL.M. (until 30 June 2019)	
	2019	2018	2019	2018
Fixed remuneration				
Basic remuneration	1,040,000	990,000	257,500	515,000
Other remuneration ¹	3,162	17,086	5,743	18,715
Variable remuneration				
Without long-term incentive	1,108,235	802,705	329,869	413,075
With long-term incentive ²	1,198,817	1,198,817	732,021	732,021
Total	3,350,214	3,008,608	1,325,133	1,678,811

1 Other remuneration includes monetary benefits, particularly from the provision of company cars amounting to €75,994 (previous year: €98,344).

2 Current preliminary value appreciation bonus for the performance periods 2018 to 2020 (and 2019 to 2021) is €1,012,095 for Dr. Frank Mastiaux (€812,174), €527,925 for Dr. Bernhard Beck (€226,823), €527,925 for Thomas Kusterer (€471,939), €0 for Colette Rückert-Hennen (€302,431) and €527,925 for Dr. Hans-Josef Zimmer (€453,647). The exact level of the value appreciation bonus for the performance periods 2018 to 2020 (and 2019 to 2021) can only be determined following the end of the 2020 financial year (and 2021 financial year), and can fluctuate within the LTI spread pursuant to the following table Target income of members of the Board of Management.

Target income of members of the Board of Management¹

in €	Dr. Frank Mastiaux Chief Executive Officer				Dr. Bernhard Beck, LL.M. (until 30 June 2019) Chief Personnel Officer			
	2019	2019 (min.)	2019 (max.)	2018	2019	2019 (min.)	2019 (max.)	2018
Fixed remuneration	1,040,000	1,040,000	1,040,000	990,000	257,500	257,500	257,500	515,000
Fringe benefits	3,162	3,162	3,162	17,086	5,743	5,743	5,743	18,715
Total	1,043,162	1,043,162	1,043,162	1,007,086	263,243	263,243	263,243	533,715
One-year variable remuneration performance bonus	750,000	0	1,350,000	710,000	205,000	0	369,000	370,000
Multi-year variable remuneration LTI 2017 to 2019	1,026,000	0	1,130,000	1,026,000	630,000	0	690,000	630,000
Total	2,819,162	1,043,162	3,523,162	2,743,086	1,098,243	263,243	1,322,243	1,533,715
Pension expenses	526,560	526,560	526,560	546,663	46,950	46,950	46,950	112,847
Total remuneration	3,345,722	1,569,722	4,049,722	3,289,749	1,145,193	310,193	1,369,193	1,646,562

1 This table illustrates the remuneration in both the reporting year and previous year which arises given 100% achievement of the targets (target income) and the potential minimum and maximum remuneration for the financial year. Remuneration is described for Board of Management members who were appointed at least on a part-time basis in either the reporting year or previous year to the Board of Management at EnBW AG.

Payments to Board of Management members¹

in €	Dr. Frank Mastiaux Chief Executive Officer		Dr. Bernhard Beck, LL.M. (until 30 June 2019) Chief Personnel Officer	
	2019	2018	2019	2018
Fixed remuneration	1,040,000	990,000	257,500	515,000
Fringe benefits	3,162	17,086	5,743	18,715
Total	1,043,162	1,007,086	263,243	533,715
One-year variable remuneration performance bonus	815,340	838,069	463,980	464,059
LTI 2015 to 2017		1,222,921		718,222
LTI 2016 to 2018	1,198,817		732,021	
Total	3,057,319	3,068,076	1,459,244	1,715,996
Pension expenses	526,560	546,663	46,950	112,847
Total remuneration	3,583,879	3,614,739	1,506,194	1,828,843

1 This table illustrates payments in both the reporting year and previous year pursuant to the German Income Tax Act (Einkommensteuergesetz). Earnings are described for members of the Board of Management who were appointed at least on a part-time basis in either the reporting year or previous year to the Board of Management of EnBW AG.

	Thomas Kusterer		Colette Rückert-Hennen (since 1 March 2019)		Dr. Hans-Josef Zimmer	
	2019	2018	2019	2018	2019	2018
	600,000	515,000	380,000	0	570,000	515,000
	22,508	23,594	17,333	0	39,982	39,956
	629,438	419,686	371,952	0	603,431	418,477
	625,931	625,931	0	0	625,931	625,931
	1,877,877	1,584,211	769,285	0	1,839,344	1,599,364

	Thomas Kusterer Chief Financial Officer				Colette Rückert-Hennen (since 1 March 2019) Chief Human Resources Officer				Dr. Hans-Josef Zimmer Chief Technical Officer			
	2019	2019 (min.)	2019 (max.)	2018	2019	2019 (min.)	2019 (max.)	2018	2019	2019 (min.)	2019 (max.)	2018
	600,000	600,000	600,000	515,000	380,000	380,000	380,000	0	570,000	570,000	570,000	515,000
	22,508	22,508	22,508	23,594	17,333	17,333	17,333	0	39,982	39,982	39,982	39,956
	622,508	622,508	622,508	538,594	397,333	397,333	397,333	0	609,982	609,982	609,982	554,956
	430,000	0	774,000	370,000	273,333	0	492,000	0	410,000	0	738,000	370,000
	535,000	0	590,000	535,000	0	0	0	0	535,000	0	590,000	535,000
	1,587,508	622,508	1,986,508	1,443,594	670,666	397,333	889,333	0	1,554,982	609,982	1,937,982	1,459,956
	369,898	369,898	369,898	380,180	0	0	0	0	242,401	242,401	242,401	235,725
	1,957,406	992,406	2,356,406	1,823,774	670,666	397,333	889,333	0	1,797,383	852,383	2,180,383	1,695,681

	Thomas Kusterer Chief Financial Officer		Colette Rückert-Hennen (since 1 March 2019) Chief Human Resources Officer		Dr. Hans-Josef Zimmer Chief Technical Officer	
	2019	2018	2019	2018	2019	2018
	600,000	515,000	380,000	0	570,000	515,000
	22,508	23,594	17,333	0	39,982	39,956
	622,508	538,594	397,333	0	609,982	554,956
	388,980	445,103	0	0	507,056	443,895
		620,561		0		620,560
	625,931		0	0	625,931	
	1,637,419	1,604,258	397,333	0	1,742,969	1,619,411
	369,898	380,180	0	0	242,401	235,725
	2,007,317	1,984,438	397,333	0	1,985,370	1,855,136

Compensation agreed with the Board of Management in the event of termination of service

The Supervisory Board of EnBW AG passed a new resolution on 18 March 2016 for the reorganisation of the company pension scheme for the Board of Management, effective as of 1 January 2016.

The regulations that were valid up until then can be found in the following publications:

- › The company pension scheme that was valid for members of the Board of Management up until 31 December 2015 is presented in detail in the remuneration report for 2015, which was published in the combined management report of the EnBW Group and EnBW AG for the 2015 financial year.
- › The regulations governing the transition of the company pension scheme that was valid for members of the Board of Management up until 31 December 2015 are presented in detail in the remuneration report for 2016, which was published in the combined management report of the EnBW Group and EnBW AG for the 2016 financial year.

The company pension scheme for the members of the Board of Management at the company is a modern and market-oriented pension system that provides members of the Board of Management with flexibility with respect to how the pension benefits are paid out. Following the introduction of the new system, there has been a shift from the previous defined benefit pension plan to a defined contribution pension model. In the new system, annual pension contributions will be paid that accrue interest at a rate oriented to the capital market. In order to ensure that the business risks associated with the pension scheme – especially the interest rate risks and biometric risks – remain calculable in the future, the interest model only contains a relatively low fixed interest entitlement that forms the basic interest rate plus a non-guaranteed surplus that is based on the actual development of interest rates in the life insurance industry.

During the term of the contract, EnBW pays fixed annual contributions to the pension scheme to an individual pension account. Pension contributions are paid for a maximum period of three terms of office (or 13 years in office). The fixed annual contributions are €230,000 for ordinary members of the Board of Management and €390,000 for the Chairman of the Board of Management. In the event of invalidity and as a supplementary risk benefit, age-dependent “notional” contributions will be paid on top of the balance already existing on the pension account until the member reaches the age of 60 – although at the most seven contributions will be paid.

As well as the annual contributions, interest is paid that is oriented to the market and consists of a guaranteed basic interest rate and a non-guaranteed surplus. The guaranteed interest is paid on every contribution in advance until the defined retirement age (63 years old). In addition, annual surplus payments can be paid above and beyond the guaranteed interest. These are based on the current average interest rate for capital investments actually achieved in the past year in the life insurance industry and are not guaranteed.

When the pension is due (age, invalidity, death), payment of the pension assets is generally made in five to ten instalments. Alternatively, a life-long pension payment can be made on the request of the member of the Board of Management – including a 60% entitlement for surviving dependants – or a mixed form of payment. Payment options are also available to the surviving dependants. If the member leaves the Board of Management before the pension is due, the pension account will remain at its current balance plus any surplus payments that are still due to be made.

The members of the Board of Management are entitled to make their own contributions to the pension scheme and supplement the pension provision financed by the employer. For this purpose, a proportion of the annual STI bonus up to a maximum sum of €50,000 p.a. can be converted into a pension entitlement. The regulations described above apply correspondingly to self-financed contributions.

Vested pension entitlements from the old pension scheme: As part of the transfer of the existing pension entitlements from the old pension scheme, the following vested pension entitlements – in accordance with the individual term of service in each case – were determined for the serving members of the Board of Management as of 31 December 2015: Dr. Frank Mastiaux: €80,676 p.a., Dr. Bernhard Beck (until 30/06/2019): €195,846 p.a., Thomas Kusterer: €89,523 p.a., Dr. Hans-Josef Zimmer: €174,636 p.a.

Individual pension contributions that deviate from the regulations for the new pension scheme: From 1 January 2016, the annual pension contributions and the interest on the contributions will generally be paid in accordance with the rules of the new system for new members of the Board of Management appointed in the future. However, a deviation was necessary for the then serving members of the Board of Management to take account of the transition to the new system, and individual pension contributions and an individual contribution period have been defined. The following individual pension contributions were determined: Dr. Frank Mastiaux: €360,000 p.a., Dr. Bernhard Beck (until 30/06/2019): €170,000 p.a., Thomas Kusterer: €215,000 p.a., Dr. Hans-Josef Zimmer: €120,000 p.a.

Regulation for limiting severance payments: No severance benefit obligations exist in the event of premature termination of service on the Board of Management. However, severance benefits may be payable on the basis of a severance agreement made with the individual. For agreements in place as of the reporting date, it was agreed that payments made to a member of the Board of Management on premature termination of his or her contract without serious cause, including fringe benefits, shall not exceed the value of two years' remuneration (severance cap) and compensate for no more than the remaining term of the contract. In concluding or extending contracts for the Board of Management, care is taken to ensure that no payments will be made to a member of the Board of Management in the event of the premature termination of the contract due to an important reason for which the member of the Board of Management is responsible.

In the event of the premature termination of service on the Board of Management due to a change of control, the possibility

of a severance payment for the member of the Board of Management is limited to the pro rata share of annual remuneration(s) for the residual term of the contract. However, the severance payment must not exceed three times the annual remuneration.

In concluding or extending contracts for the Board of Management, it is agreed that settlement or severance payments should not exceed three times the annual remuneration and must not compensate for more than the residual term of the contract in the event of the premature termination of service on the Board of Management due to a change of control.

Temporary unavailability for work: In the event of temporary unavailability for work on the part of a member of the Board of

Management due to illness or any other reason for which the member of the Board of Management is not responsible, remuneration will be paid for the first six months. The amount of variable remuneration will be calculated from the average of the last three years, and basic remuneration will be paid for a further six months. However, payments in the event of unavailability for work will be made no longer than until the end of the term of the service agreement.

The disclosures for the 2019 financial year concerning post-employment benefits are presented below. This presentation satisfies the requirements of section 285 No. 9a HGB. The disclosures include the vested entitlement as of the reporting date, the annual expenses for pension obligations and the present value of the pension obligations earned as of the reporting date.

Post-employment benefits

in €	Dr. Frank Mastiaux, Chairman		Dr. Bernhard Beck, LL.M. (until 30 June 2019)		Thomas Kusterer		Colette Rückert-Hennen (since 1 March 2019)		Dr. Hans-Josef Zimmer	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Vested benefit from previous entitlement p.a.	80,676	80,676	195,846	195,846	89,523 ²	89,523 ²	0	0	174,636	174,636
Capital from contribution model	1,767,878	1,296,167	379,626	373,116	1,096,121	777,533	198,025	0	513,058	384,086
Annual expenses for pension obligations ¹	526,560	546,663	46,950	112,847	369,898	380,180	0	0	242,401	235,725
Present value of pension obligations (defined benefit obligations)	4,391,428	3,396,435	5,646,078	5,216,617	4,096,394	3,151,738	244,894	0	5,599,845	4,845,098

¹ Including an addition to capital for pension benefits totalling €101,649 (previous year: €128,128). This is a pension commitment financed through voluntarily waiving part of the salary.

² In addition to the vested pension, Thomas Kusterer also has a special capital component of €135,000.

Annual expenses for pension obligations include both service and interest costs. There are defined benefit obligations in accordance with IFRS of €20.0 million for the current members of the Board of Management (previous year: €16.6 million).

Former members of the Board of Management and their surviving dependants received total remuneration of €5.2 million in the 2019 financial year (previous year: €4.8 million). These pension payments are indexed to the percentage change in remuneration according to the collective bargaining agreement.

There are defined benefit obligations to former members of the Board of Management and their surviving dependants in accordance with IFRS of €114.8 million (previous year: €99.0 million).

As in the previous year, no loans or advances to members of the Board of Management existed at the end of the financial year.

Supervisory Board remuneration

In response to a proposal of the Board of Management and Supervisory Board, the Annual General Meeting on 25 April 2013 revised the regulations for Supervisory Board remuneration. Accordingly, members of the Supervisory Board each receive fixed remuneration of €40,000 for the entire 2019 financial year, payable at the end of the financial year in addition to reimbursement of their expenses.

The Chairman of the Supervisory Board receives twice the above, while the Deputy Chairman of the Supervisory Board receives one and a half times the aforementioned amount.

Members of the Supervisory Board receive fixed remuneration of €7,500 each per financial year to offset the additional work involved in any activities in one or more Supervisory Board committees. The Chairperson of one or more committees receives twice the amount of the remuneration for the committee work, unless the respective committee has not met in the financial year concerned. Supervisory Board members who have only belonged to the Supervisory Board or a committee or acted as a Chairperson for part of the financial year are paid remuneration proportionate to the duration of their office or their position in that financial year.

In addition, members of the Supervisory Board receive an attendance fee of €750 for Supervisory Board meetings and committee meetings. Attendance at preliminary meetings is remunerated with €250 per meeting, but only for one preliminary meeting per Supervisory Board meeting.

According to this remuneration system, the members of the Supervisory Board will receive the total remuneration (including attendance fees and remuneration for offices held at subsidiaries) shown in the table for the 2019 financial year.

The disclosures for the remuneration for members of the Supervisory Board include attendance fees amounting to €237,000

(previous year: €201,500) and the remuneration for offices held at subsidiaries include attendance fees totalling €19,575 (previous year: €14,390). No other remuneration or benefits for services rendered personally, in particular consulting or mediation services, were paid to members of the Supervisory Board, nor did they receive any loans or advances in the reporting year.

The members of the Board of Management and the Supervisory Board are covered by adequate D&O insurance concluded in the interest of EnBW. For this D&O insurance, the deductible for members of the Board of Management and the Supervisory Board is 10% of the claim in each case, but no more than one and a half times the fixed annual remuneration.

Total remuneration for members of the Supervisory Board of EnBW AG

in €	Fixed remuneration (incl. attendance fees)		Remuneration for offices held at subsidiaries		Total	
	2019	2018	2019	2018	2019	2018
Lutz Feldmann, Chairman	107,750	110,750	0	0	107,750	110,750
Dietrich Herd, Deputy Chairman	85,250	84,750	9,500	9,500	94,750	94,250
Achim Binder (since 1 January 2019)	64,500	0	10,069	0	74,569	0
Dr. Dietrich Birk	58,750	57,250	0	0	58,750	57,250
Stefanie Bürkle ¹	55,750	52,000	0	0	55,750	52,000
Stefan Paul Hamm ²	64,500	64,000	7,513	7,513	72,013	71,513
Volker Hüsgen (since 1 October 2018)	56,750	13,723	13,805	2,579	70,555	16,302
Michaela Krütter ²	57,750	46,000	7,513	950	65,263	46,950
Silke Krebs (until 31 December 2018)	0	56,500	0	0	0	56,500
Marianne Kugler-Wendt ²	57,750	56,500	6,400	6,100	64,150	62,600
Thomas Landsbek	58,500	46,000	0	0	58,500	46,000
Dr. Hubert Lienhard	64,503	54,250	0	0	64,503	54,250
Marika Lulay (since 14 February 2019)	49,274	0	0	0	49,274	0
Sebastian Maier (until 31 December 2018)	0	56,500	0	6,615	0	63,115
Arnold Messner (until 31 December 2018)	0	63,750	0	8,113	0	71,863
Dr. Wolf-Rüdiger Michel ¹	57,250	54,250	0	0	57,250	54,250
Gunda Röstel	65,500	64,000	11,313	11,513	76,813	75,513
Jürgen Schäfer (since 1 January 2019)	56,750	0	0	0	56,750	0
Klaus Schörnich (until 30 September 2018)	0	42,777	0	200	0	42,977
Heinz Seiffert ¹ (until 31 December 2018)	0	55,750	0	0	0	55,750
Harald Sievers (since 1 January 2019)	55,000	0	0	0	55,000	0
Edith Sitzmann ³	61,750	54,250	0	0	61,750	54,250
Ulrike Weindel	60,750	56,500	0	0	60,750	56,500
Lothar Wölfle ¹	63,250	63,250	0	0	63,250	63,250
Dr. Bernd-Michael Zinow	68,250	66,250	12,000	12,800	80,250	79,050
Total	1,269,527	1,219,000	78,113	65,883	1,347,640	1,284,883

1 The regulations in the State Civil Service Act (Landesbeamtengesetz) and the Ancillary Activities Ordinance (Landesnebenberufungsverordnung – LNTVO) of the Federal State of Baden-Württemberg for relinquishing remuneration from secondary employment to the administrative district apply. The regulations in LBeamtVG apply instead for Mr Seiffert.

2 In accordance with the regulations of the German Federation of Trade Unions (DGB) on the transfer of supervisory board remuneration, the remuneration is transferred to the Hans Böckler Foundation and ver.di GewerkschaftsPolitische Bildung gGmbH.

3 The members of the state government and the state secretaries are obligated to relinquish any remuneration, including attendance fees, received for membership of supervisory boards, executive boards, advisory boards and all other comparable boards to which they have been appointed in connection with their office or to which they are assigned as a member of the state government, applying section 5 LNTVO analogously, provided that the remuneration received in the calendar year exceeds the gross total for level "B6 and higher" (currently €6,100) (council of ministers resolution dated 05/07/2016).

Disclosures pursuant to sections 289 a (1) and 315 a (1) German Commercial Code (HGB) and explanatory report of the Board of Management

In the following, the Board of Management provides the information prescribed by sections 289 a (1) and 315 a (1) HGB and explains this in accordance with section 176 (1) sentence 1 AktG.

Composition of the subscribed capital and shares in capital

The composition of the subscribed capital is described and explained in the notes to the annual and consolidated financial statements in the section “Equity”. Direct or indirect shares in capital which exceed 10% of the voting rights are described and explained in the notes to the annual financial statements in the sections “Shareholder structure” and “Disclosures pursuant to sections 33 ff. German Securities Trading Act (WpHG)” and the notes to the consolidated financial statements in section “Related parties (entities)”. Information and explanations about the company’s treasury shares are presented below and can be found in note 19 of the notes to the consolidated financial statements at www.enbw.com/report2019-downloads.

Restrictions relating to voting rights or transferability of shares

Agreements were reached on 22 December 2015 between, on the one hand, Zweckverband Oberschwäbische Elektrizitätswerke (Zweckverband OEW) and OEW Energie-Beteiligungs GmbH and, on the other, the Federal State of Baden-Württemberg, NECKARPRI GmbH and NECKARPRI-Beteiligungsgesellschaft mbH, which include clauses relating to restrictions of authorisation over EnBW shares held by these parties and a general mutual obligation of both main shareholders to maintain parity investment relationships in EnBW with respect to each other. Restrictions relating to voting rights no longer exist to the knowledge of the Board of Management since the aforementioned direct and indirect EnBW shareholders annulled a shareholder agreement on 22 December 2015 that had previously existed between them.

Legal provisions and statutes on the appointment and dismissal of members of the Board of Management and amendments to the Articles of Association

Pursuant to section 84 AktG in conjunction with section 31 MitbestG, responsibility for the appointment and dismissal of members of the Board of Management rests with the Supervisory Board. This competence is stipulated in article 7 (1) sentence 2 of the Articles of Association of EnBW. If, under exceptional circumstances, a necessary member of the Board of Management is missing, section 85 AktG requires that a member of the Board of Management be appointed by the court in urgent cases. The Annual General Meeting has the right to make changes to the Articles of Association in accordance with section 119 (1) No. 6 AktG. The specific rules of procedure are contained in sections 179 and 181 AktG. For practical reasons, the

right to amend the Articles of Association was transferred to the Supervisory Board where such amendments affect the wording only. This option pursuant to section 179 (1) sentence 2 AktG is embodied in article 18 (2) of the Articles of Association. Pursuant to section 179 (2) AktG, resolutions by the Annual General Meeting to amend the Articles of Association require a majority of at least three quarters of the capital stock represented when passing the resolution, unless the Articles of Association stipulate a different majority, which, however, for any amendment to the purpose of the company can only be higher. Pursuant to article 18 (1) of the Articles of Association, resolutions by the Annual General Meeting require a simple majority of the votes cast, unless legal regulations or the Articles of Association stipulate otherwise. If the law requires a larger majority of the votes cast or of the capital stock represented when passing the resolution, the simple majority suffices in those cases where the law leaves the determination of the required majority to the Articles of Association.

Authority of the Board of Management regarding the possibility to issue or redeem shares

No authorised or conditional capital nor any authorisation of the Annual General Meeting pursuant to section 71 (1) No. 8 AktG for the purchase of treasury shares by the company currently exists at EnBW. Therefore, the company may only acquire treasury shares on the basis of other reasons justifying such purchases in accordance with section 71 (1) AktG. As of 31 December 2019, the company holds 5,749,677 treasury shares which were purchased on the basis of earlier authorisations in accordance with section 71 (1) No. 8 AktG. The company’s treasury shares can be sold on the stock exchange or by public offer to all company shareholders. The use of treasury shares, in particular their sale, in any other way can only occur within the scope of the resolution issued by the Annual General Meeting on 29 April 2004. The treasury shares held by EnBW do not grant the company any rights in accordance with section 71b AktG.

Material agreements of the company subject to the condition of a change of control as a result of a takeover bid and the resulting effects

The following EnBW agreements are subject to the condition of a change of control following a takeover bid as defined by sections 289a (1) No. 8 and 315a (1) No. 8 HGB:

A syndicated credit line of €1.5 billion, which had not been drawn as of 31 December 2019, can be terminated by the lenders and become due for repayment given a change of control at EnBW. This does not apply if the purchaser of the shares is the Federal State of Baden-Württemberg or Zweckverband OEW or another German state-owned public law legal entity.

A promissory note loan of €200 million taken out by Stadtwerke Dusseldorf AG (SWD AG) relating to the financing of their CCGT power plant, two bilateral bank loans together totalling around €44 million and a syndicated loan, of which €182 million was drawn as of 31 December 2019, can each become due for repayment given a change of control at SWD AG, including an indirect change of control. This does not apply if, after the change of control, the majority of shares in SWD AG are held directly or indirectly by German government entities and the City of Dusseldorf holds at least 25.05% of the shares in SWD AG.

A syndicated credit line with a volume of €700 million agreed with VNG AG, of which around €390 million was drawn as of 31 December 2019, can become due for repayment given a change of control at VNG, including an indirect change of control. This does not apply if, after the change of control, the majority of shares in VNG continue to be held directly by German public sector shareholders or indirectly by these shareholders via controlled legal entities.

A bond of JPY 20 billion issued on 12 December 2008 under the Debt Issuance Programme (Glossary, from p. 257) can be terminated by the lenders and become due for repayment given a change of control at EnBW. This does not apply if the purchaser

of the shares is EDF (whose legal successor as shareholder has been the Federal State of Baden-Württemberg since February 2011) or Zweckverband OEW or another German state-owned public law corporation. Two bilateral long-term bank loans, drawn to the value of €350 million and around €318 million as of 31 December 2019, can be terminated by the lender and become due for repayment given a change of control at EnBW, provided the change of control has a negative effect on repayment of the loan in future. This does not apply if the purchaser of the shares is EDF (whose legal successor as shareholder has been the Federal State of Baden-Württemberg since February 2011) or Zweckverband OEW.

Compensation agreements

Compensation agreements pursuant to sections 289a (1) No. 9 and 315a (1) No. 9 HGB concluded with members of the Board of Management to cover any case of a change of control are described and explained in the remuneration report, which is part of the management report.

Nos. 4 and 5 of sections 289a (1) and 315a (1) HGB were not relevant for EnBW in the 2019 financial year.

Index for the non-financial declaration of the EnBW Group and EnBW AG

In accordance with sections 315b and 289b HGB, the EnBW Group and EnBW AG have been obligated to issue a non-financial declaration since the 2017 financial year. We comply with the requirements by fully integrating the non-financial declaration into the Integrated Annual Report as part of the combined management report of the EnBW Group and EnBW AG. For all of

the aspects required by the act and also other aspects that are material from the perspective of EnBW, such as standing in society, customer satisfaction and supply quality, we fulfil the obligations by providing information about concepts and processes, measures, performance indicators and risks.

Index for the non-financial declaration of the EnBW Group and EnBW AG

Themes	Aspects	Section	Page reference
Compliance	> Fighting corruption and bribery	> Corporate governance > In dialogue with our stakeholders > Report on opportunities and risks	page 49 f. page 55 page 103
Social engagement	> Social issues	> In dialogue with our stakeholders > Report on opportunities and risks	page 53 ff. page 103
Procurement	> Respect for human rights	> In dialogue with our stakeholders > Procurement > Report on opportunities and risks	page 52 ff. page 59 ff. page 103
Reputation	> Standing in society	> In dialogue with our stakeholders > The EnBW Group > Forecast > Report on opportunities and risks	page 52 ff. page 81 page 98 page 103
Customer proximity	> Customer satisfaction	> In dialogue with our stakeholders > The EnBW Group > Forecast > Report on opportunities and risks	page 52 ff. page 81 f. page 98 f. page 103
Supply reliability	> Supply quality	> In dialogue with our stakeholders > The EnBW Group > Forecast	page 51 page 83 page 99
Employee commitment	> Employee issues	> In dialogue with our stakeholders > The EnBW Group > Forecast > Report on opportunities and risks	page 52 ff. page 83 ff. page 99 page 103
Occupational safety	> Employee issues	> The EnBW Group > Forecast > Report on opportunities and risks	page 86 f. page 99 page 104
Expansion of renewable energies	> Environmental issues	> Business model > Strategy, goals and performance management system > In dialogue with our stakeholders > The EnBW Group > Forecast > Report on opportunities and risks	page 32 f. page 41 ff. page 51 ff. page 87 f. page 99 page 104
Climate protection	> Environmental issues	> Business model > Strategy, goals and performance management system > In dialogue with our stakeholders > General conditions > The EnBW Group > Forecast > Report on opportunities and risks	page 32 f. page 41 ff. page 51 ff. page 63 page 88 ff. page 99 page 104

The non-financial declaration is issued jointly for the EnBW Group and EnBW AG. Any differences between statements made for the Group and for EnBW AG are clearly identified in the text. Information on the business model can be found in the section “Business model” (p. 32 ff.). We have not identified any material individual risks in the 2019 financial year that have a very high probability of a serious negative impact in relation to the relevant non-financial issues.

The reporting of sustainability topics has been based for many years on the standards issued by the Global Reporting Initiative (GRI). Since the 2017 financial year, we have based our reporting on the GRI standards – “Core” option, including the Electric Utilities Sector Supplement (www.enbw.com/gri-index). Our sustainability reporting also complies with the requirements of the Communication on Progress for the UN Global Compact.

Information on the diversity concept can be found in the declaration of corporate management at www.enbw.com/corporate-governance.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft is commissioned to audit the consolidated financial statements and the combined management report including the contents of the non-financial declaration with reasonable assurance and then to issue an audit opinion following the conclusion of the audit. The full consolidated financial statements and the combined management report for the 2019 financial year are accessible to the public on the website at www.enbw.com/report2019-downloads.

Index for the Task Force on Climate-related Financial Disclosures (TCFD)

EnBW started to implement the recommendations from the TCFD in 2017 (Glossary, from p. 257). This work has continued in the 2019 financial year and is being continuously developed in

each of the four key elements. The index also includes other themes besides these where we are working on the further implementation of the TCFD recommendations.

Task Force on Climate-related Financial Disclosures (TCFD)

TCFD element	Themes	Section	Page reference
Governance	<ul style="list-style-type: none"> > Corporate management > Materiality analysis > Investment guidelines > Climate protection initiatives > Overall assessment by the management 	<ul style="list-style-type: none"> > Corporate governance > In dialogue with our stakeholders > The EnBW Group > In dialogue with our stakeholders, General conditions > Overall assessment of the economic situation of the Group 	<ul style="list-style-type: none"> page 48 page 51 f. page 76 pages 52 and 63 page 95
	<ul style="list-style-type: none"> > Board of Management remuneration 	<ul style="list-style-type: none"> > Remuneration report 	<ul style="list-style-type: none"> page 110 ff.
Strategy	<ul style="list-style-type: none"> > Robustness of business model/scenario analysis > Strategy, strategic development > Interdependencies > Materiality analysis > Green bonds > General conditions, climate protection 	<ul style="list-style-type: none"> > Business model > Strategy, goals and performance management system > Strategy, goals and performance management system > In dialogue with our stakeholders > The EnBW Group > General conditions 	<ul style="list-style-type: none"> page 33 page 41 ff. page 46 f. page 51 f. page 74 page 63
	<ul style="list-style-type: none"> > Integrated opportunity and risk management including opportunity and risk map > Environment goal dimension: opportunities and risks 	<ul style="list-style-type: none"> > Report on opportunities and risks > Report on opportunities and risks 	<ul style="list-style-type: none"> page 100 ff. page 104
Performance indicators and targets	<ul style="list-style-type: none"> > Sustainability ratings > Key performance indicators and long-term targets > Environment goal dimension: key performance indicators and other performance indicators 	<ul style="list-style-type: none"> > In dialogue with our stakeholders > Strategy, goals and performance management system > The EnBW Group 	<ul style="list-style-type: none"> page 53 page 44 ff. page 87 ff.

Declaration of the legal representatives


We assure to the best of our knowledge that, in accordance with the applicable accounting principles, the annual and consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the company and the Group, and that the combined management report gives a true and fair view of the business development including the result and situation of the company and the Group and also describes the significant opportunities and risks relating to the anticipated development of the company and the Group.

Karlsruhe, 4 March 2020

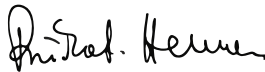
EnBW Energie Baden-Württemberg AG



Dr. Mastiaux



Kusterer



Rückert-Hennen



Dr. Zimmer

The declaration of corporate management including the corporate governance report

Board of Management and Supervisory Board	125
Diversity	130
Shareholders and Annual General Meeting	131
Compliance	131
Remuneration of the Board of Management and the Supervisory Board	131
Transparency	132
Financial reporting and the audit	132
Declaration of compliance	133
Statement on the suggestions of the German Corporate Governance Code	133

Good corporate governance is an essential part of the corporate culture at EnBW Energie Baden-Württemberg AG (EnBW). We are convinced that responsible and transparent corporate governance strengthens the trust and confidence that customers, capital providers, employees and the general public place in the company, thereby contributing to its long-term success. The Board of Management and Supervisory Board have the responsibility of managing and supervising the company above and beyond merely fulfilling statutory requirements, but to do it in accordance with recognised benchmarks for good corporate governance and in harmony with the principles of a social market economy, guaranteeing the continued existence of the company and ensuring a sustainable increase in its added value.

As the member of the Board of Management responsible for corporate governance, Dr. Bernhard Beck monitored up to the end of his term of office on 30 June 2019 compliance with the German Corporate Governance Code (DCGK) at EnBW and reported extensively to the Board of Management and Supervisory Board on all current themes pertaining to corporate governance. Since 30 June 2019 Colette Rückert-Hennen has been carrying out these duties. Both boards acknowledged the report from Colette Rückert-Hennen and subsequently approved the company's declaration of compliance, which is reproduced in full at the end of this report.

In this declaration of corporate management, the Supervisory Board and Board of Management report on the corporate governance of the company (corporate governance report) above and beyond the legal requirements according to sections 289 f (2) and 315 d HGB.

The corporate governance report is based on the version of the DCGK from 7 February 2017 and not the version submitted for examination and publication by the Government Commission for the DCGK to the Federal Ministry of Justice and Consumer Protection on 23 January 2020. This is because the version of the DCGK from 7 February 2017 was the basis for the declaration of compliance issued on 4 December 2019 and the new version of the DCGK will only come into force after the end of the reporting period. Therefore, references in this report to the DCGK refer to the version from 7 February 2017.

Board of Management and Supervisory Board

Close and trusting cooperation for the good of the company is considered an integral part of the EnBW culture by the Board of Management and Supervisory Board.

The **Board of Management** jointly manages the company on its own responsibility. In the reporting period up to 31 December 2019, the Board of Management temporarily had five members – from the appointment of Colette Rückert-Hennen on 1 March 2019 until the end of the term of office of Dr. Bernhard Beck on 30 June 2019. After the conclusion of Dr. Beck's term of office it comprised as usual four members, of which one held the position of chairman. The Board of Management is tasked with defining the company goals and developing the strategic orientation of the EnBW Group, agreeing this with the Supervisory Board and implementing it accordingly. In addition, it ensures Group-wide compliance with statutory regulations and internal guidelines, as well as appropriate risk management and risk controlling.

Important aspects of cooperation within the Board of Management are defined in its rules of procedure. These regulate, amongst other things, the frequency at which the meetings of the Board of Management led by the Chairman are held multiple times a month and stipulates that all important questions relating to the management of the Group and any cross-departmental issues will be addressed at these meetings. Furthermore, the rules of procedure include a rule that resolutions will be taken by the Board of Management on a majority vote basis, whereby the Chairman has the casting vote in the event of a tie.

The Chairman of the Board of Management in the reporting period was and also currently is Dr. Frank Mastiaux. Further details on the members of the Board of Management and the division of responsibilities can be found in the information provided on p. 18 to 21 and in the section "Corporate governance" under "Management and supervision" on p. 48 and 49.

The standard retirement age set for members of the Board of Management at EnBW is 63 years old. In the reporting period and also currently, the members of the Board of Management did not and do not hold more than three positions on supervisory boards at non-Group listed companies or on supervisory bodies at non-Group companies that have comparable requirements. As in the past, there were also no known conflicts of interests for the members of the Board of Management in the 2019 financial year. EnBW did not enter into any significant transactions with individuals or companies that are related to a member of the Board of Management in the reporting period.

In the reporting period, the Board of Management discussed the Six-Monthly Financial Report and the quarterly statements with the audit committee of the Supervisory Board before publication.

The **Supervisory Board** of EnBW is comprised of 20 members, half of which are representatives elected by the shareholders and half by employees. The Chairman of the Supervisory Board is Lutz Feldmann.

The elected employee and shareholder representatives began their term of office at the conclusion of the Annual General Meeting of EnBW on 10 May 2016. The defined term of office for the elected members of the Supervisory Board ends at the conclusion of the Annual General Meeting in 2021.

There were no changes to the composition of the Supervisory Board in the reporting period. With effect from 31 December 2018, and as already reported last year, the members of the Supervisory Board Silke Krebs (shareholder representative) and Sebastian Maier (employee representative) stepped down from their positions for professional reasons and the members of the Supervisory Board Heinz Seiffert (shareholder representative) and Arnold Messner (employee representative) stepped down from their positions due to retirement. Marika Lulay and Harald Sievers, District Administrator of the Ravensburg district, were appointed by the court as members of the Supervisory Board with effect from 1 January 2019 to replace the former members of the Supervisory Board Silke Krebs and Heinz Seiffert. The appointments of Marika Lulay and Harald Sievers were confirmed with separate votes at the Annual General Meeting on 8 May 2019 with effect until the end of the regular election period. As of 1 January 2019, Achim Binder, Deputy Chairman of the Group works council for the EnBW Group, Chairman of the central works council “grids sector” of EnBW and Chairman of the regional service works council of Netze BW GmbH, and Jürgen Schäfer, member of the Group works council for the EnBW Group and Deputy Chairman of the works council of TransnetBW GmbH, also became members of the Supervisory Board as elected replacements for Arnold Messner and Sebastian Maier.

Further details on the Supervisory Board and its composition can be found in the information provided on p. 250, 251, 253 and 254 and in the section “Corporate governance” under “Management and supervision” on p. 48 and 49.

The key task of the Supervisory Board is to advise and supervise the Board of Management on its management of the company. In general, all members of the Supervisory Board have the same rights and obligations and are not bound by orders or instructions. Important aspects of the cooperation within the Supervisory Board are defined in its rules of procedure. These rules require the Supervisory Board to meet regularly for ordinary meetings, as well as for extraordinary meetings as necessary, that are chaired by the chairman. The members of the Board of Management generally participate in the meetings, although the Supervisory Board can also convene without the Board of Management if necessary. The Board of Management regularly, comprehensively and promptly informs the Supervisory Board in accordance with the rules of procedure for the Supervisory Board about, in particular, all of the issues listed in section 90 German Stock Corporations Act (AktG), all important financial and non-financial performance indicators and the risks faced by the company and the Group and their development, strategy, planning, the accounting process, the effectiveness of the internal control system, risk management and the internal auditing system, compliance and other important matters.

Between the meetings of the Supervisory Board, there is ongoing communication between the Chairman of the Supervisory Board and the Board of Management, particularly with the Chairman of the Board of Management, in order to discuss issues relating to the strategy, planning, business performance, risk situation, risk management and compliance within the company. He is immediately informed about important events that are material for the assessment of the situation, development and management of the company by the Chairman of the Board of Management. If necessary, the Chairman of the Supervisory Board then reports to the Supervisory Board and may also convene an extraordinary meeting.

In addition, the rules of procedure for the Supervisory Board also define business activities and measures that may only be carried out by the Board of Management with the approval of the Supervisory Board. Furthermore, resolutions are also passed by the Supervisory Board on a majority vote basis, whereby the Chairman of the Supervisory Board has the casting vote in the event of a tie in accordance with the Articles of Association of EnBW. If ordered by the Chairman of the Supervisory Board, resolutions can also be passed outside of meetings, if this is not opposed by a majority of the members of the Supervisory Board. The Supervisory Board provided detailed information on its main activities and the contents of its discussions in the 2019 financial year in its report to the Annual General Meeting, which is accessible to the general public at www.enbw.com/report2019. The rules of procedure for the Supervisory Board are not published on the Internet.

Another important task of the Supervisory Board is to appoint and, if necessary, dismiss the members of the Board of Management. In this context, the Supervisory Board works together with the Board of Management to ensure

appropriate long-term succession planning for the Board of Management. This is the task of the personnel committee. It consults regularly and in close communication with the Chairman of the Board of Management on issues relating to the up-to-dateness and further development of the Board of Management structure, the division of responsibilities and ensuring the Board of Management remits can be filled after the end of the term of office, taking into account the current terms of office. In advance of any decision to appoint a new member of the Board of Management, a requirement profile is developed in good time as necessary and a comprehensive selection process is usually carried out with the aid of specialist support.

In the reporting period, Colette Rückert-Hennen took up office as a member of the Board of Management on 1 March 2019 and from this date on took over responsibility for personnel and executive management and health management from Dr. Bernhard Beck. Until the end of his term of office on 30 June 2019, Dr. Bernhard Beck was still temporarily responsible for the areas of law, auditing, compliance and regulation, boards, shareholder relationships and equity investment management. Since 1 July 2019, the responsibility for these remits – with the exception of equity investment management which was transferred to Thomas Kusterer on 1 July 2019 – has also been held by Colette Rückert-Hennen. The Supervisory Board observed the recommendation in the DCGK that the first-time appointment of a member of the Board of Management should at most be for three years; this is the case for Colette Rückert-Hennen. In addition, the Chief Financial Officer, Thomas Kusterer, was reappointed for a further term of office of five years following a resolution passed by the Supervisory Board on 7 May 2018. In accordance with the regulations under stock corporation law, this reappointment was not made prior to one year before the end of the term of office and simultaneously terminated the current appointment.

In order to improve the efficiency of its work and to handle complex issues, the Supervisory Board has formed specialist committees:

- ▶ **Nomination committee:** Dr. Dietrich Birk, Lutz Feldmann (Chairman), Dr. Wolf-Rüdiger Michel, Gunda Röstel, Edith Sitzmann, Lothar Wölflle
- ▶ **Audit committee:** Stefanie Bürkle, Volker Hüsgen, Marianne Kugler-Wendt, Thomas Landsbek, Dr. Hubert Lienhard, Dr. Wolf-Rüdiger Michel, Gunda Röstel (Chairwoman), Ulrike Weindel
- ▶ **Personnel committee:** Achim Binder, Stefan Paul Hamm, Dietrich Herd, Lutz Feldmann (Chairman), Edith Sitzmann, Lothar Wölflle
- ▶ **Finance and investment committee:** Achim Binder, Dr. Dietrich Birk, Lutz Feldmann (Chairman), Stefan Paul Hamm, Dietrich Herd, Edith Sitzmann, Lothar Wölflle, Dr. Bernd-Michael Zinow
- ▶ **Mediation committee** (pursuant to section 27 (3) German Co-determination Act (MitbestG)): Lutz Feldmann (Chairman), Dietrich Herd, Thomas Landsbek, Edith Sitzmann
- ▶ **Digitalisation committee** (since 1 January 2019): Michaela Kräutter, Dr. Hubert Lienhard (Chairman), Marika Lulay, Jürgen Schäfer, Harald Sievers, Ulrike Weindel
- ▶ **Ad hoc committee:** Dietrich Herd, Gunda Röstel, Harald Sievers, Dr. Bernd-Michael Zinow (Chairman)

In accordance with the DCGK, the nomination committee is exclusively comprised of shareholder representatives and proposes suitable candidates to the Supervisory Board for election as members of the Supervisory Board at the Annual General Meeting.

The audit committee is responsible, in particular, for monitoring accounting, the accounting process, the effectiveness of the internal control system, the risk management system, the internal auditing system, the audit and compliance. It presents a justified recommendation for the appointment of the auditor to the Supervisory Board, which includes at least two candidates if the company intends to issue an invitation to tender for the audit mandate. The audit committee monitors the independence of the auditor and is also responsible for supervising the additional services provided by the auditor, the award of the audit mandate to the auditor, the definition of areas of focus for the audit and negotiating the auditor's fees with the auditor.

The chairwoman of the audit committee, Gunda Röstel, is independent and is not a former member of the Board of Management of EnBW. As the long-standing Commercial Director of Stadtentwässerung Dresden GmbH and Authorised Officer of Gelsenwasser AG, she possesses special expertise and experience in the application of accounting principles and internal control processes. She has gained even more experience in her position as the Chairwoman of the audit committee over the last few years, and is familiar with the audit process.

The roles of the other committees of the Supervisory Board and their specific activities in the past financial year are described in the Report of the Supervisory Board for the 2019 financial year.

The chairpersons of the committees report on the work carried out in their committees at the latest at the next plenary meeting of the Supervisory Board. No separate rules of procedure exist for the Supervisory Board commit-

tees; they are subject to the rules of procedure for the Supervisory Board and all relevant procedural rules contained therein.

The Supervisory Board has set specific objectives for its composition that take into account the company's situation and has developed a competency profile for the entire Supervisory Board, whereby the special rules defined in the German Co-determination Act were and are taken into account for employee representatives. The primary aim is to guarantee that the members collectively possess the knowledge, skills and specialist experience required to properly perform their functions.

The objectives for the composition of the Supervisory Board that are currently valid and were valid during the entire reporting period appropriately take into account the international activities of the company, potential conflicts of interest, an appropriate number of independent members in the estimation of the Supervisory Board, age limits for members of the Supervisory Board, a maximum time limit for the period of service on the Supervisory Board and diversity, whereby the special rules defined in the German Co-determination Act were and are taken into account for employee representatives.

In the past reporting year, the Supervisory Board also examined the independence criteria defined in the German Stock Corporation Act and the DCGK. The Supervisory Board came to the conclusion that these criteria have – as in the past – been satisfied and that it comprised and still comprises a sufficient number of independent members and reflects the shareholder structure, whereby it is of the opinion that all shareholder representatives on the Supervisory Board are independent in the sense of the DCGK and this proportion of members is appropriate. Refer to the overview on p. 250 for the names of the members of the Supervisory Board elected by the shareholders. Alongside the successfully achieved objective of continuing to ensure a majority of independent members, the Supervisory Board will also take care to avoid any conflicts of interest in future.

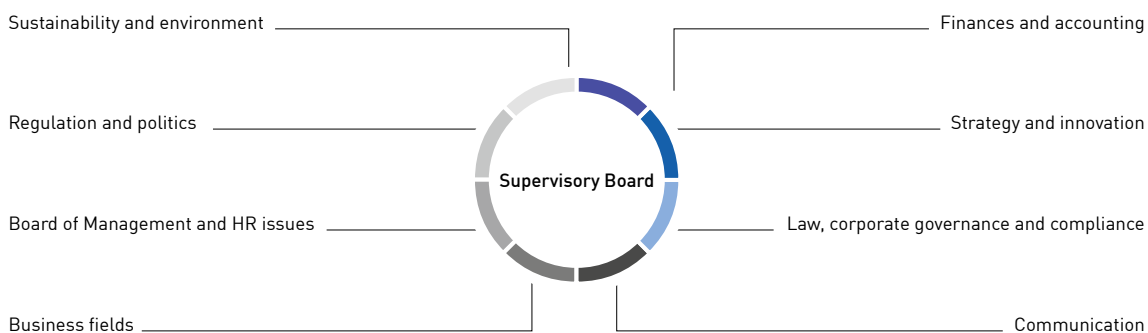
The Supervisory Board does not believe that it is necessary to define quantitative objectives with respect to internationality due to the structure and business activities of the company.

The rules of procedure for the Supervisory Board stipulate that candidates proposed to the Annual General Meeting for the election of shareholder representatives as members on the Supervisory Board should generally not be older than 70 at the time of the election. The general age limit was not exceeded in the reporting period and has not currently been exceeded by any member of the Supervisory Board. As the Supervisory Board is aware that exceptions may be desirable because long-term members of the Supervisory Board bring long-standing knowledge and experience to the board, it has ultimately defined a maximum time limit for the period of service on the Supervisory Board to three full election periods, which was not reached or exceeded during the reporting period or currently by any member of the Supervisory Board.

The Supervisory Board has not defined any further diversity targets beyond the legal regulations that apply to the company for the minimum proportion of women and men and the previously described objectives for its composition.

The competency profile of the Supervisory Board stipulates that the following eight fields of competency must be covered to an appropriate extent by the members of the Supervisory Board in its entirety:

Competency profile of the Supervisory Board



The Supervisory Board possesses the knowledge and skills required to perform its functions. The objectives for its composition were fully taken into account by the Supervisory Board during the reporting period with respect to

its composition and the coverage of its competency profile. In its future proposals to the Annual General Meeting for the election of members, the Supervisory Board will continue to take into account the objectives for its composition and will strive to ensure that the competency profile continues to be covered by the Supervisory Board in its entirety.

The curricula vitae for all members of the Supervisory Board have been published on the company website at www.enbw.com/supervisory-board and provide information on the relevant knowledge, skills and experience of the members and have been supplemented by an overview of their main activities in addition to their position on the Supervisory Board. These curricula vitae are updated on an annual basis for all members of the Supervisory Board.

The members of the Supervisory Board are all able to dedicate the expected amount of time required for their activities on the Supervisory Board. The Supervisory Board will also ensure for its future proposals to the Annual General Meeting for the election of new members of the Supervisory Board that all candidates are able to dedicate the expected amount of time required for their activities on the Supervisory Board. In the 2019 financial year, all members of the Supervisory Board participated in more than half of the meetings of the Supervisory Board and of the committees on which the member serves; this was also noted in the Report of the Supervisory Board to the Annual General Meeting. Participation via telephone and video conference is also valid, although this form of participation was not a normal occurrence for any member of the Supervisory Board in accordance with the suggestion in the DCGK.

In its proposals made to the Annual General Meeting for the forthcoming re-election of members, the Supervisory Board will also disclose the personal and business relationships of each candidate with the company, the company's corporate bodies and with shareholders holding a major interest in the company, whereby this information will be limited to information that the Supervisory Board considers material in order for a shareholder to cast their vote objectively.

No former members of the Board of Management of EnBW were members of the Supervisory Board during the reporting period nor are they currently members. The members of the Supervisory Board also did not perform any advisory or board functions for important competitors of EnBW during the reporting period nor do they currently.

Every member of the Supervisory Board is bound to act in the interests of the company. In making decisions, members may not pursue personal interests or take advantage of business opportunities intended for the company. Conflicts of interest, particularly those that could arise due to advisory or board functions for customers, suppliers, lenders or other third parties, must be disclosed to the Supervisory Board. In such cases, the Supervisory Board will disclose any conflicts of interest that have arisen and how they were handled in its report to the Annual General Meeting. Any material conflict of interest relating to a member of the Supervisory Board that is not merely of a temporary nature will result in the termination of their position. Advisory and other service agreements and contracts for work between a member of the Supervisory Board and EnBW require the approval of the Supervisory Board. In the reporting period, there were no conflicts of interest involving members of the Supervisory Board.

The Supervisory Board regularly assesses how effectively the Supervisory Board as a whole and its committees are performing their duties (efficiency review). In the reporting period, the Supervisory Board carried out an efficiency review at its meeting on 7 November 2019. To prepare for the review, the members of the Supervisory Board completed a comprehensive questionnaire on content-related and organisational themes as in previous years and discussed, amongst other things, the results of the questionnaires in detail. In addition, the implementation of the findings drawn from the efficiency review from the previous year were examined.

The members of the Supervisory Board are responsible for participating in any necessary basic and further training measures required for their tasks and are supported appropriately by the company in this area. This not only includes providing them with regular information on themes and developments related to the current situation of the company with respect to legal issues, the energy industry, financial industry or other relevant aspects, as well as other subjects relevant to the work on the Supervisory Board, but also comprises corresponding on-site appointments and events. In 2019, these included a new e-learning platform from an external service provider designed for supervisory boards, information on the expected legal changes due to the law for the implementation of the second shareholder rights directive ("ARUG II") coming into force and the reform of the DCGK, a visit to the trading floor of the trading department – accompanied by a specialist tour – and there was an event to introduce the energy market in the Czech Republic including a presentation and analysis as part of a meeting held at the site of the subsidiary Pražská energetika a.s. (PRE) based in the Czech Republic. New members also received documentation on all of the important rules relating to the work of the Supervisory Board that are relevant to them.

In accordance with the suggestion in the DCGK, the Chairman of the Supervisory Board is prepared to enter into discussions with investors on specific issues relating to the Supervisory Board. Discussions of this type were not held in the reporting period.

The actions of the Board of Management and the Supervisory Board are governed by statutory regulations and internal Group guidelines (compliance). The Board of Management also reported continuously on compliance issues in the 2019 financial year and discussed them in detail with the Supervisory Board and the audit committee of the Supervisory Board. More detailed information on this area will be provided in the “Compliance” section. Information on the relevant corporate governance practices that go above and beyond the legal requirements and the recommendations and suggestions in the DCGK will also be given there.

Further information on the procedures of the Board of Management and Supervisory Board and their committees can be found in the section “Corporate governance” under “Management and supervision” on p. 48 and 49, in the section “Report of the Supervisory Board” on p. 24 to 26 and in articles 7 to 13 and 19 of the Articles of Association, which are generally accessible on the EnBW website at www.enbw.com/corporate-governance.

Diversity

The Supervisory Board has decided that all of the statutory and self-defined regulations for its composition (objectives for the composition, competency profile, legal targets for the proportion of women, age limit, maximum time limit for the period of service, see here the information above in the section “Board of Management and the Supervisory Board” on p. 125 to 130) will form the **diversity concept** in the sense of section 289 f (2) No. 6 HGB. The primary goal of this concept is to ensure that the Supervisory Board can properly perform its tasks and is helped in this process by the diversity of its composition. This concept is implemented through the election of shareholder representatives by the Annual General Meeting. In the 2019 financial year, the objectives defined in the concept were achieved.

The proportion of women on the **Supervisory Board** in its entirety continuously stood at 35%. This figure is calculated from the proportion of women amongst the shareholder representatives of 40% and the proportion of women amongst the employee representatives 30%. The proportion of women on the Supervisory Board of EnBW in its entirety of 35% is above the minimum statutory requirement of 30%. The shareholder and employee representatives resolved before the last election of members to the Supervisory Board to veto the overall fulfilment of this statutory minimum proportion by the shareholder and employee representatives combined in accordance with section 96 (2) sentence 3 AktG for the length of the current election period, so that the minimum proportion in accordance with the legal requirements must be fulfilled by both sides. This should make it possible to better plan the composition of the Supervisory Board.

In terms of the composition of the Board of Management, the Supervisory Board also takes diversity into account when appointing new **members of the Board of Management**, while acknowledging the limited number of members of the Board of Management. Therefore, it has resolved that the standard age limit for the Board of Management defined by the Supervisory Board together with the target for the proportion of women will form the diversity concept in the sense of section 289 f (2) no. 6 HGB. The primary goal of this concept is to ensure that the Board of Management can properly perform its tasks and is strengthened here by the diversity of its composition. This concept is implemented through the appointment of members of the Board of Management by the Supervisory Board. In the 2019 financial year, the objectives defined in the concept were achieved.

For the period from 1 July 2017 to 30 June 2022, the Supervisory Board set the target of one woman on the Board of Management that should be achieved at least by the end of this defined time period. This target has been met since the start of the term of office of Colette Rückert-Hennen on 1 March 2019.

The Board of Management has set the goal of further increasing the proportion of women in both **management levels below the Board of Management** in the period from 1 January 2017 to 31 December 2020. At both the first level (top management) and second level (upper management), the proportion of women should increase to at least 20%. Despite a great deal of effort, these targets were not yet achieved in 2019 (as of 31 December 2019).

Shareholders and Annual General Meeting

The shareholders of EnBW exercise their rights at the Annual General Meeting including their right to vote. Prior to the Annual General Meeting, EnBW publishes the agenda and all of the relevant reports and documents that shareholders may require to evaluate it. These include the current annual report for the last completed financial year, which is available in an easily accessible format on the Internet at <http://hv.enbw.com>. Any counter motions to items on the agenda of the Annual General Meeting received by the specified deadline are also made publicly available on the website.

Our shareholders have the opportunity to use a proxy appointed by the company if they are not able to personally attend the Annual General Meeting.

The Annual General Meeting was broadcast live on the Internet in the last few years until the end of the speech by the Chairman of the Board of Management.

Compliance

Compliance as an expression of all measures required for the observance of statutory regulations and internal guidelines is regarded as an essential management and supervisory task at EnBW. Since 2009, the compliance department has established a Group-wide compliance organisation and defined the necessary rules and processes. The compliance department is responsible for the prevention, detection and sanctioning of corruption, the prevention of violations against competition and antitrust laws, the prevention of money laundering and data protection.

The regular face-to-face training events cover the latest compliance issues. One of the main focuses of the compliance activities is conveying a compliance culture. In addition, assessing the need for controls to ensure compliance with the rules and their implementation also forms part of the compliance activities. The selective internationalisation of EnBW is being accompanied by the compliance and data protection departments.

The most important compliance functions for the Group are represented on the compliance committee. The compliance department uses this body to coordinate the Group-wide compliance activities. Implementation of the centrally defined compliance measures in the decentralised units is controlled through the compliance forum, which is comprised of compliance officers from the most important Group companies and business units.

Preventative compliance measures are defined using a Group-wide compliance risk assessment on an annual basis in the compliance and data protection programme. It covers communication and training measures, the introduction and development of rules and processes, central management of guidelines and business partner auditing. The compliance culture is an aspect taken into account in all of the compliance activities. For example, training measures for the development of a compliance culture will in turn make a contribution towards the avoidance of compliance breaches.

Internal and external whistleblowers can report compliance breaches and suspected cases to the compliance department or an ombudsman for EnBW as an external contact. The ombudsman can guarantee whistleblowers absolute confidentiality and anonymity with respect to EnBW. Reported compliance breaches and suspected cases are then handled by the compliance committee task force using a standardised process. The Head of Compliance reports on the status of the implementation of measures and on current compliance breaches to the Board of Management and audit committee of the Supervisory Board every quarter. An annual report is prepared for the Supervisory Board.

The compliance management system (CMS) is continuously updated and examined.

Remuneration of the Board of Management and the Supervisory Board

The remuneration of the Board of Management and the Supervisory Board is each presented in a detailed remuneration report, which, in accordance with section 4.2.5 of the DCGK, was included as an independent section of the management report on p. 110 to 118 and to which we refer you at this point. The new system of variable remuneration for the Board of Management that was resolved by the Supervisory Board in 2017 and approved by the Annual General Meeting on 8 May 2018 is described in detail in the remuneration report for the Board of Management.

Transparency

EnBW ensures the transparency stipulated in the DCGK at all times by keeping shareholders, the capital market, financial analysts, shareholder associations and the interested public up-to-date on material business changes at the company. In order to provide consistent information in good time to all interested groups, the company mainly relies on the Internet.

In particular, EnBW provides information on its business situation in the Integrated Annual Report, the interim financial information, the press conference on the annual results, telephone conferences to accompany the publication of quarterly and annual results and at events held with analysts. The corresponding documents are made available to the general public on the EnBW website. The financial calendar also published on our website www.enbw.com/financial-calendar provides adequate notice of the publication dates for the Integrated Annual Reports and interim financial information, as well as the date of the Annual General Meeting, the press conference for the annual results and the conference for analysts.

If specific information on a matter relating to EnBW or the shares and bonds issued by EnBW which is not public knowledge should become available outside the regular reporting framework that could significantly influence the stock prices of these securities, we announce this insider information in the form of ad hoc announcements. There were no ad hoc announcements published in the 2019 financial year.

In the 2019 financial year, EnBW did not receive any notices about transactions involving EnBW shares or EnBW bonds or related financial instruments concerning persons in managerial positions or those persons closely related to them. There were also no securities subject to disclosure requirements held by any members of the Board of Management or the Supervisory Board.

Financial reporting and the audit

Financial reporting at EnBW is carried out in accordance with the International Financial Reporting Standards (IFRS). The Annual General Meeting on 8 May 2019 elected Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart, as auditor of the financial statements and the consolidated financial statements for the 2019 financial year and as auditor for the review of the condensed financial statements and interim management report contained in the Six-Monthly Financial Report, as well as for all reviews of additional interim financial information in the sense of section 115 (7) German Securities Trading Act (WpHG) in the 2019 financial year. At the same time, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft was elected as the auditor for the review of all additional interim financial information in the sense of section 115 (7) WpHG in the 2020 financial year, insofar as such a review is carried out before the next Annual General Meeting.

The Board of Management discussed the interim financial information with the audit committee before its publication. The consolidated financial statements for the 2019 financial year were made available to the public within 90 days of the end of the financial year and the Quarterly Statements and the Six-Monthly Financial Report for the 2019 financial year were made available within 45 days after the end of the relevant reporting period.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft was commissioned by the audit committee and its chairman to perform the audit. The audit committee ensured in advance of the Annual General Meeting that there was no doubt concerning the independence of the auditing firm to be commissioned and received a declaration of independence before submitting the proposal for the appointment of the auditor. This declaration also included the scope to which other services, especially in the consultancy sector, were provided to EnBW in the past financial year or have been contractually agreed for the following financial year. The agreement with the auditor stipulates that the auditing committee must be immediately informed about any grounds for exclusion or conflicts of interest that arise during the audit unless such grounds could be immediately eliminated. In addition, it was also agreed that the auditor would immediately inform the audit committee on all facts and events significant to the tasks of the Supervisory Board which come to the attention of the auditor during the performance of the audit and that the auditor would inform the Supervisory Board or make a corresponding note in the audit report if facts were uncovered during the performance of the audit that demonstrate that the declaration of compliance issued by the Board of Management and Supervisory Board in accordance with section 161 AktG is incorrect.

The audit committee and its chairman also commissioned Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft to audit the non-financial declaration published for the reporting period.

EnBW did not have any share option programmes or similar securities-based incentive systems for the company in the reporting period nor does it currently have such programmes or systems.

Declaration of compliance

In accordance with section 161 AktG, the Board of Management and the Supervisory Board of EnBW Energie Baden-Württemberg AG declared on 4 December 2019 that:

“EnBW Energie Baden-Württemberg AG complied in full with the recommendations of the Government Commission for the German Corporate Governance Code published in the German Federal Gazette since the last declaration of compliance on 5 December 2018 in its currently valid version and will also continue to comply in full with the version valid from 7 February 2017.”

The declaration was also published separately at www.enbw.com/german-corporate-governance-code. All of the declarations of compliance published since 2002 are also accessible there.

Statement on the suggestions of the German Corporate Governance Code

In accordance with section 3.10, sentence 2 DCGK, the Board of Management and the Supervisory Board declare that EnBW also complied with the suggestions of the DCGK in the past financial year with the exception of:

Section 2.3.4 of the Code: coverage of the Annual General Meeting using modern communication media

EnBW broadcasts the Annual General Meeting on the Internet until the end of the report by the Chairman of the Board of Management in line with common practice. The small proportion of EnBW shares in free float and the normally high attendance by shareholders at the EnBW Annual General Meetings would not justify the additional expense of broadcasting the entire Annual General Meeting.

Karlsruhe, 4 March 2020

EnBW Energie Baden-Württemberg AG

On behalf of the Board of Management

Colette Rückert-Hennen

On behalf of the Supervisory Board

Lutz Feldmann

Financial statements of the EnBW Group

Income statement	135	(11) Property, plant and equipment	169
Statement of comprehensive income	136	(12) Leases	171
Balance sheet	137	(13) Entities accounted for using the equity method	174
Cash flow statement	138	(14) Other financial assets	175
Statement of changes in equity	139	(15) Trade receivables	177
Notes to the 2019 financial statements of the EnBW Group	140	(16) Other assets	177
General principles	140	(17) Financial assets	177
Consolidation principles	140	(18) Cash and cash equivalents	178
Consolidated companies	141	(19) Equity	178
Changes in the consolidated companies	141	(20) Provisions	181
First-time full consolidation of affiliated entities 2019	142	(21) Deferred taxes	187
Full consolidation without a change in shareholding due to obtaining control in 2019.....	143	(22) Liabilities and subsidies	189
Disposal of entities accounted for using the equity method in 2019.....	144	(23) Assets held for sale and liabilities directly associated with assets classified as held for sale	193
First-time full consolidation of affiliated entities 2018	144	Other disclosures	194
Changes in the shareholdings of fully consolidated companies with loss of control in 2018	145	(24) Earnings per share	194
Changes in accounting policies	145	(25) Accounting for financial instruments	194
Effects of new accounting standards that are not yet mandatory	147	(26) Contingent liabilities and other financial commitments	211
Significant accounting policies	147	(27) Significant restrictions	212
Exercise of judgement and estimates when applying accounting policies	155	(28) Audit fees	212
Currency translation	157	(29) Exemptions pursuant to section 264 (3) or section 264b HGB	213
Notes to the income statement and the balance sheet	158	(30) Declaration of compliance with the German Corporate Governance Code	213
(1) Revenue	158	(31) Share deals and shareholdings of key management personnel	213
(2) Other operating income	161	(32) Notes to the cash flow statement	214
(3) Cost of materials	161	(33) Additional disclosures on capital management	216
(4) Personnel expenses	162	(34) Segment reporting	218
(5) Other operating expenses	162	(35) Related parties (entities)	221
(6) Amortisation and depreciation	163	(36) Related parties (individuals)	222
(7) Investment result	163	(37) Additional disclosures	223
(8) Financial result	164	(38) Disclosures concerning concessions	240
(9) Income tax	165	(39) Significant events after the reporting date	240
(10) Intangible assets	166	Auditor's report	241

Income statement

in € million ¹	Notes	2019	2018	Change in %
Revenue including electricity and energy taxes		19,270.7	21,391.0	-9.9
Electricity and energy taxes		-505.7	-575.6	-12.1
Revenue	(1)	18,765.0	20,815.4	-9.9
Changes in inventories		18.3	13.9	31.7
Other own work capitalised		148.1	102.1	45.1
Other operating income	(2)	1,544.0	1,185.1	30.3
Cost of materials	(3)	-14,841.1	-16,838.1	-11.9
Personnel expenses	(4)	-2,007.0	-1,871.8	7.2
Impairment losses	(25)	-89.2	-36.7	143.1
Other operating expenses	(5)	-1,292.9	-1,280.3	1.0
EBITDA		2,245.2	2,089.6	7.4
Amortisation and depreciation	(6)	-1,648.5	-1,213.8	35.8
Earnings before interest and taxes (EBIT)		596.7	875.8	-31.9
Investment result	(7)	401.3	100.9	-
of which net profit/loss from entities accounted for using the equity method		(28.9)	(-24.1)	-
of which other profit/loss from investments		(372.4)	(125.0)	-
Financial result	(8)	-95.8	-380.4	-74.8
of which finance income		(537.1)	(295.5)	(81.8)
of which finance costs		(-632.9)	(-675.9)	(-6.4)
Earnings before tax (EBT)		902.2	596.3	51.3
Income tax	(9)	2.1	-128.7	-101.6
Group net profit		904.3	467.6	93.4
of which profit/loss shares attributable to non-controlling interests		(170.1)	(133.4)	(27.5)
of which profit/loss shares attributable to the shareholders of EnBW AG		(734.2)	(334.2)	(119.7)
EnBW AG shares outstanding (million), weighted average		270.855	270.855	0.0
Earnings per share from Group net profit (€)²	(24)	2.71	1.23	119.7

1 The figures for the previous year have been restated. Further disclosures are presented in the notes under "Changes in accounting policies".

2 Diluted and basic; in relation to profit/loss attributable to the shareholders of EnBW AG.

Statement of comprehensive income

in € million ¹	Notes	2019	2018	Change in %
Group net profit		904.3	467.6	93.4
Revaluation of pensions and similar obligations	(20)	-1,028.3	-110.0	-
Entities accounted for using the equity method	(13)	-0.3	0.0	-
Income taxes on other comprehensive income	(9)	300.8	31.8	-
Total of other comprehensive income and expenses without future reclassifications impacting earnings		-727.8	-78.2	-
Currency translation differences		24.2	5.1	-
Cash flow hedge	(25)	131.8	-143.8	-
Financial assets at fair value in equity	(14)	18.7	-16.2	-
Entities accounted for using the equity method	(13)	-2.9	1.0	-
Income taxes on other comprehensive income	(9)	-49.6	81.5	-
Total of other comprehensive income and expenses with future reclassifications impacting earnings		122.2	-72.4	-
Total other comprehensive income		-605.6	-150.6	-
Total comprehensive income		298.7	317.0	-5.8
of which profit/loss shares attributable to non-controlling interests		(153.4)	(132.6)	15.7
of which profit/loss shares attributable to the shareholders of EnBW AG		(145.3)	(184.4)	-21.2

¹ Further information is available in the notes under [19] "Equity".

Balance sheet

in € million	Notes	31/12/2019	31/12/2018
Assets			
Non-current assets			
Intangible assets	(10)	3,347.4	1,748.7
Property, plant and equipment	(11),(12)	18,552.7	15,867.5
Entities accounted for using the equity method	(13)	1,064.0	1,600.2
Other financial assets	(14)	6,356.9	5,426.5
Trade receivables	(15)	331.3	302.0
Other non-current assets	(16)	756.2	741.8
Deferred taxes	(21)	1,214.0	1,059.3
		31,622.5	26,746.0
Current assets			
Inventories		1,066.1	1,192.0
Financial assets	(17)	448.6	774.7
Trade receivables	(15)	3,976.8	4,515.7
Other current assets	(16)	4,809.4	3,788.9
Cash and cash equivalents	(18)	1,363.8	2,249.4
		11,664.7	12,520.7
Assets held for sale	(23)	0.9	342.3
		11,665.6	12,863.0
		43,288.1	39,609.0
Equity and liabilities			
Equity	(19)		
Shares of the shareholders of EnBW AG			
Subscribed capital		708.1	708.1
Capital reserve		774.2	774.2
Revenue reserves		5,234.5	4,676.4
Treasury shares		-204.1	-204.1
Other comprehensive income		-2,565.6	-1,976.7
		3,947.1	3,977.9
Non-controlling interests		3,498.0	2,295.4
		7,445.1	6,273.3
Non-current liabilities			
Provisions	(20)	14,333.1	13,246.0
Deferred taxes	(21)	890.0	774.8
Financial liabilities	(22)	7,360.7	6,341.4
Other liabilities and subsidies	(22)	2,155.9	1,674.7
		24,739.7	22,036.9
Current liabilities			
Provisions	(20)	1,535.9	1,549.9
Financial liabilities	(22)	830.2	654.8
Trade payables	(22)	4,055.1	5,039.8
Other liabilities and subsidies	(22)	4,682.1	4,033.1
		11,103.3	11,277.6
Liabilities directly associated with assets classified as held for sale	(23)	0.0	21.2
		11,103.3	11,298.8
		43,288.1	39,609.0

Cash flow statement

in € million ¹	Notes	2019	2018
1. Operating activities			
EBITDA		2,245.2	2,089.6
Changes in provisions	(20)	-416.0	-394.6
Result from disposals of assets	(2),(5)	-18.5	-88.4
Other non-cash-relevant expenses/income	(2),(3),(5)	64.8	-27.6
Change in assets and liabilities from operating activities		-759.4	-480.7
Inventories		(-160.4)	(-201.7)
Net balance of trade receivables and payables	(15),(22)	(-517.8)	(49.6)
Net balance of other assets and liabilities	(16),(22)	(-81.2)	(-328.6)
Income tax paid	(9),(16),(22)	-409.1	-270.7
Cash flow from operating activities		707.0	827.6
2. Investing activities			
Capital expenditure on intangible assets and property, plant and equipment	(10),(11)	-1,947.8	-1,369.5
Disposals of intangible assets and property, plant and equipment	(10),(11)	50.1	77.3
Cash received from subsidies for construction cost and investments	(22)	90.4	86.1
Acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations	(13)	-1,135.1	-297.6
Sale of subsidiaries, entities accounted for using the equity method and interests in joint operations	(13)	68.3	297.9
Cash paid for investments in other financial assets	(14),(17)	-722.6	-750.4
Cash received from the sale of other financial assets	(14),(17)	1,014.0	765.3
Cash received/paid for investments in connection with short-term finance planning	(17),(22)	-20.9	10.5
Interest received	(8)	111.6	94.4
Dividends received	(7)	174.9	190.2
Cash flow from investing activities		-2,317.1	-895.8
3. Financing activities			
Interest paid for financing activities	(8)	-214.9	-247.0
Dividends paid	(19)	-316.5	-312.8
Cash received for changes in ownership interest without loss of control	(19)	23.4	4.6
Cash paid for changes in ownership interest without loss of control		-0.8	0.0
Increase in financial liabilities	(22)	3,148.6	1,125.1
Repayment of financial liabilities	(22)	-2,038.7	-1,425.4
Repayment of lease liabilities	(22)	-108.3	-
Payments from alterations of capital in non-controlling interests	(19)	59.1	-51.8
Cash flow from financing activities		551.9	-907.3
Net change in cash and cash equivalents	(18)	-1,058.2	-975.5
Change in cash and cash equivalents due to changes in the consolidated companies	(18)	169.3	6.6
Net foreign exchange difference	(18)	3.1	5.5
Change in cash and cash equivalents due to risk provisions	(18)	0.2	0.2
Change in cash and cash equivalents	(18)	-885.6	-963.2
Cash and cash equivalents at the beginning of the period	(18)	2,249.4	3,212.6
Cash and cash equivalents at the end of the period	(18)	1,363.8	2,249.4

¹ Further information is available in the notes under [32] "Notes to the cash flow statement".

Statement of changes in equity

in € million ¹	Other comprehensive income										
	Subscribed capital and capital reserve ²	Revenue reserves	Treasury shares	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Financial assets at fair value in equity	Entities accounted for using the equity method	Shares of the shareholders of EnBW AG	Non-controlling interests	Total
Notes				(20)		(25)	(14)	(13)			
As of 01/01/2018	1,482.3	4,479.3	-204.1	-1,716.9	-12.0	-109.2	10.9	0.3	3,930.6	2,327.2	6,257.8
Other comprehensive income				-74.6	3.2	-68.2	-11.2	1.0	-149.8	-0.8	-150.6
Group net profit		334.2							334.2	133.4	467.6
Total comprehensive income	0.0	334.2	0.0	-74.6	3.2	-68.2	-11.2	1.0	184.4	132.6	317.0
Dividends		-135.4							-135.4	-139.2	-274.6
Other changes ³		-1.7							-1.7	-25.2	-26.9
As of 31/12/2018	1,482.3	4,676.4	-204.1	-1,791.5	-8.8	-177.4	-0.3	1.3	3,977.9	2,295.4	6,273.3
Other comprehensive income				-712.0	17.3	95.8	13.3	-3.3	-588.9	-16.7	-605.6
Group net profit		734.2							734.2	170.1	904.3
Total comprehensive income	0.0	734.2	0.0	-712.0	17.3	95.8	13.3	-3.3	145.3	153.4	298.7
Dividends		-176.1							-176.1	-121.9	-298.0
Other changes ³									0.0	1,171.1	1,171.1
As of 31/12/2019	1,482.3	5,234.5	-204.1	-2,503.5	8.5	-81.6	13.0	-2.0	3,947.1	3,498.0	7,445.1

1 Further information is available in the notes under [19] "Equity".

2 Of which subscribed capital €708.1 million (31/12/2018: €708.1 million, 01/01/2018: €708.1 million) and capital reserve €774.2 million (31/12/2018: €774.2 million, 01/01/2018: €774.2 million).

3 Of which changes in revenue reserves due to changes in ownership interest in subsidiaries without loss of control of 0.0 million (previous year €-1.7 million). Of which changes in non-controlling interests due to changes in ownership interest in subsidiaries without loss of control of €26.0 million (previous year €6.2 million).

Notes to the 2019 financial statements of the EnBW Group

General principles

In accordance with section 315e (1) German Commercial Code (HGB), EnBW Energie Baden-Württemberg AG (EnBW), as the highest-level parent company in the EnBW Group, prepares the consolidated financial statements according to the International Financial Reporting Standards (IFRS), the adoption of which is mandatory in the European Union as of the reporting date. The interpretations promulgated by the International Financial Reporting Interpretations Committee (IFRIC) are also taken into account. IFRS and interpretations whose application is not yet mandatory are not adopted. The consolidated financial statements therefore comply with those IFRS and interpretations issued by the International Accounting Standards Board (IASB) which have been endorsed by the EU.

The consolidated financial statements are presented in millions of euros (€ million). The income statement as well as the statement of comprehensive income, the balance sheet, the cash flow statement and the statement of changes in equity of the EnBW Group are presented separately. There may be rounding differences in both individual and total figures.

In the interest of clarity, items have been combined in the income statement and in the balance sheet, and disclosed separately and explained in the notes. Rounding differences may occur due to the methods used to carry out the calculations.

The income statement has been prepared using the nature of expense method.

Significant events in the reporting period are described in the section “The EnBW Group” of the management report.

Due to the first-time application of IFRS 16 in the 2019 financial year utilising the modified retrospective approach, the reports for the 2019 and 2018 financial years are only comparable to a limited extent.

The consolidated financial statements are prepared as of the reporting date of the parent company’s financial statements. The parent company’s financial year is the calendar year.

The registered office of the company is in Karlsruhe, Germany. The address is EnBW Energie Baden-Württemberg AG, Durlacher Allee 93, 76131 Karlsruhe. It is entered at the District Court of Mannheim under HRB no. 107956.

EnBW’s principal activities are described in the segment reporting.

EnBW’s Board of Management prepared and released the consolidated financial statements for issue on 4 March 2020.

Consolidation principles

The financial statements of the domestic and foreign companies included in the consolidation were prepared in a standardised manner in accordance with the accounting policies which are applicable at EnBW.

Business combinations are accounted for using the acquisition method. The cost of a business combination is measured based on the fair value of the assets acquired and liabilities assumed or entered into as of the acquisition date. Non-controlling interests are measured at the proportionate fair value of the identified assets and the liabilities assumed. Incidental acquisition costs are expensed as incurred. If the business combination is achieved in stages, the acquisition-date fair value of the acquirer’s previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss when the acquirer obtains control. Any excess of the cost of a business combination plus the amount of any non-controlling interest in the acquiree over the acquired identifiable assets, assumed liabilities and contingent liabilities is reported as goodwill if positive or, if negative, is reassessed and recognised through profit or loss.

A change in the ownership interest in an entity which continues to be fully consolidated is accounted for as an equity transaction. All remaining interests are remeasured at fair value upon loss of control.

Receivables, liabilities and provisions between the consolidated entities are netted. Intercompany income is set off against the corresponding expenses. Intercompany profits and losses are eliminated unless they are not of minor importance.

Consolidated companies

In accordance with the full consolidation method, all subsidiaries under the control of the Group are included. The Group controls an associate if it is exposed to risks or has rights to variable returns as a result of its involvement in the associate, and the Group has the ability to use its power over the associate in a way that affects the amount of the returns from the associate. In the full consolidation process, the assets and liabilities of a subsidiary are included in the consolidated financial statements in their entirety.

The equity method is used when there is a joint arrangement in the form of a joint venture or a significant influence may be exercised over the business policy of the associate, but the entity does not qualify as a subsidiary. At the time of acquisition they are recognised at cost and subsequently according to the amortised proportionate net assets. The carrying amounts are increased or reduced each year by the proportionate profit or loss, dividends paid or other changes in equity. This means that when shareholdings are being measured, only the company's proportional equity, rather than its assets and liabilities, is shown in the consolidated financial statements. Any goodwill is included in the stated value of the shareholding in question. Any negative differences are recognised in profit or loss in the investment result.

Joint arrangements that are classified as joint operations are reported based on the proportion of the assets, liabilities, income and expenses which are attributable to us in compliance with the respective applicable IFRS.

Interests in subsidiaries, joint ventures or associates which, in the Group's opinion, are of minor significance, or are not controlled due to their participation structure and as such no significant influence is exercised over them, are recognised at amortised cost. Indicators for determining the materiality of subsidiaries are the revenue, earnings and equity of these companies.

There are no reciprocal shareholdings in the EnBW Group as defined by section 19 (1) German Stock Corporation Act (AktG).

The consolidated companies are as follows:

Type of consolidation

Number of companies	31/12/2019	31/12/2018
Fully consolidated companies	192	171
Entities accounted for using the equity method	22	23
Joint operations	3	3

Changes in the consolidated companies

Of the companies included in the consolidated financial statements by way of full consolidation, 15 (previous year: 15) domestic companies and 23 (previous year: 17) foreign companies were consolidated for the first time in the reporting year. 3 (previous year: 0) domestic companies and 2 (previous year: 2) foreign companies were deconsolidated. In addition, 3 (previous year: 5) domestic companies and 9 (previous year: 0) foreign companies were merged.

First-time full consolidation of affiliated entities 2019

First-time full consolidation of Valeco

In order to strengthen its onshore wind business, EnBW acquired 100% of the shares in the developer and operator of wind farms and solar parks Valeco S.A.S., Montpellier, France, from Holding GAY and the minority shareholder Caisse des dépôts et consignations (CDC) on 3 June 2019. Valeco was fully consolidated in the EnBW consolidated financial statements from this point in time.

The fair value of the holding company Valeco at the time of full consolidation was €603.6 million. There were no significant incidental acquisition costs incurred as part of the transaction. The purchase price was paid in the form of cash and cash equivalents. The amount reported for goodwill is preliminary due to the fact that the analysis of the fair value of the assets and liabilities has not yet been concluded. In particular, it represents future business generation and is not deductible for tax purposes.

Following its full consolidation, Valeco contributed €18.0 million to revenues and €-3.2 million to earnings after income taxes in the 2019 financial year. If Valeco had been fully consolidated since the beginning of the year, Group revenue would have increased by €18.0 million to €18,783.0 million, and earnings after income taxes would have decreased by €3.2 million to €901.1 million.

The following assets and liabilities were taken over as part of the acquisition:

in € million	Fair value
Intangible assets	148.2
Property, plant and equipment	146.5
Other non-current assets	282.6
Cash and cash equivalents	41.9
Other current assets	24.5
Total assets	643.7
Non-current liabilities	246.4
Current liabilities	33.5
Total liabilities	279.9
Net assets ¹	363.8
Non-controlling interests	4.5
Fair value of the shares	603.6
Goodwill	244.3

¹ The calculation of the fair value of these assets and liabilities has not yet been concluded because analyses relating to the assets and liabilities are still outstanding. Therefore, provisional values have been stated in accordance with IFRS 3.45.

The fair value of the trade receivables acquired as part of the business combination stood at €4.3 million. There were no material individual impairment losses. It is anticipated that the total amount of the trade receivables will be largely collected.

First-time full consolidation of Plusnet

The expansion of activities in the area of telecommunications through the acquisition of 100% of the shares in Plusnet GmbH, Cologne, from QSC AG on 30 June 2019 is part of the strategy to develop EnBW into a supplier of sustainable infrastructure. The company was fully consolidated in the EnBW consolidated financial statements from this point in time. Plusnet has long-standing experience in the operation of modern broadband technology, as well as established sales channels, and operates its own nationwide voice/data network.

The fair value of Plusnet at the time of full consolidation was €227.0 million. There were no significant incidental acquisition costs incurred as part of the transaction. The purchase price was paid in the form of cash and cash equivalents. The amount reported for goodwill is preliminary due to the fact that the analysis of the fair value of the assets and liabilities has not yet been concluded. In particular, it represents future growth expectations and is not deductible for tax purposes.

Following its full consolidation, Plusnet contributed €148.0 million to revenues and €3.0 million to earnings after taxes in the 2019 financial year. If Plusnet GmbH had been fully consolidated since the beginning of the year, Group revenue would have increased by €148.0 million to €18,913.0 million, and earnings after income taxes would have increased by €3.0 million to €907.3 million.

The following assets and liabilities were taken over as part of the acquisition:

in € million	Fair value
Intangible assets	114.2
Property, plant and equipment	93.4
Other non-current assets	18.7
Cash and cash equivalents	35.9
Other current assets	47.3
Total assets	309.5
Non-current liabilities	77.4
Current liabilities	72.2
Total liabilities	149.6
Net assets ¹	159.9
Fair value of the shares	227.0
Goodwill	67.1

¹ The calculation of the fair value of these assets and liabilities has not yet been concluded because analyses relating to the assets and liabilities are still outstanding. Therefore, provisional values have been stated in accordance with IFRS 3.45.

The fair value of the trade receivables acquired as part of the business combination stood at €37.5 million. There were no material individual impairment losses. It is anticipated that the total amount of the trade receivables will be largely collected.

Full consolidation without a change in shareholding due to obtaining control in 2019

Full consolidation of EnBW Hohe See

As the requirement for unanimity in the General Meeting of Shareholders ended with the commissioning of the wind farm, EnBW has now obtained control of EnBW Hohe See GmbH & Co. KG, Hamburg, in which it holds a 50.11% shareholding. The other shareholder is a subsidiary of the Canadian energy infrastructure company Enbridge Inc., Calgary. EnBW Hohe See has been fully consolidated in the EnBW consolidated financial statements since 1 October 2019. EnBW Hohe See is an offshore wind farm in the North Sea consisting of 71 wind turbines with a total output of 497 MW. EnBW had previously reported the shares in EnBW Hohe See in the consolidated financial statements as a joint venture using the equity method due to the lack of control as a result of a requirement for unanimity in the General Meeting of Shareholders during the construction phase.

The fair value of the shares held by EnBW in EnBW Hohe See at the time of full consolidation was €1,094.3 million. As the disposal of the EnBW Hohe See shares accounted for using the equity method was worth €847.0 million, there was income of €247.3 million which was reported in the investment result. The value of the non-controlling interest was calculated pro rata based on the identifiable net assets of EnBW Hohe See and stood at €1,096.3 million.

Following its full consolidation, EnBW Hohe See contributed €68.4 million to revenues and €46.3 million to earnings after income taxes in the 2019 financial year. If EnBW Hohe See had been fully consolidated since the beginning of the year, there would not have been any significant increase in Group revenue and earnings after income taxes because EnBW Hohe See was only commissioned for the first time on 1 October 2019.

The following assets and liabilities were taken over as part of the acquisition:

in € million	Fair value
Intangible assets	997.0
Property, plant and equipment	1,532.6
Cash and cash equivalents	162.8
Other current assets	16.5
Total assets	2,708.8
Non-current liabilities	206.2
Current liabilities	312.0
Total liabilities	518.3
Net assets ¹	2,190.6
Non-controlling interests	1,096.3
Net assets attributable to the shareholders of EnBW AG	1,094.3
Fair value of the shares	1,094.3
Goodwill	0.0

1 The calculation of the fair value of these assets and liabilities has not yet been concluded because analyses relating to the assets and liabilities are still outstanding. Therefore, provisional values have been stated in accordance with IFRS 3.45.

The fair value of the trade receivables acquired as part of the business combination stood at €8.5 million. There were no material individual impairment losses. It is anticipated that the total amount of the trade receivables will be largely collected so that the gross value corresponds to the fair value of the trade receivables.

Full consolidation of EnBW Albatros

As the requirement for unanimity in the General Meeting of Shareholders ended with the commissioning of the wind farm, EnBW obtained control of EnBW Albatros GmbH & Co. KG, Hamburg, in which it holds a 50.11% shareholding, on 6 January 2020. The other shareholder is a subsidiary of the Canadian energy infrastructure company Enbridge Inc. EnBW Albatros has been fully consolidated in the EnBW consolidated financial statements since 1 January 2020.

The fair value of the assets and liabilities are currently being determined.

Disposal of entities accounted for using the equity method in 2019

Sale of interest in EMB Energie Mark Brandenburg

The EnBW Group sold its 25.1% shareholding in EMB Energie Mark Brandenburg GmbH, Potsdam, to GASAG AG, Berlin, on 30 September 2019. Income of €16.6 million was reported in the investment result. The proceeds of the sale were paid to EnBW in cash and cash equivalents.

First-time full consolidation of affiliated entities 2018

First-time full consolidation of EnBW Sverige Vind

In order to strengthen the onshore wind business, EnBW acquired 100% of EnBW Sverige Vind AB, Falkenberg, Sweden (formerly Power Wind Partners AB), from the Swedish financial investors Proventus Invest AB, FAM AB, companies in the Folksam Group and KPA Pensionsförsäkring AB on 19 December 2018. EnBW Sverige Vind was fully consolidated in the EnBW consolidated financial statements from this point in time. EnBW Sverige Vind has 47 wind turbines in central and northern Sweden with a total output of 95.5 MW. In addition, the company holds shares in two grid companies. The wind power plants were commissioned between 2007 and 2011.

The fair value of EnBW Sverige Vind at the time of full consolidation was €63.2 million. There were no significant incidental acquisition costs incurred as part of the transaction. The purchase price was paid in the form of cash and cash equivalents.

If EnBW Sverige Vind had been fully consolidated since the beginning of the year, Group revenue would have increased by €9.9 million to €20,825.3 million, and earnings after income taxes would have decreased by €1.0 million to €466.6 million.

The following assets and liabilities were taken over as part of the acquisition:

in € million	Fair value
Intangible assets	2.4
Property, plant and equipment	66.5
Cash and cash equivalents	0.9
Other current assets	3.0
Total assets	72.8
Non-current liabilities	6.7
Current liabilities	2.9
Total liabilities	9.6
Net assets	63.2
Fair value of the shares	63.2
Goodwill	0.0

Changes in the shareholdings of fully consolidated companies with loss of control in 2018

Sale of interest in VNG Norge

The EnBW Group sold 100% of the shares in VNG Norge AS, Stavanger, Norway, and its subsidiary VNG Danmark ApS, Copenhagen, Denmark, to Neptune Energy Norge AS, Sandnes, Norway, on 28 September 2018. VNG Norge and VNG Danmark are responsible for oil and gas exploration and production. Income of €81.6 million including a contingent payment of €29.6 million was generated as a result of the sale and is reported under other operating income. The proceeds of the sale were paid to EnBW in cash and cash equivalents. The conditional purchase price of €21.8 million was recognised in profit or loss in 2019.

Changes in accounting policies

First-time adoption of amended accounting standards

The IASB and IFRIC have adopted the following new standards, amendments to existing standards, and interpretations of which application is mandatory as of the 2019 financial year:

- ▶ Amendments to IAS 19 (2018) “Plan Amendment, Curtailment or Settlement”
- ▶ Amendments to IAS 28 (2017) “Long-term Interests in Associates and Joint Ventures”
- ▶ Amendments to IFRS 9 (2017) “Prepayment Features with Negative Compensation”
- ▶ IFRIC 23 (2017) “Uncertainty over Income Tax Treatments”
- ▶ Collective standard for the amendment of various IFRS (2017) “Annual Improvements to IFRS Standards 2015–2017 Cycle”

These new rules have no material impact on the EnBW consolidated financial statements.

- ▶ **IFRS 9 (2019) IFRIC agenda decision “Physical settlement of contracts to buy or sell a non-financial item”:** Due to the IFRIC agenda decision, forward contracts for the purchase or sale of non-financial items that are physically settled, and which are recognised as derivatives though profit and loss, must be reported at the relevant spot price under revenues, cost of materials or inventories when they are physically settled. The valuations that were reported as other operating income or expenses can no longer be taken back when the forward contract is settled. In view of this decision, the previously standard practice in the energy industry of reporting physically settled forward contracts within the scope of IFRS 9 based on their forward price can no longer be used. The presentation of the resulting revenues and cost of materials from these contracts will in future thus no longer reflect the contractually agreed prices and will thus not show the actual economic success of the transactions.

The application of the IFRIC agenda decision led to a restatement of the figures for the previous year:

in € million	2018 before application of the agenda decision	Change	2018 after application of the agenda decision
Revenue including electricity and energy taxes	21,193.1	197.9	21,391.0
Electricity and energy taxes	-575.6	0.0	-575.6
Revenue	20,617.5	197.9	20,815.4
Other operating income	1,116.7	68.4	1,185.1
Cost of materials	-16,657.6	-180.5	-16,838.1
Other operating expenses	-1,194.5	-85.8	-1,280.3
EBITDA	2,089.6	0.0	2,089.6

This only had an impact on the presentation of the figures and had no effect on the result of the Group.

The IASB has also adopted the following new standard whose application is mandatory from the 2019 financial year:

- IFRS 16 (2016) “Leases”:** The standard replaces the current standard for accounting for leases IAS 17 and the associated interpretations IFRIC 4, SIC 15 and SIC 27. IFRS 16 must be applied for financial years beginning on or after 1 January 2019. The new standard introduces a uniform accounting model for the lessee, whereby for all leases the lessee recognises the conferred right of use as an asset and a corresponding lease liability. During the term of the lease, the right of use is depreciated and the measurement of the lease liability is carried out using the effective interest method. Accounting for expenses for operating leases on a straight-line basis according to IAS 17 will be replaced by depreciation of the right-of-use assets and interest expenses for the liabilities from the lease. The accounting regulations and the associated classification of leases in line with IAS 17 will remain largely unchanged for the lessor. The transition to the new standard took place on 1 January 2019 according to the modified retrospective approach; the figures for the previous year will not be adjusted. Furthermore, the option of reporting the right of use to the leased asset in the amount of the lease liability at the time of transition was utilised. In this context, no initial direct costs were taken into account when measuring the right-of-use assets. The latest findings on whether agreed extension and termination options are being exercised were considered when determining the amount of the lease liability.

The simplified approach was used by the EnBW Group to apply IFRS 16 at the time of transition to leases that were already classified as leases according to IAS 17 and IFRIC 4. Due to the first-time application of IFRS 16, right-of-use assets of €509.7 million and lease liabilities of €521.0 million were reported as of 1 January 2019. The €11.3 million difference between the lease liabilities and the right-of-use assets was due to the utilisation of the option to reduce the assets by the amount of provisions for onerous lease contracts as an alternative to performing an impairment review. The first-time application of IFRS 16 resulted in a shift between EBITDA and amortisation and depreciation, as well as interest expenses in the income statement. Accordingly, the EBITDA increased by €114.2 million, amortisation and depreciation by €110.1 million and interest expenses by €7.8 million in the 2019 financial year. On the consolidated cash flow statement, the first-time application of IFRS 16 resulted in an increase in the cash flow from operating activities of €114.2 million due to the higher EBITDA, while the cash flow from financing activities decreased by €114.2 million due to the repayment and interest portion of the lease liability.

On the basis of the commitments from operating leases as of 31 December 2018, the transition to the opening balance for the lease liabilities as of 1 January 2019 breaks down as follows:

in € million	01/01/2019
Commitments from operating leases as of 31/12/2018	499.7
Minimum lease payments (nominal value) from finance lease liabilities as of 31/12/2018	162.9
Relief for short-term leases	-14.8
Relief for leases involving low-value assets	-6.6
Non-lease components	1.5
Reasonably certain extension and termination options	8.0
Variable index-based lease payments	0.8
Residual value guarantees	0.1
Other	51.4
Gross lease liabilities as of 01/01/2019	703.0
Discounting	-82.3
Lease liabilities as of 01/01/2019	620.7
Present value of the finance lease liabilities as of 31/12/2018	-99.8
Additional lease liabilities due to the first-time application of IFRS 16 as of 01/01/2019	521.0

Amongst other things, “Other” includes other lease term assumptions. The weighted average incremental borrowing rate on 1 January 2019 was 1.33%. The following main classes of underlying assets for former operating leases were identified in the Group that are reported according to the new accounting principles in IFRS 16: distribution facilities and grids, real estate, land, power plants, vehicles and other technical equipment.

Effects of new accounting standards that are not yet mandatory

The IASB and IFRIC have published the following standards and interpretations whose application is expected to have no material impact on the EnBW consolidated financial statements. Their application in the future is subject to their endorsement by the EU into European law.

- › Amendments to IAS 1 (2020) “Classification of Liabilities as Current or Non-Current”
- › Amendments to IAS 1 and IAS 8 (2018) “Definition of Material”
- › Amendments to IFRS 3 (2018) “Business Combinations”
- › Amendments to IFRS 10 and IAS 28 (2014) “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”
- › IFRS 17 (2017) “Insurance Contracts”
- › Amendments to the References to the Conceptual Framework for the IFRS Standards (2018)
- › Amendments to IFRS 9, IAS 39 and IFRS 7 – Interest Rate Benchmark Reform (2019)

Significant accounting policies

Intangible assets

Intangible assets acquired for a consideration are carried at amortised cost and, except for goodwill, are amortised using the straight-line method over their useful life. The amortisation period of purchased software ranges from 3 to 5 years; the amortisation period of concessions for power plants is between 15 and 65 years. Customer relationships are amortised over their expected useful life of between 4 and 30 years, water rights and the underlying concessions are amortised over 20 years. Until the sale of VNG Norge AS and its subsidiary, the amortisation period for exploration licences was dependent on production and between 12 and 18 years.

Petroleum/natural gas production licences and exploration costs were reported using the successful efforts accounting method according to IFRS 6 until the sale of VNG Norge AS and its subsidiary. The costs were amalgamated in so-called cost centres. The assets were measured at their acquisition or production costs; the subsequent measurement was carried out based on the acquisition cost method. Assets related to secure and economically recoverable deposits were reclassified under property, plant and equipment and depreciated from this point in time.

Internally generated intangible assets are recognised at cost if it is probable that a future economic benefit will flow to the company from the use of the asset and the cost of the asset can be reliably determined. If the recognition criteria are not satisfied, costs are expensed immediately through profit or loss in the year in which they were incurred. At the EnBW Group, these assets relate to software programmes that are amortised on a straight-line basis over a useful life of five years.

The useful lives and amortisation methods are reviewed regularly.

In accordance with the provisions of the IFRS, goodwill from business combinations is not amortised, but tested for impairment at least once a year and whenever there is any indication that the recoverable amount may be lower than the carrying amount.

Property, plant and equipment

Items of property, plant and equipment are measured at cost. Items that are subject to wear and tear are depreciated using the straight-line method over the expected useful life of their individual components. Depreciation is recorded pro rata temporis in the year of addition.

Maintenance and repair costs are recorded as expenses. Renewal or maintenance expenses which lead to future economic benefits of an asset are capitalised.

Construction cost subsidies and household connection costs, as well as investment grants and subsidies, are not deducted from the cost of the asset concerned, but recognised on the liabilities side of the balance sheet.

The power plants also contain the present value, net of depreciation, of the estimated cost of decommissioning. In the case of nuclear power plants, these costs include the cost of decommissioning and dismantling the contaminated facilities.

Depreciation on our major items of property, plant and equipment is computed using the following uniform Group-wide useful lives:

Useful life

in years	
Buildings	25–50
Power plants	10–50
Electricity distribution plants	25–45
Gas distribution plants	10–55
Water distribution plants	15–40
District heat distribution plants	15–30
Telecommunications distribution facilities	4–20
Other equipment, factory and office equipment	4–14

The useful lives and amortisation methods are reviewed regularly.

Property, plant and equipment are derecognised upon disposal or when no further economic benefits are expected from their continued use or sale. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement in the period the asset is derecognised.

Borrowing costs

If a qualifying asset necessarily takes a substantial period of time (more than twelve months) to be made ready for its intended use, the borrowing costs incurred until it is ready for its intended use that are directly attributable to its acquisition or production are capitalised as part of the respective asset. Where there are specific debt financing arrangements, the respective borrowing costs incurred are used. Where the debt financing arrangements are not specific, borrowing costs are capitalised using a uniform rate within the Group of 2.5% (previous year: 3.0%). Borrowing costs totalling €27.2 million were capitalised in the current financial year (previous year: €9.9 million).

Leases

A lease according to IFRS 16 is an agreement that conveys the right to use an asset for a period of time in exchange for the payment of a consideration. Since 1 January 2019, the rights of use to the leased assets must be reported for all leases in which the EnBW Group is the lessee. These are recognised under property, plant and equipment. Correspondingly, the payment obligations from leases must be reported as lease liabilities. In subsequent valuations, the right-of-use assets are depreciated over the term of the lease. The lease liabilities, which are reported under other liabilities, are determined based on the present value of the payment obligations arising from the lease and recognised accordingly using the effective interest method. The lease payments considered in this process are discounted using the interest rate implicit in the lease, insofar as this can be determined. Otherwise, the payments are discounted using the incremental borrowing rate.

In the case of short-term leases and leases involving low-value assets, the option of using the simplified approach is utilised and the lease payments are recognised as an expense in the income statement. Moreover, the option not to separate lease and non-lease components is utilised, except in the case of leases for vehicles, real estate and gas caverns. The simplified approaches used at the time of the transition to IFRS 16 are described in the section “First-time adoption of amended accounting standards”.

Leases where the EnBW Group as lessor transfers substantially all the risks and rewards of ownership of the leased asset to the lessee are classified as finance leases. In this case, a receivable is recognised for the amount of the net investment in the lease. The payments made by the lessee are split into repayments for the principal and interest income and recognised accordingly using the effective interest method. All other leases are classified as operating leases. The leased asset is reported under property, plant and equipment and depreciated over its useful life. The payments made by the lessee are recognised as income on a straight-line basis over the term of the lease.

A lease was recognised according to the rules of IAS 17 up until 31 December 2018. According to this replaced standard, leases where the EnBW Group as lessee retains substantially all the risks and rewards of ownership of the leased asset were classified as finance leases. The leased asset was recognised at the lower of fair value and the present value of the minimum lease payments. A liability of the same amount was recognised. The recognised leased asset was depreciated over the shorter of its useful life and the lease term. The liability was repaid and carried forward in subsequent periods using the effective interest method. All other leases where the EnBW Group is the lessee were classified as operating leases. Lease payments and instalments from operating leases were recognised directly as an expense in the income statement. From the perspective of the lessor, the rules for the accounting of leases according to IAS 17 generally correspond to those according to IFRS 16.

Impairment losses/reversals of impairment losses

The carrying amounts of intangible assets, property, plant and equipment and investment properties are tested for impairment when circumstances or events indicate that there could be an impairment or increase in value. If such indications exist, the recoverable amount of the asset concerned is determined through impairment testing. The recoverable amount is the higher of the fair value less costs to sell and the value in use.

The fair value is determined on the basis of a business valuation model and reflects the best estimate of the amount at which a third party would acquire the asset. The value in use corresponds to the present value of the future cash flows expected to be derived from an asset or cash-generating unit. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

If it is not possible to determine the recoverable amount for an individual asset, the recoverable amount is determined for the cash-generating unit to which the asset can be allocated.

Goodwill arising from business combinations is allocated to the cash-generating units or groups of cash-generating units that are expected to achieve synergies from the business combination.

The recoverable amount of these cash-generating units or groups of cash-generating units is tested for impairment at least once a year. An additional test is performed whenever there is any indication that the carrying amount may not be recoverable. For more information, please refer to note (10) "Intangible assets".

If the recoverable amount of an asset falls short of its carrying amount, an impairment loss is recognised in profit or loss immediately. In the event of impairment losses on cash-generating units to which goodwill has been allocated, the goodwill is reduced first. If the impairment loss exceeds the carrying amount of the goodwill, the difference is allocated proportionally to the remaining non-current assets of the cash-generating unit.

If the reason for a previously recognised impairment loss no longer exists at a later date, the impairment loss is reversed. The increased carrying amount of the asset attributable to a reversal may not exceed the carrying amount that would have been determined had no impairment loss been recognised in previous years (amortised cost).

An impairment loss recognised for goodwill may not be reversed in a subsequent period. Accordingly, impairment losses on goodwill are not reversed.

Investment properties

Investment properties include land and buildings which are held to earn rental income or for capital appreciation and are not used by EnBW itself. Investment properties are measured at cost less depreciation and, for the term of their finite useful life, are depreciated over a term of 25 to 50 years using the straight-line method.

Financial assets

For financial assets, a differentiation is made between debt instruments and equity instruments. Debt instruments are split into three business models: "hold", "hold to collect and sell" and "other". The business models determine the measurement categories for the debt instruments. The "hold" business model includes trade receivables, lease receivables and loans, which are generally held to maturity and are thus allocated to the "measured at amortised cost" measurement category. Trade receivables mainly comprise contracts with customers. As in the previous year, loans subject to market interest rates are recognised at nominal value and low-interest or interest-free loans at present value. The "hold to collect and sell" business model comprises fixed-income and floating-rate interest securities. These are allocated to the "measured at fair value through profit or loss" or "measured at fair value in equity" measurement categories. A cash flow characteristics test in accordance with IFRS 9 is carried out for these securities to test whether the cash flows arise exclusively to make interest and redemption payments on the outstanding amount. The securities that pass the cash flow characteristics test are measured at fair value in equity, otherwise the securities are measured at fair value through profit or loss. The "other" business model comprises all debt instruments that are not allocated to the "hold" or "hold to collect and sell" business models. As a result, these debt instruments are allocated to the "measured at fair value through profit or loss" measurement category.

Equity instruments are allocated to the "measured at fair value through profit or loss" measurement category. The option of measuring equity instruments at fair value in equity without recycling is not currently being utilised.

To determine the fair value, the market price on the reporting date is taken for publicly listed financial assets. If no active market exists, the fair value is determined using the most recent market transaction or using a valuation method (such as the discounted cash flow method). If the input parameters for such a valuation cannot be reliably determined with the amount of effort appropriate for the materiality of the equity instrument, the valuation is carried out at acquisition costs. Trade receivables usually have short terms to maturity. Consequently, their carrying amounts as of the reporting date approximate their fair value. Receivables that bear off-market interest or are interest free with remaining terms to maturity of more than one year are reported in the balance sheet at present value. For other current assets, it is assumed, as in the previous year, that the fair value approximates the carrying amount. For non-current other assets, the market value is determined by discounting the expected future cash flows.

Impairment of financial assets

Financial assets that belong to the “measured at amortised cost” or “measured at fair value in equity” measurement categories are impaired using the 3-stage impairment model according to IFRS 9. In stage 1, risk provisions for expected credit losses over the next twelve months are calculated (12-month PD). If the default risk has increased significantly, the expected loss over the whole lifetime is calculated in stages 2 and 3 (lifetime ECL). For financial assets in the “measured at amortised cost” or “measured at fair value in equity” categories, a risk provision is determined at the time of acquisition in the amount of the expected loss within one year (risk provision stage 1). If there has been significant deterioration in the borrower’s credit rating, the calculation horizon is extended to cover the lifetime of the receivable (risk provision stage 2). If the credit rating has deteriorated so much as to jeopardise payment or the borrower has actually defaulted, the asset is transferred to risk provision stage 3. The risk provision is also calculated here based on the expected losses over the lifetime of the receivable. In contrast, any interest income is now recognised on the basis of the net carrying amount after impairment and using the effective interest rate, and no longer on the basis of the gross carrying amount.

A significant increase in the default risk exists at the latest when a payment is more than 30 days past due. An earlier reclassification based on findings from the claims management process is also fundamentally possible. Default is assumed if the payment is 90 days or more past due or if the payment is no longer considered likely due to other events (such as opening insolvency proceedings). Due to the small scope and lack of historical data for defaults on financial assets, the actually expected losses are determined based on weighted expert estimates or external ratings (if available). As long as the absolute default risk is classified as low, the asset is generally not transferred to stage 2. It can be assumed in this process that a financial instrument has a “low default risk” if it fulfils the criteria to achieve an “investment grade” credit rating.

In order to evaluate whether there has been a significant change in the default risk, any actual or expected significant changes are examined, taking into account, amongst other things, the following factors:

- › external or internal credit rating of the financial instrument
- › business/financial or economic framework conditions
- › operating result of the borrower
- › regulatory/economic or technological environment of the borrower
- › financial support from a parent company
- › payment history
- › quality of the guarantees provided by a shareholder
- › information on delayed payments

In the case of trade receivables, the simplified approach for determining impairments according to IFRS 9 is used irrespective of their term. Accordingly, the expected loss over the whole lifetime is always used for the risk provision. The expected loss rates are calculated based on historical defaults for each customer group. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors that could have an impact on the payment behaviour of our customers. Gross domestic product has been identified as the most relevant factor in this area. In exceptional cases, the default probability is taken from default probabilities that are available externally instead of using historical data. In the previous year, the impairments recognised on trade receivables were based on the actual default risk.

As in the previous year, receivables are generally written off when the receivable is deemed irrecoverable. Possible factors could be:

- › an unsuccessful enforcement order
- › filing for insolvency proceedings or opening the subsequent insolvency proceedings or refusal to open the insolvency proceedings due to a lack of assets
- › a declaration about the ineligibility of the receivable in a court order

However, receivables may only be written off when there is no liability that could be offset against it. Impairment loss expenses are netted as a separate item on the income statement.

Inventories

Inventories are recorded at cost. As a rule, they are measured at average prices. Pursuant to IAS 2, costs of conversion contain the direct costs and an appropriate portion of the necessary materials and production overheads including depreciation. Costs of conversion are determined on the basis of normal capacity utilisation. Borrowing costs are not capitalised as a component of costs of conversion. Appropriate allowance is made for risks relating to reduced usability. Where necessary, the lower net realisable value compared to the carrying amount is recognised. Reversals of impairment losses on inventories are deducted from the cost of materials.

The nuclear fuel rods disclosed in the inventories are measured at amortised cost. Consumed nuclear fuel rods are recognised under cost of materials based on their actual consumption.

Inventories acquired for trading purposes are recognised at fair value less costs to sell.

Emission allowances

Emission allowances acquired for production purposes are recognised at cost as inventories. Emission allowances acquired for trading purposes are recognised as other assets at fair value through profit or loss, and any fluctuation in fair value is recognised directly in profit or loss.

The obligation to return emission allowances is accounted for under other provisions. The carrying amount of the provision is determined based on the carrying amount of the existing emission allowances. If further emission allowances are needed, they are accounted for at their fair value as of the reporting date.

Treasury shares

Own equity instruments which are repurchased (treasury shares) are deducted from equity. No gain or loss is recognised in the income statement on the purchase, sale, issue or cancellation of the Group's own equity instruments.

Provisions for pensions and similar obligations

For defined benefit plans, provisions for pensions and similar obligations are determined using the projected unit credit method in accordance with IAS 19. This method considers current and future pension benefits known at the reporting date as well as future anticipated salary and pension increases. Actuarial gains and losses are recorded in their entirety in the financial year in which they arise. They are reported outside of the income statement in the statement of comprehensive income as part of the cumulative changes not impacting income and recorded directly in equity. There will be no recognition in profit and loss in subsequent periods. Plan assets of funds established to cover the pension obligations are deducted from the provision. The service cost is disclosed in personnel expenses, while the net interest portion of additions to the provision and the return on plan assets are recorded in the financial result. Payments for defined contribution plans are recognised as personnel expenses.

Provisions relating to nuclear power

The Act for the Reorganisation of Responsibility in Nuclear Waste Management, which came into force in the middle of June 2017, establishes new rules for the roles and financial responsibilities of the German government and operators. According to the new law, operators are responsible for the decommissioning and dismantling of their nuclear power plants, as well as for the conditioning and packaging of the radioactive waste. The provisions accumulated for these purposes will remain with the companies. The transport, intermediate storage and final storage of the waste is the responsibility of the German government, who has been provided with the money to finance these tasks by the operators of the nuclear power plants. The evaluation of the provisions is carried out mainly on the basis of estimates, which for the decommissioning and dismantling of nuclear power plants, as well as for the conditioning and packaging of radioactive waste, are primarily derived from sector-specific appraisals. The provisions are recognised at the discounted settlement amount at the time they originated.

Other provisions

Other provisions take account of all legal or constructive obligations towards third parties resulting from past events that are identifiable at the reporting date, to the extent that it is probable that they will lead to an outflow of resources in future and their amount can be reliably estimated. The provisions are recognised at their settlement amount. They are measured at the estimated future amount or the amount most likely to be incurred.

The non-current provisions are stated at the future amount needed to settle the obligation discounted to the reporting date. This does not apply to provisions for pensions and similar obligations. These are subject to special rules in accordance with IAS 19.

Deferred taxes

Deferred taxes are recorded in accordance with the temporary concept (IAS 12) on all temporary differences between the tax accounts and the IFRS balance sheet of the individual entities. Deferred taxes from consolidation entries are recognised separately. Deferred tax assets are recognised on deductible temporary differences and carryforwards of unused tax losses if it is reasonably certain that they will be recovered.

Deferred taxes are calculated on the basis of the tax rates that apply or that are expected to apply in the individual countries at the time of utilisation. A tax rate of 29.4% was applied for German Group companies (as in the previous year). Tax assets and tax liabilities are netted with each other by consolidated tax group or entity if the conditions to do so have been satisfied.

Financial liabilities

Financial liabilities are recorded at fair value upon initial recognition. After initial recognition, they are measured at amortised cost. In the previous year, other financial liabilities included liabilities from finance leases according to IAS 17, which were measured at the lower of fair value and present value of the minimum lease payments at the date when the leased asset was recognised. These will be recognised under other liabilities as lease liabilities and at the present value of the outstanding lease payments according to IFRS 16 from the 2019 financial year onwards.

The fair value of bonds listed on the capital market is the nominal value multiplied by the quoted price as of the reporting date. For current financial liabilities, it is assumed that the fair value corresponds to the carrying amount. For non-current financial liabilities, the market value is determined by discounting the expected future cash outflows. If these financial liabilities are subject to floating interest rates, the carrying amount corresponds to the fair value.

Trade payables and other liabilities

Trade payables and other liabilities are recognised at the amount repayable. Trade payables primarily have short terms to maturity. Consequently, their carrying amounts as of the reporting date approximate their fair value. For current other liabilities, it is assumed that the fair value corresponds to the carrying amount. For non-current other liabilities, the market value is determined by discounting the expected future cash outflows. The construction cost subsidies and household connection costs carried as liabilities are reversed to revenue in some cases based on the use of the subsidised item of property, plant and equipment, and in other cases according to the electricity and gas grid fee ordinance. As a rule, the period of reversal for construction cost subsidies is between 20 and 45 years. Investment cost subsidies are reversed over the depreciation period of the subsidised assets. The reversal is offset openly against depreciation.

From the 2019 financial year, other liabilities will include lease liabilities according to IFRS 16, which are recognised at the present value of the outstanding lease payments. This also includes leases that were previously classified as finance leases from the perspective of the lessee according to IAS 17 and were reported under financial liabilities in the previous year.

Assets held for sale and liabilities directly associated with assets classified as held for sale

Assets held for sale are individual non-current assets and groups of assets which can be sold in their present condition, whose sale is highly probable and which satisfy all the criteria defined in IFRS 5. The item “liabilities directly associated with assets classified as held for sale” includes liabilities that are part of a group of assets held for sale.

Assets classified as “assets held for sale” for the first time are measured at the lower of carrying amount and fair value less costs to sell, and depreciation on such assets ceases.

Gains or losses from measuring individual assets and groups of assets held for sale are disclosed as profit or loss from continuing operations until they are finally sold.

Derivatives

Derivatives are in accordance with IFRS 9 measured at fair value. Both the counterparty’s credit default risk and that of the company itself are taken into account in the calculation of fair value. Default risk with respect to an individual counterparty is calculated on the basis of the net risk position. In the case of derivatives for which net recording is not permitted, the credit default risk calculated on the basis of the net position is recorded in proportion to the fair value before the value adjustment. In accordance with the “net approach”, this involves allocating the value adjustment solely to the derivatives’ asset or liability surplus that arises. The derivatives are recognised under other assets and other liabilities and subsidies.

Derivatives are measured using quoted prices in active markets such as stock market prices. Where such prices are not available, the fair values are determined by reference to generally accepted valuation techniques. Quoted prices in active markets are used as inputs wherever possible. If they are not available either, entity-specific planning assumptions are considered in the valuation.

If they are contracts that were entered into and continue to be held for the purpose of the receipt or delivery of a non-financial item, in accordance with the entity’s expected purchase, sale or usage requirements (own use), they are not recognised as derivatives under IFRS 9, but as executory contracts in accordance with IAS 37.

Derivatives are allocated to the “measured at fair value through profit or loss” measurement category unless hedge accounting is used.

For derivatives used in a hedge, the accounting treatment of changes in fair value depends on the nature of the hedge.

In the case of changes in the fair value of cash flow hedges which are used to offset future cash flow risks arising from existing hedged items or highly probable forecast transactions, the unrealised gains and losses are initially recognised directly in equity (other comprehensive income) in the amount of the hedged item covered. Amounts are reclassified to the income statement when the hedged item impacts profit or loss.

In the case of a fair value hedge used to hedge the fair value of reported assets or liabilities, the gains or losses from the measurement of derivatives and the associated hedged items are recognised in profit or loss.

Foreign currency risks from investments with a foreign functional currency are secured by hedges of a net investment in a foreign operation. Unrealised exchange rate differences are initially recognised in equity and reclassified to profit or loss when the foreign operation is sold.

Hedging relationships are designated in accordance with the risk management goals and strategies explained in note (25) “Accounting for financial instruments”. The economic relationship between the hedging instrument and the hedged transaction, as well as the evaluation of the expected effectiveness of the hedge, are documented at the beginning. Primary and derivative financial instruments will be netted in the balance sheet if an unconditional right to offset exists, or when there is an intention to offset or realise the asset and settle the liability.

Contingent liabilities

Contingent liabilities are possible obligations to third parties or present obligations where the probability of an outflow of resources is remote or the amount cannot be determined reliably. Contingent liabilities outside of company acquisitions are not recognised.

Financial guarantees

Financial guarantees are contracts where EnBW is required to make specified payments to reimburse the holder for a loss incurred because a debtor fails to meet its payment obligations under the financial guarantee. Financial guarantees are measured at fair value upon initial recognition. After initial recognition, the financial guarantees are measured at the higher of amortised cost and the best estimate of the present obligation as of the reporting date.

Revenue recognition

According to IFRS 15, revenue is recognised when control over a good or service has been transferred to the customer. Please refer to note (1) "Revenue" for more details on the accounting policies. Revenue is measured according to the consideration defined in the contract with the customer, whereby sales deductions such as price discounts or variable components must be taken into account. Amounts collected on behalf of third parties are excluded from this process. Revenue is recognised net of VAT and after the elimination of intercompany sales.

Exercise of judgement and estimates when applying accounting policies

The preparation of the consolidated financial statements requires judgements and estimates to be made in applying the accounting policies that affect the reported amounts of assets and liabilities, revenue and expenses, and the disclosure of contingent liabilities.

The following judgements in particular have to be made in the process of applying the accounting policies:

- ▶ Judgement is required with respect to certain commodity futures contracts to determine whether they are derivatives as defined by IFRS 9 or executory contracts in accordance with the provisions of IAS 37.
- ▶ Financial assets are allocated to the "measured at amortised cost", "measured at fair value through profit or loss" and "measured at fair value in equity" measurement categories according to IFRS 9.

These estimates are based on assumptions and forecasts which, by their very nature, are uncertain and may be subject to change. The key future-oriented assumptions and other sources of uncertainty as of the reporting date, concerning estimates which have given rise to a considerable risk that material adjustments of carrying amounts of assets and liabilities may be required in the next financial year, are explained below:

Goodwill: Goodwill is tested for impairment at least once a year. The impairment test involves estimates that concern, above all, future cash surpluses. To determine the recoverable amount, an appropriate discount rate must be chosen. Future changes in the overall economic, industry or company situation may reduce the cash surpluses or the discount rate, and thus potentially lead to an impairment of goodwill.

Exploration costs: Exploration costs were reported using the successful efforts accounting method until the sale of VNG Norge AS and its subsidiary. The costs for exploration drilling and licence-specific seismic data and analyses were capitalised. All capitalised exploration costs were examined from an economic, technical and strategic perspective at least once a year to see whether any development would have been economically advantageous.

Property, plant and equipment: Property, plant and equipment are tested for impairment when circumstances or events indicate that there could be an impairment or increase in value. For our power plants in particular, in addition to technical progress and damage, a change in expectations regarding short, medium and long-term electricity prices and the service life of the power plants may lead to impairment losses or reversals of impairment losses. A suitable interest rate is to be used when performing the impairment tests. If this interest rate changes, for example due to a change in the macroeconomic or industry situation, recognition of impairment losses or reversals of impairment losses may also be necessary.

Impairment of financial assets: In order to determine impairments on financial assets, assumptions about the default risk are made that influence the loss rates. The assumptions are made based on the historical experiences of the Group and flow into the calculation of the impairments as input factors. Changes to market conditions and forward-looking estimates before the end of the relevant reporting period are also taken into account in the calculations. The most important assumptions and input factors are described in the section “Significant accounting policies”.

Determining the fair value of financial assets and financial liabilities: The fair value of financial assets and financial liabilities is determined by reference to quoted market prices, insofar as the financial instruments are traded on an active market, or by using valuation techniques such as the discounted cash flow method. Where the parameters used in the valuation techniques are not supported by observable market data, assumptions need to be made which can affect the fair value of financial assets and financial liabilities.

Pension provisions: When calculating pension provisions, differences compared to the actual obligations incurred over time may arise from the selection of underlying assumptions, such as the discount rate or trends, use of demographic probabilities based on the 2018 G Heubeck mortality tables and accepted approximation methods for future pension increases from the statutory pension insurance fund.

Nuclear provisions: The provisions for the decommissioning and dismantling of the power plants, as well as for the conditioning and packaging of radioactive waste, are based mainly on external appraisals that are updated annually. These appraisals are based on cost estimates of the settlement value for each obligation. The uncertainty inherent in the estimates is due primarily to departures from the assumed cost development and changes in payment dates. Changes in the discount rate could also lead to an adjustment of the nuclear provisions.

Provisions for onerous contracts: Provisions for onerous contracts are generally set up for onerous procurement and sales agreements. Future changes in market prices on the procurement or sales side or in the discount rates may lead to an adjustment of the provisions for onerous contracts.

Acquisition accounting: For acquisition accounting purposes, all identifiable assets, liabilities and contingent liabilities acquired in a share purchase are recognised at fair value as of the date of acquisition for first-time consolidation purposes. Estimates are used to calculate the fair value of these assets and liabilities as of the date of acquisition. Land and buildings as well as other equipment, factory and office equipment are generally measured by independent appraisers. Marketable securities are recognised at market price. If the purchase price agreement includes contingent considerations, accounting for those purchase price components also requires estimates.

The measurement of intangible assets is based on the nature of the intangible asset as well as the complexity of determining fair value. Fair value is therefore determined on the basis of an independent external valuation appraisal.

Income tax: Estimates are also needed to capitalise tax assets, to set up tax liabilities and to assess the temporary differences arising from differences in the accounting treatment of certain items in the financial statements between the consolidated balance sheet in accordance with IFRS and the tax accounts. Capitalisation of tax refund claims and the setting up of tax liabilities are fundamentally only recognised if the relevant payments are likely. Deferred tax assets or liabilities are recognised on temporary differences. Deferred tax assets are, in principle, only recognised when the future tax advantages will probably be realised or where deferred tax liabilities exist. Deferred tax assets are recognised for all carryforwards of unused tax losses to the extent that it is probable that taxable profit will be available against which the loss carryforwards can be utilised. The judgement exercised by management regarding the anticipated timing and level of future taxable profits, as well as regarding future tax planning strategies, is significant in determining the amount of deferred tax assets that can be recognised.

Entities accounted for using the equity method: IFRS financial statements were not available to us for all entities. Therefore, these entities were accounted for using the equity method based on an estimate of the HGB-IFRS differences. Investments that are accounted for using the equity method in the consolidated financial statements are tested for impairment when circumstances or events indicate that there could be an impairment loss or gain. The impairment test involves estimates that concern, above all, future cash surpluses. To determine the recoverable amount, an appropriate discount rate must be chosen. Future changes in the overall economic, industry or company situation may reduce cash surpluses or the discount rate, and thus potentially lead to an impairment of the investments.

Please refer to note (1) “Revenue” for more details on the exercise of judgement and estimates when applying IFRS 15.

Potential effects due to changes in estimates in other areas are explained in the respective sections. Please refer to note (20) “Provisions” for more information on provisions.

Currency translation

In the separate financial statements of the entities, business transactions in foreign currency are translated at the rate of the transaction date. Non-monetary items are measured at the rate prevailing when they were first recorded. Monetary items are translated at the closing rate as of the reporting date. Exchange differences from monetary items that are allocable to operating activities are recognised in other operating income or other operating expenses with effect on profit or loss. Translation differences from financing activities are disclosed in the interest result.

The reporting currency of EnBW, which is also the functional currency, is the euro (€). The financial statements of the Group entities are translated to euros. Currency translation is performed in accordance with IAS 21 “The Effects of Changes in Foreign Exchange Rates” using the modified closing rate method. Under this method, the assets and liabilities of entities that do not report in euros are translated at the mean rate prevailing on the reporting date, while expenses and income are translated at the average annual rate. The companies concerned are commercially independent foreign entities. Differences from the currency translation of assets and liabilities compared to the translation of the previous year, as well as exchange differences between the income statement and the balance sheet, are recognised directly in equity under other comprehensive income. The same procedure is applied by analogy for foreign entities accounted for using the equity method.

Currency translation was based on the following exchange rates, amongst others:

€ 1	Closing rate		Average rate	
	31/12/2019	31/12/2018	2019	2018
Swiss franc	1.09	1.13	1.11	1.15
Pound sterling	0.85	0.89	0.88	0.88
US dollar	1.12	1.15	1.12	1.18
Czech koruna	25.41	25.72	25.67	25.64
Japanese yen	121.94	125.85	122.07	130.40
Norwegian krone	9.86	9.95	9.85	9.60
Danish krone	7.47	7.47	7.47	7.45
Polish zloty	4.26	4.30	4.30	4.26
Swedish krona	10.45	10.25	10.59	10.26

Notes to the income statement and the balance sheet

(1) Revenue

Revenue from contracts with customers is recognised when control over a good or service has been transferred to the customer. The electricity and energy tax paid by the entities is deducted from revenue in the income statement. In the interest of a more accurate presentation of the business development, income and expenses from energy trading businesses are disclosed net. The net disclosure means that revenue from energy trading businesses is reported net of the related cost of materials. For the 2019 financial year, the net energy trading revenue amounted to €32,139.7 million (previous year: €29,202.0 million).

Alongside revenue from contracts with customers, there is other revenue from ordinary business activities. This is how they break down:

in € million ¹	2019	2018
Revenue from contracts with customers	18,459.0	20,658.8
Other revenue	306.0	156.6
Total	18,765.0	20,815.4

¹ The figures for the previous year have been restated.

The change in revenue is explained in more detail in the management report in the section “The EnBW Group” and mainly relates to revenue from contracts with customers. The following table shows a breakdown of revenue by region and products for the different segments of the EnBW Group.

External revenue by region

2019 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Revenue from contracts with customers by region	7,668.5	3,164.0	653.0	6,970.1	3.4	18,459.0
Germany	(6,429.4)	(2,991.7)	(500.7)	(5,462.9)	(3.4)	(15,388.1)
European currency zone excluding Germany	(92.9)	(4.9)	(43.0)	(1,477.4)	(0.0)	(1,618.2)
Rest of Europe	(1,145.7)	(167.4)	(109.3)	(29.8)	(0.0)	(1,452.2)
Rest of world	(0.5)	(0.0)	(0.0)	(0.0)	(0.0)	(0.5)
Other revenue	10.4	295.6	0.0	0.0	0.0	306.0
Total	7,678.9	3,459.6	653.0	6,970.1	3.4	18,765.0

External revenue by region

2018 in € million	Sales ¹	Grids	Renewable Energies	Generation and Trading ¹	Other/ Consolidation	Total
Revenue from contracts with customers by region	7,340.6	3,065.9	477.5	9,767.8	7.0	20,658.8
Germany	(6,323.7)	(2,895.7)	(369.7)	(8,149.8)	(6.9)	(17,745.8)
European currency zone excluding Germany	(102.9)	(4.5)	(6.7)	(1,513.0)	(0.0)	(1,627.1)
Rest of Europe	(914.0)	(165.7)	(101.1)	(105.0)	(0.0)	(1,285.8)
Rest of world	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)
Other revenue	7.1	149.5	0.0	0.0	0.0	156.6
Total	7,347.7	3,215.4	477.5	9,767.8	7.0	20,815.4

¹ The figures for the previous year have been restated.

External revenue by product

2019 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Revenue from contracts with customers by product	7,668.5	3,164.0	653.0	6,970.1	3.4	18,459.0
Electricity	(5,087.6)	(2,017.9)	(582.1)	(2,960.4)	(0.0)	(10,648.0)
Gas	(2,272.4)	(558.0)	(9.4)	(3,600.4)	(0.0)	(6,440.2)
Energy and environ- mental services/other	(308.5)	(588.1)	(61.5)	(409.3)	(3.4)	(1,370.8)
Other revenue	10.4	295.6	0.0	0.0	0.0	306.0
Total	7,678.9	3,459.6	653.0	6,970.1	3.4	18,765.0

External revenue by product

2018 in € million	Sales ¹	Grids	Renewable Energies	Generation and Trading ¹	Other/ Consolidation	Total
Revenue from contracts with customers by product	7,340.6	3,065.9	477.5	9,767.8	7.0	20,658.8
Electricity	(5,217.7)	(1,996.0)	(434.2)	(3,491.6)	(0.0)	(11,139.5)
Gas	(1,953.8)	(528.3)	(7.1)	(5,787.8)	(0.0)	(8,277.0)
Energy and environ- mental services/other	(169.1)	(541.6)	(36.2)	(488.4)	(7.0)	(1,242.3)
Other revenue	7.1	149.5	0.0	0.0	0.0	156.6
Total	7,347.7	3,215.4	477.5	9,767.8	7.0	20,815.4

¹ The figures for the previous year have been restated.

Revenues mainly arise from goods supplied or services rendered over a particular time period.

The most important services are described below:

Electricity and gas deliveries: The revenues primarily result from the transfer of electricity and gas to customers. For contracts where no fixed purchase volume has been agreed, the performance obligation consists in particular of providing energy and the possibility of accessing it at all times. As the customer uses these services while they are being rendered, the revenue is recognised over a period of time. The measure of progress is generally carried out on a straight-line basis together with the allocation of variable fees for certain performance elements. If fixed purchase volumes are agreed, the performance obligation consists of transferring the energy volumes and the revenue is thus recognised when control over the energy is transferred. In the case of customer groups who pay according to rolling annual statements, the transaction price is calculated based on past consumption values while taking into account the current temperature influences and time of year. Discounts or bonus payments are taken into account as variable considerations against revenue from the beginning of the contract. If individual contracts include the transfer of assets as an additional performance obligation, the revenue for these assets is recognised

at the time of delivery and measured at the relative individual sales price. Monthly advance payments are generally agreed.

The distribution of electricity and gas: EnBW offers its customers use of the electricity and gas grids. EnBW recognises the revenues when the services are rendered. Monthly invoices of the actual costs or monthly advance payments are agreed.

In addition, other revenue from contracts with customers includes the areas of services, district heating, contracting and waste management. The majority of the contracts include services for which customers pay while they are being rendered and the revenue is thus recognised over a time period. The measure of progress is generally carried out on a straight-line basis together with the allocation of variable fees for certain performance elements.

The total amount of the expected revenues for performance obligations that have not been fulfilled, either partially or fully, as of 31 December 2019 is €8,111.1 million (previous year restated: €8,005.6 million). Most of these performance obligations will be fulfilled as expected within the next five years. Revenues for performance obligations totalling €2,559.5 million (previous year restated: €2,747.8 million) are expected to be fulfilled within the next financial year. This does not include any remaining performance obligations from customer contracts which have an expected initial term of no more than one year.

As of 31 December 2019, contract liabilities amounted to €932.0 million (previous year: €909.7 million). From the contract liabilities contained in the opening balance of €909.7 million (previous year: €909.4 million), €76.4 million (previous year: €74.3 million) was recognised as revenue within the reporting period. The contract liabilities mainly comprise construction cost subsidies and household connection costs. These are non-refundable prepayments that are carried as liabilities and reversed over a period of 20 to 45 years.

Receivables are recognised as such at the time a good is delivered or after the conclusion of an associated performance period because this is the point in time at which there is an unconditional claim to receipt of the consideration and only the passage of time is required until the payment is due. Please refer to note (25) "Accounting for financial instruments" for the development of receivables connected to customer contracts. In the reporting period, revenues of €201.3 million (previous year: €163.2 million) were recognised for performance obligations that were fulfilled either fully or partially in preceding periods.

Judgement is required for determining the transaction price, which for multi-component agreements must be split into all of the separate performance obligations based on their relative individual sales prices. In particular, this includes the existence and the level of any variable considerations (e.g. discounts, bonus payments), which are subtracted from the transaction price. This judgement is based on the contractual conditions and past empirical values. Judgements made about the recognition of revenues over time are based in particular on the selection of a suitable measure of progress for provisioning services. As the customer generally benefits from the service evenly over time, the revenue is recognised on a straight-line basis.

Commission paid to intermediaries and sales employees for concluding contracts is capitalised as additional costs for acquiring the contracts. As of 31 December 2019, the total assets that are recognised from the costs for the conclusion of customer contracts amounted to €30.7 million (previous year: €28.9 million). These costs primarily comprise commission paid to sales offices when customers are successfully acquired for EnBW. In 2019, the amount of amortisation was €14.8 million (previous year: €17.0 million). The amortisation template works in line with the transfer of the good or service to the customers and is based on the average customer-retention period.

Additional costs for acquiring contracts are immediately recognised as an expense when they arise, insofar as the amortisation period for the assets is one year or less. An adjustment to the transaction price to take account of a significant financing component is not required because no contracts have been concluded where the time period between the transfer of the promised good or service to the customer and the payment by the customer exceeds one year.

(2) Other operating income

in € million ¹	2019	2018
Income from disposals	37.4	100.2
Income from the reversals of provisions	218.0	206.2
Income from derivatives	749.2	346.4
Income from reversals of impairment losses	4.5	22.1
Rent and lease income	20.5	25.5
Miscellaneous	514.4	484.7
Total	1,544.0	1,185.1

¹ The figures for the previous year have been restated.

Income from disposals in the previous year mainly included income from the sale of VNG Norge and its subsidiary VNG Danmark.

Income from derivatives increased primarily due to valuation effects from derivatives and the IFRIC agenda decision “Physical settlement of contracts to buy or sell a non-financial item”.

The increase in miscellaneous other operating income was primarily due to higher income from the CO₂ allowances. This was offset to some extent in the reporting year by lower income from currency exchange rate gains of €2.4 million (previous year: €40.0 million). Miscellaneous other operating income also includes income from the reversal of accruals and income from insurance claims.

(3) Cost of materials

in € million ¹	2019	2018
Cost of materials and supplies and of purchased merchandise	12,039.8	14,033.9
Cost of purchased services	2,801.3	2,802.8
Exploration costs	0.0	1.4
Total	14,841.1	16,838.1

¹ The figures for the previous year have been restated.

Cost of materials and supplies and of purchased merchandise comprises, in particular, electricity and gas procurement costs, including increases in provisions for onerous contracts for electricity procurement agreements. In addition, it includes the necessary increase in provisions for the decommissioning of nuclear power plants, unless these are required to be recognised as part of the cost of the asset. However, the accretion of the provisions is not included. Expenses relating to nuclear power also include costs for the disposal of irradiated fuel rods and radioactive waste, as well as the consumption of nuclear fuel rods and nuclear fuels. Fuel costs for conventional power plants, as well as costs for the procurement of CO₂ allowances, are also recorded under this item.

Cost of purchased services mainly contains expenses for use of the grids, services purchased for the operation and maintenance of the plants as well as concession fees. In addition, other expenses directly attributable to services rendered are disclosed under cost of purchased services.

(4) Personnel expenses

in € million	2019	2018
Wages and salaries	1,520.5	1,404.7
Social security, pension and other benefit costs	486.5	467.1
of which for post-employment benefits	(219.8)	(221.3)
Total	2,007.0	1,871.8

Employees in continuing operations as an annual average

annual average	2019	2018
Sales ¹	4,186	3,518
Grids	9,003	8,913
Renewable Energies	1,309	1,101
Generation and Trading ¹	5,458	5,382
Other	2,666	2,610
Employees	22,622	21,524
Apprentices and trainees including DH students in the Group	912	880

¹ The figures for the previous year have been restated.

The total number includes employees of joint operations of 7 employees (previous year: 7) based on the proportion attributable to EnBW.

(5) Other operating expenses

in € million ¹	2019	2018
Administrative and selling costs and other overheads	378.1	378.0
Expenses from derivatives	391.3	300.3
Audit, legal and consulting fees	98.6	102.6
Other personnel expenses	90.9	81.8
Advertising expenses	76.0	80.6
Rent and lease expenses	49.3	69.7
Insurance	61.4	55.9
Dues and levies	22.5	23.7
Other taxes	27.2	19.1
Costs from disposals	19.0	11.2
Miscellaneous	78.6	157.4
Total	1,292.9	1,280.3

¹ The figures for the previous year have been restated.

Miscellaneous other operating expenses contain, amongst other things, expenses from currency exchange rate losses amounting to €2.5 million (previous year: €43.1 million) and expenses for provisions.

(6) Amortisation and depreciation

in € million	2019	2018
Amortisation of intangible assets	132.7	106.8
Depreciation of property, plant and equipment	1,405.0	1,106.2
Depreciation of investment properties	0.7	1.8
Depreciation of right-of-use assets from leases	111.0	-
Reversals of investment cost subsidies	-0.9	-1.0
Total	1,648.5	1,213.8

As in the previous year, there were no impairment losses made on goodwill in the reporting year.

The impairment losses on other intangible assets, property, plant and equipment and investment property amounted to €160.7 million (previous year: €13.8 million). In the current financial year, the impairments mainly comprised impairment losses on power plants and are primarily allocated to the Generation and Trading segment in the segment reporting. The recoverable amount was calculated on the basis of the fair value less costs to sell and corresponds to Level 3 of the IFRS 13 fair value hierarchy. Using a business valuation model, the fair value was derived from the cash flow planning, based on, amongst other things, the medium-term planning approved by the Board of Management and valid as of the date of the impairment test as well as long-term market expectations beyond the detailed planning horizon. These plans were based on past experience and on estimates concerning future market development. The discount rate used in the valuation was 5.1% (previous year: 5.5%). The impairment losses were mainly due to the quicker phase-out pathway for hard coal. The fair value calculated for the power plants of around €2.0 billion is therefore below the respective carrying amounts.

With regard to the impact on possible future changes to key estimation parameters, please refer to the “Exercise of judgement and estimates when applying accounting policies” section.

(7) Investment result

in € million	2019	2018
Share of profit/loss of entities accounted for using the equity method	22.8	28.2
Write-downs on entities accounted for using the equity method	-2.1	-56.4
Write-ups of entities accounted for using the equity method	8.3	4.1
Net profit/loss from entities accounted for using the equity method	29.0	-24.1
Investment income	108.9	120.9
Write-downs on investments	-6.2	-6.5
Write-ups of investments	0.0	1.8
Result from the sale of equity investments	269.6	8.8
Other profit/loss from investments¹	372.3	125.0
Investment result (+income/-expense)	401.3	100.9

¹ Of which €83.2 million (previous year: €92.3 million) was income from investments held as financial assets.

The write-downs of entities accounted for using the equity method primarily contained an impairment for the carrying amount of our Turkish investment in the previous financial year. The write-downs on investments in the 2019 financial year and the previous year mainly related to other investments.

The result from the sale of equity investments in the reporting period was primarily attributable to the revaluation of the shares in EnBW Hohe See, which was no longer accounted for using the equity method from 1 October 2019 but was instead fully consolidated.

(8) Financial result

in € million ¹	2019	2018
Interest and similar income	117.9	99.9
Other finance income	419.2	195.6
Finance income	537.1	295.5
Borrowing costs	-201.0	-230.0
Other interest and similar expenses	-7.9	-23.1
Interest portion of increases in liabilities	-347.4	-191.0
Personnel provisions	(-114.4)	(-112.2)
Provisions relating to nuclear power	(-212.0)	(-62.2)
Other non-current provisions	(-12.7)	(-9.0)
Other liabilities	(-8.4)	(-7.6)
Other finance costs	-76.6	-231.8
Finance costs	-632.9	-675.9
Financial result (+ income/- costs)	-95.8	-380.4

¹ The figures for the previous year have been restated.

Interest and similar income mainly contains interest income from interest-bearing securities and loans, dividends and shares in profits. In the 2019 financial year, interest income of €19.6 million (previous year: €20.3 million) was offset against economically related interest expenses. In the reporting period, other finance income includes income from the “measured at fair value through profit or loss” measurement category of €391.3 million (previous year: €158.4 million).

Borrowing costs are composed as follows:

in € million	2019	2018
Expenses incurred for bank interest and bonds	167.5	213.9
Interest portion of lease liabilities	12.1	3.0
Other borrowing costs	21.4	13.1
Borrowing costs	201.0	230.0

The interest portion of increases in liabilities relates mainly to the adjustment to the discount rate for the remaining nuclear provisions held by EnBW of 0.59% to 0.03% (previous year: 0.72% to 0.59%). In addition, the annual accretion of the non-current provisions is included.

In the reporting period, other finance costs mainly included costs from the “measured at fair value through profit or loss” measurement category of €55.8 million (previous year: €196.9 million). In addition, they also contained market price losses on the sale of securities amounting to €2.4 million (previous year: €7.3 million). Impairment losses on loans of €0.5 million (previous year: €0.4 million) were recognised in the reporting period.

The total interest income and expenses for financial assets and financial liabilities presented in the financial result breaks down as follows:

Total interest income and expenses

in € million	2019	2018
Total interest income	42.6	45.6
Total interest expenses	-185.1	-226.0

The total interest income and expenses arose from financial instruments that are not measured at fair value through profit or loss. The main items here are interest received from loans and bank balances, which are measured at amortised cost, as well as interest and dividends received from financial assets allocated to the “measured at fair value in equity” measurement category. Total interest income comprised the interest income from the “measured at amortised cost” measurement category of €32.1 million (previous year: €35.2 million) and the interest income from the “measured at fair value in equity” measurement category of €10.5 million (previous year: €10.4 million). In the reporting period, the interest expenses for the financial assets measured at amortised cost totalling €185.1 million (previous year: €226.0 million) were incurred in particular on bonds, bank liabilities and finance lease liabilities, as in the previous year.

(9) Income tax

in € million	2019	2018
Actual income tax		
Domestic corporate income tax	-56.7	241.9
Domestic trade tax	62.4	109.8
Foreign income taxes	45.8	33.9
Total (-income/+expense)	51.5	385.6
Deferred taxes		
Germany	-40.4	-269.5
Abroad	-13.2	12.6
Total (-income/+expense)	-53.6	-256.9
Income tax (-income/+expense)	-2.1	128.7

The actual income tax amounting to €51.5 million (previous year: €385.6 million expense) concerns income tax expenses from the current financial year amounting to €167.3 million (previous year: €107.3 million) and income tax income for past periods amounting to €115.8 million (previous year: €278.3 million expense).

Deferred tax income amounting to €53.6 million (previous year: €256.9 million) consists of deferred tax income from the current financial year amounting to €162.0 million (previous year: €36.7 million expense) and deferred tax expenses for past periods of €108.4 million (previous year: €293.6 million income).

The change in the actual and deferred income tax expenses for past periods was mainly due to tax audits and changes in the tax assessments.

As in the previous year, the corporate income tax rate was 15.0% plus a solidarity surcharge of 5.5% of the corporate income tax. The trade tax rate was 13.6% as in the previous year. This represents a tax rate on income of 29.4% (as in the previous year). For the foreign entities, the tax rate applicable in the country in which they are based of between 19.0% and 25.8% (previous year: between 19.0% and 25.5%) is used to calculate income taxes. Deferred tax assets and liabilities are measured at the tax rates expected to apply when the asset is realised or the liability is settled.

Deferred taxes comprise the following:

in € million	2019	2018
Origination or reversal of temporary differences	-59.2	-220.8
Origination of carryforwards of unused tax losses	-15.6	-38.9
Utilisation of carryforwards of unused tax losses	21.2	2.8
Deferred taxes (-income/+expense)	-53.6	-256.9

The reconciliation from the expected income tax expense to the current income tax income is presented below:

in € million	2019	in %	2018	in %
Earnings before tax	902.2		596.3	
Expected tax rate		29.4		29.4
Expected income tax (-income/+expense)	265.2		175.3	
Tax effects				
Differences in foreign tax rates and tax rate differences	-30.0	-3.3	-17.2	-2.9
Tax-free income	-130.1	-14.4	-22.2	-3.7
Non-deductible expenses	29.3	3.2	21.3	3.6
Add-backs and reductions for trade tax purposes	11.7	1.3	10.7	1.8
Accounting for joint ventures and associates using the equity method	-7.4	-0.8	7.1	1.2
Adjustment/valuation/non-recognition of carryforwards of unused tax losses	-16.6	-1.8	0.0	0.0
Zero-rated disposals of investments	-116.8	-12.9	-25.2	-4.2
Taxes relating to other periods	-7.4	-0.9	-15.3	-2.6
Other	0.0	0.0	-5.8	-1.0
Current income tax (-income/+expense)	-2.1		128.7	
Current tax rate		-0.2		21.6

(10) Intangible assets

in € million	Concessions, industrial prop- erty rights and similar rights and assets	Internally generated intangible assets	Goodwill	Other	Total
Cost					
As of 01/01/2019	1,930.8	111.4	972.1	14.3	3,028.6
Increase/decrease due to changes in the consolidated companies	1,272.6	4.1	348.4	0.0	1,625.1
Additions	57.2	11.7	0.6	27.5	97.0
Reclassifications	9.5	2.3	0.0	-10.6	1.2
Currency adjustments	13.5	0.0	3.2	0.0	16.7
Disposals	-10.3	-0.6	-0.6	-0.6	-12.1
As of 31/12/2019	3,273.3	128.9	1,323.7	30.6	4,756.5
Accumulated amortisation					
As of 01/01/2019	1,134.6	97.3	48.0	0.0	1,279.9
Additions	114.5	8.2	0.0	0.0	122.7
Reclassifications	-0.2	0.0	0.0	0.0	-0.2
Currency adjustments	5.7	0.0	0.0	0.0	5.7
Disposals	-8.5	-0.6	0.0	0.0	-9.1
Impairment	10.0	0.0	0.0	0.0	10.0
As of 31/12/2019	1,256.1	104.9	48.0	0.0	1,409.0
Carrying amounts					
As of 31/12/2019	2,017.2	24.0	1,275.7	30.6	3,347.5

in € million	Concessions, industrial prop- erty rights and similar rights and assets	Exploration costs	Internally generated intangible assets	Goodwill	Other	Total
Cost						
As of 01/01/2018	2,017.7	27.9	102.2	973.5	16.6	3,137.9
Increase/decrease due to changes in the consolidat- ed companies	2.3	0.0	0.0	0.8	0.0	3.1
Additions	37.9	6.2	8.1	0.0	9.8	62.0
Reclassifications	7.1	-0.0	1.1	0.0	-9.0	-0.8
Reclassification to assets held for sale	-140.8	-34.5	0.0	0.0	0.0	-175.3
Currency adjustments	11.6	0.4	0.0	-2.2	0.0	9.8
Disposals	-5.0	0.0	0.0	0.0	-3.1	-8.1
As of 31/12/2018	1,930.8	0.0	111.4	972.1	14.3	3,028.6
Accumulated amortisation						
As of 01/01/2018	1,091.9	0.5	91.6	48.0	0.0	1,232.0
Additions	100.5	0.0	5.1	0.0	0.0	105.6
Reclassifications	1.0	0.0	0.0	0.0	0.0	1.0
Reclassification to assets held for sale	-58.5	-0.5	0.0	0.0	0.0	-59.0
Currency adjustments	3.2	0.0	0.0	0.0	0.0	3.2
Disposals	-4.1	0.0	0.0	0.0	0.0	-4.1
Impairment	0.6	0.0	0.6	0.0	0.0	1.2
As of 31/12/2018	1,134.6	0.0	97.3	48.0	0.0	1,279.9
Carrying amounts						
As of 31/12/2018	796.2	0.0	14.1	924.1	14.3	1,748.7

The carrying amount of the intangible assets includes concessions to operate power plants amounting to €1,458.4 million (previous year: €516.1 million) and customer relationships amounting to €112.8 million (previous year: €125.7 million). The increase in concessions was primarily due to the EnBW Hohe See offshore wind farm which has since been fully re consolidated.

In 2019, a total of €54.4 million (previous year: €40.6 million) was spent on research and development. The criteria for recognition under IFRS were not satisfied.

The following table provides information on the exploration costs contained within various items of the consolidated financial statements up until the sale of VNG Norge AS and its subsidiary. In the segment reporting, the exploration business was allocated to the Generation and Trading segment until the sale of VNG Norge AS and its subsidiary.

in € million	2019	2018
Other exploration costs	0.0	-1.4
Costs from exploration activities	0.0	-1.4
Net payments for operative exploration activities	0.0	-1.4
Net payments for investing activities for exploration	0.0	-6.2

For the purpose of impairment testing, goodwill was allocated to the respective cash-generating units (CGU) or groups of cash-generating units (CGU). The carrying amount of the CGU is compared with the recoverable amount as part of impairment testing. The recoverable amount is the higher of the two values of the fair value less costs to sell of the CGU and its value in use. In the EnBW Group, the recoverable amount of the CGU is initially calculated on the basis of the fair value less costs to sell and corresponds to Level 3 of the IFRS 13 fair value hierarchy. The value in use is also calculated if necessary. Using a business valuation model, the fair value is derived from cash flow planning, based on the medium-term planning approved by the Board of Management for a period of three years and valid as of the date of the impairment test. The plans are based on past experience and on estimates concerning future market development. In justified, exceptional cases it is based on a longer detailed planning period, provided that this is necessitated by commercial or regulatory requirements.

Key assumptions underlying the determination of fair value less costs to sell include projections of future electricity and gas prices, raw materials prices, company-specific investing activities, the regulatory framework as well as growth and discount rates. These assumptions are based on internal and external estimates.

The interest rates used for discounting the cash flows are calculated on the basis of market data and are between 2.7% and 6.6% after tax, or between 3.9% and 8.1% before tax (previous year: 3.5% to 6.6% after tax, and 4.9% to 8.1% before tax).

Constant growth rates of 0.0% and 1.5% (as in the previous year) are used to extrapolate the cash flows beyond the detailed planning period in order to take into account the expected price and volume-related growth.

In 2019, there were no impairments to goodwill, as in the previous year.

In all cash-generating units, the recoverable amounts were above the carrying amounts so that, based on the current assessment of the economic situation, only a significant change in the main measurement parameters would lead to an impairment.

As of 31 December 2019, goodwill totalled €1.3 billion (previous year: €0.9 billion). Of this figure, 82.4% (previous year: 86.5%) is attributable to the cash-generating units or groups of cash-generating units presented in the table below:

Cash-generating units/groups of cash-generating units

	Discount rates after tax (%)		Goodwill in € million	
	2019	2018	2019	2018
PRE subgroup	3.7–6.6	4.5–6.5	273.5	265.9
Electricity sales and distribution	2.7–5.5	3.5–5.5	131.7	131.7
Stadtwerke Düsseldorf AG subgroup	2.7–5.5	3.5–5.5	127.4	127.4
Energiedienst Holding AG subgroup	2.7–5.5	3.5–5.5	147.1	147.1
ONTRAS Gastransport GmbH	2.7	3.5	127.2	127.2
Valeco subgroup	3.2–4.9	–	244.3	–

The goodwill allocated to the other cash-generating units or groups of cash-generating units accounted for less than 5.3% (previous year: 6.5%) of total goodwill in each case. Its aggregate total amounted to €224.5 million (previous year: €124.8 million).

(11) Property, plant and equipment

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2019 ¹	4,048.3	18,418.5	16,488.9	1,844.3	1,528.7	42,328.7
Increase/decrease due to changes in the consolidated companies	7.7	139.4	12.1	19.2	1,571.9	1,750.3
Additions	63.6	250.6	566.6	76.2	776.6	1,733.6
Reclassifications	85.3	280.4	251.8	32.0	-597.7	51.8
Reclassification to assets held for sale	-2.3	0.0	0.0	0.0	0.0	-2.3
Currency adjustments	2.0	11.4	20.1	0.5	0.4	34.4
Disposals	-5.5	-80.5	-97.1	-27.5	-15.6	-226.2
As of 31/12/2019	4,199.1	19,019.8	17,242.4	1,944.7	3,264.3	45,670.3
Accumulated amortisation						
As of 01/01/2019 ¹	2,212.9	13,618.4	9,282.5	1,334.0	25.6	26,473.4
Additions	69.8	690.8	397.2	97.8	0.0	1,255.6
Reclassifications	6.8	12.0	-12.1	0.5	-3.2	4.0
Reclassification to assets held for sale	-2.3	0.0	0.0	0.0	0.0	-2.3
Currency adjustments	1.0	8.1	9.5	0.4	0.0	19.0
Disposals	-2.9	-77.4	-74.2	-23.9	-2.4	-180.8
Impairment	24.1	124.0	0.1	0.9	0.4	149.5
Reversal of impairment losses	-1.4	-0.8	0.0	-1.3	-1.0	-4.5
As of 31/12/2019	2,308.0	14,375.1	9,603.0	1,408.4	19.4	27,713.9
Carrying amounts						
As of 31/12/2019	1,891.1	4,644.7	7,639.4	536.3	3,244.9	17,956.4

¹ Opening balance adjusted due to the separate disclosure of the right-of-use assets under note [12] "Leases".

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2018	4,020.6	18,522.9	16,117.7	1,877.5	1,219.4	41,758.1
Increase/decrease due to changes in the consolidated companies	4.8	67.6	2.9	22.5	0.4	98.2
Additions	39.2	343.9	392.6	54.3	734.7	1,564.7
Reclassifications	21.3	136.1	111.5	18.6	-288.8	-1.3
Reclassification to assets held for sale	-5.8	-64.8	-1.2	-111.2	-124.1	-307.1
Currency adjustments	-0.7	11.5	-12.9	7.7	3.1	8.7
Disposals	-31.1	-516.4	-116.5	-22.0	-16.0	-702.0
As of 31/12/2018	4,048.3	18,500.8	16,494.1	1,847.4	1,528.7	42,419.3
Accumulated amortisation						
As of 01/01/2018	2,184.0	13,687.8	8,986.4	1,278.5	24.0	26,160.7
Additions	62.0	541.0	387.3	104.5	0.0	1,094.8
Reclassifications	-1.3	0.0	-0.7	1.8	-0.0	-0.2
Reclassification to assets held for sale	-1.2	-46.3	0.0	-26.2	-2.9	-76.6
Currency adjustments	-0.3	7.5	-5.3	5.1	0.0	7.0
Disposals	-24.7	-501.0	-80.7	-19.4	0.0	-625.8
Impairment	1.0	4.5	0.9	0.4	4.6	11.4
Reversal of impairment losses	-6.6	-3.5	-0.2	-9.1	-0.1	-19.5
As of 31/12/2018	2,212.9	13,690.0	9,287.7	1,335.6	25.6	26,551.8
Carrying amounts						
As of 31/12/2018	1,835.4	4,810.8	7,206.4	511.8	1,503.1	15,867.5

Items of property, plant and equipment amounting to €232.9 million (previous year: €64.7 million) serve as collateral for liabilities to banks, of which real estate liens accounted for €0.0 million (previous year: €4.8 million). This increase is attributable to the first-time consolidation of Valeco.

The Group's capital expenditure on intangible assets and property, plant and equipment totalling €1,947.8 million (previous year: €1,369.5 million) can be derived from the statement of changes in non-current assets as follows:

in € million	2019	2018
Additions to intangible assets, property, plant and equipment and right-of-use assets according to the statement of changes in non-current assets	1,924.5	1,626.7
Less additions to assets recognised under finance leases	-	-1.3
Less additions to assets recognised as right-of-use assets under leases	-94.0	-
Less additions to the provision recognised for the decommissioning and dismantling of property, plant and equipment	-193.9	-279.6
Plus additions to intangible assets and property, plant and equipment of assets held for sale	0.0	23.7
Plus investments which became cash relevant after the change in consolidation method	311.2	-
Capital expenditure on intangible assets and property, plant and equipment	1,947.8	1,369.5

(12) Leases

The rules for the accounting of leases in the accounting standard IFRS 16 “Leases” have been applied within the EnBW Group since 1 January 2019. Please refer to the notes in sections “Changes in accounting policies” and “Significant accounting policies” for more detailed information on the impact of the first-time application of IFRS 16 on the EnBW Group and the consolidated financial statements in 2019.

Lessee disclosures

The following table shows the development of the rights-of-use assets from leases:

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Total
Right-of-use assets					
As of 01/01/2019 ¹	0.0	82.3	5.2	3.1	90.6
Changes in accounting policies due to IFRS 16	191.9	2.0	289.1	26.7	509.7
Increase/decrease due to changes in the consolidated companies	11.9	0.0	78.8	0.8	91.5
Additions	14.2	3.4	52.6	23.7	93.9
Reclassifications	0.0	0.0	0.0	0.5	0.5
Currency adjustments	0.1	0.0	0.7	0.0	0.8
Disposals	-1.3	0.0	-5.2	-0.3	-6.8
As of 31/12/2019	216.8	87.7	421.2	54.5	780.2
Accumulated amortisation					
As of 01/01/2019 ¹	0.0	71.6	5.2	1.6	78.4
Additions	23.6	0.7	68.8	16.7	109.8
Reclassifications	0.0	0.0	0.0	0.1	0.1
Disposals	-0.2	0.0	-5.2	-0.2	-5.6
Impairment	0.0	1.2	0.0	0.0	1.2
As of 31/12/2019	23.4	73.5	68.8	18.2	183.9
Carrying amounts					
As of 31/12/2019	193.4	14.2	352.4	36.3	596.3

¹ The opening balance represents the finance lease agreements according to IAS 17.

The lease liabilities are due as follows:

in € million ¹	31/12/2019		31/12/2018	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	127.2	117.4	7.4	3.5
Due in 1 to 5 years	324.4	298.0	28.5	12.9
Due in more than 5 years	364.0	284.2	127.0	83.4
Total	815.6	699.6	162.9	99.8

¹ Lease liabilities were reported under other financial liabilities up to the 2018 financial year in accordance with IAS 17, they are reported under other liabilities from the 2019 financial year in accordance with IFRS 16.

The effects on the income statement due to leases break down as follows:

in € million	2019
Expenses from short-term leases	5.1
of which cost of materials	(0.1)
of which other operating expenses	(5.0)
Expenses from leases involving low-value assets	7.5
of which cost of materials	(0.3)
of which other operating expenses	(7.2)
Variable lease payments	1.8
of which cost of materials	(1.8)
Depreciation of right-of-use assets	111.0
Interest portion of lease liability	12.1

The cash flow statement is impacted as follows:

in € million	2019
Repayment portion of the lease liabilities	108.3
Interest portion of lease liabilities	12.1
Expenses from short-term leases, leases involving low-value assets and variable lease payments	14.4
Total	134.8

The repayment and interest portions of the lease liabilities are recognised in cash flow from financing activities. The cash flow from operating activities contains the expenses from short-term leases, leases involving low-value assets and variable lease payments.

In the EnBW Group, there are agreements for variable lease payments totalling €291.8 million, which mainly relate to long-term electricity procurement agreements that have not yet begun. In addition, there are other leases of commercial real estates, totalling €47.2 million that have not yet begun. Furthermore, the EnBW Group has leases with extension and termination options totalling €255.9 million, which could not be taken into account initially in the rights-of-use assets and corresponding lease liability because they could not be assessed as being reasonably certain. The financial commitments from short-term leases and leases involving low-value assets are included in note (26) "Contingent liabilities and other financial commitments".

Lessor disclosures

The finance lease receivables of €26.7 million (previous year: €24.0 million) arose from supply contracts for various forms of energy such as electricity, heat, cooling and compressed air (so-called contracting agreements), under which the economic ownership of the leased technical equipment and machinery is allocable to the lessee. The lease payments receivable are due as follows:

in € million	31/12/2019	31/12/2018
Due within 1 year	4.3	4.5
Due in 1 to 2 years	3.6	3.6
Due in 2 to 3 years	2.7	3.1
Due in 3 to 4 years	2.5	2.6
Due in 4 to 5 years	2.2	2.4
Due in more than 5 years	11.4	7.8
Total	26.7	24.0

The lease payments receivable can be reconciled with the net investment in the lease as follows:

in € million ¹	31/12/2019	31/12/2018
Nominal value of lease payments	26.7	24.0
Gross investment	26.7	24.0
Finance income not yet realised	-5.9	-4.5
Net investment	20.8	19.5

¹ The figures for the previous year have been restated.

The outstanding receivables from finance leases in the 2019 financial year include impairment losses of €0.1 million (previous year: €0.1 million). The loss rate (weighted average) is still 0.5%. All the lease receivables are not overdue.

The effects on the income statement due to the finance leases break down as follows:

in € million	2019
Capital gains/losses on disposals	1.0
Finance income on net investment	1.6

The claims due to the EnBW Group from operating leases of €143.7 million (previous year: €122.3 million) are mainly attributable to contracting agreements and renting out commercial and residential real estate and usable areas. In the case of leases for real estate and usable areas, there are general termination risks that are classified overall as low due to the potential ability to rent them again. For contracting agreements, there is a reutilisation risk, should the agreement be terminated, due to the high level of customisation in some cases.

The lease payments receivable from operating leases are due as follows:

in € million	2019	2018
Due within 1 year	23.5	22.5
Due in 1 to 2 years	20.2	7.6
Due in 2 to 3 years	7.9	6.2
Due in 3 to 4 years	7.3	4.1
Due in 4 to 5 years	7.1	3.6
Due in more than 5 years	77.7	78.3
Total	143.7	122.3

Due to materiality, operating leases are not reported separately under property, plant and equipment.

Income from operating leases in the 2019 financial year was €20.9 million.

(13) Entities accounted for using the equity method

Both joint ventures and associates are accounted for using the equity method.

In the previous year, the carrying amount for joint ventures included €596.9 million for EnBW Hohe See, whose off-shore wind farm was under construction in the North Sea. The construction of this wind farm was financed by equity. Due to a lack of control during the construction phase as a result of a requirement for unanimity in the General Meeting of Shareholders, it was reported in the consolidated financial statements temporarily as a joint venture using the equity method. As the requirement for unanimity in the General Meeting of Shareholders ended with the commissioning of the wind farm, EnBW has now obtained control of EnBW Hohe See in which it holds a 50.11% shareholding. It has been fully consolidated in the EnBW consolidated financial statements since 1 October 2019.

The following table shows a summary of the financial information for the entities accounted for using the equity method:

Financial data (EnBW's interest)

in € million	2019		2018	
	Associates	Joint ventures	Associates	Joint ventures
Carrying amount of entities accounted for using the equity method	521.5	542.6	614.0	986.2
Net profit/loss for the year from continuing operations	20.6	2.1	29.3	-1.1
Other income	1.1	0.8	3.7	6.5
Total comprehensive income	21.7	2.9	33.0	5.4

Elektrizitätswerk Rheinau AG and Fernwärme Ulm GmbH have a different reporting date and are consolidated with the figures from their financial statements for the year ending 30 September 2019.

(14) Other financial assets

in € million	Shares in affiliated entities	Other investments ¹	Non-current securities	Investment properties	Loans	Total
Cost						
As of 01/01/2019	187.7	1,818.3	3,362.5	59.7	143.4	5,571.6
Increase/decrease due to changes in the consolidated companies	154.4	10.1	22.9	0.0	6.6	194.0
Additions	64.0	378.9	3,465.6	0.0	38.0	3,946.5
Reclassifications	0.7	-5.9	-329.5	-4.5	4.6	-334.6
Currency adjustments	0.0	2.4	0.0	0.0	0.5	2.9
Disposals	-11.7	-281.7	-2,598.1	-0.1	-5.2	-2,896.8
As of 31/12/2019	395.1	1,922.1	3,923.4	55.1	187.9	6,483.6
Accumulated amortisation						
As of 01/01/2019	41.5	70.3	0.0	28.1	5.2	145.1
Decrease due to changes in the consolidated companies	-4.8	0.0	0.0	0.0	0.0	-4.8
Additions	0.0	0.0	0.0	0.7	1.5	2.2
Impairment	2.5	3.7	0.0	0.0	0.0	6.2
Reclassifications	0.0	-7.0	0.0	-4.0	-0.2	-11.2
Disposals	-6.7	-0.4	0.0	0.0	-3.3	-10.4
Reversal of impairment losses	0.0	0.0	0.0	0.0	-0.4	-0.4
As of 31/12/2019	32.5	66.6	0.0	24.8	2.8	126.7
Carrying amounts						
As of 31/12/2019	362.6	1,855.5	3,923.4	30.3	185.1	6,356.9

¹ The carrying amounts include €1,587.4 million accounted for by investments held as financial assets.

in € million	Shares in affiliated entities	Other investments ¹	Non-current securities	Investment properties	Loans	Total
Cost						
As of 01/01/2018	138.7	1,765.0	4,097.2	107.5	151.4	6,259.8
Changes in accounting policies	0.0	26.8	-63.8	0.0	0.0	-37.0
Increase/decrease due to changes in the consolidated companies	-4.8	0.0	0.0	0.0	-12.2	-17.0
Additions	53.3	318.0	2,240.0	0.0	18.8	2,630.1
Reclassifications	1.2	-35.8	-405.3	0.4	2.1	-437.4
Reclassification to assets held for sale	0.0	-8.1	-291.9	-10.2	-0.3	-310.5
Currency adjustments	0.0	2.8	0.0	0.0	0.4	3.2
Disposals	-0.7	-250.4	-2,213.7	-38.0	-16.8	-2,519.6
As of 31/12/2018	187.7	1,818.3	3,362.5	59.7	143.4	5,571.6
Accumulated amortisation						
As of 01/01/2018	34.2	111.2	67.2	57.2	4.3	274.1
Changes in accounting policies	0.0	-10.2	-67.2	0.0	0.9	-76.5
Additions	0.0	0.0	0.0	0.6	0.0	0.6
Impairment	6.2	0.3	0.0	1.2	0.4	8.1
Reclassifications	1.2	-23.0	0.0	0.3	0.0	-21.5
Reclassification to assets held for sale	0.0	-1.0	0.0	-5.5	0.0	-6.5
Disposals	0.0	-5.3	0.0	-23.1	0.0	-28.4
Reversal of impairment losses	-0.1	-1.7	0.0	-2.6	-0.4	-4.8
As of 31/12/2018	41.5	70.3	0.0	28.1	5.2	145.1
Carrying amounts						
As of 31/12/2018	146.2	1,748.0	3,362.5	31.6	138.2	5,426.5

¹ The carrying amounts include €1,491.7 million accounted for by investments held as financial assets.

The investments in affiliated entities disclosed in the financial assets are entities that are not included in the consolidated financial statements due to immateriality.

The non-current securities are mainly fixed-income securities as well as listed shares. To a large extent, the non-current securities are held in special funds. For consolidation purposes, the individual securities in the special funds are shown separately in the consolidated balance sheet by type of investment. The non-current securities, loans and investments, which are held as financial assets, are available to cover the pension and nuclear provisions in the amount of €5,517.7 million (previous year: €4,864.4 million). Of the loans, €178.1 million (previous year: €128.0 million) is allocated to capital employed.

The loans consist of loans to affiliated entities amounting to €39.4 million (previous year: €4.0 million), loans to entities accounted for using the equity method of €115.8 million (previous year: €110.2 million), loans to investments held as financial assets of €6.9 million (previous year: €10.2 million) and to operative investments allocated to capital employed of €15.5 million (previous year: €7.0 million) and other loans allocated to capital employed of €7.4 million (previous year: €6.8 million).

(15) Trade receivables

in € million	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Trade receivables	3,976.8	331.3	4,308.1	4,515.7	302.0	4,817.7
of which receivables from affiliated entities	(61.0)	(0.0)	(61.0)	(32.9)	(0.0)	(32.9)
of which receivables from other investees and investors	(78.7)	(0.0)	(78.7)	(53.4)	(0.0)	(53.4)
of which receivables from entities accounted for using the equity method	(33.0)	(0.0)	(33.0)	(31.4)	(0.0)	(31.4)

Non-current trade receivables principally include receivables relating to electricity supplies, whose term to maturity does not match the customary business cycle.

Further details on loss allowances and default risks within trade receivables can be found in note (25) "Accounting for financial instruments".

(16) Other assets

in € million	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Income tax refund claims	156.8	0.8	157.6	102.2	0.8	103.0
Other tax refund claims	134.1	0.0	134.1	127.7	0.0	127.7
Derivatives	3,455.4	358.7	3,814.1	2,357.6	381.1	2,738.7
of which without hedges	(3,410.6)	(270.4)	(3,681.0)	(2,310.6)	(275.5)	(2,586.1)
of which cash flow hedge	(44.8)	(7.5)	(52.3)	(47.0)	(20.5)	(67.5)
of which fair value hedge	(0.0)	(80.8)	(80.8)	(0.0)	(85.1)	(85.1)
Finance lease receivables	2.8	17.9	20.7	3.2	16.2	19.4
Payments on account	36.7	8.5	45.2	61.3	14.2	75.5
Prepaid expenses	63.0	76.2	139.2	48.5	66.0	114.5
Miscellaneous assets	960.5	294.1	1,254.6	1,088.4	263.5	1,351.9
Total	4,809.3	756.2	5,565.5	3,788.9	741.8	4,530.7

Current and non-current income tax refund claims mainly include deductible tax on investment income, tax overpayments from the 2019 financial year and those from previous years that have not yet been fully assessed by the tax authorities.

Payments on account contain prepayments for electricity procurement agreements amounting to €16.9 million (previous year: €28.8 million).

Miscellaneous assets contain collateral for exchange-based and over-the-counter trading businesses amounting to €616.8 million (previous year: €806.3 million) as well as variation margins of €111.7 million (previous year: €58.1 million). A market interest rate is applied to the collateral provided for exchange-based trading businesses. This collateral will be used by the stock exchanges in the event that the obligations resulting from stock market transactions are not met. In addition, miscellaneous assets contain the surplus cover from benefit entitlements of €251.5 million (previous year: €208.8 million).

Further details on loss allowances and default risks within other assets can be found in note (25) "Accounting for financial instruments".

(17) Financial assets

Profit participation rights, funds and shares mainly consist of fixed-income and floating rate interest securities. Other current financial assets in the 2019 financial year and the previous year mainly relate to loans. In the

reporting year, there were impairment losses recognised on other financial assets of €0.5 million (previous year: €0.0 million). The current financial assets are available to the operative business in the amount of €139.7 million (previous year: €200.6 million) and to cover pension and nuclear provisions in the amount of €299.4 million (previous year: €569.1 million). From the loans allocated to the current financial assets, €9.5 million (previous year: €5.0 million) is assigned to capital employed.

in € million	31/12/2019	31/12/2018
Profit participation rights, funds and shares	350.4	592.1
Other current financial assets	98.2	182.6
Total	448.6	774.7

(18) Cash and cash equivalents

Cash and cash equivalents relate primarily to bank deposits, largely in the form of time and day-to-day deposits whose term is less than three months and which are only subject to an immaterial risk of fluctuation in value. Cash and cash equivalents of €21.8 million (previous year: €10.3 million) are subject to restrictions on disposal.

Cash and cash equivalents are available to the operative business in the amount of €1,127.7 million (previous year: €1,954.0 million) and to cover pension and nuclear provisions in the amount of €236.1 million (previous year: €295.4 million).

(19) Equity

The development of equity and total comprehensive income is presented separately in the statement of changes in equity. The components of total comprehensive income are presented in the statement of comprehensive income.

Subscribed capital

The share capital of EnBW AG amounts to €708,108,042.24 as of 31 December 2019 (previous year: €708,108,042.24) and is divided into 276,604,704 (previous year: 276,604,704) no-par-value bearer shares, all of which have been fully paid in. The no-par-value shares each represent an imputed share of €2.56 per share (previous year: €2.56 per share) of the subscribed capital.

Capital reserve

The capital reserve contains the amounts received from the issue of shares of EnBW AG which exceed the imputed value of the shares.

Revenue reserves

The revenue reserves primarily contain the pro rata revenue reserves of the parent company and the other companies included in the consolidation after the date of acquisition.

Retained earnings/loss of EnBW AG

Taking account of the profit carried forward amounting to €103.0 million (previous year: €827.8 million) and the withdrawal from other revenue reserves amounting to €0.0 million (previous year: €252.0 million), retained earnings amounted to €383.6 million (previous year: €279.1 million). We will propose to the Annual General Meeting that a dividend of €0.70 (previous year: €0.65) per share be distributed from the retained earnings of EnBW AG. As of 31 December 2019, a total of 270,855,027.0 shares (previous year: 270,855,027.0 shares) were entitled to dividends. If the Annual General Meeting approves this proposal, the total amount distributed by EnBW AG for the 2019 financial year will be €189.6 million (previous year: €176.1 million).

The retained earnings of EnBW AG are disclosed under revenue reserves.

Treasury shares

As of 31 December 2019, EnBW AG holds 5,749,677.0 (previous year: 5,749,677.0) treasury shares. The acquisition cost of the treasury shares amounting to €204.1 million (previous year: €204.1 million) was deducted from the carrying amount of the equity. The amount of share capital attributable to them is €14,719,173.12 (previous year: €14,719,173.12). This corresponds to 2.1% (previous year: 2.1%) of the subscribed capital. The treasury shares were acquired on 28 and 29 December 1998 based on the authorisation issued on 25 August 1998 by the Annual General Meeting pursuant to section 71 (1) No. 8 AktG. The acquisition was carried out with a view to planned cooperations

with domestic and foreign energy suppliers, as well as industrial customers, that were to be underpinned by mutual capital participations.

The company has no rights or dividend entitlements from directly held treasury shares; they are not entitled to dividends. In accordance with the rulings of IFRS, the treasury shares are not recognised as securities, but are offset in one sum against equity in the balance sheet.

Other comprehensive income

Other comprehensive income comprises changes in the market value of financial assets in the category “measured at fair value in equity”, changes in the market value of cash flow hedges, amounts recognised directly in equity for accounting for entities using the equity method, currency translation differences from the translation of financial statements of foreign entities and the revaluation of pensions and similar obligations.

For details on the changes recognised directly in equity on financial assets in the category “measured at fair value in equity” and of cash flow hedges, please refer to note (25) “Accounting for financial instruments”.

Presentation of the components of other comprehensive income:

2019 in € million	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Financial assets at fair value in equity	Entities accounted for using the equity method	Shares of the share- holders of EnBW AG	Non- controlling interests	Total
Unrealised changes in market value in the current period	-1,007.0	17.3	79.4	37.6	-1.9	-874.6	-23.3	-897.9
Reclassification adjustments included in the income statement	0.0	0.0	82.9	-19.3	-1.4	62.2	-1.6	60.6
Reclassification to cost of hedged items	0.0	0.0	-19.5	0.0	0.0	-19.5	0.0	-19.5
Total other comprehensive income before tax	-1,007.0	17.3	142.8	18.3	-3.3	-831.9	-24.9	-856.8
Income tax	295.0	0.0	-47.0	-5.0	0.0	243.0	8.2	251.2
Total other comprehensive income	-712.0	17.3	95.8	13.3	-3.3	-588.9	-16.7	-605.6

2018 in € million	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Financial assets at fair value in equity	Entities accounted for using the equity method	Shares of the share- holders of EnBW AG	Non- controlling interests	Total
Unrealised changes in market value in the current period	-105.1	12.0	-114.1	-17.7	1.0	-223.9	1.9	-222.0
Reclassification adjustments included in the income statement	0.0	-9.2	82.0	1.6	0.0	74.4	-3.3	71.1
Reclassification to cost of hedged items	0.0	0.0	-113.0	0.0	0.0	-113.0	0.0	-113.0
Total other comprehensive income before tax	-105.1	2.8	-145.1	-16.1	1.0	-262.5	-1.4	-263.9
Income tax	30.5	0.4	76.9	4.9	0.0	112.7	0.6	113.3
Total other comprehensive income	-74.6	3.2	-68.2	-11.2	1.0	-149.8	-0.8	-150.6

Presentation of the tax effects relating to unrealised gains and losses in equity:

in € million	2019			2018		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Revaluation of pensions and similar obligations	-1,028.3	300.8	-727.5	-110.0	31.8	-78.2
Currency translation differences	24.4	0.0	24.4	17.6	0.4	18.0
Cash flow hedge	70.1	-51.3	18.8	-112.7	73.4	-39.3
Financial assets measured at fair value in equity	37.8	-11.2	26.6	-17.9	5.0	-12.9
Entities accounted for using the equity method	-1.9	0.0	-1.9	1.0	0.0	1.0
Total other comprehensive income	-897.9	238.3	-659.6	-222.0	110.6	-111.4

Presentation of the tax effects of reclassification adjustments included in the income statement and the cost of hedged items:

in € million	2019			2018		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Currency translation differences	0.0	0.0	0.0	-12.5	0.0	-12.5
Cash flow hedge	61.7	7.2	68.9	-31.1	3.0	-28.1
Financial assets measured at fair value in equity	-19.2	5.7	-13.5	1.7	-0.3	1.4
Entities accounted for using the equity method	-1.4	0.0	-1.4	0.0	0.0	0.0
Total other comprehensive income	41.1	12.9	54.0	-41.9	2.7	-39.2

Non-controlling interests

Non-controlling interests are shares in Group companies held by third parties. They relate, in particular, to Energiedienst Holding AG, VNG AG, Stadtwerke Düsseldorf AG and Pražská energetika a.s. with their relevant subsidiaries, EnBW Hohe See GmbH & Co. KG and EnBW Baltic 2 GmbH & Co. KG (in the previous year: EnBW Baltic 2 S.C.S.).

Financial information for subsidiaries where there is a significant influence without a controlling interest

in € million	2019					
	Energiedienst Holding AG	VNG AG	Stadtwerke Düsseldorf AG	Pražská energetika a.s.	EnBW Hohe See GmbH & Co. KG	EnBW Baltic 2 GmbH & Co. KG
Capital share in % of non-controlling interests	33.33	25.79	45.05	30.16	49.89	49.89
Annual net profit from non-controlling interests	12.1	14.4	30.1	27.6	29.8	47.8
Dividends paid from non-controlling interests	7.5	10.5	45.8	19.8	0.0	34.2
Carrying amount of non-controlling interests	398.8	426.7	370.7	261.9	1,232.6	642.9
Balance sheet data						
Non-current assets	1,582.1	2,914.7	1,406.5	1,212.4	2,576.9	1,286.8
Current assets	346.8	4,365.2	488.1	211.4	136.1	246.8
Non-current liabilities	538.8	1,135.0	762.6	357.7	126.3	148.0
Current liabilities	198.0	4,382.4	377.8	193.5	50.6	13.6
Funds from operations (FFO)	77.9	120.1	121.2	160.8	73.9	176.6
Earnings data						
Adjusted EBITDA	91.0	184.9	165.9	192.9	75.6	195.1

Financial information for subsidiaries where there is a significant influence without a controlling interest

in € million	2018					
	Energiedienst Holding AG	VNG AG	Stadtwerke Düsseldorf AG	Pražská energetika a.s.	EnBW Baltic 2 S.C.S.	
Capital share in % of non-controlling interests	33.33	25.79	45.05	30.16	49.89	49.89
Annual net profit from non-controlling interests	6.1	12.9	43.5	27.1	36.9	36.9
Dividends paid from non-controlling interests	9.4	9.0	31.4	40.5	43.7	43.7
Carrying amount of non-controlling interests	400.5	420.4	395.0	255.9	677.8	677.8
Balance sheet data						
Non-current assets	1,534.2	2,683.2	1,447.2	1,135.4	1,356.5	1,356.5
Current assets	334.1	3,544.6	655.8	225.9	222.3	222.3
Non-current liabilities	477.2	1,108.7	800.6	299.9	130.2	130.2
Current liabilities	192.1	3,363.7	473.5	208.6	18.0	18.0
Funds from operations (FFO)	58.4	171.7	141.9	153.8	148.1	148.1
Earnings data						
Adjusted EBITDA	74.6	198.6	187.1	183.3	165.9	165.9

(20) Provisions

Provisions disclosed separately according to maturity in the balance sheet are combined in the notes to the financial statements.

in € million	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Provisions for pensions and similar obligations	174.0	7,481.3	7,655.3	163.6	6,387.3	6,550.9
Provisions relating to nuclear power	571.6	5,292.9	5,864.5	496.9	5,351.3	5,848.2
Other provisions	790.4	1,558.7	2,349.1	889.4	1,507.4	2,396.8
Other dismantling obligations	(33.8)	(664.5)	(698.3)	(8.2)	(580.8)	(589.0)
Provisions for onerous contracts	(117.5)	(468.2)	(585.7)	(95.4)	(526.9)	(622.3)
Other electricity and gas provisions	(350.6)	(40.9)	(391.5)	(449.1)	(-0.0)	(449.1)
Personnel provisions	(115.7)	(145.3)	(261.0)	(121.2)	(150.5)	(271.7)
Miscellaneous provisions	(172.8)	(239.8)	(412.6)	(215.5)	(249.2)	(464.7)
Total	1,536.0	14,332.9	15,868.9	1,549.9	13,246.0	14,795.9

Provisions for pensions and similar obligations

The provisions for pensions and similar obligations are recorded on the basis of actuarial valuations for the existing commitments for future and current post-employment benefits to current and former employees with a pension entitlement, as well as their surviving dependants. A substantial majority of the employees of the EnBW Group are entitled to pension payments from defined benefit pension plans. There are different post-employment provision schemes, which reflect how long the respective employees have served the company. In the case of employees who have already retired, the schemes in question are mainly final salary-based systems, in which the pension paid is calculated on the basis of the length of service, the rate of increase and the last pensionable income. As of 1 January 2005, this system was decoupled from the adjustments to the statutory pension insurance system as part of a reorganisation. The amount of the provisions for pensions and similar obligations accounted for by these final salary-based systems as of 31 December 2019 was €6,461.4 million (previous year: €5,678.6 million). The bulk of the active employees are covered by ongoing salary-based schemes and/or a pension component system in the form of an average salary plan, in which the pension paid consists of annual pension components. For employees who joined the company from 1998 onwards, the pension obligation is based solely on a pension component system. The related provisions amounted to €895.9 million (previous year: €623.5 million). In addition, the employees are granted energy-price reductions for the period in which they receive their pensions. Other commitments amounted to €46.5 million (previous year: €40.0 million). These mainly comprise fixed-sum commitments.

The pensioners and those with prospective pension entitlements are distributed as follows amongst the different post-employment provision schemes:

Number of employees	31/12/2019		31/12/2018	
	Staff with prospective pension entitlements	Pensioners	Staff with prospective pension entitlements	Pensioners
Closed systems dependent on final salary	7,289	13,186	7,789	13,271
Pension component systems	10,136	444	9,132	392
Other commitments	846	626	841	608

The obligations are measured above all on the basis of the length of service and remuneration of the employees. In addition, the company pension scheme includes defined benefit obligations under multi-employer plans using the same measurement basis. The contributions payable to the supplemental pension plan are made as a certain percentage of the respective employee's remuneration that is subject to the supplemental pension plan.

The amount of provisions earmarked for the defined benefit obligations corresponds to the present value of the expected future obligations. The provisions are calculated using actuarial methods. Plan assets were created in accordance with IAS 19.8 and will be used exclusively to cover pension obligations. They are deducted from the pension obligations. They exist in the form of contractual trust arrangements (CTA) in the EnBW Group. A CTA is a legally structured trustee arrangement for the capital cover of direct pension obligations with separated and spun-off assets.

The objective of asset management in this area is to cover the non-current provisions for pensions and similar obligations, as well as the Group's nuclear provisions, within an economically sensible period by means of appropriate financial investments. The investment goals indicated can be achieved with a minimum of risk. As of

31 December 2019, the dedicated financial assets for pension and nuclear provisions totalled approximately €6.3 billion (previous year: €6.3 billion) and were allocated to a total of nine asset classes. In addition to direct investments, financial investments were bundled within two master funds and the infrastructure funds consolidated in a SICAV (société d'investissement à capital variable, open-ended investment company).

The following premises are taken into account when investments are made:

- › Risk-optimised performance in line with the market is targeted.
- › The risk was minimised by, for example, the implementation of an intervention line concept, the establishment of issuer limits and minimum ratings for bonds, adherence to a broad diversification of asset classes and further appropriate measures.
- › The impact on the balance sheet and the income statement are to be minimised.
- › Reducing costs and simplifying administration are also major priorities.

The anticipated development of the cash flows of the post-employment provision schemes is as follows:

in € million	2019	2020–2024 ¹	2025–2029 ¹	2030–2034 ¹	2035–2039 ¹	2040–2044 ¹	2045–2049 ¹	2050–2054 ¹
Closed systems dependent on final salary	170.0	183.6	217.5	246.9	250.1	232.5	202.1	161.5
Pension component systems	2.2	3.1	7.9	16.1	27.1	38.5	56.4	72.4
Other commitments	1.5	1.7	1.8	1.8	1.6	1.3	1.0	0.8
Total	173.7	188.3	227.2	264.9	278.8	272.2	259.5	234.7

¹ Average values for five years.

The calculations are based on a duration of 18.6 years (previous year: 17.5 years).

Changes in the underlying parameters for calculating the provisions for pensions and similar obligations would have the following impact on their amounts:

in € million	31/12/2019		31/12/2018	
	Pension component systems	Closed pension systems dependent on final salary	Pension component systems	Closed pension systems dependent on final salary
Discount rate +/- 0.5%	-147.6/178.4	-594.5/679.6	-98.8/118.6	-510.1/580.4
Salary trend +/- 0.5%	25.3/-23.4	154.0/-136.5	19.2/-17.8	148.0/-130.3
Pension trend +/- 0.5%	9.2/-7.5	491.4/-437.0	5.3/-5.0	418.6/-379.5
Life expectancy +/- 1 year	36.2/-35.8	332.0/-325.4	22.2/-22.3	281.1/-274.5

The parameters for the sensitivity analysis were chosen from the point of view of materiality. Their impact on the defined benefit obligation (DBO) was determined separately in each case to prevent interactions. The parameter variation is based on past experience and the long-term planning premises applied within the Group.

The material parameters (average values) for calculating the defined benefit obligations at the Group's domestic companies are shown below:

in %	31/12/2019	31/12/2018
Actuarial interest rate	1.10	1.80
Future expected wage and salary increases	2.60	2.70
Future expected pension increase	1.90	2.00

The calculations are based on the 2018 G mortality tables devised by Prof. Dr. Klaus Heubeck.

The expenses for pensions and similar obligations are comprised as follows:

in € million	2019	2018
Current service cost	115.4	115.5
Past service costs	0.2	0.0
Interest income from plan assets	-19.6	-20.3
Interest costs	132.4	130.9
Recording in the income statement	228.4	226.1
Income from plan assets excluding interest income	-97.9	-37.3
Actuarial gains (-)/losses (+) from changes in demographic assumptions	19.0	71.1
Actuarial gains (-)/losses (+) from changes in financial assumptions	976.7	13.2
Actuarial gains (-)/losses (+) from experience-based restatements	130.5	63.0
Recording in the statement of comprehensive income	1,028.3	110.0
Total	1,256.7	336.1

The development of the pension provisions, categorised by the present value of the defined benefit obligation and the market value of the plan assets, is as follows:

in € million	31/12/2019	31/12/2018
Defined benefit obligation at the beginning of the financial year	7,538.7	7,388.5
Current service cost	115.4	115.5
Interest costs	132.4	130.9
Benefits paid	-276.3	-266.4
Actuarial gains (-)/losses (+)	1,126.2	147.3
Actuarial gains (-)/losses (+) from changes in demographic assumptions	(19.0)	(71.1)
Actuarial gains (-)/losses (+) from changes in financial assumptions	(976.7)	(13.2)
Actuarial gains (-)/losses (+) from experience-based restatements	(130.5)	(63.0)
Past service costs	0.2	0.0
Changes in the consolidated companies and currency adjustments	5.4	7.6
Reclassifications	-12.5	15.3
Present value of the defined benefit obligation at the end of the financial year	8,629.5	7,538.7
Fair market value of plan assets at the beginning of the financial year	1,196.6	1,226.6
Interest income	19.6	20.3
Appropriations to (+)/transfers from (-) plan assets ¹	9.7	8.9
Benefits paid	-102.6	-100.9
Income from plan assets excluding interest income	97.9	37.3
Changes in the consolidated companies, currency adjustments and reclassifications	4.5	4.4
Fair market value of plan assets at the end of the financial year	1,225.7	1,196.6
Surplus cover from benefit entitlements	251.5	208.8
Provisions for pensions and similar obligations	7,655.3	6,550.9

¹ Applies almost exclusively to the employer's contributions.

The actuarial gains/losses from changes in demographic assumptions in the previous year were due to the application of the new 2018 G mortality tables devised by Prof. Dr. Klaus Heubeck.

Payments into the plan assets in the amount of €9.7 million (previous year: €9.1 million) are planned in the subsequent period.

The present value of the defined benefit obligation breaks down as follows by asset-funded and non-asset-funded status:

in € million	31/12/2019	31/12/2018
Funded benefits	1,040.8	1,002.5
Full funding	(1,025.4)	(999.5)
Partial funding	(15.4)	(3.0)
Pension entitlements without asset funding	7,588.7	6,536.2

The present value of the benefit obligations, the fair market value of plan assets and the plan surplus or deficit have developed as follows:

in € million	31/12/2019	31/12/2018
Present value of benefit obligations	8,629.5	7,538.7
Fair market value of plan assets	1,225.7	1,196.6
Plan surplus	251.5	208.8
Plan deficit	7,655.3	6,550.9

The plan assets consist of the following asset classes:

in %	31/12/2019	31/12/2018
Shares	74.5	93.0
Fixed-income funds	2.0	2.0
Fixed-income securities	7.9	6.3
Land and buildings	2.0	1.9
Current financial assets	1.5	1.2
Other	12.1	-4.4
	100.0	100.0

The plan assets are invested almost entirely within the EU and mainly in energy supply companies. Their performance is subject to country-specific and energy-industry risks. They do not include any shares of EnBW Group companies or any owner-occupied property. The investment strategy takes into consideration the maturity structure and volume of benefit obligations.

The plan assets mainly have market price listings on active markets. The shares contain €0.0 million (previous year: €244.7 million) whose fair value was determined with the help of the discounted cash flow method in the absence of an active market.

Multi-employer plans

Multi-employer plans, which are defined benefit plans, are accounted for as defined contribution plans because the information required to allocate the obligations and plan assets to the respective participating employer and the corresponding expenses is not provided by the supplemental pension plans. The expenses from defined benefit obligations via multi-employer plans amounted to €16.1 million (previous year: €15.5 million). Appropriations of a similar magnitude are anticipated for the subsequent year. Potential future increases in contributions from obligations that are not fully funded will not have a significant effect on the EnBW Group.

The employer's contributions to statutory pension insurance in 2019 amounted to €110.8 million (previous year: €102.0 million).

Provisions relating to nuclear power

The provisions relating to nuclear power as of 31 December 2019 were formed for the conditioning and packaging of radioactive waste, as well as for the decommissioning and dismantling of the nuclear power plants.

The evaluation of the provisions is carried out mainly on the basis of estimates, which for decommissioning and disposal costs are primarily derived from sector-specific appraisals. The provisions are recognised at the discounted settlement amount at the time they originated.

in € million	31/12/2019	31/12/2018
Remaining operation and post-operation	2,271.8	2,264.5
Dismantling including preparation	1,406.6	1,580.8
Treatment of residual material, packaging of radioactive waste	1,799.3	1,664.5
Other	386.9	338.4
Total	5,864.6	5,848.2

Provisions relating to nuclear power are reported in accordance with section 5 (2) of the Ordinance on the Transparency of Dismantling Provisions and are discounted at a risk-free interest rate of on average around 0.03% (previous year: 0.6%). A corresponding rate of increase of costs of 2.4% (previous year: 2.4%) is applied. This results in a net interest (spread) of around -2.4% (previous year: -1.8%), which generally corresponds to the real interest rate. The change in this parameter led overall to an increase in the nuclear power provisions of €309.0 million (previous year: €390.5 million).

A reduction or increase of 0.1 percentage points in the real interest rate would increase the present value of the provisions by €45.9 million (previous year: €56.3 million) or reduce it by €41.3 million (previous year: €54.0 million).

The nominal amount of the provisions (without taking into account the effects of the discount rate and rate of increase of costs) as of 31 December 2019 was €4,770.1 million (previous year: €4,978.6 million).

The provisions for the decommissioning and dismantling of contaminated plants, as well as for fuel rods, are recognised at the discounted settlement amount at the time of commissioning. This is disclosed accordingly under the power plants and depreciated. Changes in estimates due to changes in assumptions concerning the future development of costs were generally recognised without effect on profit or loss by adjusting the appropriate balance sheet items by €101.8 million upwards (previous year: €240.4 million upwards). Changes in estimates relating to decommissioned power plants were recognised through profit or loss.

Decommissioning and dismantling costs are calculated on the basis of the scenario that assumes that the plants will be removed immediately. The provisions are partially offset by receivables amounting to €360.4 million (previous year: €334.4 million) which relate to dismantling obligations for nuclear power plants assumed by a contractual partner in connection with electricity supplies.

Other provisions

The other dismantling obligations mainly relate to gas storage facilities, wind and hydroelectric power plants and grids.

The provisions for onerous contracts concern future obligations from onerous procurement and sales agreements. The obligations mainly relate to the procurement of electricity.

Other electricity provisions primarily relate to obligations from emission allowances.

Personnel provisions primarily concern obligations from phased retirement plans, long-service awards and restructuring measures.

The majority of other non-current provisions have a term of more than five years.

The provisions developed as follows in the reporting year:

Statement of changes in provisions

in € million	As of 01/01/2019	Increases	Reversals	Accretion	Changes recognised in equity	Changes in consolidated companies, currency adjust- ments, reclassifi- cations	Utilisation	As of 31/12/2019
Provisions relating to nuclear power ¹	5,848.2	155.3	108.5	212.0	101.8	-12.5	331.8	5,864.5
Other provisions	2,385.5	658.0	120.3	14.2	91.7	-11.3	668.7	2,349.1
Other dismantling obligations	(589.0)	(3.0)	(0.0)	(8.6)	(92.0)	(9.3)	(3.6)	(698.3)
Provisions for onerous contracts ²	(611.0)	(68.3)	(3.5)	(0.0)	(0.0)	(-6.7)	(83.4)	(585.7)
Other electricity and gas provisions	(449.1)	(386.2)	(37.3)	(0.0)	(-0.4)	(0.0)	(406.1)	(391.5)
Personnel provisions	(271.7)	(105.4)	(5.6)	(1.6)	(0.1)	(-43.4)	(68.8)	(261.0)
Miscellaneous provisions	(464.7)	(95.1)	(73.9)	(4.0)	(0.0)	(29.5)	(106.8)	(412.6)
Total	8,233.7	813.3	228.8	226.2	193.5	-23.8	1,000.5	8,213.6

1 Utilisation breaks down into decommissioning and dismantling totalling €275.9 million, disposal of spent fuel rods totalling €54.5 million and waste totalling €1.4 million.

2 Opening balance adjusted by €11.3 million due to the effects of the first-time application of IFRS 16.

(21) Deferred taxes

The deferred taxes on measurement differences compared to the tax accounts break down as follows:

in € million	31/12/2019		31/12/2018	
	Deferred tax assets ¹	Deferred tax liabilities ¹	Deferred tax assets ¹	Deferred tax liabilities ¹
Intangible assets	32.1	317.0	54.8	48.0
Property, plant and equipment	190.0	1,606.7	84.8	1,554.7
Financial assets	70.4	270.9	50.9	213.8
Other assets	74.4	31.0	72.1	28.3
Derivative financial instruments	1.9	109.9	0.7	114.7
Non-current assets	368.8	2,335.5	263.3	1,959.5
Inventories	64.3	3.2	14.1	11.4
Financial assets	0.0	19.4	0.8	39.4
Other assets	322.1	1,354.4	522.7	943.8
Current assets	386.4	1,377.0	537.6	994.6
Provisions	1,997.3	76.0	1,605.9	78.6
Liabilities and subsidies	252.3	148.6	187.3	167.1
Non-current liabilities	2,249.6	224.6	1,793.2	245.7
Provisions	199.5	35.3	249.3	29.6
Liabilities and subsidies	1,390.7	335.1	913.3	283.8
Current liabilities	1,590.2	370.4	1,162.6	313.4
Carryforwards of unused tax losses	36.5	0.0	41.0	0.0
Deferred taxes before netting	4,631.5	4,307.5	3,797.7	3,513.2
Netting	-3,417.5	-3,417.5	-2,738.4	-2,738.4
Deferred taxes after netting	1,214.0	890.0	1,059.3	774.8

1 Deferred tax assets and liabilities prior to netting.

In the 2019 financial year, €3,417.5 million (previous year: €2,738.4 million) in deferred tax assets was netted against deferred tax liabilities. Deferred taxes are netted with each other per consolidated tax group or entity if the conditions to do so have been satisfied.

In the measurement differences compared to the tax accounts, a negative balance from deferred taxes resulting from consolidation of €19.0 million (previous year: €22.1 million) is taken into account.

In addition, deferred tax assets on measurement differences compared to the tax accounts contain €2.1 million (previous year: €1.6 million) in non-current financial assets, €1,051.4 million (previous year: €750.6 million) in non-current provisions and €47.9 million (previous year: €150.9 million) in current liabilities and subsidies that were offset against equity.

The deferred tax liabilities on measurement differences compared to the tax accounts contain €7.0 million (previous year: €1.0 million) in non-current financial assets and €5.6 million (previous year: €63.9 million) in current financial assets that were offset against equity.

Deferred tax assets totalling €1,088.8 million (previous year: €838.2 million) were offset directly against equity under other comprehensive income as of 31 December 2019.

The deferred tax assets contain an amount of €108.4 million (previous year: €257.2 million) that was formed in connection with risks related to the tax audit.

In order to evaluate the deferred tax assets from deductible temporary differences in assets and carryforwards of unused tax losses, a tax planning forecast was derived based on the company's multi-year plans and corporate strategy. In this process, it was possible at EnBW and the main Group companies to prove, with sufficient certainty, that there would be adequate taxable income available in the planning horizon used as the basis for the tax planning forecast for the full capitalisation of deferred tax assets both from deductible temporary differences in assets and also carryforwards of unused tax losses. Carryforwards of unused tax losses are composed as follows:

in € million	31/12/2019		31/12/2018	
	Corporate income tax	Trade tax	Corporate income tax	Trade tax
Unlimited ability to carry forward the previously unused tax losses for which no deferred tax assets have been recognised in the balance sheet	175.1	231.3	190.8	171.0
Deferred taxes on the non-valued carryforwards of unused tax losses that would theoretically have to be formed	27.7	31.4	30.2	23.2
Unlimited ability to carry forward the existing unused tax losses for which deferred tax assets were formed ¹	102.1	138.6	136.7	143.8

¹ Mainly concerns German companies.

Carryforwards of unused tax losses reduced the actual tax burden by €21.2 million (previous year: €2.8 million).

As of the reporting date, deferred tax assets of €25.0 million (previous year: €29.9 million) were recognised for Group companies that suffered losses in the reporting period or the previous period.

The deferred taxes on carryforwards of unused tax losses break down as follows:

in € million	31/12/2019	31/12/2018
Corporate income tax (or comparable foreign tax)	16.9	21.6
Trade tax	19.6	19.4
Total	36.5	41.0

Presentation of the development of deferred taxes on carryforwards of unused tax losses:

in € million	31/12/2019	31/12/2018
Opening balance	41.0	101.5
Utilisation of tax losses	-21.2	-2.8
Origination of tax losses (addition)	15.6	38.9
Change in consolidated companies	1.1	-96.6
Closing balance	36.5	41.0

In the reporting period, there were no deferred taxes on interest amounts carried forward as in the previous year.

No deferred tax liabilities were recognised on temporary differences of €14.1 million (previous year: €8.9 million) because any retained profits from subsidiaries based on the current planning will remain invested on a permanent basis or because it is not likely that these temporary differences will reverse in the foreseeable future.

(22) Liabilities and subsidies

Financial liabilities

Financial liabilities break down as of 31 December 2019 compared to the previous year as follows:

in € million ¹	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Hybrid bonds	0.0	2,978.5	2,978.5	0.0	1,975.2	1,975.2
Bonds	0.0	2,724.2	2,724.2	0.0	2,644.2	2,644.2
Commercial papers	0.0	0.0	0.0	250.0	0.0	250.0
Liabilities to banks	751.8	1,270.0	2,021.8	264.7	1,218.1	1,482.8
Other financial liabilities ²	78.4	388.0	466.4	140.1	503.9	644.0
Financial liabilities	830.2	7,360.7	8,190.9	654.8	6,341.4	6,996.2

1 Please refer to note [25] "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

2 Lease liabilities were reported under other financial liabilities up to the 2018 financial year in accordance with IAS 17, they are reported under other liabilities from the 2019 financial year in accordance with IFRS 16.

Of the non-current financial liabilities, €3,512.5 million (previous year: €2,786.2 million) have a term of between one year and five years, and €3,848.2 million (previous year: €3,555.2 million) have a term of more than five years.

Overview of the hybrid bonds

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
EnBW AG ¹	€1.000 million	€997.1 million	3.625%	02/04/2076
EnBW AG ²	€725 million	€721.1 million	3.375%	05/04/2077
EnBW AG ²	US\$ 300 million	€266.2 million	3.003% ³	05/04/2077
EnBW AG ⁴	€500 million	€497.0 million	1.625%	05/08/2079
EnBW AG ⁵	€500 million	€497.1 million	1.125%	05/11/2079
		€2,978.5 million		

1 Option for EnBW to redeem every five years after the first coupon date; the earliest possible date is 2 April 2021.

2 Option for EnBW to redeem in the three-month period before 5 April 2022, then on every coupon date.

3 After the swap into euros.

4 Option for EnBW to redeem in the three-month period before 5 August 2027, then on every coupon date.

5 Option for EnBW to redeem in the three-month period before 5 November 2024, then on every coupon date.

In July 2019, EnBW issued two green hybrid bonds, each with a volume of €500 million. The bonds have terms of 60 and 60.25 years, respectively. The issue date was 5 August 2019 and the final repayment date is 5 August and 5 November 2079, respectively. EnBW has both the right to call and redeem the bonds in the three-month period before 5 August 2027 and in the three-month period before 5 November 2024, respectively, and then at every coupon date. The first coupon date for the bond with the first call date in 2024 was 5 November 2019, while the first

coupon date for the bond with the first call date in 2027 is 5 August 2020. The bonds have initial coupons of 1.125% and 1.625%, respectively.

All outstanding hybrid bonds include early redemption rights for EnBW and are subordinate to all other financial liabilities, although they have equal ranking with each other. EnBW has the option of suspending interest payments. However, these interest payments must be subsequently paid if EnBW pays dividends or services another hybrid bond. Based on their terms and conditions, all EnBW bonds qualify for 50% of the amount being recognised as equity in accordance with the methods used by the rating agencies Moody's and Standard & Poor's.

Overview of the senior bonds of EnBW

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
Public bonds				
EnBW International Finance B.V.	CHF 100 million	€92.0 million	2.250%	12/07/2023
EnBW International Finance B.V.	€500 million	€560.6 million ¹	4.875%	16/01/2025
EnBW International Finance B.V.	€500 million	€498.8 million	2.500%	04/06/2026
EnBW International Finance B.V.	€600 million	€590.1 million	6.125%	07/07/2039
Green bond				
EnBW International Finance B.V.	€500 million	€496.7 million	1.875%	31/10/2033
Private placements				
EnBW International Finance B.V.	€100 million	€98.5 million	2.875%	13/06/2034
EnBW International Finance B.V.	JPY 20 billion	€164.0 million	5.460% ²	16/12/2038
EnBW International Finance B.V.	€100 million	€99.2 million	3.080%	16/06/2039
EnBW International Finance B.V.	€75 million	€74.7 million	2.080%	21/01/2041
EnBW International Finance B.V.	€50 million	€49.6 million	2.900%	01/08/2044
		€2,724.2 million		

¹ Adjusted for valuation effects from interest-induced hedging transactions.

² After the swap into euros.

In January 2019, EnBW International Finance made a private placement with a total volume of €75 million. The term is 22 years. The bond has been given a coupon of 2.080%.

In July and November 2018, EnBW repaid bonds that were due with volumes of CHF 100 million and €750 million, respectively, from the existing liquidity position.

Commercial paper programme

As of 31 December 2019, no funds were drawn under the commercial paper programme set up by EnBW and EnBW International Finance B.V. for short-term financing purposes (previous year: €250 million).

Liabilities to banks

Liabilities to banks increased in the 2019 financial year due to short-term money market loans taken out by EnBW and a subsidiary and the first-time consolidation of the Valeco Group. This was offset to some extent by scheduled repayments that were made by EnBW and its subsidiaries. The majority of the outstanding liabilities to banks are bilateral loan agreements.

The existing syndicated credit line for €1.5 billion (previous year: €1.5 billion) has a term until July 2021. The credit line remained undrawn as of 31 December 2019.

In addition, a further €0.7 billion (previous year: €1.1 billion) in bilateral free credit lines was available within the Group. The credit lines are not subject to any restrictions as regards their utilisation.

Liabilities to banks to the amount of €0.0 million (previous year: €4.8 million) are collateralised with real estate liens. Liabilities to banks to the amount of €286.7 million are collateralised with other types of securities (previous year: €108.6 million). This increase is attributable to the first-time consolidation of the Valeco Group.

Other financial liabilities

The item “other financial liabilities” primarily includes promissory notes and other loans from subsidiaries. In the previous year, this item also included finance lease agreements according to IAS 17.

Other liabilities and subsidies

Other liabilities and subsidies disclosed separately according to maturity in the balance sheet are combined in the notes to the financial statements.

in € million ¹	31/12/2019	31/12/2018
Non-current liabilities	2,142.7	1,660.5
Current liabilities	8,736.0	9,071.5
Liabilities	10,878.7	10,732.0
Non-current subsidies	13.3	14.4
Current subsidies	1.3	1.4
Subsidies	14.6	15.8
Non-current liabilities and subsidies	2,156.0	1,674.9
Current liabilities and subsidies	8,737.3	9,072.9
Liabilities and subsidies	10,893.3	10,747.8

¹ The figures for the previous year have been restated.

Other liabilities as of 31 December 2019 break down as follows compared to the previous year:

in € million ^{1,2}	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Trade payables	4,055.1	0.5	4,055.6	5,039.8	0.6	5,040.4
of which liabilities to affiliated entities	(52.2)	(0.0)	(52.2)	(27.0)	(0.0)	(27.0)
of which liabilities to other investees and investors	(70.4)	(0.0)	(70.4)	(64.9)	(0.0)	(64.9)
of which liabilities to entities accounted for using the equity method	(110.3)	(0.0)	(110.3)	(88.7)	(0.0)	(88.7)
Other deferred income	24.7	180.8	205.5	32.9	167.6	200.5
Liabilities from derivatives	3,161.7	301.4	3,463.1	2,193.2	347.1	2,540.3
of which without hedges	(3,124.0)	(259.5)	(3,383.5)	(2,152.0)	(311.6)	(2,463.6)
of which cash flow hedge	(35.5)	(41.9)	(77.4)	(41.2)	(35.5)	(76.7)
of which fair value hedge	(2.3)	(0.0)	(2.3)	(0.0)	(0.0)	(0.0)
Income tax liabilities	74.1	81.3	155.4	269.9	189.5	459.4
of which liabilities for audit risks	(1.7)	(81.3)	(83.0)	(2.6)	(189.5)	(192.1)
Contract liabilities	74.5	857.5	932.0	65.9	843.8	909.7
Miscellaneous liabilities	1,345.9	721.2	2,067.1	1,469.8	111.9	1,581.7
of which lease liabilities ³	(117.4)	(582.2)	(699.6)	-	-	-
of which interest from back taxes	(0.0)	(0.0)	(0.0)	(0.6)	(0.0)	(0.6)
of which from other taxes	(160.1)	(0.2)	(160.3)	(170.7)	(0.0)	(170.7)
of which relating to social security	(14.6)	(0.0)	(14.6)	(15.0)	(0.0)	(15.0)
Other liabilities	8,736.0	2,142.7	10,878.7	9,071.5	1,660.5	10,732.0

1 The figures for the previous year have been restated.

2 Please refer to note (25) "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

3 Lease liabilities were reported under other financial liabilities up to the 2018 financial year in accordance with IAS 17, they are reported under other liabilities from the 2019 financial year in accordance with IFRS 16.

Of the non-current financial liabilities, €1,194.2 million (previous year: €1,549.0 million) has a remaining term of between one year and five years, and €948.4 million (previous year: €111.5 million) has a remaining term of more than five years.

Trade payables include obligations for outstanding invoices amounting to €624.9 million (previous year: €829.3 million).

Contract liabilities primarily comprise advance payments received for construction cost subsidies and household connection costs. In addition, they include payments received for other contracts within the scope of application of IFRS 15.

Other liabilities include construction cost subsidies totalling €901.6 million (previous year: €876.8 million).

Miscellaneous liabilities mainly concern collateral for over-the-counter trading business (margin calls received) amounting to €316.1 million (previous year: €331.7 million), as well as exchange-based trading business (variation margins) of €140.3 million (previous year: €336.5 million), interest obligations from bonds amounting to €116.4 million (previous year: €110.3 million) and non-controlling interests in fully consolidated partnerships recorded as liabilities to the amount of €89.5 million (previous year: €89.3 million).

Subsidies mainly include investment cost subsidies.

in € million	31/12/2019	31/12/2018
Investment cost subsidies	6.7	7.7
Other subsidies from public authorities	7.9	8.1
Total	14.6	15.8

(23) Assets held for sale and liabilities directly associated with assets classified as held for sale**Assets held for sale**

in € million	31/12/2019	31/12/2018
Intangible assets	0.0	0.4
Property, plant and equipment	0.9	5.8
Other financial assets	0.0	303.8
Other assets	0.0	32.3
Total	0.9	342.3

Liabilities directly associated with assets classified as held for sale

in € million	31/12/2019	31/12/2018
Deferred taxes	0.0	2.7
Provisions	0.0	2.7
Other liabilities and subsidies	0.0	15.8
Total	0.0	21.2

The property, plant and equipment held for sale in the reporting year refers mainly to pieces of land with buildings held for sale. This is allocated in the segment reporting to the Grids segment.

In the previous year, intangible assets, property, plant and equipment and other assets held for sale comprised shares sold at the beginning of 2019 with a loss of economic control, as well as pieces of land held for sale. This was allocated in the segment reporting to the Grids segment.

In the previous year, other financial assets held for sale included most importantly the 6% of the shares in EWE, which were reclassified due to EnBW's right from 1 July 2019 to sell the shares to EWE-Verband with an associated obligation for EWE-Verband to purchase them. This was allocated in the segment reporting under Other/Consolidation.

The deferred taxes, provisions and other liabilities and subsidies associated with assets classified as held for sale in the previous year related to shares sold at the beginning of 2019 with a loss of economic control.

Other disclosures

(24) Earnings per share

Earnings per share is determined by dividing the profit or loss attributable to the shareholders of EnBW AG by the average number of shares outstanding. This indicator may be diluted by potential shares on account of share options or convertible bonds. As EnBW does not have any potential shares, the basic earnings per share is identical to the diluted earnings per share.

Earnings per share		2019	2018
Earnings from continuing operations	in € million	904.3	467.6
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(734.2)	(334.2)
Group net profit	in € million	904.3	467.6
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(734.2)	(334.2)
Number of shares outstanding (weighted average)	thousands	270,855	270,855
Earnings per share from continuing operations ¹	in €	2.71	1.23
Earnings per share from Group net profit ¹	in €	2.71	1.23
Dividend per share for the EnBW AG 2018 financial year	in €	–	0.65
Proposed dividend per share for the EnBW AG 2019 financial year	in €	0.70	–

¹ In relation to the profit/loss attributable to the shareholders of EnBW AG.

(25) Accounting for financial instruments

Financial instruments include primary financial instruments and derivatives. On the assets side, primary financial instruments mainly consist of financial assets, trade receivables, other assets, and cash and cash equivalents. On the liabilities side, they consist of financial liabilities, trade payables and other liabilities.

Fair value and carrying amounts of financial instruments by measurement category

The table below shows the fair values and carrying amounts of the financial assets and financial liabilities contained in the individual balance sheet items. If not indicated separately, the fair value is measured recurrently.

31/12/2019		Hierarchy of input data					
in € million	Fair value	Level 1	Level 2	Level 3	Measured at amortised cost	Not in IFRS 7's field of application	Carrying amount
Financial assets	6,063.8	2,805.9	1,461.9	1,512.7	283.3	741.7	6,805.5
Measured at fair value through profit or loss	(4,248.6)	(1,580.5)	(1,155.4)	(1,512.7)			(4,248.6)
Measured at fair value in equity	(1,531.9)	(1,225.4)	(306.5)				(1,531.9)
Measured at amortised cost	(283.3)				(283.3)		(283.3)
Trade receivables	4,308.1				4,308.1		4,308.1
Measured at amortised cost	(4,308.1)				(4,308.1)		(4,308.1)
Other assets	4,762.8	5.8	3,808.3		948.7	802.8	5,565.6
Measured at fair value through profit or loss	(3,681.0)	(5.8)	(3,675.2)				(3,681.0)
Measured at amortised cost	(928.0)				(928.0)		(928.0)
Derivatives designated as hedging instruments	(133.1)		(133.1)				(133.1)
Lease receivables	(20.7)				(20.7)		(20.7)
Cash and cash equivalents	1,363.8				1,363.8		1,363.8
Measured at amortised cost	(1,363.8)				(1,363.8)		(1,363.8)
Assets held for sale						0.9	0.9
Total assets	16,498.5	2,811.7	5,270.2	1,512.7	6,903.9	1,545.4	18,043.9
Financial liabilities ¹	9,227.6				8,190.9		8,190.9
Measured at amortised cost	(9,227.6)				(8,190.9)		(8,190.9)
Trade payables	844.5				844.5	3,210.6	4,055.1
Measured at amortised cost	(844.5)				(844.5)		(844.5)
Other liabilities and subsidies	5,058.3	6.9	3,456.3		1,595.1	1,779.8	6,838.1
Held for trading	(3,383.5)	(5.0)	(3,378.5)				(3,383.5)
Measured at amortised cost	(895.5)				(895.5)		(895.5)
Derivatives designated as hedging instruments	(79.7)	(1.9)	(77.8)				(79.7)
Lease liabilities	(699.6)				(699.6)		(699.6)
Total liabilities	15,130.4	6.9	3,456.3	0.0	10,630.5	4,990.4	19,084.1

¹ The fair value of bonds and of liabilities to banks must be allocated to hierarchical Level 1 and 2, respectively.

31/12/2018 in € million	Hierarchy of input data				Measured at amor- tised cost	Not in IFRS 7's field of application	Carrying amount
	Fair value	Level 1	Level 2	Level 3			
Financial assets	5,706.8	2,754.7	1,215.8	1,415.5	320.8	494.4	6,201.2
Measured at fair value through profit or loss	(3,697.1)	(1,270.6)	(1,011.0)	(1,415.5)			(3,697.1)
Measured at fair value in equity	(1,688.9)	(1,484.1)	(204.8)				(1,688.9)
Measured at amortised cost	(320.8)				(320.8)		(320.8)
Trade receivables	4,817.7				4,817.7		4,817.7
Measured at amortised cost	(4,817.7)				(4,817.7)		(4,817.7)
Other assets	3,898.5	103.5	2,635.2		1,159.8	632.2	4,530.7
Measured at fair value through profit or loss	(2,586.1)	(102.7)	(2,483.4)				(2,586.1)
Measured at amortised cost	(1,140.4)				(1,140.4)		(1,140.4)
Derivatives designated as hedging instruments	(152.6)	(0.8)	(151.8)				(152.6)
Carrying amount in accordance with IAS 17	(19.4)				(19.4)		(19.4)
Cash and cash equivalents	2,249.4				2,249.4		2,249.4
Measured at amortised cost	(2,249.4)				(2,249.4)		(2,249.4)
Assets held for sale ¹	299.2			291.9	7.3	43.1	342.3
Total assets	16,971.6	2,858.2	3,851.0	1,707.4	8,555.0	1,169.7	18,141.3
Financial liabilities ²	7,432.1				6,996.2		6,996.2
Measured at amortised cost	(7,332.3)				(6,896.4)		(6,896.4)
Carrying amount in accordance with IAS 17	(99.8)				(99.8)		(99.8)
Trade payables	802.4				802.4	4,237.4	5,039.8
Measured at amortised cost	(802.4)				(802.4)		(802.4)
Other liabilities and subsidies	3,588.5	99.7	2,440.6		1,048.2	2,119.3	5,707.8
Held for trading	(2,463.6)	(98.9)	(2,364.7)				(2,463.6)
Measured at amortised cost	(1,048.2)				(1,048.2)		(1,048.2)
Derivatives designated as hedging instruments	(76.7)	(0.8)	(75.9)				(76.7)
Liabilities directly associated with assets classified as held for sale						21.2	21.2
Total liabilities	11,823.0	99.7	2,440.6	0.0	8,846.8	6,377.9	17,765.0

1 This refers to a non-recurring measurement of the fair value due to the application of IFRS 5.

2 The fair value of bonds and of liabilities to banks must be allocated to hierarchical Level 1 and 2, respectively.

The calculation of fair values is explained in the section entitled accounting policies. The individual levels of the valuation hierarchy are as follows:

- › Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
- › Level 2: Other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly
- › Level 3: Procedures that use input parameters which have a material impact on the recorded fair value and are not based on observable market data

At the end of each reporting period it is determined whether there is any reason to reclassify between the levels of the valuation hierarchy. A reclassification is carried out if the valuation procedure for measuring fair value is being changed and the input factors with significance for the valuation lead to an allocation to a different level. Due to the fact that prices quoted by brokers are used, securities with a fair value of €11.5 million were reclassified from Level 1 to Level 2 in the 2019 financial year.

The fair value of the assets in the “measured at fair value through profit or loss” measurement category amounts to €7,929.6 million (previous year: €6,283.2 million), of which €1,586.3 million (previous year: €1,373.3 million) is allocated to the first hierarchical level, €4,830.6 million (previous year: €3,494.4 million) to the second hierarchical level and €1,512.7 million (previous year: €1,415.5 million) to the third hierarchical level. The assets in the “measured at fair value in equity” measurement category have a fair value of €1,531.9 million (previous year: €1,688.9 million), of which €1,225.4 million (previous year: €1,484.1 million) is allocated to the first hierarchical level and €306.5 million (previous year: €204.8 million) to the second hierarchical level. Assets in the “measured at amortised cost” measurement category amount to €6,883.2 million (previous year: €8,528.3 million).

The fair values of investments in private equity companies are provided by the respective investment companies. The fair value depends on the changes in market value of the respective asset. The most up-to-date fair value available is taken as the basis in each case.

The following table shows the development of the financial instruments to be accounted for at fair value in accordance with Level 3:

in € million	As of 01/01/2019	Changes in con- solidated companies, currency adjustments, other	Changes recognised through profit or loss	Changes recognised in equity	Additions	Disposals	Reclassi- fication to assets held for sale	As of 31/12/2019
Financial assets	1,415.5	12.1	61.1	-1.3	260.0	-234.8	0.0	1,512.6

The changes recognised through profit or loss of €61.1 million (previous year: €135.4 million) were recognised in the amount of €0.0 million (previous year: €50.5 million) in the investment result and in the amount of €61.1 million (previous year: €84.9 million) in the financial result. In the financial year, gains from Level 3 financial instruments were recognised in the investment result in the amount of €69.8 million (previous year: €106.9 million), of which, €69.5 million (previous year: €103.9 million) is accounted for by financial instruments still held on the reporting date.

Financial liabilities as of 31 December 2019 include bonds with a fair value of €6,729.5 million (previous year: €5,297.9 million) and liabilities to banks with a fair value of €2,031.7 million (previous year: €1,490.1 million).

Disclosures – offsetting financial assets and financial liabilities

The derivative financial instruments are part of standard market netting agreements. Master netting agreements exist with our business partners that were created with banks, in particular, on the basis of ISDA (International Swaps and Derivatives Association) agreements. Transactions concluded as part of commodity transactions are generally subject to EFET (European Federation of Energy Traders) agreements. The netting agreements are included in the calculations of fair value.

The following table contains the financial instruments netted in the balance sheet and those which, irrespective of that, are subject to a legally enforceable netting agreement. These financial instruments are contained in the non-netted amounts. In addition, the non-netted amounts also contain collateral to be furnished in advance for on-exchange transactions.

31/12/2019				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Trade receivables	3,750.1	-2,470.2	1,279.9	-559.2	0.0	720.7
Other assets	7,181.6	-5,583.3	1,598.3	-48.2	-316.1	1,234.0
Measured at fair value through profit or loss	(6,732.9)	(-5,159.4)	(1,573.5)	(-47.2)	(-316.1)	(1,210.2)
Measured at amortised cost	(357.3)	(-357.3)	(0.0)	(0.0)	(0.0)	(0.0)
Derivatives designated as hedging instruments	(91.4)	(-66.6)	(24.8)	(-1.0)	(0.0)	(23.8)
Trade payables	2,812.0	-2,470.2	341.8	-77.6	0.0	264.2
Other liabilities and subsidies	6,908.7	-5,583.3	1,325.4	-48.2	-566.1	711.1
Held for trading	(6,607.9)	(-5,283.6)	(1,324.3)	(-47.2)	(-566.0)	(711.1)
Measured at amortised cost	(157.8)	(-157.8)	(0.0)	(0.0)	(0.0)	(0.0)
Derivatives designated as hedging instruments	(143.0)	(-141.9)	(1.1)	(-1.0)	(-0.1)	(0.0)
31/12/2018				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Trade receivables	1,863.3	-1,579.4	283.9	-71.4	0.0	212.5
Other assets	5,647.2	-4,021.7	1,625.5	-311.8	-386.6	927.1
Measured at fair value through profit or loss	(5,286.4)	(-3,728.4)	(1,558.0)	(-307.8)	(-386.6)	(863.6)
Measured at amortised cost	(182.5)	(-182.5)	(0.0)	(0.0)	(0.0)	(0.0)
Derivatives designated as hedging instruments	(178.3)	(-110.8)	(67.5)	(-4.0)	(0.0)	(63.5)
Trade payables	1,897.9	-1,579.4	318.5	-71.4	0.0	247.1
Other liabilities and subsidies	5,412.0	-4,021.7	1,390.3	-311.8	-55.0	1,023.5
Held for trading	(5,014.6)	(-3,729.5)	(1,285.1)	(-307.8)	(-45.0)	(932.3)
Measured at amortised cost	(224.2)	(-195.7)	(28.5)	(0.0)	(0.0)	(28.5)
Derivatives designated as hedging instruments ¹	(173.2)	(-96.5)	(76.7)	(-4.0)	(-10.0)	(62.7)

¹ The figures for the previous year have been restated.

The following net gains/losses were presented in the income statement:

Net gains or losses by measurement category

in € million	2019	2018
Financial assets and liabilities measured at fair value through profit or loss ¹	848.8	168.5
Financial assets measured at fair value in equity	17.9	3.4
Financial assets measured at amortised cost	-89.3	-10.5
Financial liabilities measured at amortised cost	0.0	0.0

¹ The figures for the previous year have been restated.

The presentation of net gains and losses does not include derivatives that are designated as hedging instruments. Stand-alone derivatives are included in the “financial assets and liabilities measured at fair value through profit or loss” category. Please refer to note (8) “Financial result” for information on the total interest income and expenses arising from the financial assets and liabilities measured at fair value in equity and at amortised cost.

The net gain (as in the previous year) posted in the “financial assets and liabilities measured at fair value through profit or loss” measurement category includes gains from marking to market and gains on the sale of financial instruments, as well as interest and currency effects.

In the reporting year, the net gain in the “financial assets measured at fair value in equity” measurement category was mainly due to loss allowances and gains on the sale of financial instruments (as in the previous year).

The net loss (as in the previous year) in the “financial assets measured at amortised cost” measurement category was due to loss allowances that exceeded the positive currency effects and the reversals of loss allowances in the reporting year.

In the 2019 financial year, earnings from changes in the market value of financial assets measured at fair value in equity were recognised in equity with a positive impact of €26.6 million (previous year: €17.9 million negative impact). Of the changes in market values posted with no impact on income, €13.3 million was transferred with a positive impact on earnings (previous year: €1.7 million negative impact on earnings) to the income statement.

The loss allowances on the financial assets in the reporting year are presented under Default risk in this note.

Derivative financial instruments and hedging

Derivatives: Both physical and financial options and forward transactions are entered into to hedge risks in the commodity area, while forward transactions are used almost exclusively in the foreign exchange area. In the area of financing, swap transactions are concluded to minimise risks.

All derivatives held for trading are accounted for as assets or liabilities. They are measured at fair value.

Changes in the fair value of derivatives which are neither intended solely for own use nor qualify as cash flow hedges are recorded in the income statement.

Hedge accounting in accordance with IFRS 9 is applied in the finance area mainly for interest rate hedges for non-current liabilities. A previously used currency hedge for investments with a foreign functional currency expired in the reporting year. In the commodity area, fluctuations of future cash flows from planned procurement and sales transactions are hedged. The economic relationship between a hedged transaction and the hedging instrument is determined by the currency, amount or quantity and timing of the relevant cash flows, depending on the risk being hedged. Risks are hedged in their entirety and a 1:1 hedging relationship is used. In order to evaluate the expected effectiveness of the hedge, the hypothetical derivative methods, and the dollar offset method are used. Ineffectiveness in the hedging relationship may occur due to discounting effects.

Cash flow hedges have been entered into particularly in the commodity area to cover price risks from future sales and procurement transactions, to limit the currency risk from liabilities denominated in foreign currency and to limit the risk of interest rate fluctuation of floating-rate liabilities.

The change in the fair value of the hedges used, particularly forward contracts and futures, is, insofar as they are effective, recorded directly in other comprehensive income (measurement of financial instruments at market value) until termination of the hedge. The ineffective portion of the gain or loss on the hedging instrument is immediately recognised in profit or loss.

Date of the reclassification of the result that was directly recognised in equity to the 2019 income statement

in € million	Fair value	2020	2021–2024	> 2024
Currency-related cash flow hedges	-5.8	9.8	17.9	-33.5
Commodity cash flow hedges	-99.5	-34.8	-64.7	0.0
Interest-related cash flow hedges	5.0	0.0	0.2	4.8

Date of the reclassification of the result that was directly recognised in equity to the 2018 income statement

in € million	Fair value	2019	2020–2023	> 2023
Currency-related cash flow hedges	-12.1	14.5	-6.7	-19.9
Commodity cash flow hedges	13.4	5.6	7.8	0.0
Interest-related cash flow hedges	3.8	0.0	0.0	3.8

As of 31 December 2019, unrealised losses from derivatives amounted to €118.5 million (previous year: €250.5 million). The effective portion of the cash flow hedges was recognised directly in equity with a positive impact of €79.4 million in the reporting period (previous year: €114.1 million negative impact). From the ineffective portion of the cash flow hedges in 2019, there was income of €2.6 million (previous year: €1.0 million) and expenses from reclassifications from other comprehensive income in the amount of €82.9 million (previous year: €82.0 million) to the income statement. The reclassifications were made to revenue (decrease of €150.5 million, previous year: €219.5 million), cost of materials (decrease of €6.5 million, previous year: €51.0 million), other operating income (increase of €33.6 million, previous year: €57.4 million) and the financial result (increase of €23.8 million, previous year: €29.1 million). An amount of €22.3 million (previous year: €0.0 million) was reclassified from inventories to other comprehensive income. This led to a decrease in acquisition costs as in the previous year.

The amounts reclassified also included the de-designation of cash flow hedges of €22.3 million. As a result of changes in market prices, the expected highly probable generated volumes of electricity and the expected highly probable requirements for coal were reduced for the 2020 financial year.

As of 31 December 2019, existing hedged transactions that are covered by cash flow hedges with terms of up to around 57 years (previous year: up to 58 years) are included in the area of foreign currencies. In the commodity area, the terms of planned underlying transactions are generally up to four years (as in the previous year).

For optimisation purposes, hedging relationships are regularly redesignated as is customary in the industry.

Fair value hedges are entered into above all to hedge fixed-income liabilities against market price risks. Interest rate swaps are used as hedging instruments. With a fair value hedge, both the hedged transaction and the hedging instrument are measured with respect to the hedged risk at fair value through profit or loss. The change in the fair value of hedging instruments of €6.7 million was recognised in the income statement with a negative impact on earnings in the reporting year (previous year: €7.2 million). For hedged liabilities, the fluctuation in market values arising from the hedged risk is also recognised in profit or loss. In the reporting year, the fluctuations in market values totalling €6.7 million that resulted from the underlying transactions were measured through profit or loss with a positive impact on earnings (previous year: €7.2 million).

Hedges of net investments in foreign operations: Primary foreign currency bonds were used in the reporting year to hedge against foreign exchange risks from investments with a foreign functional currency. This hedging instrument expired in the 2019 financial year. As of 31 December 2019, €0.0 million (previous year: €38.0 million) arising from the hedges' exchange rate changes was reported within equity as unrealised losses under "currency translation". The hedging relationship was not ineffective.

Contracts that have been concluded to meet the company's expected usage requirements are not recorded in the balance sheet pursuant to the provisions of IFRS 9.

Regular way purchases or sales (spot purchases/sales) of primary financial instruments are generally recognised as of the settlement date at fair value taking into account the transaction costs. Derivative financial assets are recognised as of the trading date. Derivative and primary financial instruments are recognised in the balance sheet when EnBW becomes party to the contract.

Purchases and sales of fuels are made in euros or US dollars.

Counterparty risks are assessed taking into account the period for which the current replacement and selling risk has been calculated. Moreover, these risks are analysed with reference to the current rating by the rating agencies Moody's and Standard & Poor's. An internal rating procedure is used for trading partners that do not have such an external rating.

The counterparty risk is based on replacement and selling risks resulting from the market value of the item in question with the individual trading partner as of the reporting date. Netting options agreed in master agreements concluded with the trading partner are also taken into account when determining the counterparty risk.

If there is a netting agreement, positive and negative market values are netted for each trading partner. Otherwise, only positive market values are taken into consideration.

The following tables present the amounts that relate to items designated as hedging instruments. The nominal volume of the derivatives presented below has not been netted. It represents the sum of all purchase and sale amounts underlying the transactions. The amount of the nominal volume allows conclusions to be drawn about the extent to which derivatives have been used. However, it does not reflect the risk to the Group as the derivative transactions are counterbalanced by hedged transactions that have counter risks. Securities are deposited or have been provided for derivatives that are traded on the stock exchange.

31/12/2019	Nominal amount of the hedging instrument	Carrying amount of the hedging instrument		Balance sheet items containing the hedging instrument	Change in value to determine the ineffectiveness of the hedging instrument
		Assets	Liabilities		
in € million					
Cash flow hedges	3,346.0	52.3	77.4		-80.2
Commodity price risks	2,110.5	22.7	46.5	Other assets/ Other liabilities	-89.6
Forward transactions	(2,110.5)	(22.7)	(46.5)		(-89.6)
Currency risk	1,193.2	25.0	30.9	Other assets/ Other liabilities	10.6
Swap transactions	(1,193.2)	(25.0)	(30.9)		(10.6)
Interest rate risk	42.3	4.6	0.0		-1.2
Swap transactions	(42.3)	(4.6)	(0.0)		(-1.2)
Fair value hedges	569.7	80.8	2.3		-6.7
Interest rate risk	300.0	80.8	0.0	Other assets/ Other liabilities	-4.4
Swap transactions	(300.0)	(80.8)	(0.0)		(-4.4)
Exchange rates	269.7	0.0	2.3		-2.3
Swap transactions	(269.7)	(0.0)	(2.3)		(-2.3)
31/12/2018					
	Nominal amount of the hedging instrument	Carrying amount of the hedging instrument		Balance sheet items containing the hedging instrument	Change in value to determine the ineffectiveness of the hedging instrument
in € million		Assets	Liabilities		
Cash flow hedges	3,620.3	67.5	76.7		44.4
Commodity price risks	2,530.9	48.7	42.1	Other assets/ Other liabilities	-27.6
Forward transactions	(2,530.9)	(48.7)	(42.1)		(-27.6)
Currency risk	1,041.6	18.8	30.9	Other assets/ Other liabilities	73.2
Swap transactions	(1,041.6)	(18.8)	(30.9)		(73.2)
Interest rate risk ¹	47.8	0.0	3.7	Other assets/ Other liabilities	-1.2
Swap transactions	(47.8)	(0.0)	(3.7)		(-1.2)
Fair value hedges	300.0	85.1	0.0		-6.6
Interest rate risk	300.0	85.1	0.0	Other assets/ Other liabilities	-6.6
Swap transactions	(300.0)	(85.1)	(0.0)		(-6.6)
Hedges of net investments in foreign operations	0.0	0.0	0.0		1.4

¹ The figures for the previous year have been restated.

The following tables present the amounts that relate to items designated as hedged transactions:

31/12/2019	Carrying amount of the transaction	Change in value of the hedged transaction that is contained in the carrying amount of the recognised transaction	Balance sheet items containing the transaction	Change in value to determine the ineffectiveness of the hedging instrument	Cash flow hedge reserve
in € million	Liabilities	Liabilities			
Cash flow hedges	430.2	0.0		79.4	-110.8
Commodity price risks	-	-		86.0	-100.2
Expected transactions	-	-		(86.0)	(-100.2)
Currency risk	430.2	0.0		-7.8	-10.6
Expected transactions	-	-	-	(-6.0)	(21.0)
Bonds	(430.2)	(0.0)	Financial liabilities	(-1.8)	(-31.6)
Interest rate risk	0.0	0.0		1.2	0.0
Expected transactions	-	(0.0)	Financial liabilities	(1.2)	(0.0)
Fair value hedges	642.0	339.3		6.7	-
Interest rate risk	372.3	72.3		4.4	-
Bonds	(372.3)	(72.3)	Financial liabilities	(4.4)	-
Currency risk	269.7	267.0		2.3	0.0
Swap transactions	(269.7)	(267.0)		(2.3)	(0.0)
31/12/2018	Carrying amount of the transaction	Change in value of the hedged transaction that is contained in the carrying amount of the recognised transaction	Balance sheet items containing the transaction	Change in value to determine the ineffectiveness of the hedging instrument	Cash flow hedge reserve
in € million	Liabilities	Liabilities			
Cash flow hedges	419.7	0.0		-43.4	-253.8
Commodity price risks	-	-		25.8	-261.0
Expected transactions	-	-		(25.8)	(-261.0)
Currency risk	419.7	0.0		-70.4	7.2
Expected transactions	-	-	-	(-30.1)	(26.5)
Bonds	(419.7)	(0.0)	Financial liabilities	(-40.3)	(-19.3)
Interest rate risk	0.0	0.0		1.2	0.0
Expected transactions	-	(0.0)	Financial liabilities	(1.2)	(0.0)
Fair value hedges	373.2	73.2		6.6	-
Interest rate risk	373.2	73.2		6.6	-
Bonds	(373.2)	(73.2)	Financial liabilities	(6.6)	-
Hedges of net investments in foreign operations	0.0	27.0	Equity	-1.4	0.0

In the reporting year, the amounts associated with items designated as hedging instruments were as follows:

2019	Hedging gains or losses in the reporting period recognised under other comprehensive income	Ineffectiveness of the hedging relationship recognised in profit or loss	Items on the statement of comprehensive income that contain the recognised ineffectiveness	Reclassification adjustments included in the income statement ¹	Items on the statement of comprehensive income affected by the reclassification
in € million					
Cash flow hedges	79.4	2.6		-82.9	
Commodity price risks	79.2	2.2	Other operating income	-110.4	Cost of materials/revenue/other operating income
Interest rate risk	0.2	0.0		23.8	Financial result
Currency risk	0.0	0.4		0.0	

¹ Detailed information on the reclassifications with an effect on profit or loss can be found in the information on cash flow hedges.

2018	Hedging gains or losses in the reporting period recognised under other comprehensive income	Ineffectiveness of the hedging relationship recognised in profit or loss	Items on the statement of comprehensive income that contain the recognised ineffectiveness	Reclassification adjustments included in the income statement ¹	Items on the statement of comprehensive income affected by the reclassification
in € million					
Cash flow hedges	-114.1	1.0		-82.0	
Commodity price risks	-159.7	1.0	Other operating income	-111.1	Cost of materials/revenue/other operating income
Interest rate risk	45.6	0.0		29.1	Financial result

¹ Detailed information on the reclassifications with an effect on profit or loss can be found in the information on cash flow hedges.

Derivatives used for hedging purposes can be reconciled to other comprehensive income (cash flow hedge) as follows:

in € million ¹	31/12/2019	31/12/2018	Change
Derivatives used in cash flow hedges with a positive fair value	74.3	178.3	-104.0
Derivatives used in cash flow hedges with a negative fair value	174.6	173.2	1.4
	-100.3	5.1	-105.4
Deferred tax on change recognised directly in equity in derivatives used in cash flow hedges	31.7	76.1	-44.4
Hedge ineffectiveness	-2.6	-1.0	-1.6
Cascading effects	-21.7	-309.8	288.1
Effects realised from hedged transactions ²	3.6	55.4	-51.8
Non-controlling interests	7.8	-3.2	11.0
Cash flow hedge (recognised in equity)	-81.5	-177.4	95.9

¹ Before offsetting financial assets and financial liabilities according to IAS 32.

² Of which €9.7 million (previous year: €44.5 million) will be reclassified to the income statement in 2020 (previous year: 2019–2020).

The cascading effects concern the changes in market value of the futures that are part of hedges accumulated until the time of cascading.

In cascading, annual and quarterly futures are settled by other futures instead of in cash.

Counterparty risk Moody's, S&P and/or internal rating

in € million	31/12/2019		31/12/2018	
	< 1 year	1–5 years	< 1 year	1–5 years
up to A1	220.5	40.0	23.3	37.1
up to A3	130.8	62.5	8.2	16.8
Baa1	47.1	44.5	61.6	33.1
up to Baa3	102.5	26.2	32.6	45.1
below Baa3	61.1	11.3	4.6	8.9
Total	562.0	184.5	130.3	141.0

Risk management system

As an energy supply company, EnBW is exposed to financial price risks in the currency, interest and commodity areas in the course of its operating activities, investments and financing transactions. In addition, there are credit and liquidity risks. It is company policy to eliminate or limit these risks by systematic risk management.

Exchange rate fluctuations between the euro and other currencies, fluctuation in interest rates on international money and capital markets, as well as fluctuating prices on the markets for electricity, coal, gas and emission allowances are the main price risks for EnBW. The hedging policy used to limit these risks is set forth by the Board of Management and is documented in intercompany guidelines. It also provides for the use of derivatives.

The derivatives used to hedge against financial risks are subject to the assessment criteria defined in the risk management guidelines. These include value-at-risk ratios and position limits and loss limits. The segregation of duties between trading and back-office processing and control is a further key element of our risk management.

The corresponding financial transactions are only concluded with counterparties with excellent credit ratings. Using suitable hedging instruments, it is possible to make use of market opportunities while hedging the risk position.

The risks arising from financial instruments as well as the methods used to assess and manage them have not changed significantly since the previous year.

For further details on EnBW's risk management system, we refer to our explanations given in the risk report contained in the management report.

Default risk

EnBW is exposed to default risks that result from counterparties not fulfilling contractual agreements. EnBW manages its default risks by generally demanding a high credit rating of its counterparties and limiting the default risk with counterparties. The credit ratings of counterparties are continually monitored by EnBW's system for managing credit ratings. Commodity and energy transactions are generally made under master agreements such as EFET, ISDA or IETA.

These master agreements are generally only entered into following careful scrutiny of the counterparty's creditworthiness. Exceptions to this business policy can be made only if it is in the justified interest of the company, e.g. in order to penetrate new markets. In terms of the customer structure, the receivables from individual counterparties are not large enough to give rise to a significant concentration of risk.

Financial investments are only made with the investment limits and counterparties defined in the treasury guidelines. Compliance with these guidelines is constantly monitored by the internal control system (ICS).

The loss allowances for financial assets measured at fair value in equity and financial assets measured at amortised cost developed as follows:

in € million	Financial assets measured at fair value in equity		Financial assets measured at amortised cost		
	Carrying amount	Expected 12-month credit loss	Carrying amount	Expected 12-month credit loss	Expected credit loss over the term – impaired creditworthiness
As of 01/01/2018	1,538.7	-0.7	4,177.5	0.0	-41.0
Net revaluation of the loss allowances	-	0.7	-	0.0	2.8
Newly acquired financial assets	-	-0.8	-	0.0	0.0
Repaid financial assets	-	0.1	-	0.0	3.5
As of 31/12/2018	1,688.9	-0.7	3,710.6	-1.3	-34.7
Net revaluation of the loss allowances	-	-	-	-1.1	5.8
Newly acquired financial assets	-	-0.7	-	-0.3	-2.5
Repaid financial assets	-	0.5	-	-0.5	0.0
As of 31/12/2019	1,531.9	-0.9	2,575.1	-3.2	-31.4

The loss allowances for trade receivables developed as follows in the financial year:

Trade receivables in € million	31/12/2019			31/12/2018		
	Carrying amount	Loss allowance	Loss rate (weighted average)	Carrying amount	Loss allowance	Loss rate (weighted average)
Not past due	3,844.0	-56.5	1.4%	4,653.1	-36.3	0.8%
Past due	464.1	-91.9		164.6	-99.8	
Due within 3 months	(380.5)	(-40.2)	9.6%	(75.0)	(-2.2)	2.8%
Due in between 3 and 6 months	(12.8)	(-3.8)	22.9%	(17.0)	(-4.6)	21.3%
Due in between 6 months and 1 year	(47.2)	(-13.3)	22.0%	(24.8)	(-2.0)	7.5%
Due in more than 1 year	(23.6)	(-34.6)	59.5%	(47.8)	(-91.0)	65.6%

Please refer to note (12) “Leases” for the loss allowances for lease receivables.

The maximum default risk for financial assets (including derivatives with positive market value) is equivalent to the carrying amounts recognised in the balance sheet. As of 31 December 2019, the maximum default risk amounts to €16.5 billion (previous year: €17.0 billion).

A detailed description of the models can be found in the accounting policies in the section “Impairment of financial assets”.

Liquidity risk

Liquidity risks arise for EnBW from the obligation to repay liabilities fully and punctually. The objective of EnBW’s cash and liquidity management is to secure the company’s solvency at all times.

Cash management determines any cash requirements and inflows on a central basis. By offsetting cash requirements and cash inflows, the number of banking transactions is reduced to a minimum. The offsetting is carried out by cash pooling. Cash management has implemented standardised processes and systems to manage bank accounts and internal clearing accounts and perform automated payment transactions.

For liquidity management purposes, a finance plan based on cash flows is prepared centrally. As they arise, finance needs are covered by suitable financial instruments as part of the liquidity management. In addition to ensuring that liquidity is available on a daily basis, EnBW maintains further liquidity reserves of €2.2 billion (previous year: €2.6 billion) which are available at short notice. The amount of liquidity reserves is based on strategic liquidity planning, taking into account defined worst-case parameters. The liquidity reserve is made up of contractually agreed, syndicated and free credit lines with various terms to maturity. In view of the liquidity available and existing credit lines, EnBW does not consider there to be any concentration of risk.

For further details on financial liabilities refer to note (22) “Liabilities and subsidies”.

The tables below show future undiscounted cash flows from financial liabilities and derivative financial instruments that affect the future liquidity situation of the EnBW Group.

The analysis includes all contractual obligations as of the reporting date 31 December 2019 that are disclosed in the balance sheet.

Interest and redemption payments are taken into consideration for debt instruments issued and liabilities to banks.

The interest payments on fixed-income financial instruments are based on the contractually agreed interest rates. For financial instruments subject to floating interest, the interest rates last fixed prior to 31 December 2019 were used.

Foreign currency financial instruments are translated at the respective spot price as of 31 December 2019.

Where derivatives are concerned, positive or negative market values are generally included, provided they give rise to a net cash outflow. Undiscounted cash flows determined on the basis of the following conditions:

- › Swap transactions are only included in the liquidity analysis if they give rise to a net cash outflow.
- › Forward exchange transactions are taken into account provided they give rise to a cash outflow.
- › In the case of forward transactions, all calls are taken into account. The future cash flows are equivalent to the quantities measured at the contractually agreed price.
- › Futures transactions are not included in the liquidity analysis because they are settled by daily variation margins.

Undiscounted cash flows as of 31/12/2019

in € million	Total	2020	2021	2022	2023	Cash flows > 2023
Non-derivative financial liabilities						
Debt instruments issued	7,402.2	256.1	1,199.3	1,112.0	206.3	4,628.5
Liabilities to banks	2,062.5	758.0	118.3	235.8	270.0	680.4
Other financial liabilities	495.0	83.7	38.9	93.9	16.4	262.1
Trade payables	844.5	844.5				
Lease liabilities	815.5	127.1	117.9	109.5	96.9	364.2
Other financial obligations	434.7	418.3	3.0	7.0	3.5	2.9
Derivative financial assets	4,820.0	3,438.1	672.4	586.6	95.5	27.4
Derivative financial liabilities	27,073.2	18,874.4	5,947.3	1,940.2	248.3	63.0
Financial guarantees	291.8	291.8				
Total	44,239.4	25,092.0	8,097.1	4,085.0	936.9	6,028.5

Undiscounted cash flows as of 31/12/2018

in € million ¹	Total	2019	2020	2021	2022	Cash flows >2022
Non-derivative financial liabilities						
Debt instruments issued	6,316.7	184.4	184.0	1,183.7	1,096.5	3,668.1
Liabilities to banks	1,522.8	215.2	378.1	102.1	66.3	761.1
Finance lease liabilities	162.9	7.4	7.1	7.1	7.1	134.2
Other financial liabilities	590.9	141.4	42.2	27.4	92.0	287.9
Trade payables	802.4	802.4				
Other financial obligations	586.7	570.3	3.9	2.4	6.9	3.2
Derivative financial assets	11,269.7	8,510.3	2,075.3	650.8	21.9	11.4
Derivative financial liabilities	5,669.2	3,597.0	1,376.6	553.2	127.0	15.4
Financial guarantees	227.7	227.7				
Total	27,149.0	14,256.1	4,067.2	2,526.7	1,417.7	4,881.3

¹ The figures for the previous year have been restated.

The increase in the liquidity risk for the derivative financial instruments is mainly due to a further increase in the volume of forward transactions. The development of market prices on the commodity markets and the valuation on the reporting date are the decisive factors for the classification of these derivatives as financial assets or financial liabilities. Because only the derivatives that cause a cash outflow are presented and the netting agreements concluded with numerous trading partners as part of our risk management activities are also omitted here, EnBW's actual liquidity risk from derivatives is not revealed directly.

Market price risks

Market price risks can arise from foreign exchange and interest rate risks as well as from commodity and other price risks for shares, share-based investment funds, interest-bearing securities and investments in private equity companies. The price risks are reduced through the implementation of a comprehensive hedging concept and the associated closing of risk positions.

The main foreign currency risks of EnBW result from procurement and hedging of prices for its fuel requirements, gas and oil trading business and liabilities denominated in foreign currency. Other currency risks resulting from investments in shares, share-based investment funds, fixed-income securities and private equity companies are taken into account under other price risks due to their minor significance for the dedicated financial assets. The currency risk is hedged with the help of appropriate standardised financial instruments – in the reporting period, forward exchange contracts in particular – on the basis of continuously monitored exchange rate forecasts. Foreign exchange risks are hedged centrally. EnBW principally has exposure to currency risks from US dollars and Swiss francs. The deviation used to derive information on the currency sensitivity is determined on the basis of an annual analysis of the average deviation in the exchange rates.

The net assets tied up at foreign Group entities outside the eurozone, and their related translation risks, are hedged against exchange rate fluctuation only in exceptional cases.

The effects of changes in exchange rates on the net profit/loss for the year and on equity are analysed below. The analysis was made assuming that all other parameters, such as interest rates, remain unchanged. The analysis includes financial instruments to the amount of €1,222.8 million (previous year: €1,546.4 million) whose exchange rate exposure might affect equity or the net profit/loss for the year. The information presented in the table shows only the effects on the net profit/loss for the year and on equity in the case of an increase in the exchange rates, a reduction of the same amount would have the opposite effect.

These are mainly hedging instruments from cash flow hedges and from hedges of net investments in foreign operations, stand-alone derivatives and receivables and liabilities denominated in foreign currency.

Currency risk

in € million			31/12/2019	31/12/2018
Euros against all currencies	+5% (previous year: +5%)	Profit for the year	-12.9	-7.3
	+5% (previous year: +5%)	Equity	19.8	28.6
of which euro/US dollar	+5% (previous year: +5%)	Profit for the year	(-14.5)	(-8.9)
	+5% (previous year: +5%)	Equity	(16.8)	(25.7)
of which euro/Swiss franc	+5% (previous year: +5%)	Profit for the year	(1.6)	(1.6)
	+5% (previous year: +5%)	Equity	(3.0)	(2.9)

EnBW uses a multitude of interest-sensitive financial instruments in order to meet the requirements of operational and strategic liquidity management. Interest rate risks only stem from floating-rate instruments.

Interest-induced changes in the market value of interest-bearing securities in the “measured at fair value through profit or loss” and “measured at fair value in equity” measurement categories are presented under other price risks for shares, share-based investment funds, interest-bearing securities and investments in private equity companies.

On the assets side, there is interest exposure from bank balances and on the liabilities side from floating-rate liabilities to banks. In addition, there are interest rate risks from derivatives in the form of swap transactions. EnBW mainly has interest rate risks in the eurozone. The analysis includes financial assets of €1,441.4 million (previous year: €1,658.3 million) and financial liabilities of €1,926.5 million (previous year: €1,555.2 million), whose interest rate exposure might affect equity or the net profit/loss for the year.

The effects of changes in interest rates on the net profit/loss for the year and on equity on the reporting date are analysed below. The situation on the reporting date for the period is decisive for the quantitative information; the effects for one year on the current reporting period are presented. The analysis was made assuming that all other parameters, such as exchange rates, remain unchanged. The analysis includes only financial instruments whose interest rate exposure might affect equity or the net profit/loss for the year. For analysis purposes, the average change in yield over the last ten years was used.

Interest rate risk

in € million			31/12/2019	31/12/2018
Increase in interest rate +40 basis points (previous year: +45 basis points)		Profit for the year	-3.2	-1.0
of which interest rate derivatives		Profit for the year	(-0.9)	(-1.1)
of which cash at banks with a floating interest rate		Profit for the year	(5.1)	(6.7)
of which primary financial debt with a floating interest rate		Profit for the year	(-7.4)	(-6.6)
Decrease in interest rate -40 basis points (previous year: -45 basis points)		Profit for the year	3.0	0.7
of which interest rate derivatives		Profit for the year	(0.9)	(1.1)
of which cash at banks with a floating interest rate		Profit for the year	(-5.1)	(-6.7)
of which primary financial debt with a floating interest rate		Profit for the year	(7.2)	(6.3)

In the context of our energy trading activities, EnBW enters into energy trading contracts for the purpose of price risk management, optimisation of power stations, load equalisation and optimisation of margins. Trading for own account is only permitted within narrow, clearly defined boundaries.

The price risks mostly arise from the procurement and sale of electricity, the procurement of coal, gas and oil as fuels, and the procurement of emission allowances. Furthermore, EnBW is exposed to price risks from speculative items entered into in own-account trading. The price risks are hedged using appropriate financial instruments on the basis of continuously monitored forecasts of market prices. The hedging instruments used in the reporting period were forwards, futures, swaps and options.

The sensitivity of the measurement of derivatives to the price of electricity, coal, oil, gas and emission allowances is analysed below. The analysis was made assuming that all other parameters remain unchanged. It includes only derivatives whose changes in market value affect equity or the net profit/loss for the year. These are derivatives that are accounted for as stand-alone derivatives as well as derivatives used as hedging instruments in cash flow hedges. For all commodities, typical volatilities were determined and rounded on the basis of the front year. These volatilities give the percentage rate by which the market price is shifted on the evaluation date. For all commodities, the resulting changes in market prices are multiplied by the sensitivities and aggregated for each commodity.

The analysis does not include any derivatives that are intended for the purpose of receipt or delivery of non-financial items in accordance with the entity's expected purchase, sale or usage requirements (own use), which are not required to be accounted for in accordance with IFRS 9. Our generation and distribution positions are not included in the analysis either.

The sensitivities presented below therefore do not represent the actual economic risks to which the EnBW Group is exposed but rather serve solely to satisfy the disclosure requirements of IFRS 7.

The information presented in the table shows only the effects on the net profit/loss for the year and on equity in the case of an increase in prices, a reduction of the same amount would have the opposite effect.

Price risks

in € million			31/12/2019	31/12/2018
Electricity	+20% (previous year: +25%)	Profit for the year	-8.4	-103.3
	+20% (previous year: +25%)	Equity	-92.6	-249.8
Coal	+25% (previous year: +20%)	Profit for the year	12.1	34.2
	+25% (previous year: +20%)	Equity	85.5	104.8
Oil	+25% (previous year: +20%)	Profit for the year	5.0	4.9
	+25% (previous year: +20%)	Equity	0.0	0.0
Gas	+25% (previous year: +20%)	Profit for the year	34.2	-22.0
	+25% (previous year: +20%)	Equity	0.0	0.0
Emission allowances	+45% (previous year: +50%)	Profit for the year	112.9	295.2
	+45% (previous year: +50%)	Equity	150.6	51.2

EnBW has investments in shares, share-based investment funds, fixed-income securities and private equity companies that pose price risks for the company, which include, amongst other things, currency risk. When selecting securities, the company always attaches particular importance to high marketability and a good credit rating. As of the reporting date 31 December 2019, shares, share-based investment funds, fixed-income securities and investments in private equity companies totalling €5,661.1 million (previous year restated: €5,250.1 million) were exposed to market risk.

The effects of price risks from shares, share-based investment funds, interest-bearing securities and investments in private equity companies (real estate, infrastructure and private equity funds) on the net profit/loss for the year and on equity are analysed below. The analysis was made assuming that all other parameters, such as interest, remain unchanged. The analysis includes financial instruments whose price risks might affect equity or the net profit/loss for the year. The analysis of the market price risk of shares, share-based investment funds and investments in private equity funds was carried out based on historical volatility. A standard deviation was assumed as a realistic scenario. The market risk of fixed-income securities was analysed by modified duration. Taking into account the changes in interest rates assumed (see interest rate risk) in relation to the fair value of fixed-income securities, results are determined in absolute figures. The premises on which the sensitivity analysis is based are 10% for shares, share-based investment funds and investments in private equity funds (previous year: 10%) and 1% for interest-bearing securities and investments in real estate and infrastructure funds (previous year: 1%).

In the risk scenario in question, the net profit/loss for the year would improve by €217.8 million (previous year restated: €196.5 million). The hypothetical change in profit/loss for the year is primarily due to shares, share-based investment funds and investments in private equity companies. In the risk scenario in question, the equity would increase by €15.3 million (previous year: €16.9 million). Of the hypothetical change in equity, €15.3 million (previous year: €16.9 million) is accounted for by fixed-income securities. The information presented shows only the effects on the net profit/loss for the year and on equity in the case of an increase in the values of shares, share-based investment funds, interest-bearing securities and investments in private equity companies, a reduction of the same amount would have the opposite effect.

(26) Contingent liabilities and other financial commitments

The disclosures on contingent liabilities and other financial commitments relate to the nominal values.

Contingent liabilities

After the amended German Atomic Power Act (AtG) and the amended Directive on the Coverage Provisions in the Nuclear Power Industry (AtDeckV) came into force on 27 April 2002, German nuclear power plant operators are required to provide evidence of coverage provision up to a maximum amount of €2.5 billion per case of damage for risks related to nuclear power. Of this provision, €255.6 million is covered by uniform third-party liability insurance. Nuklear Haftpflicht GbR now only provides solidarity coverage in respect of claims relating to officially prescribed evacuation measures ranging from €0.5 million to €15.0 million. In proportion to their shares in the nuclear power plants, Group companies have undertaken to provide the operating companies responsible for the nuclear power plants with sufficient liquidity to enable them to meet their obligations arising from their membership of Nuklear Haftpflicht GbR at any time.

In order to fulfil the subsequent coverage provision amounting to €2,244.4 million per case of damage, EnBW and the other parent companies of the German nuclear power station operators reached a solidarity agreement on 11 July, 27 July, 21 August and 28 August 2001, which was extended with agreements on 25 March, 18 April, 28 April and 1 June 2011, to provide a liable nuclear power station operator with sufficient funding – after exhausting its own possibilities and those of the Group parent companies – to meet its payment obligations in the event of a claim for damages. According to the agreement, EnBW has to bear a 25.187% share of the liability coverage, plus 5% for costs to settle any claims for damages, as of 31 December 2019, and 20.450% as of 1 January 2020, as the Biblis B, Unterweser, Krümmel, Neckarwestheim 1 and Philippsburg 1 nuclear power plants are no longer included. Sufficient provisions have been made to ensure this liquidity and are taken into account in the liquidity plan.

As of 31 December 2019, the Neckarwestheim 1 and Philippsburg 1 nuclear power plants are no longer included in the solidarity agreement. Due to the removal of all of the fuel rods from the power plants, the coverage provision for the Neckarwestheim 1 nuclear power plant and the coverage provision for the Philippsburg 1 nuclear power plant were each fixed at €15.0 million in 2019.

As of 31 December 2018, the Obrigheim nuclear power plant was no longer included in the previously described solidarity agreement. Due to the removal of all of the fuel rods from the power plant, the coverage provision for the Obrigheim nuclear power plant was fixed at €9.7 million in 2018.

EnBW Energie Baden-Württemberg AG, Kernkraftwerk Obrigheim GmbH and EnBW Kernkraft GmbH are members of the European Mutual Association for Nuclear Insurance (EMANI). Comprehensive property insurance has been taken out with EMANI for all nuclear power plants operated by EnBW. In the event that the guarantee fund held by EMANI is exhausted, or if EMANI no longer holds the legally stipulated liquidity, EMANI can demand the payment of an amount up to six times the annual net premium from the members in accordance with its statutes. The annual net premium for all nuclear power plant blocks operated by EnBW is currently €0.953 million.

In addition, there are other contingent liabilities at the EnBW Group amounting to €627.7 million (previous year: €2,469.7 million). This amount includes sureties of €591.1 million (previous year: €2,371.4 million). This decrease is due to the change in consolidation of EnBW Hohe See. The amount also includes €10.9 million (previous year: €13.2 million) for pending litigation where no provisions were made because the counterparty is unlikely to win the case. More detailed explanations on important legal risks for which contingent liabilities are reported can be found in the risk report. In addition, various court cases, investigations by authorities or proceedings and other claims are pending against EnBW. The chances of these being successful are, however, remote and they are therefore not reported under contingent liabilities.

Other financial commitments

The EnBW Group has long-term purchase commitments for natural gas, coal and other fossil fuels, as well as for electricity. In addition, there are commitments from long-term agreements for the purchase, conversion, enrichment, production and disposal of uranium. The total volume of these commitments amounts to €29.5 billion (previous year: €32.3 billion), of which €5.2 billion (previous year: €6.9 billion) is due within one year.

Miscellaneous other financial commitments break down as follows:

in € million	31/12/2019	Of which due in			31/12/2018
		< 1 year	1–5 years	> 5 years	
Financial commitments from rent and lease agreements	159.0	26.4	56.6	76.0	499.7
Purchase commitments	903.6	768.4	126.2	9.0	924.9
Investment obligations for intangible assets and property, plant and equipment	1,213.8	632.7	510.3	70.8	1,142.7
Financial commitments from corporate acquisitions ¹	535.5	259.2	229.9	46.4	476.1
Other financial commitments	407.0	114.5	151.6	140.9	291.2
Total	3,218.9	1,801.2	1,074.6	343.1	3,334.6

¹ Financial commitments from corporate acquisitions < 1 year include investments held as financial assets amounting to €133.5 million (previous year: €143.8 million).

(27) Significant restrictions

As a result of regulatory and legal requirements, the ability of the Group to transfer assets within the Group is limited to some extent.

In accordance with the German Energy Industry Act (EnWG), independent transmission operators must possess the financial, technical, material and human resources required to operate the transmission grid. For this purpose, the independent transmission operators must be the owner, either directly or through shareholdings, of all of the assets required to operate the transmission grid. As of 31 December 2019, the EnBW Group held a total of €3,002.9 million (previous year: €2,569.6 million) in assets restricted due to these legal regulations.

(28) Audit fees

The fees of the Group auditor Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, which are recorded as an expense, break down as follows:

in € million ¹	2019	2018
Statutory audit	3.1	3.4
Other attestation services	0.5	1.6
Tax advisory services	0.7	0.2
Other services	0.5	0.4
Total	4.8	5.6

¹ The audit was carried out by KPMG AG Wirtschaftsprüfungsgesellschaft in the previous year.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft audited the annual and consolidated financial statements of EnBW AG. In addition, attestation services that are not prescribed by law were provided relating to financial information for the reviews of interim financial statements and to voluntary audits of annual and consolidated financial statements. As part of the audit services, there was an audit of the IT systems that is not prescribed by law. Furthermore, other audits specific to the sector of the economy that are not prescribed by law, such as audits according to EEG, KWKG and the Concession Fee Ordinance, were carried out. Attestation services that are not prescribed by law relating to capital market transactions comprised the issuing of one comfort letter. Agreed investigative measures were also carried out.

In connection with matters relating to value added tax and ongoing income taxes, EnBW AG was also provided with tax advice by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft. In addition, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft provided advisory services in connection with the initial introduction of accounting standards and advised us on business transactions as well as other economic matters.

(29) Exemptions pursuant to section 264 (3) or section 264b HGB

The following German subsidiaries made use of some or all of the exemption provisions of section 264 (3) HGB or section 264b HGB in the 2019 financial year:

Exemptions pursuant to section 264 (3) HGB

- › EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe
- › EnBW France GmbH, Stuttgart
- › EnBW He Dreht GmbH, Varel
- › EnBW Offshore 1 GmbH, Stuttgart
- › EnBW Offshore 2 GmbH, Stuttgart
- › EnBW Offshore 3 GmbH, Stuttgart
- › EnBW Perspektiven GmbH, Karlsruhe
- › EnBW REG Beteiligungsgesellschaft mbH, Stuttgart
- › EnBW Renewables International GmbH, Stuttgart
- › EnBW Rückbauservice GmbH, Stuttgart
- › EnBW Telekommunikation GmbH, Karlsruhe (formerly EnBW Omega Zweihundfünfzigste Verwaltungsgesellschaft mbH, Karlsruhe)
- › EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe
- › Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim
- › MSE Mobile Schlammwässerungs GmbH, Karlsbad-Ittersbach
- › Neckarwerke Stuttgart GmbH, Stuttgart
- › Netze BW Wasser GmbH, Stuttgart
- › NWS Finanzierung GmbH, Karlsruhe
- › NWS REG Beteiligungsgesellschaft mbH, Stuttgart
- › Plusnet GmbH, Cologne
- › RBS wave GmbH, Stuttgart
- › symbiotic services GmbH, Karlsruhe
- › TPLUS GmbH, Karlsruhe
- › u-plus Umweltservice GmbH, Karlsruhe
- › Ventelo GmbH, Cologne

Exemptions pursuant to section 264b HGB

- › EnBW City GmbH & Co. KG, Obrigheim
- › Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim
- › NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim
- › Plusnet Infrastruktur GmbH & Co. KG, Cologne

(30) Declaration of compliance with the German Corporate Governance Code

The Board of Management and Supervisory Board of EnBW Energie Baden-Württemberg AG issued the declaration of compliance with the German Corporate Governance Code required by section 161 AktG on 4 December 2019 and made it permanently available to shareholders on the Internet at www.enbw.com/german-corporate-governance-code.

(31) Share deals and shareholdings of key management personnel

The company did not receive any notices in the 2019 financial year about transactions involving EnBW shares, EnBW bonds, emissions allowances or any associated financial instruments concerning persons in managerial positions or those persons closely related to them in accordance with section 19 (1) EU Market Abuse Regulation 596/2014 (MAR).

(32) Notes to the cash flow statement

The cash flow statement is split up into cash flows from operating, investing and financing activities. The balance of the cash flow statement represents the change in cash and cash equivalents during the 2019 financial year amounting to €-1,058.2 million (previous year: €-975.5 million).

Cash and cash equivalents almost exclusively relate to bank deposits, largely in the form of time and day-to-day deposits where the term is less than three months and which are only subject to an immaterial risk of fluctuation in value. In the 2019 financial year, operating cash flow amounted to €707.0 million (previous year: €827.6 million).

The income tax paid in the reporting year totalled €409.1 million (previous year: €270.7 million).

Other non-cash-relevant expenses and income break down as follows:

in € million	2019	2018
Income from the reversal of construction cost subsidies	-66.7	-65.7
Impairment losses	93.3	40.1
Reversal of impairment losses on property, plant and equipment and intangible assets	-4.5	-22.1
Expense from the reversal of capitalised costs for acquiring contracts	14.8	17.0
Write-ups/write-downs on inventories and valuations of associated derivatives	37.2	8.2
Other	-9.3	-5.1
Total	64.8	-27.6

In the 2019 financial year, €140.5 million (previous year: €177.4 million) was distributed to third-party shareholders of Group companies.

Capital expenditure on intangible assets and property, plant and equipment includes €96.9 million (previous year: €64.7 million) for intangible assets and €1,850.9 million (previous year: €1,304.8 million) for property, plant and equipment. The acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations item includes €752.8 million (previous year: €62.9 million) for fully consolidated companies and €382.3 million (previous year: €234.7 million) for entities accounted for using the equity method.

The purchase prices paid in cash for the acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations totalled €1,212.9 million (previous year: €298.0 million). In the reporting year, €77.8 million (previous year: €0.4 million) cash and cash equivalents were acquired in the course of share purchases. The cash payments in the reporting period were primarily related to the acquisition of Valeco and Plusnet. Intangible assets of €148.2 million, property, plant and equipment of €146.5 million, financial assets of €282.6 million, other current assets of €66.4 million, non-current liabilities of €250.9 million and current liabilities of €33.5 million were acquired with the purchase of Valeco. Intangible assets of €114.2 million, property, plant and equipment of €93.4 million, financial assets of €14.5 million, other non-current assets of €4.2 million, other current assets of €83.2 million, non-current liabilities of €77.4 million and current liabilities of €72.2 million were acquired with the purchase of Plusnet. In addition, there were capital increases at entities accounted for using the equity method. The cash payments in the comparative period primarily concerned capital increases at entities accounted for using the equity method and payments for the acquisition of EnBW Sverige Vind (formerly Power Wind Partners). Intangible assets of €2.4 million, property, plant and equipment of €66.5 million, other current assets of €3.9 million, non-current liabilities of €6.7 million and current liabilities of €2.9 million were acquired with the purchase.

The sale prices from the sale of subsidiaries, entities accounted for using the equity method and interests in joint operations totalled €108.5 million (previous year: €359.4 million). Cash and cash equivalents of €40.2 million (previous year: €61.5 million) were relinquished in the reporting year as a result of the sale of shares. In the reporting period, the cash received mainly resulted from the sale of the shares in EMB Energie Mark Brandenburg. Other cash was received from the sale of shares in Stuttgart Netze Betrieb. Due to the sale of Stuttgart Netze Betrieb, assets held for sale of €80.7 million and liabilities directly associated with assets classified as held for sale of €69.9 million were derecognised. In addition, there were capital reductions at entities accounted for using the equity method. In the comparative period, the cash received mainly resulted from the sale of shares in VNG Norge and its subsidiary VNG Danmark. Due to the sale of VNG Norge, assets held for sale of €567.4 million and liabilities directly associated with assets classified as held for sale of €271.5 million were derecognised. A contingent payment of €29.6 million was not included in the sale price. In addition, there were capital reductions at entities accounted for using the equity method.

Cash-relevant net investment in the section “The EnBW Group” of the management report can be reconciled as follows:

in € million ¹	2019	2018
Cash flow from investing activities	-2,317.1	-895.8
- Interest and dividends received	-286.5	-284.6
- Cash received/paid for investments in connection with short-term finance planning	20.9	-10.5
- Net investments held as financial assets	17.3	-52.0
- Net investments in property held as financial assets	-4.8	-14.9
- Net investments in other assets	-94.1	-51.4
- Acquired/relinquished cash	-37.6	61.1
+ Payments for alterations of capital in non-controlling interests	59.1	-51.8
+ Cash received/paid for changes in ownership interest without loss of control	22.6	4.6
+ Cash received/paid from participation models	-8.3	-4.7
Cash payments for net investments	-2,628.5	-1,300.0

¹ The figures for the previous year have been restated.

The dedicated financial assets contribution of €19.2 million (previous year: €-34.0 million) is reported separately for the representation of the retained cash flow in the liquidity analysis in the section “The EnBW Group” of the management report.

Liabilities included in the cash flow from financing activities item in the cash flow statement can be reconciled as follows:

in € million	As of 01/01/2019	Cash- relevant changes	Non-cash-relevant changes					As of 31/12/2019	
			Changes in the group of con- solidated companies	Changes in accounting policies	Currency effects	Addition to leases	Accrued interest		Other changes
Hybrid bonds	1,975.2	993.7	0.0	0.0	5.0		0.0	4.5	2,978.4
Bonds	2,644.2	74.5	1.3	0.0	8.5		0.0	-4.4	2,724.1
Commercial papers	250.0	-250.0	0.0	0.0	0.0		0.0	0.0	0.0
Liabilities to banks	1,482.8	370.0	160.5	0.0	2.0		7.2	-0.6	2,021.9
Other financial liabilities	644.0	-95.5	38.9	-99.8	0.8		9.8	-31.9	466.3
Financial liabilities¹	6,996.2	1,092.7	200.7	-99.8	16.3	0.0	17.0	-32.4	8,190.7
Other liabilities (interest on bonds)	110.3	-98.8	0.0	0.0	0.0		104.9	0.0	116.4
Other liabilities (leases) ²	0.0	-120.4	92.3	620.7	0.8	94.0	0.0	12.1	699.5
Total	7,106.5	873.5	293.0	521.0	17.1	94.0	121.9	-20.3	9,006.6

1 The cash-relevant changes include €16.9 million from interest payments.

2 The cash-relevant changes include €12.1 million from interest payments.

in € million	As of 01/01/2018	Cash- relevant changes	Non-cash-relevant changes					As of 31/12/2018	
			Changes in the group of con- solidated companies	Currency effects	Fair value	Accrued interest	Other changes		
Hybrid bonds	1,959.5	0.0	0.0	11.7	0.0	0.0	0.0	4.0	1,975.2
Bonds	2,974.8	-337.8	0.0	14.4	-7.2	0.0	0.0	0.0	2,644.2
Commercial papers	0.0	250.0	0.0	0.0	0.0	0.0	0.0	0.0	250.0
Liabilities to banks	1,705.6	-226.2	6.8	-1.0	-0.6	5.1	-6.9		1,482.8
Other financial liabilities ¹	618.9	6.5	3.5	0.3	0.0	4.0	10.8		644.0
Financial liabilities²	7,258.8	-307.5	10.3	25.4	-7.8	9.1	7.9		6,996.2
Other liabilities (interest on bonds)	114.7	-214.9	0.0	0.0	0.0	210.5	0.0		110.3
Total	7,373.5	-522.4	10.3	25.4	-7.8	219.6	7.9		7,106.5

1 Other financial liabilities include the lease liabilities up to 2018.

2 The cash-relevant changes include €7.2 million from interest payments.

For further explanations on the cash flow statement, please refer to the details given in the management report on the financial position of the EnBW Group.

(33) Additional disclosures on capital management

Capital management at EnBW covers both the management of the net debt of €12,852.4 million (previous year: €9,586.6 million) and the liabilities and financial assets. Financial assets include non-current securities and loans, as well as current financial assets and cash and cash equivalents. On the liabilities side, capital management covers financial liabilities, as well as provisions for pensions and those relating to nuclear power.

By limiting cash-relevant net investment to the level of the adjusted retained cash flow of €1,485.7 million (previous year: €1,199.1 million), measured by the internal financing capability of 82.6% (previous year: 92.2%), EnBW controls the level of net financial debt irrespective of the interest rate-related volatility of the pension and nuclear provisions. For further explanations, please refer to the details given in the management report on the liquidity analysis of the EnBW Group. EnBW ensures the timely coverage of the pension and nuclear obligations using an asset liability management model. EnBW uses this cash flow-based model to determine the anticipated effects over the next 30 years, based on appraisals of the pension provisions, as well as appraisals of the nuclear provisions. This model forms the basis for the management of the financial assets. It allows simulations of various alternative return and provision scenarios.

The impact that the utilisation of the pension and nuclear obligations may have on the operating business is limited to €300 million (plus an inflation supplement) a year using an ongoing contribution from the financial assets. If the provisions are fully covered by the financial assets, no further funds will be taken from operating cash flow as part of the model.

EnBW uses a rolling planning horizon of three months for the short-term management of liquidity. EnBW also uses tools which allow forecasts to be made about liquidity requirements beyond the medium-term period.

EnBW has a well-balanced maturity profile for its financial liabilities. The financial policy focuses on ensuring the solvency of the company, limiting financial risks and optimising capital costs. As of 31 December 2019, the creditworthiness of EnBW was rated by the rating agencies Moody's, Standard and Poor's and Fitch with A3/negative, A-/stable and A-/stable, respectively.

(34) Segment reporting

2019 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/Con- solidation	Total
Revenue						
External revenue	7,678.9	3,459.6	653.0	6,970.1	3.3	18,765.0
Internal revenue	769.6	1,359.6	405.0	3,085.0	-5,619.3	0.0
Total revenue	8,448.5	4,819.2	1,058.1	10,055.1	-5,616.0	18,765.0
Earnings indicators						
Adjusted EBITDA	294.3	1,311.2	482.8	383.8	-39.6	2,432.5
EBITDA	272.5	1,275.6	469.2	228.1	-0.2	2,245.2
Adjusted EBIT	179.1	793.4	261.7	-205.5	-84.0	944.7
EBIT	157.3	756.8	236.5	-509.3	-44.6	596.7
Income from reversals of impairment losses	0.3	0.0	0.0	4.2	0.0	4.5
Scheduled amortisation and depreciation	-115.3	-517.7	-221.1	-589.4	-44.3	-1,487.8
Impairment losses	0.0	-1.1	-11.6	-148.0	0.0	-160.7
Net profit/loss from entities accounted for using the equity method	2.0	19.1	1.2	6.5	0.0	28.9
Significant non-cash-relevant items	-22.7	21.5	3.9	48.6	-15.1	36.2
Assets and liabilities						
Capital employed	1,379.4	8,990.7	6,627.1	1,848.3	3,037.9	21,883.4
of which carrying amount of entities accounted for using the equity method	(93.8)	(396.9)	(426.7)	(146.6)	(0.0)	(1,064.0)
Capital expenditure on intangible assets and property, plant and equipment	123.7	1,215.1	166.5	96.3	35.0	1,636.6
2018 in € million¹						
Revenue						
External revenue	7,347.7	3,215.4	477.5	9,767.8	7.0	20,815.4
Internal revenue	727.8	2,353.1	333.1	2,719.6	-6,133.6	0.0
Total revenue	8,075.5	5,568.5	810.6	12,487.4	-6,126.6	20,815.4
Earnings indicators						
Adjusted EBITDA	268.4	1,176.9	297.7	430.8	-16.3	2,157.5
EBITDA	225.1	1,120.0	285.1	415.4	44.0	2,089.6
Adjusted EBIT	199.9	719.4	124.0	-40.2	-45.6	957.5
EBIT	154.1	662.5	110.6	-65.0	13.6	875.8
Income from reversals of impairment losses	0.2	2.6	0.0	19.3	0.0	22.1
Scheduled amortisation and depreciation	-68.5	-457.5	-173.7	-471.0	-29.3	-1,200.0
Impairment losses	-2.5	0.0	-0.8	-9.4	-1.1	-13.8
Net profit/loss from entities accounted for using the equity method	1.1	22.2	-48.3	0.9	0.0	-24.1
Significant non-cash-relevant items	-11.9	48.9	4.8	30.9	-5.7	67.0
Assets and liabilities						
Capital employed	1,051.3	7,213.9	3,843.2	2,122.5	2,714.6	16,945.5
of which carrying amount of entities accounted for using the equity method	(188.2)	(402.1)	(863.4)	(146.5)	(0.0)	(1,600.2)
Capital expenditure on intangible assets and property, plant and equipment	91.5	959.3	138.9	160.3	19.5	1,369.5

1 The figures for the previous year have been restated.

Detailed descriptions of the segments are given in the section “The EnBW Group” of the management report.

Adjusted EBITDA is one of the key internal performance indicators. Adjusted EBITDA is an earnings ratio before the investment and financial results, income taxes and amortisation, adjusted for non-operating effects, which accurately reflects the development of results of operations. In the management report, the performance of the segments is explained with the aid of adjusted EBITDA.

Adjusted EBITDA can be reconciled to earnings before taxes (EBT) as follows:

in € million	2019	2018
Adjusted EBITDA	2,432.5	2,157.5
Non-operating EBITDA	-187.3	-67.9
of which income/expenses relating to nuclear power	[-61.9]	(-132.1)
of which income from the reversal of other provisions	[48.2]	(11.8)
of which result from disposals of assets	(18.4)	(89.0)
of which reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	[-54.8]	(39.2)
of which income from reversals of impairment losses	(4.5)	(22.1)
of which restructuring	[-41.0]	[-49.1]
of which other non-operating result	[-100.7]	[-48.8]
EBITDA	2,245.2	2,089.6
Amortisation and depreciation	-1,648.5	-1,213.8
Earnings before interest and taxes (EBIT)	596.7	875.8
Investment result	401.3	100.9
Financial result	-95.8	-380.4
Earnings before tax (EBT)	902.2	596.3

The components of non-operating EBITDA can be found on the income statement, in particular, in income to the amount of €200.0 million (previous year: €265.6 million), as well as in expenses to the amount of €387.4 million (previous year: €333.5 million).

Segment reporting is based on internal reporting.

Sales of electricity and gas, energy industry services and energy solutions and activities in the area of energy supply, energy saving contracting and telecommunications are summarised in the Sales segment. The Grids segment encompasses the value-added stages of transmission and distribution of electricity and gas. In addition, the expansion of the HVDC connections in the transmission grid, the provision of grid-related services and the supply of water is reported in the Grids segment. Activities in the area of power generation using renewable energies are presented in their own segment. These activities include project development and the construction and operation of power plants based on renewable energies. The Generation and Trading segment encompasses conventional electricity generation and the trading of gas and electricity, the provision of system services and the operation of reserve power plants for the transmission grids. In addition, the gas midstream business with storage, the dismantling of power plants, district heating and waste management/environmental services are reported in this segment. All activities which cannot be attributed to the separately presented activities of the segments are disclosed together with eliminations between the segments under “Other/Consolidation”.

The segment figures have been determined in accordance with the accounting policies used in the consolidated financial statements. Internal revenue shows the level of sales between Group companies. Sales between the segments were made at market prices.

The significant non-cash-relevant items principally comprise expenses from allocations to provisions as well as income from the reversal of construction cost subsidies and household connection costs as well as deferred liabilities.

Capital employed, which we record as segment assets, comprises all assets from the operating business. Non-interest-bearing liabilities – such as trade payables – are deducted.

Capital employed is calculated as follows:

in € million ¹	31/12/2019	31/12/2018
Intangible assets	3,347.4	1,748.7
Property, plant and equipment	18,552.7	15,867.5
Investment properties	30.3	31.6
Investments ²	1,694.7	2,002.7
Loans	187.7	133.0
Inventories	1,066.1	1,192.0
Trade receivables ³	3,886.8	4,450.4
Other assets ⁴	5,185.2	4,198.6
of which income tax refund claims	(157.5)	(103.0)
of which other tax refund claims	(134.1)	(127.7)
of which derivatives	(3,810.1)	(2,736.1)
of which payments on account	(45.3)	(75.5)
of which prepaid expenses	(139.2)	(114.5)
of which miscellaneous assets	(1,230.4)	(1,292.3)
of which assets held for sale	(0.9)	(43.4)
of which components attributable to net debt	(-332.3)	(-293.9)
Other provisions	-2,349.1	-2,396.8
Trade payables and other liabilities ⁵	-10,027.8	-10,550.9
of which trade payables	(-4,001.0)	(-5,013.4)
of which other deferred income	(-205.4)	(-200.5)
of which derivatives	(-3,459.3)	(-2,523.0)
of which income tax liabilities	(-155.4)	(-459.4)
of which contract liabilities	(-932.0)	(-909.7)
of which other liabilities	(-1,277.6)	(-1,490.6)
of which liabilities directly associated with the assets classified as held for sale	(0.0)	(-21.2)
of which components attributable to net debt	(2.9)	(66.9)
Subsidies	-14.6	-15.8
Deferred taxes ⁶	324.0	284.5
Capital employed	21,883.4	16,945.5
Average capital employed⁷	19,315.1	16,053.3

1 The figures for the previous year have been restated.

2 Including entities accounted for using the equity method, shares in affiliated entities and other investments allocable to operating activities.

3 Excluding affiliated entities, excluding receivables associated with nuclear provisions.

4 Excluding net profit from CTA, excluding valuation effects from interest-induced hedging transactions.

5 Excluding affiliated entities, excluding non-controlling interests in fully consolidated partnerships recognised as liabilities.

6 Deferred tax assets and liabilities netted.

7 Average calculation based on the relevant quarterly values for the reporting year and the year-end value for the previous year.

External revenue by region is determined by the location supplied. The EnBW Group did not generate 10% or more of its external revenue with any one external customer as in the previous year.

External revenue by region

in € million ¹	2019	2018
Germany	15,687.8	17,899.3
European currency zone excluding Germany	1,618.2	1,627.1
Rest of Europe	1,458.6	1,288.9
Rest of world	0.5	0.1
	18,765.0	20,815.4

¹ The figures for the previous year have been restated.

External revenue by product

in € million ¹	2019	2018
Electricity	10,938.8	11,284.4
Gas	6,440.2	8,277.0
Energy and environmental services/other	1,385.9	1,254.0
	18,765.0	20,815.4

¹ The figures for the previous year have been restated.

Intangible assets and property, plant and equipment by region

in € million	31/12/2019	31/12/2018
Germany	19,374.5	15,783.8
European currency zone excluding Germany	560.7	0.6
Rest of Europe	1,964.9	1,831.8
	21,900.1	17,616.2

(35) Related parties (entities)

Related parties include, above all, the Federal State of Baden-Württemberg and Zweckverband Oberschwäbische Elektrizitätswerke (OEW) as indirect major shareholders of EnBW AG. As of 31 December 2019, the Federal State of Baden-Württemberg and its wholly owned subsidiary NECKARPRI GmbH indirectly, and NECKARPRI-Beteiligungsgesellschaft mbH directly held 46.75% of the shares in EnBW AG (unchanged). NECKARPRI-Beteiligungsgesellschaft mbH is a wholly owned subsidiary of NECKARPRI GmbH. OEW indirectly, and its wholly owned subsidiary OEW Energie-Beteiligungs GmbH (OEW GmbH) directly held 46.75% of the shares in EnBW AG (also unchanged). This means that the related parties of EnBW AG include, in particular, the Federal State, NECKARPRI GmbH, OEW, OEW GmbH and entities controlled or jointly controlled by them, or over which they have a significant influence.

The transactions concluded with the Federal State and entities controlled or jointly controlled by it, or over which it has significant influence, essentially relate to supplying public entities such as universities, government authorities, zoos and clinics with electricity, gas and district heating. The revenue from these transactions was immaterial in the reporting period; most of the receivables had been settled as of 31 December 2019. All business transactions with the Federal State were based on customary market terms and conditions. There are no contingent liabilities or financial commitments to the Federal State.

Except for dividends paid, there are no business relations with OEW GmbH or NECKARPRI-Beteiligungsgesellschaft mbH.

Business relations with related parties, which, amongst others, result from supply and procurement agreements in the electricity and gas sectors and took place at customary market terms and conditions, are as follows:

in € million	2019		2018	
	Joint ventures accounted for using the equity method	Associated companies accounted for using the equity method	Joint ventures accounted for using the equity method	Associated companies accounted for using the equity method
Income	157.4	191.6	62.7	351.8
Expenses	-58.0	-166.1	-30.3	-298.9
Assets	114.5	37.7	110.9	46.7
Liabilities	41.9	393.8	43.3	372.3
Other obligations	684.1	341.6	2,431.8	150.1

In business relations with joint ventures accounted for using the equity method, receivables and liabilities are due within one year. The high level of other obligations is mainly due to the granting of sureties to wind farms. In addition, other obligations also includes guarantees, lease agreements with Stuttgart Netze GmbH and future purchase price obligations.

The business relations with associated companies accounted for using the equity method, including with municipal entities (particularly municipal utilities), mainly exist in the course of ordinary business activity. The receivables and liabilities for the reporting period are almost exclusively due within one year. There are also provisions for long-term procurement agreements that are regularly adjusted to current market assessments. Other obligations to these entities result primarily from long-term purchase obligations in the electricity sector.

Related parties also include the EnBW Trust e. V., which manages the plan assets for securing pension obligations.

(36) Related parties (individuals)

The EnBW Group has not entered into any significant transactions with individuals that are related parties.

The basic principles of the remuneration system and amount of remuneration for the Board of Management, the Supervisory Board and former members of the Board of Management are presented in the remuneration report, which is part of the combined management report.

Total remuneration paid to the Board of Management for the 2019 financial year amounts to €10.4 million (previous year: €9.2 million). This includes short-term benefits of €6.0 million (previous year: €4.7 million), long-term benefits of €3.2 million (previous year: €3.2 million) and the service and interest costs for defined benefit obligations of €1.2 million (previous year: €1.3 million). As of 1 January 2016, the defined benefit obligations for the serving members of the Board of Management were transferred to the new defined contribution system. The resulting pension contributions are €1.0 million (previous year: €0.9 million). There are defined benefit obligations in accordance with IFRS of €19.9 million for the current members of the Board of Management (previous year: €16.6 million).

Former members of the Board of Management and their surviving dependants received €5.2 million (previous year: €4.8 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €0.7 million (previous year: €0.6 million). There are defined benefit obligations to former members of the Board of Management and their surviving dependants in accordance with IFRS of €114.8 million (previous year: €99.0 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €32.1 million (previous year: €27.8 million).

As in the previous year, no loans or advances to members of the Board of Management existed at the end of the financial year.

The remuneration system of the Supervisory Board is also presented in the remuneration report, which is part of the combined management report. The members of the Supervisory Board will receive total remuneration of €1.2 million for the 2019 financial year (previous year: €1.3 million). In addition to fixed components, the remuneration includes attendance fees and board remuneration from subsidiaries.

As in the previous year, there were no loans or advances to members of the Supervisory Board in the 2019 financial year.

(37) Additional disclosures**List of shareholdings pursuant to section 313 (2) HGB as of 31 December 2019**

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
Sales segment					
Fully consolidated companies					
1	bmp greengas GmbH, Munich	3	100.00	5,697	-
2	BroadNet Deutschland GmbH, Cologne	3	100.00	3,757	-
3	ED GrünSelect GmbH, Rheinfelden	6	100.00	498	1
4	EnBW Energy Factory GmbH, Stuttgart (formerly Watt Synergia GmbH, Frankfurt am Main)	3	100.00	250	-
5	EnBW Mainfrankenpark GmbH, Dettelbach	3	100.00	3,759	-
6	EnBW Telekommunikation GmbH, Karlsruhe (formerly EnBW Omega Zweifundfünfzigste Verwaltungsgesellschaft mbH, Karlsruhe)	3	100.00	273,334	-
7	EnBW Vertriebsbeteiligungen GmbH, Stuttgart		100.00	13,707	-2
8	energieNRW GmbH, Düsseldorf	5	100.00	272	-4
9	ESD Energie Service Deutschland GmbH, Offenburg		100.00	4,745	1,485
10	eYello CZ k.s., Prague/Czech Republic	5, 14	100.00	267	1
11	G.EN. Gaz Energia Sp. z o.o., Tarnowo Podgórne/Republic of Poland		100.00	47,535	4,055
12	Gasversorgung Süddeutschland GmbH, Stuttgart	3	100.00	65,000	-
13	Gasversorgung Unterland GmbH, Heilbronn	3	100.00	15,764	-
14	goldgas GmbH, Vienna/Austria		100.00	1,429	986
15	goldgas GmbH, Eschborn		100.00	28,721	5,531
16	NaturEnergie+ Deutschland GmbH, Mühlacker		100.00	0	2,089
17	Plusnet GmbH, Cologne	3	100.00	186,930	-
18	Plusnet Infrastruktur GmbH & Co. KG, Cologne		100.00	3,779	0
19	PREservisni, s.r.o., Prague/Czech Republic (formerly KORMAK nemovitosti s.r.o., Prague/Czech Republic)	5	100.00	865	42
20	PREzakaznicka a.s., Prague/Czech Republic	5	100.00	1,186	799
21	Sales & Solutions GmbH, Stuttgart	3	100.00	75,618	-
22	SENEC GmbH, Leipzig		100.00	7,211	-4,979
23	Ventelo GmbH, Cologne	3	100.00	142,238	-
24	VNG-Erdgascommerz GmbH, Leipzig	3	100.00	162,101	-
25	VOLTCOM spol. s r.o., Prague/Czech Republic	5	100.00	1,546	423
26	winpoint AG, Steg-Hohtenn/Switzerland	6	100.00	83	40
27	Yello Strom GmbH, Cologne	3	100.00	1,100	-
28	ZEAG Immobilien GmbH & Co. KG, Heilbronn		100.00	3,153	1,212
29	Erdgas Südwest GmbH, Karlsruhe		79.00	73,933	6,633
30	NetCom BW GmbH, Ellwangen		74.90	24,449	-336
31	Messerschmid Energiesysteme GmbH, Bonndorf	5	60.00	856	325
32	TRITEC AG, Aarberg/Switzerland	6	60.00	-785	-1,686
33	winsun AG, Steg-Hohtenn/Switzerland	6	51.00	646	-1,399
34	Pražská energetika a.s., Prague/Czech Republic	5, 13	41.40	463,849	91,080
Non-consolidated affiliated entities¹⁵					
35	010052 Telecom GmbH, Cologne	3, 5	100.00	25	-
36	010088 Telecom GmbH, Cologne	3, 5	100.00	25	-
37	010090 GmbH, Cologne	3, 5	100.00	156	-
38	01012 Telecom GmbH, Cologne	3, 5	100.00	27	-
39	01052 Communication GmbH, Cologne	3, 5	100.00	25	-

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
40	01098 Telecom GmbH, Cologne	3, 5	100.00	25	-
41	Broadnet Services GmbH, Cologne	3, 5	100.00	25	-
42	F&Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	36	2
43	NatürlichEnergie Swiss NES GmbH, Laufenburg/Switzerland	5	100.00	-283	-85
44	Plusnet Verwaltungs GmbH, Cologne	5	100.00	27	1
45	Q-DSL home GmbH, Cologne	3, 5	100.00	1,293	-
46	SENEC Cloud s.r.l., Rome/Italy	5	100.00	50	-49
47	SENEC Italia s.r.l., Rome/Italy	5	100.00	10	-564
48	T & Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	25	619
49	VNG ViertelEnergie GmbH, Leipzig	3, 5	100.00	98	-
50	VNG-Erdgastankstellen GmbH, Leipzig	3, 5	100.00	25	-
51	Yello Solar GmbH, Karlsruhe	5	100.00	-3,980	-2,827
52	ZEAG Immobilien Verwaltungsgesellschaft mbH, Heilbronn	5	100.00	36	2
53	WTT CampusONE GmbH, Ludwigsburg	5	80.00	-1,423	-937
54	fonial GmbH, Cologne	5	74.90	-3,108	-962
55	LIV-T GmbH, Munich	5	72.00	2,873	-2,739
56	Senec Australia PTY Ltd., Mount Claremont/Australia (formerly Thinking Beyond Pty Ltd, Mount Claremont)	5	70.00	614	-211
57	BEN Fleet Services GmbH, Karlsruhe	5	65.40	25	0
58	Energieversum GmbH & Co. KG, Gütersloh	5, 6	51.41	2	0
59	grünES GmbH, Esslingen am Neckar	5	51.00	306	148
60	Stromvertrieb Backnang Verwaltungs GmbH, Backnang	5	51.00	28	1
61	Energie- und Medienversorgung Sandhofer Straße Verwaltungs GmbH, Mannheim i.L.		50.00	-	-
62	Energie- und Medienversorgung Sandhofer Straße GmbH & Co. KG, Mannheim i.L.		49.91	-	-
Entities accounted for using the equity method					
63	MITGAS Mitteldeutsche Gasversorgung GmbH, Halle (Saale)	5	24.60	129,988	38,032
Investments¹⁵					
64	effizienzcloud GmbH, Leipzig	5	74.99	469	-352
65	AutenSys GmbH, Karlsruhe	5	65.00	89	-147
66	backnangstrom GmbH & Co. KG, Backnang	5	51.00	0	7
67	my-e-car GmbH, Lörrach	5	50.00	41	35
68	Regionah Energie GmbH, Munderkingen	5	50.00	51	-73
69	Tender365 GmbH, Leipzig	5	50.00	1,239	-284
70	Einhorn Energie GmbH & Co. KG, Giengen an der Brenz	5	49.90	733	315
71	Einhorn Energie Verwaltungsgesellschaft mbH, Giengen an der Brenz	5	49.90	33	1
72	Stadtwerke Freiberg a.N. GmbH, Freiberg am Neckar	5	49.90	6,703	203
73	Gasversorgung Pforzheim Land GmbH, Pforzheim	5	49.00	14,976	1,314
74	Sautter PE GmbH, Ellhofen	5	49.00	0	-326
75	Silphienergie GmbH, Ostrach	5	40.00	149	8
76	caplog-x GmbH, Leipzig	5	37.34	2,046	921
77	apio AG i.L., Wallisellen/Switzerland		33.33	-	-
78	espot GmbH, Stuttgart	5	32.60	539	9
79	Tempus s.r.l., Torri di Quartesolo/Italy	5	30.43	15	9
80	Korbacher Energiezentrum GmbH & Co. KG, Korbach	5	30.00	4	314
81	Gemeinschaft für Energieeffizienz GmbH, Düsseldorf	5	26.40	-134	-425
82	Energieagentur Heilbronn GmbH, Heilbronn	5	25.00	51	-101

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
83	Stadt- und Überlandwerke GmbH Luckau-Lübbenau, Luckau	5	23.38	29,672	2,083
84	EDSR Energiedienste Staldenried AG, Staldenried/Switzerland	5	20.00	200	11
Grids segment					
Fully consolidated companies					
85	ED Netze GmbH, Rheinfelden	3, 6	100.00	65,165	-
86	EnBW Kommunale Beteiligungen GmbH, Stuttgart	3	100.00	995,226	-
87	EnBW Netze BW Beteiligungsgesellschaft mbH, Stuttgart (formerly EnBW Omega Siebzigste Verwaltungsgesellschaft mbH, Stuttgart)	3	100.00	1,643,228	-
88	EnBW REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	405,649	-
89	EVGA Grundstücks- und Gebäudemanagement GmbH & Co. KG, Obrigheim		100.00	91,621	10,840
90	FRONTIER TECHNOLOGIES, s.r.o., Prague/Czech Republic	5	100.00	629	63
91	KORMAK Praha a.s., Prague/Czech Republic	5	100.00	894	866
92	Netze BW GmbH, Stuttgart	3	100.00	1,130,861	-
93	Netze BW Omega 1 GmbH, Stuttgart	11	100.00	25	0
94	Netze BW Wasser GmbH, Stuttgart	3	100.00	32,894	-
95	Netze-Gesellschaft Südwest mbH, Karlsruhe	3	100.00	71,139	-
96	Netzgesellschaft Düsseldorf mbH, Düsseldorf	3, 5	100.00	1,000	-
97	Netzgesellschaft Ostwürttemberg DonauRies GmbH, Ellwangen [Jagst]	3	100.00	135	-
98	NHF Netzgesellschaft Heilbronn-Franken mbH, Heilbronn	3	100.00	4,000	-
99	NHL Netzgesellschaft Heilbronner Land GmbH & Co. KG, Heilbronn		100.00	1,524	0
100	NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim		100.00	320,933	45,468
101	NWS REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	79,988	-
102	ONTRAS Gastransport GmbH, Leipzig	3	100.00	460,000	-
103	PREdistribuce a.s., Prague/Czech Republic	5	100.00	764,579	55,724
104	PREmereni a.s., Prague/Czech Republic	5	100.00	33,265	7,288
105	PREnetcom a.s., Prague/Czech Republic	5	100.00	124	47
106	RBS wave GmbH, Stuttgart	3	100.00	503	-
107	terranets bw GmbH, Stuttgart	3	100.00	20,000	-
108	TransnetBW GmbH, Stuttgart	3	100.00	728,141	-
109	ZEAG Engineering GmbH, Heilbronn		100.00	3,514	-165
110	EnBW Ostwürttemberg DonauRies AG, Ellwangen	3	99.73	115,439	-
111	ZEAG Energie AG, Heilbronn		98.65	198,940	6,432
112	Stadtwerke Düsseldorf AG, Düsseldorf	5	54.95	563,434	76,845
113	Stromnetzgesellschaft Heilbronn GmbH & Co. KG, Heilbronn	8	49.90	36,771	1,579
114	Neckar Netze GmbH & Co. KG, Esslingen am Neckar	8	49.00	24,829	4,723
Non-consolidated affiliated entities¹⁵					
115	Elektrizitätswerk Aach GmbH, Aach	5	100.00	3,387	653
116	Energieversorgung Gaidorf OHG der EnBW Kommunale Beteiligungen GmbH und NWS REG Beteiligungsgesellschaft mbH, Gaidorf	5	100.00	3,526	1,013
117	Energieversorgung Raum Friedrichshafen Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	27	1
118	Energieversorgung Rheinfelden/Grenzach-Wyhlen Verwaltungs GmbH, Rheinfelden	11	100.00	-	-
119	GDMcom GmbH, Leipzig (formerly GDMcom Gesellschaft für Dokumentation und Telekommunikation mbH, Leipzig)	3, 5	100.00	304	-
120	GEOMAGIC GmbH, Leipzig	5	100.00	2,216	995
121	HEV Hohenloher Energie Versorgung GmbH, Ilshofen-Obersteinach	3, 5	100.00	10,219	-
122	MoviaTec GmbH, Leipzig	5	100.00	177	123
123	Neckar Netze Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	100.00	121	4

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
124	NHL Verwaltungs-GmbH, Heilbronn	5	100.00	24	0
125	OSG ONTRAS Servicegesellschaft mbH, Leipzig	5	100.00	25	0
126	Transnet BW SuedLink Verwaltungsgesellschaft mbH, Stuttgart (formerly Konverter Ultraset Verwaltungsgesellschaft mbH, Stuttgart)	5	100.00	24	0
127	TransnetBW SuedLink GmbH & Co. KG, Stuttgart (formerly Konverter Ultraset GmbH & Co. KG, Stuttgart)	5	100.00	0	0
128	INFRACON Infrastruktur Service GmbH & Co. KG, Leipzig	5	99.50	716	616
129	Rieger GmbH & Co. KG, Lichtenstein, Kreis Reutlingen	5	74.28	883	614
130	Rieger Beteiligungs-GmbH, Lichtenstein, Kreis Reutlingen	5	74.24	48	1
131	Elektrizitätswerk Weißenhorn AG, Weißenhorn	5	63.24	3,782	303
132	Netze Pforzheim-Region GmbH & Co. KG, Pforzheim	5	60.00	19,100	1,151
133	Gasnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	3,590	160
134	Gasnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	27	1
135	Netzgesellschaft Elz-Neckar GmbH & Co. KG, Obrigheim	5	50.10	1,193	36
136	Netzgesellschaft Elz-Neckar Verwaltungs GmbH, Obrigheim	5	50.10	32	1
137	Stromnetzgesellschaft Albershausen GmbH & Co. KG, Albershausen	5	50.10	817	29
138	Stromnetzgesellschaft Albershausen Verwaltungs GmbH, Albershausen	5	50.10	30	1
139	Stromnetzgesellschaft Heilbronn Verwaltungs-GmbH, Heilbronn	5	50.10	26	0
140	Stromnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	2,306	119
141	Stromnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	27	1
Entities accounted for using the equity method					
142	Stadtwerke Esslingen am Neckar GmbH & Co. KG, Esslingen am Neckar	5	49.98	61,660	5,138
143	Pražská energetika Holding a.s., Prague/Czech Republic	5, 9	49.00	274,930	77,427
144	Zweckverband Landeswasserversorgung, Stuttgart	5	27.20	112,751	0
145	Heilbronner Versorgungs GmbH, Heilbronn	4, 5	25.10	51,750	-
146	Stuttgart Netze GmbH, Stuttgart	4, 5, 9	25.10	206,148	-
147	FairEnergie GmbH, Reutlingen	4, 5	24.90	114,766	-
148	Stadtwerke Hilden GmbH, Hilden	3, 4, 5	24.90	18,038	-
149	GasLINE Telekommunikationsnetzgesellschaft deutscher Gasver- sorgungsunternehmen mbH & Co. Kommanditgesellschaft, Straelen	5	23.39	76,403	35,403
150	Zweckverband Bodensee-Wasserversorgung, Stuttgart	5	21.43	153,918	1,000
151	Stadtwerke Karlsruhe GmbH, Karlsruhe	4, 5	20.00	178,710	-
Investments¹⁵					
152	Netzgesellschaft Sontheim GmbH & Co. KG, Sontheim an der Brenz	5	74.90	1,542	281
153	Netzgesellschaft Sontheim Verwaltungsgesellschaft mbH, Sontheim an der Brenz	5	74.90	25	0
154	Netzgesellschaft Steinheim GmbH & Co. KG, Steinheim am Albuch	5	74.90	256	83
155	Netzgesellschaft Steinheim Verwaltungsgesellschaft mbH, Steinheim am Albuch	5	74.90	25	0
156	Stromnetz Herrenberg Verwaltungsgesellschaft mbH, Herrenberg	5	74.90	32	1
157	Stromnetzgesellschaft Herrenberg mbH & Co. KG, Herrenberg	5	74.90	4,404	539
158	Stadtwerke Sinsheim Versorgungs GmbH & Co. KG, Sinsheim	5	60.00	14,158	443
159	Stadtwerke Sinsheim Verwaltungs GmbH, Sinsheim	5	60.00	30	1
160	Stromnetz Langenau GmbH & Co. KG, Langenau	5	50.10	2,610	106
161	Stromnetz Langenau Verwaltungs-GmbH, Langenau	5	50.10	34	1
162	e.wa riss GmbH & Co. KG, Biberach	5	50.00	31,084	4,476
163	e.wa riss Verwaltungsgesellschaft mbH, Biberach	5	50.00	51	1
164	Fränkische Wasser Service GmbH, Crailsheim	5	50.00	58	8
165	HDRRegioNet GmbH i.L., Düsseldorf		50.00	-	-

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
166	Niederrheinisch-Bergisches Gemeinschaftswasserwerk GmbH, Düsseldorf	5	50.00	3,102	85
167	Ostalbwasser Ost GmbH, Ellwangen	5	50.00	39	2
168	Ostalbwasser Service GmbH, Aalen	5	50.00	36	11
169	Ostalbwasser West GmbH, Schwäbisch Gmünd	5	50.00	41	2
170	regioaqua Gesellschaft für Wasser und Abwasser mbH, Rheinfelden	5	50.00	81	17
171	Stadtwerke Schramberg GmbH & Co. KG, Schramberg	5	50.00	16,050	2,909
172	Stadtwerke Schramberg Verwaltungsgesellschaft mbH, Schramberg	5	50.00	38	3
173	Stromnetzgesellschaft Hechingen GmbH & Co. KG, Hechingen	5	50.00	1,721	-670
174	Stromnetzgesellschaft Hechingen Verwaltungs GmbH, Hechingen	5	50.00	25	0
175	Wasserübernahme Neuss-Wahlscheid GmbH, Neuss	5	50.00	419	15
176	Stadtwerke Emmendingen GmbH, Emmendingen	5	49.90	17,741	1,408
177	Stromnetz Blaubeuren GmbH, Blaubeuren	5	49.90	2,047	72
178	Stadtwerke Esslingen-Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	49.80	43	1
179	Energie Sachsenheim GmbH & Co. KG, Sachsenheim	5	49.00	4,781	277
180	Energie Sachsenheim Verwaltungs-GmbH, Sachsenheim	5	49.00	33	1
181	Energieversorgung Strohgäu GmbH & Co. KG, Gerlingen	5	49.00	8,666	570
182	Energieversorgung Strohgäu Verwaltungs GmbH, Gerlingen	5	49.00	26	1
183	Gemeindewerke Bodanrück GmbH & Co. KG, Allensbach	5	49.00	4,800	258
184	Gemeindewerke Bodanrück Verwaltungs-GmbH, Allensbach	5	49.00	28	1
185	LEO Energie GmbH & Co. KG, Leonberg	5	49.00	8,667	712
186	Netzgesellschaft Marbach GmbH & Co. KG, Marbach am Neckar	5	49.00	2,270	155
187	Rems-Murr Telekommunikation GmbH, Waiblingen	11	49.00	-	-
188	Stadtwerke Backnang GmbH, Backnang	4, 5	49.00	14,215	-
189	Stadtwerke Bad Wildbad GmbH & Co. KG, Bad Wildbad	5	49.00	6,594	657
190	Stadtwerke Bad Wildbad Verwaltungs-GmbH, Bad Wildbad	5	49.00	43	-2
191	Stadtwerke Eppingen GmbH & Co. KG, Eppingen	5	49.00	7,874	157
192	Energie Calw GmbH, Calw	4, 5	48.82	15,301	-
193	Stadtwerke Münsingen GmbH, Münsingen	5	45.00	6,225	688
194	Stadtwerke Böblingen GmbH & Co. KG, Böblingen	5	41.10	37,325	2,305
195	Stadtwerke Böblingen Verwaltungs GmbH, Böblingen	5	41.10	6	0
196	Energieversorgung Südbaar GmbH & Co. KG, Blumberg	5	40.00	6,925	1,043
197	SUEnergie GmbH & Co. KG, Süßen	5	40.00	2,172	40
198	SUEnergie Verwaltungs GmbH, Süßen	5	40.00	32	1
199	Stadtwerke Weinheim GmbH, Weinheim	5	39.32	29,316	2,767
200	Energieversorgung Rottenburg am Neckar GmbH, Rottenburg am Neckar	4, 5	38.00	7,160	-
201	EVG Grächen AG, Grächen/Switzerland	5	35.00	4,641	95
202	EVN Energieversorgung Nikolai AG, St. Niklaus/Switzerland	5, 7	35.00	1,573	99
203	EVR Energieversorgung Raron AG, Raron/Switzerland	5, 7	35.00	868	78
204	EVWR Energiedienste Visp - Westlich Raron AG, Visp/Switzerland	5	35.00	4,244	346
205	Valgrid SA, Sion/Switzerland	5	35.00	20,096	1,379
206	VED Visp Energie Dienste AG, Visp/Switzerland	5, 7	35.00	3,274	378
207	Seeallianz GmbH & Co. KG, Markdorf	5	33.00	7,060	415
208	Taubernetze GmbH & Co. KG, Tauberbischofsheim	5	33.00	1,831	81
209	Taubernetze Verwaltungs-GmbH, Tauberbischofsheim	5	33.00	26	1
210	ErmstalEnergie Dettingen an der Erms GmbH & Co. KG, Dettingen an der Erms	5	32.60	3,646	385

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
211	Versorgungsbetriebe Dettingen an der Erms Verwaltungs-GmbH, Dettingen an der Erms	5	32.60	30	1
212	eneREGIO GmbH, Muggensturm	5	32.00	9,624	979
213	Regionalnetze Linzgau GmbH, Pfullendorf	4, 5	31.64	6,462	-
214	Elektrizitätswerk Mittelbaden AG & Co. KG, Lahr	5	31.00	63,795	10,094
215	Elektrizitätswerk Mittelbaden Verwaltungsaktiengesellschaft, Lahr	5	31.00	131	7
216	Stadtwerke Bad Herrenalb GmbH, Bad Herrenalb	5	30.00	11,315	-286
217	Energie- und Wasserversorgung Bruchsal GmbH, Bruchsal	4, 5	27.41	23,002	-
218	Stadtwerke Bad Säckingen GmbH, Bad Säckingen	3, 5	26.30	8,673	-
219	tktVivax GmbH, Backnang	5, 7	25.21	927	174
220	Albwerk GmbH & Co. KG, Geislingen an der Steige	5	25.10	19,994	3,549
221	Albwerk Verwaltungsgesellschaft mbH, Geislingen an der Steige	5	25.10	78	3
222	Energie Kirchheim unter Teck GmbH & Co. KG, Kirchheim unter Teck	5	25.10	9,459	618
223	Energie Kirchheim unter Teck Verwaltungs-GmbH, Kirchheim unter Teck	5	25.10	30	1
224	Energieversorgung Immenstaad GmbH & Co. KG, Immenstaad am Bodensee	5	25.10	879	34
225	Filderstadt Netze GmbH, Filderstadt	5	25.10	87	-4
226	Gasnetzgesellschaft Schorndorf GmbH & Co. KG, Schorndorf	5	25.10	4,096	228
227	Gasnetzgesellschaft Winnenden mbH, Winnenden	4, 5	25.10	2,275	-
228	Gasnetzverwaltungsgesellschaft Schorndorf GmbH, Schorndorf	5	25.10	33	1
229	Gemeindewerke Brühl GmbH & Co. KG, Brühl	5	25.10	1,297	68
230	Gemeindewerke Brühl Verwaltungs-GmbH, Brühl	5	25.10	31	1
231	Gemeindewerke Plüderhausen GmbH, Plüderhausen	5	25.10	1,666	68
232	Infrastrukturgesellschaft Plochingen GmbH & Co. KG, Plochingen	5	25.10	2,860	189
233	Netzgesellschaft Besigheim GmbH & Co. KG, Besigheim	5	25.10	4,755	273
234	Netzgesellschaft Besigheim Verwaltungs GmbH, Besigheim	5	25.10	31	1
235	Netzgesellschaft Leinfelden-Echterdingen GmbH, Leinfelden-Echterdingen	5	25.10	9,735	443
236	Netzgesellschaft Salach GmbH & Co. KG, Salach	5	25.10	1,312	57
237	Netzgesellschaft Salach Verwaltungs GmbH, Salach	5	25.10	30	1
238	Netzgesellschaft Schwetzingen GmbH & Co. KG, Schwetzingen	5	25.10	2,036	115
239	Netzgesellschaft Schwetzingen Verwaltungs GmbH, Schwetzingen	5	25.10	28	1
240	Netzgesellschaft Vaihingen GmbH & Co. KG, Vaihingen an der Enz	5	25.10	7,802	541
241	Netzgesellschaft Vaihingen Verwaltungs-GmbH, Vaihingen an der Enz	5	25.10	30	1
242	Stadtwerke Ellwangen GmbH, Ellwangen	4, 5	25.10	8,402	-
243	Stadtwerke Giengen GmbH, Giengen	5	25.10	13,118	696
244	Stadtwerke Schwäbisch Gmünd GmbH, Schwäbisch Gmünd	4, 5	25.10	30,751	-
245	Stadtwerke Stockach GmbH, Stockach	5	25.10	11,409	1,378
246	Stadtwerke Weinstadt Energieversorgung GmbH, Weinstadt	4, 5	25.10	6,153	-
247	Stadtwerke Wiesloch - Strom - GmbH & Co. KG, Wiesloch	5	25.10	2,396	151
248	Stromgesellschaft March GmbH & Co. KG, March	5	25.10	832	11
249	Stromnetzgesellschaft Ebersbach GmbH & Co. KG, Ebersbach an der Fils	5	25.10	3,515	211
250	Stromnetzgesellschaft Ebersbach Verwaltungs GmbH, Ebersbach an der Fils	5	25.10	31	1
251	Stromnetzgesellschaft Östlicher Schurwald GmbH & Co. KG, Rechberghausen	5	25.10	2,982	157
252	Stromnetzgesellschaft Östlicher Schurwald Verwaltungs GmbH, Rechberghausen	5	25.10	30	1
253	Technische Werke Schussental GmbH & Co. KG, Ravensburg	5	25.10	53,487	3,322
254	Technische Werke Schussental Verwaltungsgesellschaft mbH, Ravensburg	5	25.10	28	-3
255	Stromversorgung Sulz am Neckar GmbH, Sulz am Neckar	5	24.90	4,229	323

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
256	Netzeigentumsgesellschaft Rheinstetten GmbH & Co. KG, Rheinstetten	5	24.50	4,448	171
257	Stadtwerke Schopfheim GmbH, Schopfheim	5	24.50	188	-12
258	Stadtwerke Wehr GmbH & Co. KG, Wehr	5	24.50	2,390	139
259	Stadtwerke Wehr Verwaltungs-GmbH, Wehr	5	24.50	21	0
260	Energieversorgung Oberes Wiesental GmbH, Todtnau	5	24.00	4,087	205
261	Netzgesellschaft Edingen-Neckarhausen GmbH & Co. KG, Edingen-Neckarhausen	5	24.00	861	59
262	ENRW Energieversorgung Rottweil GmbH & Co. KG, Rottweil	5	20.00	19,180	4,050
263	ENRW Verwaltungs-GmbH, Rottweil	5	20.00	14	0
264	GASPOOL Balancing Services GmbH, Berlin	5	20.00	4,709	463
265	Stadtwerke Sindelfingen GmbH, Sindelfingen	5	20.00	40,160	3,904
Renewable Energies segment					
Fully consolidated companies					
266	Aletsch AG, Mörel/Switzerland	6	100.00	22,500	0
267	BALANCE Erneuerbare Energien GmbH, Leipzig		100.00	18,615	3,155
268	Barre Energie SARL, Montpellier/France		100.00	-16	-4
269	Bliekevare Nät AB, Falkenberg/Sweden		100.00	64	54
270	Centrale Solaire des Terres Rouges SARL, Montpellier/France		100.00	-799	55
271	Centrale Solaire du Sycala SARL, Montpellier/France		100.00	921	920
272	Connected Wind Services A/S, Balle/Denmark		100.00	1,465	-7,079
273	Connected Wind Services Danmark A/S, Balle/Denmark	5	100.00	741	-491
274	Connected Wind Services Deutschland GmbH, Rantrum	5	100.00	832	-907
275	Connected Wind Services Refurbishment A/S, Balle/Denmark	5	100.00	-2,136	-4,492
276	Couffrau Energie SARL, Montpellier/France		100.00	-352	194
277	EnAlpin AG, Visp/Switzerland	6	100.00	179,234	3,667
278	EnBW Biogas GmbH, Stuttgart	3	100.00	52	-
279	EnBW France GmbH, Stuttgart	3	100.00	605,747	-
280	EnBW Gnosjö Vind AB, Falkenberg/Sweden (formerly Gnosjö Energi AB, Rabbalshede/Sweden)		100.00	5,501	244
281	EnBW He Dreht GmbH, Varel	3	100.00	26,016	-
282	EnBW Holding A.S., Gümüssuyu-Istanbul/Turkey		100.00	233,210	-530
283	EnBW NAG-Beteiligungsgesellschaft mbH, Stuttgart		100.00	23	0
284	EnBW Offshore 1 GmbH, Stuttgart	3	100.00	28,737	-
285	EnBW Offshore 2 GmbH, Stuttgart	3	100.00	690,453	-
286	EnBW Offshore 3 GmbH, Stuttgart	3	100.00	799,436	-
287	EnBW Offshore Service GmbH, Klausdorf	3	100.00	25	-
288	EnBW Renewables International GmbH, Stuttgart	3	100.00	83,909	-
289	EnBW Solar GmbH, Stuttgart	3	100.00	51	-
290	EnBW Solarpark Tuningen GmbH, Stuttgart	3	100.00	3,680	-
291	EnBW Solarpark Weesow-Willmersdorf GmbH, Stuttgart (formerly EnBW Solarpark Weesow-Willmersdorf GmbH, Cottbus)		100.00	16	-414
292	EnBW Sverige AB, Falkenberg/Sweden		100.00	78,447	-569
293	EnBW Sverige Vind AB, Falkenberg/Sweden (formerly Power Wind Partners AB, Rabbalshede/Sweden)		100.00	67,087	3,180
294	EnBW Wind Onshore 1 GmbH, Stuttgart	3	100.00	25	-
295	EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe	3	100.00	14,415	-
296	EnBW Windkraftprojekte GmbH, Stuttgart		100.00	17,062	-8,940
297	EnBW Windpark Eisenach II GmbH, Stuttgart		100.00	25,937	943
298	Energiedienst AG, Rheinfelden	6	100.00	174,996	9,688

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
299	Ferme Éolienne de la Bessière SARL, Montpellier/France		100.00	-2,775	525
300	Ferme Éolienne de Puech de Cambert SARL, Montpellier/France		100.00	-495	231
301	Ferme Éolienne de Puech de l'Homme SARL, Montpellier/France		100.00	1,078	898
302	Grünwerke GmbH, Düsseldorf	3, 5	100.00	38,400	-
303	Kraftwerk Lötschen AG, Steg/Switzerland	6	100.00	26,579	0
304	La Société des Monts de Lacaune SAS, Montpellier/France		100.00	546	203
305	Langenburg Infrastruktur GmbH, Stuttgart		100.00	10,367	2
306	Le Val Energie SARL, Montpellier/France		100.00	362	314
307	Leipziger Biogasgesellschaft mbH, Leipzig		100.00	1,160	193
308	Parc Éolien de la Vallée de Belleuse SARL, Montpellier/France		100.00	-153	-132
309	Parc Éolien du Mont de Maisnil SARL, Montpellier/France		100.00	-296	-214
310	PRE FVE Svetlik s.r.o., Leitnowitz/Czech Republic	5	100.00	8,046	1,040
311	PRE VTE Částkov s.r.o., Prague/Czech Republic	5	100.00	712	234
312	Röbergsfjället Nät AB, Falkenberg/Sweden		100.00	9	0
313	SCE Wind Zernitz GmbH & Co. KG, Stuttgart		100.00	5,537	3,511
314	Socpe de Champs Perdus SARL, Montpellier/France		100.00	-910	-232
315	SOLARINVEST - GREEN ENERGY s.r.o., Prague/Czech Republic	5	100.00	30	-47
316	Svenska Connected Wind Services AB, Falkenberg/Sweden	5	100.00	628	-500
317	Valeco Ingénierie SAS, Montpellier/France		100.00	25,656	7,787
318	Valeco O&M SAS, Montpellier/France		100.00	593	317
319	Valeco SAS, Montpellier/France		100.00	71,233	-912
320	Winding We North a. s., Prague/Czech Republic	5	100.00	235	-1
321	Windpark "Auf der Weißen Trisch" GmbH, Zweibrücken		100.00	426	263
322	Windpark Breitenbach GmbH, Düsseldorf		100.00	25	-167
323	Windpark Niederlinxweiler GmbH & Co. KG, Leinfelden-Echterdingen		100.00	65	-205
324	Windpark Rot am See GmbH, Ellwangen (Jagst)	3	100.00	25	-
325	EE Bürgerenergie Braunsbach GmbH & Co. KG, Braunsbach		99.99	7,600	93
326	EE BürgerEnergie Forchtenberg GmbH & Co. KG, Forchtenberg		99.99	1,500	23
327	BürgerEnergie Königheim GmbH & Co. KG, Königheim		99.97	3,000	260
328	EE BürgerEnergie Möckmühl GmbH & Co. KG, Möckmühl		95.17	1,575	8
329	EE BürgerEnergie Jagsthausen GmbH & Co. KG, Jagsthausen		95.11	4,625	73
330	Bürgerenergie Widdern GmbH & Co. KG, Widdern		95.07	7,580	133
331	EE BürgerEnergie Boxberg GmbH & Co. KG, Boxberg		90.27	14,400	1,167
332	EE Bürgerenergie Hardthausen GmbH & Co. KG, Hardthausen am Kocher		83.76	12,070	158
333	Neckar Aktiengesellschaft, Stuttgart		82.20	10,179	0
334	EE Bürgerenergie Ilshofen GmbH & Co. KG, Ilshofen		77.52	3,070	202
335	JatroSolutions GmbH, Stuttgart		75.30	372	-1,199
336	Geothermie-Gesellschaft Bruchsal GmbH, Bruchsal		74.90	1,375	-772
337	Energiedienst Holding AG, Laufenburg/Switzerland	6, 10	66.67	949,904	24,037
338	Parc Éolien de Bel Air SAS, Montpellier/France		63.40	-271	-234
339	EnBW Windpark Aalen-Waldhausen GmbH, Stuttgart (formerly EnBW Omega 109. Verwaltungsgesellschaft mbH, Stuttgart)		59.00	29,208	184
340	Rheinkraftwerk Neuhausen AG, Neuhausen/Switzerland	6	56.00	1,137	47
341	Solarpark Berghülen GmbH, Stuttgart		51.00	2,903	20
342	Solarpark Riedlingen-Zwiefaltendorf GmbH, Stuttgart		51.00	5,377	84
343	EnBW Baltic 1 GmbH & Co. KG, Stuttgart		50.32	43,958	11,733
344	EnBW Hohe See GmbH & Co. KG, Hamburg		50.11	1,667,460	88,002

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
345	EnBW Baltic 2 GmbH & Co. KG, Biberach an der Riß		50.10	1,219,724	96,174
346	EnBW Windpark Buchholz III GmbH, Stuttgart		50.10	23,079	49
347	Windenergie Tautschbuch GmbH, Riedlingen		50.10	623	-1
348	EnBW Onshore Portfolio GmbH, Stuttgart		50.02	100,823	5,489
349	Energie Renouvelable du Languedoc SARL, Montpellier/France		50.00	-483	-712
350	Joncels Energie SARL, Montpellier/France		50.00	-881	116
Joint operations					
351	Rheinkraftwerk Iffezheim GmbH, Iffezheim	9	50.00	96,813	3,185
352	Rhonewerke AG, Ernen/Switzerland	5, 9	30.00	25,557	0
Non-consolidated affiliated entities¹⁵					
353	BALANCE Management GmbH, Leipzig	5	100.00	25	-2
354	Biogas Produktion Altmark GmbH, Hohenberg-Krusemark	5	100.00	-4,435	-3,774
355	Biogas Trelder Berg 1 GmbH, Buchholz	3, 5	100.00	25	-
356	Biogas Trelder Berg 2 GmbH, Buchholz	3, 5	100.00	25	-
357	Biogas Trelder Berg 3 GmbH, Buchholz	3, 5	100.00	25	-
358	Biomethanproduktion Freyenstein GmbH, Hohenberg-Krusemark	5	100.00	-5	-82
359	Biosphärenwindpark Schwäbische Alb GmbH, Münsingen	5	100.00	25	-9
360	Cambert Énergie SARL, Montpellier/France	5	100.00	569	-68
361	CarbonBW (Thailand) Ltd., Bangkok/Thailand	5	100.00	9,297	666
362	Centernach Énergie SARL, Montpellier/France	5	100.00	-756	-110
363	Centrale Photovoltaïque Agroénergie SARL, Montpellier/France	5	100.00	-6	-3
364	Centrale Photovoltaïque de Bionne SARL, Montpellier/France	5	100.00	-11	-2
365	Centrale Photovoltaïque de Castelle SARL, Montpellier/France	5	100.00	0	0
366	Centrale Photovoltaïque de la demi-lune SARL, Montpellier/France	5	100.00	0	0
367	Centrale Photovoltaïque de la Forêt Bagnolais SARL, Montpellier/ France	5	100.00	-6	-2
368	Centrale Photovoltaïque de la ZA de Gaudet SARL, Montpellier/France	5	100.00	-8	-2
369	Centrale Photovoltaïque de Labastide SARL, Montpellier/France	5	100.00	-5	-3
370	Centrale Photovoltaïque de Pavaiiler SARL, Montpellier/France	5	100.00	-6	-5
371	Centrale Photovoltaïque de Saint Quentin la Tour SAS, Montpellier/ France	5	100.00	-8	-3
372	Centrale Photovoltaïque de Sirius SARL, Montpellier/France	5	100.00	-6	-3
373	Centrale Photovoltaïque des Coteaux de la Braye SARL, Montpelli- er/France	5	100.00	-7	-2
374	Centrale Photovoltaïque des Gravières SARL, Montpellier/France	5	100.00	-40	-34
375	Centrale Photovoltaïque des Quatre Vents SARL, Montpellier/France	5	100.00	-7	-4
376	Centrale Photovoltaïque du Perche Ornais SARL, Montpellier/France	5	100.00	-6	-2
377	Centrale Photovoltaïque Pont du Casse SARL, Montpellier/France	11	100.00	-	-
378	Centrale Photovoltaïque Retour sur l'Isle SARL, Montpellier/France	5	100.00	-2	-2
379	Centrale Solaire d'Aguessac SARL, Montpellier/France	5	100.00	-4	-2
380	Centrale Solaire d'Algosud SARL, Montpellier/France	5	100.00	0	0
381	Centrale Solaire de Biltagarbi SARL, Montpellier/France	5	100.00	-228	-99
382	Centrale Solaire de Bors de Montmoreau SARL, Montpellier/France	5	100.00	-17	-2
383	Centrale Solaire de Cap Delta SARL, Montpellier/France	5	100.00	-1	-2
384	Centrale Solaire de Carré Sud SARL, Montpellier/France	5	100.00	-7	-8
385	Centrale Solaire de Catreille SARL, Montpellier/France	5	100.00	-1	-1
386	Centrale Solaire de Châteauperouse SARL, Montpellier/France	5	100.00	-2	-1
387	Centrale Solaire de Colombiers SARL, Montpellier/France	5	100.00	-121	-12

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
388	Centrale Solaire de Coste Cuyère SARL, Montpellier/France	5	100.00	-20	-9
389	Centrale Solaire de Josse SARL, Montpellier/France	5	100.00	-2	-1
390	Centrale Solaire de la Tastère SARL, Montpellier/France	11	100.00	-	-
391	Centrale Solaire de Lunel SARL, Montpellier/France	5	100.00	-596	98
392	Centrale Solaire de Maine SARL, Montpellier/France	5	100.00	-14	-2
393	Centrale Solaire de Marignac SARL, Montpellier/France	5	100.00	-6	-2
394	Centrale Solaire de Massane SARL, Montpellier/France	5	100.00	0	0
395	Centrale Solaire de Montegut SARL, Montpellier/France	5	100.00	-13	-10
396	Centrale Solaire de Nohanent SARL, Montpellier/France	11	100.00	-	-
397	Centrale Solaire de Peregrine SARL, Montpellier/France	5	100.00	-4	-2
398	Centrale Solaire de Roubian SARL, Montpellier/France	5	100.00	-4	-4
399	Centrale Solaire de Saint Leger de Balson SARL, Montpellier/France	5	100.00	-15	-2
400	Centrale Solaire de Severac SARL, Montpellier/France	5	100.00	-16	-6
401	Centrale Solaire de Til Chatel SARL, Montpellier/France	5	100.00	-6	-2
402	Centrale Solaire des Calottes SARL, Montpellier/France	5	100.00	-1	-2
403	Centrale Solaire des Coëvrons SARL, Montpellier/France	5	100.00	-7	-3
404	Centrale Solaire des Cruzilloux SARL, Montpellier/France	5	100.00	-14	-2
405	Centrale Solaire des Moulins Lodevois SARL, Montpellier/France	5	100.00	-1	-2
406	Centrale Solaire d'Exideuil SARL, Montpellier/France	5	100.00	-17	-6
407	Centrale Solaire d'Odin SARL, Montpellier/France	5	100.00	-9	-9
408	Centrale Solaire du Caussanel SARL, Montpellier/France	11	100.00	-	-
409	Centrale Solaire du Lido SARL, Montpellier/France	5	100.00	-22	-2
410	Centrale Solaire du Tea Fleury-Merogis SARL, Montpellier/France	5	100.00	-7	-7
411	Centrale Solaire EMA Solar SARL, Montpellier/France	5	100.00	-26	-27
412	Centrale Solaire EuroPrimeur SARL, Montpellier/France	11	100.00	-	-
413	Centrale Solaire Gesim Beau Ciel SARL, Montpellier/France	5	100.00	-2	-2
414	Centrale Solaire la Vidalle SARL, Montpellier/France	5	100.00	-1	-2
415	Centrales Solaires de Iouanacera SARL, Montpellier/France	5	100.00	-2	-1
416	Centrales Solaires de l'Isle sur la Sorgue SAS, Montpellier/France	5	100.00	-9	-9
417	Centrales Solaires de Quirinus SARL, Montpellier/France	5	100.00	23	30
418	Centrales Solaires de Salles-la-Source SARL, Montpellier/France	5	100.00	-2	-1
419	Centrales Solaires d'Hemera SARL, Montpellier/France	5	100.00	0	-1
420	Centrales Solaires d'Hyperion SARL, Montpellier/France	5	100.00	-6	-2
421	Centrales Solaires du Languedoc SARL, Montpellier/France	5	100.00	111	107
422	Deves Énergie SARL, Montpellier/France	5	100.00	-2,058	524
423	EnBW Albatros Management GmbH, Hamburg	5	100.00	26	1
424	EnBW Asia Pacific Ltd, Taipei/Taiwan	5	100.00	142	-325
425	EnBW Baltic 1 Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	25	1
426	EnBW Baltic 2 Management GmbH, Biberach an der Riß (formerly EnBW Omega 101. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	24	-1
427	EnBW Baltic Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	34	1
428	EnBW Bürgerbeteiligung Wind 1 GmbH, Stuttgart (formerly EnBW Windpark Langenburg GmbH, Stuttgart)	3,5	100.00	25	-
429	EnBW Danemark ApS, Balle/Denmark	5	100.00	-3,314	-3
430	EnBW France SAS, Boulogne-Billancourt/France	11	100.00	-	-
431	EnBW Hohe See Management GmbH, Hamburg	5	100.00	27	1
432	EnBW North America Inc., Wilmington, Delaware/USA	5	100.00	6,157	-526
433	EnBW Solarpark Gottesgabe GmbH, Neutrebbin	5	100.00	25	-2

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
434	EnBW Wind Onshore Portfolio 2019 GmbH, Stuttgart	5	100.00	25	0
435	EnBW Wind Onshore Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
436	EnBW Wind op Zee B.V., Amsterdam/The Netherlands	5	100.00	-51	-25
437	EnBW Windpark Kleinliebringen GmbH, Stuttgart	5	100.00	23	-2
438	Ferme Éolienne de Donzère SARL, Montpellier/France	5	100.00	516	-48
439	Ferme Éolienne de la Ferrière-de-Flée SARL, Montpellier/France	11	100.00	-	-
440	Ferme Éolienne de Saint Jean de Pourcharesse SARL, Montpellier/ France	5	100.00	-14	-2
441	Grünwerke Verwaltungs GmbH, Düsseldorf	5	100.00	39	3
442	Kemberg Windpark Management GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	100.00	1,324	38
443	NatürlichEnergie EMH GmbH, Platten	5	100.00	692	-110
444	NatürlichSonne Trogen GmbH & Co. KG, Monzelfeld	5	100.00	311	27
445	NatürlichSonne Trogen Verwaltungs GmbH, Ettlingen	5	100.00	23	-1
446	Parc Éolien d'Amfreville-les-Champs SARL, Montpellier/France	11	100.00	-	-
447	Parc Éolien d'Argillières SARL, Montpellier/France	5	100.00	-12	-9
448	Parc Éolien de Barbezières-Lupsault SARL, Montpellier/France	5	100.00	-5	-3
449	Parc Éolien de Bornay 2 SARL, Montpellier/France	5	100.00	-17	-17
450	Parc Éolien de Bornay SARL, Montpellier/France	5	100.00	-18	-16
451	Parc Éolien de Boussais SARL, Montpellier/France	11	100.00	-	-
452	Parc Éolien de Breuillac SARL, Montpellier/France	5	100.00	-10	-6
453	Parc Éolien de Broquières SARL, Montpellier/France	5	100.00	-3	-3
454	Parc Éolien de Causses et Rivières SARL, Montpellier/France	5	100.00	-6	-2
455	Parc Éolien de Champ Serpette SARL, Montpellier/France	5	100.00	-5	-2
456	Parc Éolien de Champs Perdus 2 SARL, Montpellier/France	5	100.00	-3	-3
457	Parc Éolien de Chan des Planasses SARL, Montpellier/France	5	100.00	-3	-4
458	Parc Éolien de Combaynard SARL, Montpellier/France	5	100.00	0	0
459	Parc Éolien de Keranflech SARL, Montpellier/France	5	100.00	0	0
460	Parc Éolien de Kerimard SARL, Montpellier/France	11	100.00	-	-
461	Parc Éolien de la Bussière SARL, Montpellier/France	5	100.00	-6	-4
462	Parc Éolien de la Cressionnière SARL, Montpellier/France	5	100.00	0	0
463	Parc Éolien de la Fougère SARL, Montpellier/France	5	100.00	-17	-15
464	Parc Éolien de la Haute Charmoie SARL, Montpellier/France	5	100.00	-6	-2
465	Parc Éolien de la Pezille SARL, Montpellier/France	11	100.00	-	-
466	Parc Éolien de la Roche SARL, Montpellier/France	5	100.00	0	0
467	Parc Éolien de la Vallée Berlure SARL, Montpellier/France	5	100.00	-2	-3
468	Parc Éolien de la Vingeanne SARL, Montpellier/France	5	100.00	-6	-2
469	Parc Éolien de le Quesnel SARL, Montpellier/France	5	100.00	-6	-2
470	Parc Éolien de l'Épinette SARL, Montpellier/France	5	100.00	-3	-4
471	Parc Éolien de Lupsault SARL, Montpellier/France	5	100.00	0	0
472	Parc Éolien de Marendeuil SARL, Montpellier/France	5	100.00	-25	-18
473	Parc Éolien de Monsures SARL, Montpellier/France	5	100.00	-21	-14
474	Parc Éolien de Mouterre-Silly SARL, Montpellier/France	11	100.00	-	-
475	Parc Éolien de Nongée SARL, Montpellier/France	5	100.00	-5	-2
476	Parc Éolien de Noroy SARL, Montpellier/France	5	100.00	-6	-2
477	Parc Éolien de Picoud SARL, Montpellier/France	11	100.00	-	-
478	Parc Éolien de Pistole SARL, Montpellier/France	5	100.00	-4	-2
479	Parc Éolien de Ravery SARL, Montpellier/France	5	100.00	0	0

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
480	Parc Éolien de Revelles SARL, Montpellier/France	5	100.00	-25	-2
481	Parc Éolien de Ribemont SARL, Montpellier/France	5	100.00	-2	-3
482	Parc Éolien de Saint-Fraigne SARL, Montpellier/France	5	100.00	0	0
483	Parc Éolien de Saint-Ygeaux SARL, Montpellier/France	5	100.00	0	0
484	Parc Éolien de Sery-les-Mezières SARL, Montpellier/France	5	100.00	0	0
485	Parc Éolien de Severac d'Aveyron SARL, Montpellier/France	5	100.00	-3	-3
486	Parc Éolien de Thennes SARL, Montpellier/France	5	100.00	-2	-3
487	Parc Éolien de Vellexon SARL, Montpellier/France	5	100.00	-6	-2
488	Parc Éolien de Vervant et Lea SARL, Montpellier/France	5	100.00	-8	-9
489	Parc Éolien de Warlus SARL, Montpellier/France	5	100.00	-33	-16
490	Parc Éolien des Bouiges SARL, Montpellier/France	5	100.00	-35	-5
491	Parc Éolien des Brandes de l'Ozon Sud SARL, Montpellier/France	5	100.00	-11	-2
492	Parc Éolien des Bruyères SARL, Montpellier/France	11	100.00	-	-
493	Parc Éolien des Ecolottes SARL, Montpellier/France	5	100.00	-59	-13
494	Parc Éolien des Gaudines SARL, Montpellier/France	5	100.00	-5	-2
495	Parc Éolien des Gours SARL, Montpellier/France	5	100.00	0	0
496	Parc Éolien des Moussières SARL, Montpellier/France	5	100.00	-6	-2
497	Parc Éolien des Navarros SARL, Montpellier/France	5	100.00	-8	-6
498	Parc Éolien des Quatre Chemins SARL, Montpellier/France	5	100.00	-6	-2
499	Parc Éolien des Rapailles SARL, Montpellier/France	5	100.00	-7	-2
500	Parc Éolien des Renouillères SARL, Montpellier/France	5	100.00	-5	-2
501	Parc Éolien des Rieux SARL, Montpellier/France	11	100.00	-	-
502	Parc Éolien des Saules SARL, Montpellier/France	5	100.00	-5	-2
503	Parc Éolien des Terres de Caumont SARL, Montpellier/France	5	100.00	-5	-2
504	Parc Éolien d'Hilvern SARL, Montpellier/France	11	100.00	-	-
505	Parc Éolien du Bel Essart SARL, Montpellier/France	5	100.00	-12	-2
506	Parc Éolien du Bois de la Motte SARL, Montpellier/France	11	100.00	-	-
507	Parc Éolien du Bois du Piné SARL, Montpellier/France	11	100.00	-	-
508	Parc Éolien du Commandeur SARL, Montpellier/France	11	100.00	-	-
509	Parc Éolien du Fresnay SARL, Montpellier/France	5	100.00	0	0
510	Parc Éolien du Frestoy SARL, Montpellier/France	5	100.00	-2	-2
511	Parc Éolien du Houarn SARL, Montpellier/France	5	100.00	-6	-2
512	Parc Éolien du Houssais SARL, Montpellier/France	5	100.00	0	0
513	Parc Éolien du Mercorbon SARL, Montpellier/France	5	100.00	-7	-2
514	Parc Éolien du Mont de l'Echelle SARL, Montpellier/France	5	100.00	-5	-3
515	Parc Éolien du Puy Peret SARL, Montpellier/France	5	100.00	-37	-8
516	SP XIV GmbH & Co. KG, Cottbus	5	100.00	4	-2
517	SP XV GmbH & Co. KG, Cottbus	5	100.00	4	-2
518	Valeco Energía México S.A. de C.V., Mexico City/Mexico	5	100.00	0	0
519	Valeco Énergie Québec Inc., Montréal/Canada	5	100.00	-886	-115
520	Valeco Engineering One Member Company Ltd., Ho Chi Minh City/ Vietnam	11	100.00	-	-
521	Valeco Sea Pte. Ltd., Singapore/Singapore	5	100.00	-4	-4
522	Windpark Rot am See Infrastruktur GmbH, Stuttgart	5	100.00	28	0
523	ZEAG Erneuerbare Energien GmbH, Heilbronn	5	100.00	43	18
524	JATROSELECT-Paraguay Sociedad de Responsabilidad Limitada, Volendam/Paraguay	5	99.98	256	0
525	EE Bürgerenergie Bühlerzell GmbH & Co. KG, Bühlerzell	5	99.00	71	-6

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
526	EE Bürgerenergie Frankenhardt GmbH & Co. KG, Frankenhardt	5	99.00	78	-3
527	EE Bürgerenergie Hardheim GmbH & Co. KG, Hardheim	5	99.00	72	-10
528	EE Bürgerenergie Höpfingen GmbH & Co. KG, Höpfingen	5	99.00	75	-9
529	EE BürgerEnergie Krautheim GmbH & Co. KG, Krautheim	5	99.00	18	-12
530	EE BürgerEnergie Neudenuau GmbH & Co. KG, Neudenuau	5	99.00	72	-3
531	EE Bürgerenergie Sulzbach-Laufen GmbH & Co. KG, Sulzbach-Laufen	5	99.00	80	-3
532	Valeco Solar SARL, Montpellier/France	5	95.20	820	708
533	Holzkraft Plus GmbH, Düsseldorf	5	90.00	146	-5
534	Parc Éolien de Brebières SAS, Montpellier/France	5	87.86	-11	-2
535	EnPV GmbH, Karlsruhe	5	71.30	229	-97
536	JatroGreen S.A.R.L., Antananarivo/Madagascar	5	70.00	108	-39
537	Powderis SARL, Montpellier/France	5	70.00	-581	-106
538	Centrale Solaire de la Durance SARL, Montpellier/France	5	65.00	-99	198
539	Hydro Léman SARL, Montpellier/France	5	57.00	-5	-2
540	Erneuerbare Energien Neckarwestheim GmbH & Co. KG, Neckarwestheim	5	52.80	700	28
541	Alb-Windkraft Verwaltungs GmbH, Geislingen an der Steige	5	51.00	58	33
542	Centrale Solaire de Saint Mamet SARL, Montpellier/France	5	51.00	-491	-150
543	Solarpark Leutkirch GmbH & Co. KG, Leutkirch im Allgäu	5	51.00	9,507	655
544	Solarpark Leutkirch Verwaltungsgesellschaft mbH, Leutkirch im Allgäu	5	51.00	26	1
Entities accounted for using the equity method					
545	Valeco Ren SAS, Montpellier/France	9	51.00	-2,469	-761
546	EnBW Albatros GmbH & Co. KG, Hamburg	5, 9	50.11	149,758	100
547	Borusan EnBW Enerji yatırımları ve Üretim Anonim Şirketi, Istanbul/Turkey	5, 9	50.00	208,555	-12,323
548	Elektrizitätswerk Rheinau AG, Rheinau/Switzerland	5, 7	50.00	20,934	732
549	Bayerische-Schwäbische Wasserkraftwerke Beteiligungsgesellschaft mbH, Gundremmingen	5	37.80	57,581	3,128
550	KW Ackersand I AG, Stalden/Switzerland	5	25.00	1,859	0
Investments¹⁵					
551	Netzanschlussgesellschaft Windparks Ostercappeln/Bohmt mbH, Kirchdorf	5	66.66	25	11
552	biogasNRW GmbH i.L., Düsseldorf		50.00	-	-
553	Centrale Electrique Rhénane de Gamsheim SA, Gamsheim/France	5	50.00	9,648	0
554	Holding de la Montagne Noire SARL, Montpellier/France	5	50.00	-146	-138
555	Kraftwerk Aegina A.G., Obergoms/Switzerland	5, 7	50.00	12,167	0
556	Kraftwerk Reckingen AG, Reckingen	5	50.00	3,203	72
557	Parc Éolien des Quintefeilles SAS, Montpellier/France	5	50.00	1	0
558	Parc Éolien Vallée de l'Escrebieux SAS, Montpellier/France	5	50.00	0	0
559	Rheinkraftwerk Säckingen AG, Bad Säckingen	5	50.00	7,804	300
560	SwissAlpin SolarTech AG i.L., Visp/Switzerland		50.00	-	-
561	Wasserkraftwerk Hausen GbR, Hausen im Wiesental	5, 14	50.00	487	-103
562	WKM Wasserkraftwerke Maulburg GmbH, Maulburg	5	50.00	485	13
563	KW Jungbach AG, St. Niklaus/Switzerland	5	49.00	3,897	303
564	Projektentwicklung Waldeck-Frankenberg GmbH & Co. KG, Korbach	5	49.00	393	-7
565	Projektentwicklung Waldeck-Frankenberg Verwaltungs GmbH, Korbach	5	49.00	25	0
566	Centrale Solaire de la Petite Vicomté SAS, Montpellier/France	5	44.00	-12	-12
567	Obere Donau Kraftwerke AG, Munich	5	40.00	3,180	0
568	Segalasses Énergie SARL, Toulouse/France	5	40.00	0	0

		Foot-note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
569	TWKW Trinkwasserkraftwerke Niedergesteln AG, Niedergesteln/Switzerland	5	40.00	1,681	144
570	Kraftwerk Ryburg-Schwörstadt AG, Rheinfelden/Switzerland	5, 7	38.00	34,608	1,584
571	Haiding One International Investment Co., Ltd., Taipei/Taiwan	5	37.50	1,438	-362
572	Haiding Three International Investment Co., Ltd., Taipei/Taiwan	5	37.50	1,438	-383
573	Haiding Two International Investment Co., Ltd., Taipei/Taiwan	5	37.50	1,438	-363
574	Parc Éolien de Montelu SAS, Montpellier/France	5	34.00	0	0
575	Parc Éolien des Gassouillis SAS, Montpellier/France	5	34.00	0	0
576	GEIE Exploitation Minière de la Chaleur, Kutzenhausen/France	5, 14	33.33	0	-134
577	Windpark Prützke II GmbH & Co. KG, Düsseldorf	5	33.33	1,465	-35
578	KWT Kraftwerke Töbel-Moosalp AG, Töbel/Switzerland	5	30.00	893	42
579	Baltic Windpark Beteiligungen GmbH & Co. KG, Stuttgart	5	29.17	24,656	6,438
580	Kraftwerke Gougra AG, Sierre/Switzerland	5	27.50	51,650	1,367
581	EE Bürgerenergie Heilbronn GmbH & Co. KG, Heilbronn	5	26.00	1,000	86
582	Parc Éolien de Lavacquerié SAS, Montpellier/France	5	26.00	0	0
583	Windpark Lindtorf GmbH, Rheine	5	26.00	4,200	16
584	Alb-Windkraft GmbH & Co. KG, Geislingen an der Steige	5	25.50	582	447
585	ANOG Anergienetz Obergoms AG, Obergoms/Switzerland	5	24.50	193	11
586	KWOG Kraftwerke Obergoms AG, Obergoms/Switzerland	5	24.50	12,098	441
587	Éolienne de Murasson SARL, Montpellier/France	5	20.00	110	86
588	Erneuerbare Energien Zollern Alb GmbH i.L., Balingen		20.00	-	-
589	Ferme Éolienne de Muratel SAS, Montpellier/France	5	20.00	-325	384
590	Ferme Éolienne de Plo d'Amoures SAS, Montpellier/France	5	20.00	-300	-27
591	Ferme Éolienne de Thalys SAS, Montpellier/France	5	20.00	-96	-14
592	Kooperation Erneuerbare Energien im Landkreis Rottweil GmbH, Schramberg	5	20.00	86	-7
593	Mélagues Energie SAS, Montpellier/France	5	20.00	-186	-21
594	Montagnol Energie SAS, Montpellier/France	5	20.00	-2,144	-1,547
595	Parc Éolien de Chasseneuil SARL, Montpellier/France	5	20.00	-20	-13
596	Parc Éolien de Prinquies SARL, Montpellier/France	5	20.00	-42	-16
597	Parc Éolien du Vallon de Sancey SARL, Montpellier/France	5	20.00	-20	-10
598	Sepe de la Gare SAS, Montpellier/France	5	20.00	-183	142
599	Tauriac Energie SAS, Montpellier/France	5	20.00	-3,099	-2,105
600	Wasserkraftwerk Pfinztal GmbH & Co. KG, Pfinztal	5	20.00	234	-4
Generation and Trading segment					
Fully consolidated companies					
601	AWISTA Logistik GmbH, Düsseldorf	3, 5	100.00	3,025	-
602	EnBW Biomasse GmbH, Karlsruhe		100.00	2,012	296
603	EnBW Etzel Speicher GmbH, Karlsruhe	3	100.00	825	-
604	EnBW Grundstücksverwaltung Rheinhafen GmbH, Karlsruhe		100.00	2,384	12
605	EnBW Kraftwerk Lippendorf Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	297,640	-
606	EnBW Rückbauservice GmbH, Stuttgart	3	100.00	25	-
607	ENERGIEUNION GmbH, Schwerin	3	100.00	4,387	-
608	Gemeinschaftsheizkraftwerk Fortuna GmbH, Düsseldorf		100.00	25	3,997
609	Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim	3	100.00	117,377	-
610	HANDEN Sp. z o.o., Warsaw/Republic of Poland		100.00	58,060	2,443
611	Heizkraftwerk Stuttgart GmbH, Stuttgart		100.00	5,129	0
612	Kernkraftwerk Obrigheim GmbH, Obrigheim	3	100.00	51,130	-

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
613	MSE Mobile Schlammwässerungs GmbH, Karlsbad-Ittersbach	3	100.00	1,171	-
614	TAE Thermische Abfallentsorgung Ansbach GmbH, Ansbach		100.00	58,802	2
615	TPLUS GmbH, Karlsruhe	3	100.00	18,162	-
616	TWS Kernkraft GmbH, Gemmrigheim	3	100.00	149,297	-
617	u-plus Umweltservice GmbH, Karlsruhe	3	100.00	99,979	-
618	VNG Austria GmbH, Gleisdorf/Austria		100.00	5,418	-2,494
619	VNG Energie Czech s.r.o., Prague/Czech Republic	6	100.00	937	-1,331
620	VNG Gasspeicher GmbH, Leipzig	3	100.00	21,311	-
621	VNG Handel & Vertrieb GmbH, Leipzig	3	100.00	37,840	-
622	VNG Italia S.r.L., Bologna/Italy		100.00	47,328	343
623	EnBW Kernkraft GmbH, Obrigheim	3	99.80	10,000	-
624	Südwestdeutsche Nuklear-Entsorgungsgesellschaft mbH, Stuttgart		86.49	10,251	2,827
625	SPIGAS S.r.L., La Spezia/Italy		80.00	37,050	585
626	Zentraldeponie Hubbelrath GmbH, Düsseldorf		76.00	26,012	140
627	VNG AG, Leipzig		74.21	867,664	163,410
628	AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, Düsseldorf	5	51.00	53,596	23,069
629	KNG Kraftwerks- und Netzgesellschaft mbH, Rostock		50.40	530	8
Joint operations					
630	Friedeburger Speicherbetriebsgesellschaft mbH "Crystal", Friedeburg	9	50.00	94,611	68
Non-consolidated affiliated entities¹⁵					
631	P ² Plant & Pipeline Engineering GmbH, Essen	5	100.00	982	263
632	EnergieFinanz GmbH, Schwerin	5	100.00	989	37
633	EZG Operations GmbH, Wismar	5	100.00	276	113
634	Nahwärme Düsseldorf GmbH, Düsseldorf	5	66.00	2,741	346
Entities accounted for using the equity method					
635	Erdgasspeicher Peissen GmbH, Halle (Saale)	5, 9	50.00	108,560	-656
636	Fernwärme Ulm GmbH, Ulm	5, 7, 9	50.00	36,049	4,306
637	Schluchseewerk Aktiengesellschaft, Laufenburg (Baden)	5	50.00	64,957	2,809
638	REMONDIS Rhein-Wupper GmbH & Co. KG, Düsseldorf	5	49.00	15,421	8,944
639	Grosskraftwerk Mannheim AG, Mannheim	5	32.00	127,435	6,647
Investments¹⁵					
640	EnergyIncore GmbH, Schwerin	11	50.00	-	-
641	Fernwärme Rhein-Neckar GmbH, Mannheim	5	50.00	5,724	1,739
642	KDM Kompostierungs- und Vermarktungsgesellschaft für Stadt Düsseldorf/Kreis Mettmann mbH, Ratingen	5	50.00	2,233	262
643	Kraftwerksbatterie Heilbronn GmbH, Stuttgart	5	50.00	4,881	-140
644	MIOGAS & LUCE S.r.L., Rozzano/Italy	5	50.00	11,948	1,987
645	Powerment GmbH & Co. KG, Ettlingen	5	50.00	6,056	3,868
646	RheinWerke GmbH, Düsseldorf	5	50.00	4,366	-371
647	MOWA Mobile Waschanlagen GmbH, Neunkirchen-Seelscheid	5	49.00	227	192
648	REMONDIS Rhein-Wupper Verwaltungs GmbH, Düsseldorf	5	49.00	39	0
649	HWM Holzwärme Müllheim GmbH, Müllheim	5	45.00	484	-44
650	Fernwärme Zurich AG, Zurich/Switzerland	5	40.00	4,431	2,219
651	Untergrundspeicher- und Geotechnologie-Systeme Gesellschaft mit beschränkter Haftung, Mittenwalde	5	40.00	7,549	-524
652	SPIGAS CLIENTI S.r.L., Milan/Italy (formerly SPIGAS CLIENTI S.r.L., La Spezia/Italy)	5, 7	35.00	539	419

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
653	Nuovenergie S.p.A., Milan/Italy	5	30.00	2,604	906
654	Beteiligungsgesellschaft der EVU an der Kerntechnischen Hilfsdienst GmbH - GbR, Karlsruhe	5, 14	21.59	0	0
655	CANARBINO S.p.A., Milan/Italy (formerly CANARBINO S.p.A., Sarzana/Italy)	5, 7	20.00	55,351	8,647
Other					
Fully consolidated companies					
656	ED Immobilien GmbH & Co. KG, Rheinfelden	6	100.00	0	153
657	ED Immobilien Verwaltungsgesellschaft mbH, Rheinfelden	6	100.00	32	0
658	ED Kommunal GmbH, Rheinfelden	6	100.00	37,526	1,332
659	EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe	3	100.00	25	-
660	EnBW City GmbH & Co. KG, Obrigheim		100.00	8,885	8,394
661	EnBW Immobilienbeteiligungen GmbH, Karlsruhe		100.00	487,235	4,324
662	EnBW International Finance B.V., Amsterdam/The Netherlands		100.00	1,164,210	32,496
663	EnBW Perspektiven GmbH, Karlsruhe	3	100.00	1,500	-
664	Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim		100.00	199,595	5,549
665	Neckarwerke Stuttgart GmbH, Stuttgart	3	100.00	1,880,237	-
666	NWS Finanzierung GmbH, Karlsruhe	3	100.00	1,237,605	-
667	symbiotic services GmbH, Karlsruhe	3	100.00	25	-
668	MURVA Grundstücks-Verwaltungsgesellschaft mbH & Co. KG, Grünwald	5	95.00	-8,797	745
669	EnBW Versicherungsvermittlung GmbH, Stuttgart		51.00	51	3,863
Non-consolidated affiliated entities¹⁵					
670	EnBW Bürgerbeteiligung Solar 1 GmbH, Stuttgart (formerly EnBW Omega 106. Verwaltungsgesellschaft mbH, Stuttgart)	3, 5	100.00	25	-
671	EnBW New Ventures GmbH, Karlsruhe	3, 5	100.00	15,199	-
672	EnBW Omega 103. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
673	EnBW Omega 104. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
674	EnBW Omega 105. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
675	EnBW Omega 107. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
676	EnBW Omega 108. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
677	EnBW Omega 110. Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
678	EnBW Omega 111. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
679	EnBW Omega 112. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
680	EnBW Omega 113. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
681	EnBW Omega 114. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
682	EnBW Omega 115. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
683	EnBW Omega 116. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
684	EnBW Omega 117. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
685	EnBW Omega 118. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
686	EnBW Omega 119. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
687	EnBW Omega 120. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
688	EnBW Omega Achtundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
689	EnBW Omega Achtundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	0
690	EnBW Omega Achtzigste GmbH, Mühlacker (formerly EnBW Omega Achtzigste Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	24	0
691	EnBW Omega Dreiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
692	EnBW Omega Dreiundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	0
693	EnBW Omega Fünfundfünfzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-

		Foot- note	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
694	EnBW Omega Fünfundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
695	EnBW Omega Hundertste Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
696	EnBW Omega Neunundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
697	EnBW Omega Sechsendachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
698	EnBW Omega Siebenundneunzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
699	EnBW Omega Vierundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
700	EnBW Omega Zweiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	25	0
701	EnBW Real Estate GmbH, Obrigheim	5	100.00	107	9
702	EnBW Senergi Immobilien GmbH, Karlsruhe	5	100.00	74	0
703	Interconnector GmbH, Karlsruhe	3, 5	100.00	25	-
704	KMS Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	44	-1
705	MGMTree GmbH, Leipzig	5	100.00	107	20
706	Rheintal PE GmbH & Co. KG, Bad Homburg v. d. Höhe	5	100.00	19,278	-466
707	SSG Verwaltungsgesellschaft mbH i.L., Kornwestheim		100.00	-	-
708	VNG Innovation Consult GmbH, Leipzig	5	100.00	24	-1
709	VNG Innovation GmbH, Leipzig	3, 5	100.00	2,304	-
Investments¹⁵					
710	UnigestionFLEX SCS SICAV RAIF, Luxembourg/Luxembourg	5	100.00	262,701	-82
711	WP Global Germany Private Equity L.P., Wilmington, Delaware/USA	5, 14	100.00	185,730	42,400
712	Sirius EcoTech Fonds Düsseldorf GmbH & Co. KG., Düsseldorf	5	78.15	5,670	-385
713	regiodata GmbH, Lörrach	5	35.00	980	416
714	MWV Energie AG, Mannheim	5, 7, 12	28.76	1,121,574	113,985
715	EFR Europäische Funk-Rundsteuerung GmbH, Munich	5	25.10	3,609	2,860
716	GasLINE Telekommunikationsnetz-Geschäftsführungsgesellschaft deutscher Gasversorgungsunternehmen mbH, Straelen	5	23.39	69	2

1 Shares of the respective parent company calculated in accordance with section 313 (2) HGB (as of 31 December 2019).

2 In the case of separate entities, the figures stem from financial statements prepared pursuant to local principles and do not show the contributions of each entity to the consolidated financial statements.

3 Profit and loss transfer agreement and/or domination agreement and/or loss assumption agreement.

4 Profit and loss transfer agreement with third parties.

5 Previous year's figures.

6 Preliminary figures.

7 Divergent financial year.

8 Control due to contractual agreement.

9 Joint control pursuant to IFRS 11.

10 Before taking treasury shares of the company into account.

11 New company, annual financial statements not yet available.

12 No significant influence exists.

13 Other shareholdings included due to contractual control arrangements.

14 Companies whose shareholders with unlimited liability are a company that is included in the consolidated financial statements.

15 Includes non-consolidated affiliated entities and other investments that are not fully consolidated or accounted for using the equity method because of their minor importance. They are recognised instead at their acquisition costs.

(38) Disclosures concerning concessions

Concession agreements in the areas of electricity, gas, district heating and water are in place between the individual entities in the EnBW Group and the municipalities. The majority of the concession agreements have a term of 20 years. There are obligations governed by law to connect to the supply networks. Under the concession agreements, the EnBW Group is obliged to provide and maintain the facilities required to satisfy the general supply needs. In addition, it is required to pay a concession fee to the municipalities. Upon expiry of a concession agreement, the facilities must be returned or transferred to the municipalities or the successor network operator, respectively, in return for reasonable compensation, unless the concession agreement is extended.

(39) Significant events after the reporting date

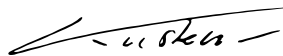
EnBW Albatros GmbH & Co. KG has been fully consolidated in the EnBW consolidated financial statements since 1 January 2020. For more information, please refer to the note "Full consolidation without a change in shareholding due to obtaining control in 2019".

Stuttgart, 4 March 2020

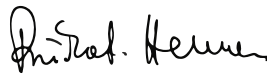
EnBW Energie Baden-Württemberg AG



Dr. Mastiaux



Kusterer



Rückert-Hennen



Dr. Zimmer

Auditor's report

Report on the audit of the consolidated financial statements and the combined management report

Audit opinions

We have audited the consolidated financial statements of EnBW Energie Baden-Württemberg AG, Karlsruhe, and its subsidiaries (the Group) – which comprise the income statement, the statement of comprehensive income for the financial year from 1 January to 31 December 2019, the balance sheet as of 31 December 2019, the cash flow statement and the statement of changes in equity for the financial year from 1 January to 31 December 2019 as well as the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we audited the Group management report of EnBW Energie Baden-Württemberg AG which has been combined with the management report of the company for the financial year from 1 January to 31 December 2019. The section of the Group management report stated in the annex to the auditor's report and the information about the company outside of the Annual Report that can be found there, which is referred to in the Group management report, were not included within the scope of the audit.

In our opinion, based on the findings of our audit,

- › the accompanying consolidated financial statements comply, in all material respects, with the IFRS as adopted by the EU, and the additional requirements of German commercial law pursuant to section 315e (1) German Commercial Code (HGB) and, in compliance with these requirements, give a true and fair view of the assets and financial position of the Group as of 31 December 2019, and of its results of operations for the financial year from 1 January to 31 December 2019, and
- › the accompanying combined management report as a whole provides an accurate view of the Group's position. In all material respects, this combined 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 sections of the Group management report that were stated in the annex to the auditor's report and were not included within the scope of the audit.

Pursuant to section 322 (3) 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 combined management report.

Basis for the audit opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with section 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU-APrVO") and in compliance with German generally accepted standards for financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). 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 combined management report" section of our auditor's report. We are independent of any 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) letter f) EU-APrVO, we declare that we have not provided non-audit services prohibited under article 5 (1) EU-APrVO. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

The matters that we consider to be key audit matters are described below:

1. Evaluation of the cash-generating unit EnBW power plants

Reasons for being designated a key audit matter

We classified the evaluation of the cash-generating unit EnBW power plants as a key audit matter because the determination of the recoverable amount is highly dependent on the assessment of future cash flows and in our view poses an increased risk of incorrect accounting with respect, in particular, to the adjustment to assumptions for the short, medium and long-term planning forecasts. The discretionary assumptions include, in particular, the projected cash flows based on pricing assumptions for fuel, CO₂ allowances and electricity, the discount rates used and the determination of the remaining service lives of the coal power plants, which are especially influenced by the recommendations made by the commission on "Growth, Structural Change and Employment" ("Coal Commission"), the draft government bill to reduce and phase out coal-based power generation (Coal Phase-out Act) and the current energy policy conditions. The assessments made by management with respect to the phase-out path for coal power plants have a significant influence on the evaluation.

Audit approach

As part of our audit, we analysed the evaluation process, the evaluation model including the associated parameters and the accounting principles used to determine the recoverable amount for the cash-generating unit EnBW power plants.

The short and medium-term pricing assumptions are derived from liquidity markets, contracts for forward transactions and current market data. We evaluated these pricing forecasts made on the basis of the budget prepared by the Board of Management and approved by the Supervisory Board, as well as the medium-term plans prepared by the Board of Management and acknowledged by the Supervisory Board. In addition, we assessed the plausibility of the derived pricing assumptions based on our own valuation analyses using market data.

The long-term price assumptions are derived using different scenarios, whereby the key parameters are the achievement of certain climate protection targets and the development of prices for gas, coal, oil and CO₂ allowances. These assumptions have a significant influence on the relative profitability of the individual generation capacities in the different scenarios. An economic market model is used to derive the assumptions for electricity prices. We discussed the key assumptions, scenarios and their weighting with those responsible for planning and analysed them based on external market assessments and a comparison with earlier financial years. We also made sure that we could understand any changes. We also involved our own energy market specialists in the process for evaluating the market model and the pricing assumptions. Other influencing factors are the planned costs for the power plants, which we evaluated as part of the audit by, amongst other things, questioning those responsible for planning and comparing the planned costs with the revision plans.

A special focus of the audit was an evaluation of the effects of the recommendations made by the commission on "Growth, Structural Change and Employment" ("Coal Commission"), the draft government bill to reduce and phase out coal-based power generation (Coal Phase-out Act) that were taken into account in the valuation of the coal power plants. To assess the remaining service lives of the coal power plants, we tested the approach and interpretation of management to the phase-out path taking into account the current energy policy conditions and using publicly available information such as the power plant list from the German Federal Network Agency. In addition, we assessed the influence of the remaining service lives on the valuations.

We investigated the process for determining other key valuation assumptions such as the discount rate and the market price premium with the support of our own valuation specialists on the basis of an analysis of market indicators. Furthermore, we tested the accuracy of the calculations in the valuation model.

Our audit procedures did not raise any objections with respect to the evaluation of the cash-generating unit EnBW power plants.

Reference to related information

For information on the accounting policies and methods used to evaluate the cash-generating unit EnBW power plants, please refer to the information in the notes to the consolidated financial statements in section "Significant accounting policies/Property, plant and equipment" and section "Exercise of judgement and estimates when applying accounting policies" which explain the key judgements made when evaluating the power plants.

2. Full consolidation of EnBW Hohe See GmbH & Co. KG

Reasons for being designated a key audit matter

The full consolidation of EnBW Hohe See GmbH & Co. KG in the Renewable Energies segment was another key audit matter because the full consolidation took place without any change in shareholding and the accounting and valuation of the shareholding and the identification and valuation of the associated assets and liabilities is complex and based on discretionary assumptions made by management. In our view, it is thus associated with an increased risk of incorrect accounting. As part of the full consolidation and thus the change in the method of accounting for the shares, it was also necessary to determine the fair value of the investment that was previously accounted for using the equity method. The key assumptions were, amongst other things, the expected future payment surpluses and the rate of capitalisation interest used. In addition, there is a financial statement risk that the income realised due to the disposal of the shares accounted for using the equity method was incorrectly valued.

Audit approach

As part of our audit procedures, we evaluated the key assumptions which formed the basis for the accounting and valuation as well as the identification and evaluation processes. Using a contract analysis and by questioning those responsible, we gained an understanding of the full consolidation of the shares as part of the change in the method of accounting. We assessed the process for identifying the assets that have been placed into operation and the associated liabilities based on our knowledge of the constructed wind farm and with the support of our own valuation specialists to ensure it was compliant with the requirements according to IFRS 3.

We assessed the valuation process that was carried out based on the valuation method, the accuracy of the calculations implemented in the valuation models and the valuation assumptions and valuation parameters used. We used external market assessments to evaluate the assumptions upon which the expected future payment surpluses are based. We compared the underlying assumptions and parameters used for the capital costs, especially the risk-free interest rate, market risk premium, beta factor, borrowing rate and the leverage ratio, against our own assumptions and publicly available data. We assessed the valuation model used for the valuation of the disposal of the shares accounted for using the equity method and the associated income. In addition, we checked whether the notes to the consolidated financial statements regarding the full consolidation of the wind farm were complete.

Our audit procedures did not raise any objections with respect to the full consolidation of EnBW Hohe See GmbH & Co. KG.

Reference to related information

For information on the accounting policies and methods used for the full consolidation of EnBW Hohe See GmbH & Co. KG, please refer to the information in the notes to the consolidated financial statements in section "Changes in the consolidated companies".

3. Full consolidation of Valeco SAS

Reasons for being designated a key audit matter

We classified the first-time full consolidation of Valeco SAS in the Renewable Energies segment as a key audit matter because the identification and valuation of the acquired assets and assumed liabilities is complex and based on discretionary assumptions made by management. In our view, this is associated with an increased risk of incorrect accounting. The key assumptions were, amongst other things, the expected future cash inflows and the capital costs.

Audit approach

Using our own valuation specialists, we evaluated the key assumptions, the determination of entities to be included in consolidation as well as the identification and evaluation processes used. For this purpose, we questioned the independent assessor appointed by EnBW to gain an understanding of the subsidiaries being consolidated for the first time. We evaluated the competence, skills and objectivity of the independent assessor, gained an understanding of the activities and assessed the suitability of the results as audit evidence for the relevant statements. In addition, we investigated the completeness of the data made available to the independent assessor.

We assessed the process for identifying the acquired assets and assumed liabilities to ensure it was compliant with the requirements according to IFRS 3 with the support of our own valuation specialists. We assessed the valuation process that was applied based on the valuation method, the accuracy of the calculations implemented in the valuation models and the valuation assumptions and valuation parameters used. We used external market assessments to evaluate the assumptions upon which the expected future cash inflows of the acquired project developer and operator of wind and solar farms are based. We compared the underlying assumptions and parameters used for the capital costs, especially the risk-free interest rate, market risk premium, beta factor, borrowing rate and the leverage ratio, against our own assumptions and publicly available data.

Our audit procedures did not raise any objections with respect to the first-time full consolidation of Valeco SAS.

Reference to related information

For information on the accounting policies and methods used for the first-time full consolidation of Valeco SAS, please refer to the information in the notes to the consolidated financial statements in section “Changes in the consolidated companies”.

4. Evaluation of the provisions relating to nuclear power

Reasons for being designated a key audit matter

We classified the evaluation of the provisions relating to nuclear power as a key audit matter because the recognition and subsequent measurement of the provisions are based to a large extent on the assessments and assumptions made by management. In our view, this is associated with an increased risk of incorrect accounting. The discretionary assumptions include, in particular, the decommissioning and disposal costs, which include the rate of increase in costs and are primarily derived from sector-specific appraisals made by external experts. In addition, the determination of the fixed-term discount rates has a significant underlying influence on the evaluation.

Audit approach

As part of our audit procedures, we analysed the implemented process and the accounting and valuation principles used for evaluating the provisions in the nuclear power sector and gained an understanding of the processes set up by management.

We also evaluated the key assumptions and evaluation methods on which the evaluation was based. In addition, we tested the accuracy of the calculations in the model.

We examined the external appraisals upon which the evaluation was based and which were used to derive the key assumptions. We also assessed the specialist expertise and objectivity of the independent external experts for the cost assessments. We compared the specific costs entered in the valuation model for selected decommissioning and disposal activities with the cost estimates made by the external experts. We examined the accuracy of the calculations made using the valuation model and assessed the cost increases taken into account in the process that were based on the external appraisals and experience gained by the company in previous years. Furthermore, we investigated the process for deriving the term-appropriate interest rates based on market data.

Our audit procedures did not raise any objections with respect to the valuation of the provisions relating to nuclear power.

Reference to related information

For information on the accounting policies and methods used for the evaluation of the provisions relating to nuclear power, please refer to the information in the notes to the consolidated financial statements in section “Significant accounting policies/Provisions relating to nuclear power”. Information on the development of the provisions, key valuation assumptions and valuation parameters and their sensitivities can be found in sections “Exercise of judgement and estimates when applying accounting policies” and (20) “Provisions”.

Other information

The Supervisory Board is responsible for the Report of the Supervisory Board. Furthermore, management is responsible for other information. Other information comprises the components of the Annual Report listed in the annex.

Our opinions on the consolidated financial statements and on the combined management report do not cover this other information, and consequently we do not express an 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 combined management report or our findings from the audit, or
- › otherwise appears to be materially misstated.

Responsibility of management and the Supervisory Board for the consolidated financial statements and combined management report

Management is responsible for the preparation of the consolidated financial statements, which comply, in all material respects, with IFRS, as adopted by the EU, and the additional German legal requirements applicable under section 315e (1) HGB, and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. Furthermore, management is responsible for such internal controls as management deems 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, management is responsible for assessing the Group's ability to continue as a going concern. In addition, management is responsible for disclosing, as applicable, matters related to the going concern. Furthermore, management is responsible for using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Moreover, management is also responsible for the preparation of the combined management report, which as a whole provides a suitable view of the Group's position and is consistent, in all material respects, with the consolidated financial statements, complies with German legal requirements and suitably presents the opportunities and risks of future development. Furthermore, management is responsible for such arrangements and measures (systems) as management deems necessary to enable the preparation of a combined management report in accordance with the applicable German legal requirements and to provide sufficient appropriate evidence for the assertions made in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and the combined management report.

Auditor's responsibilities for the audit of the consolidated financial statements and combined management report

Our objective is 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 combined management report as a whole provides a suitable view of the Group's position as well as being consistent, in all material respects, with the consolidated financial statements as well as the findings of our audit, complies with German legal requirements and suitably 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 the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with section 317 HGB and EU-APrVO under consideration of the German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- › identify and assess the risks of material misstatements in the consolidated financial statements and the combined 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 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 combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems;
- › evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures;
- › conclude on the appropriateness of management's 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 combined management report or, if such disclosures are inadequate, to modify our respective opinion. 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 such a manner that the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group in compliance with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to section 315e (1) HGB;
- › obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our opinions;
- › evaluate the consistency of the combined 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 forward-looking information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence, we evaluate, in particular, the significant assumptions used by management as a basis for the forward-looking information, and evaluate the proper derivation of the forward-looking information from these assumptions. We do not express a separate opinion on the forward-looking information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the forward-looking 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 on 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 EU-APrVO

We were elected as Group auditor by the Annual General Meeting on 8 May 2019. We were commissioned by the audit committee of the Supervisory Board on 26 November 2019. We have been the Group auditor of EnBW Energie Baden-Württemberg AG since the 2019 financial year.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to article 11 EU-APrVO (audit report).

Responsible auditor

The auditor responsible for the audit is Prof. Dr. Steffen Kuhn.

Stuttgart, 4. March 2020

Ernst & Young GmbH

Wirtschaftsprüfungsgesellschaft

Prof. Dr. Wollmert

Prof. Dr. Kuhn

German Public Auditor

German Public Auditor

Annex to the auditor's report:

1. Section of the Group management report not included within the scope of the audit

The following sections of the Group management report, which are part of the "Other information", were not included within the scope of the audit:

- > The Group declaration of corporate management made available to the public on the website stated in the Group management report,
- > The declaration of the legal representatives according to section 297 (2) sentence 4 HGB, which is part of the Group management report.

2. Additional other information

In addition, "Other information" includes other sections intended for the Annual Report, a version of which we received before issuing this auditor's report, especially the sections:

- > "Performance indicators of the EnBW Group",
- > "EnBW at a glance",
- > "Playing an active role in the Energiewende",
- > "The Board of Management",
- > "Letter to shareholders",
- > "Report of the Supervisory Board (condensed)",
- > "Declaration of corporate management including the corporate governance report 2019",
- > "Multi-year overview",
- > "The Supervisory Board",
- > "Offices held by members of the Board of Management",
- > "Other offices held by members of the Supervisory Board",

but not the consolidated financial statements, the information in the Group management report included within the scope of the audit or our associated auditor's report.

3. Information about the company outside of the Annual Report that is referred to in the Group management report

Alongside the cross reference to the "Section of the Group management report not included within the scope of the audit" stated under number 1, the Group management report contains other cross references to websites of the Group. The information available via the latter cross references is not part of the Annual Report.

Corporate bodies

The Supervisory Board	250
Offices held by members of the Board of Management	252
Other offices held by members of the Supervisory Board	253

The Supervisory Board

Members

- › **Lutz Feldmann, Bochum**
Independent business consultant
Chairman
- › **Dietrich Herd, Philippsburg**
Chairman of the Group works council for the EnBW Group as well as Chairman of the central works council for the "generation sector" and Chairman of the Philippsburg nuclear power plant works council for the "generation sector" of EnBW Energie Baden-Württemberg AG, Karlsruhe, Deputy Chairman
- › **Achim Binder, Stuttgart**
Deputy Chairman of the Group works council for the EnBW Group, Chairman of the central works council "grids sector" of EnBW Energie Baden-Württemberg AG and Chairman of the regional service works council of Netze BW GmbH, Stuttgart
- › **Dr. Dietrich Birk, Göppingen**
Managing Director of the Verband Deutscher Maschinen- und Anlagenbau e.V. (VDMA), Regional Association for Baden-Württemberg
- › **Stefanie Bürkle, Sigmaringen**
District Administrator of the Sigmaringen district
- › **Stefan Paul Hamm, Gerlingen**
Union Secretary/Head of the Department for Utilities and Waste Management, ver.di Baden-Württemberg
- › **Volker Hüsgen, Essen**
Chairman of the works council of Stadtwerke Düsseldorf AG until 31 December 2019
Independent works council representative since 1 January 2020
Member of the Group works council for the EnBW Group and first Deputy Chairman of the Supervisory Board of Stadtwerke Düsseldorf AG
- › **Michaela Kräutter, Stutensee**
Union Secretary for Utilities and Waste Management and State Union Secretary for Employees, ver.di Central Baden/North Black Forest district
- › **Marianne Kugler-Wendt, Heilbronn**
Regional Director of ver.di for the districts Heilbronn-Neckar-Franconia (until 30 September 2019) and Rhine-Neckar (until 30 May 2019)
- › **Thomas Landsbek, Wangen im Allgäu**
Member of the Group works council for the EnBW Group as well as Chairman of the central works council for the "market sector" and Chairman of the Stuttgart works council for the "market sector" of EnBW Energie Baden-Württemberg AG, Karlsruhe
- › **Dr. Hubert Lienhard, Heidenheim an der Brenz**
Supervisory Board
- › **Marika Lulay, Heppenheim**
Chairwoman of the Managing Directors (CEO) and member of the Board of Directors at GFT Technologies SE, Stuttgart
- › **Dr. Wolf-Rüdiger Michel, Rottweil**
District Administrator of the Rottweil district
- › **Gunda Röstel, Flöha**
Commercial Director of Stadtentwässerung Dresden GmbH and Authorised Officer of Gelsenwasser AG
- › **Jürgen Schäfer, Bissingen**
Member of the Group works council for the EnBW Group and Deputy Chairman of the works council for TransnetBW GmbH, Stuttgart
- › **Harald Sievers, Ravensburg**
District Administrator of the Ravensburg district
- › **Edith Sitzmann MdL, Freiburg**
Minister for Finance of the Federal State of Baden-Württemberg and member of the State Parliament of Baden-Württemberg
- › **Ulrike Weindel, Karlsruhe**
Member of the Group works council for the EnBW Group as well as Chairwoman of the central works council for the "functional units sector" and Chairwoman of the Karlsruhe operations for the "functional units sector" of EnBW Energie Baden-Württemberg AG, Karlsruhe
- › **Lothar Wölfle, Friedrichshafen**
District Administrator of the Lake Constance district
- › **Dr. Bernd-Michael Zinow, Karlsruhe**
Head of the functional unit Legal Services, Auditing, Compliance and Regulation (General Counsel) at EnBW Energie Baden-Württemberg AG, Karlsruhe

Status

- › Active member
- › Inactive member

Committees

Personnel committee

- > **Lutz Feldmann**
Chairman
- > Achim Binder
- > Stefan Paul Hamm
- > Dietrich Herd
- > Edith Sitzmann
- > Lothar Wölfle

Audit committee

- > **Gunda Röstel**
Chairwoman
- > Stefanie Bürkle
- > Volker Hüsgen
- > Marianne Kugler-Wendt
- > Thomas Landsbek
- > Dr. Hubert Lienhard
- > Dr. Wolf-Rüdiger Michel
- > Ulrike Weindel

Ad hoc committee (since 7 June 2010)

- > **Dr. Bernd-Michael Zinow**
Chairman
- > Dietrich Herd
- > Gunda Röstel
- > Harald Sievers

Finance and investment committee

- > **Lutz Feldmann**
Chairman
- > Achim Binder
- > Dr. Dietrich Birk
- > Stefan Paul Hamm
- > Dietrich Herd
- > Edith Sitzmann
- > Lothar Wölfle
- > Dr. Bernd-Michael Zinow

Nomination committee

- > **Lutz Feldmann**
Chairman
- > Dr. Dietrich Birk
- > Dr. Wolf-Rüdiger Michel
- > Gunda Röstel
- > Edith Sitzmann
- > Lothar Wölfle

Mediation committee (committee pursuant to section 27 (3) German Co-determination Act (MitbestG))

- > **Lutz Feldmann**
Chairman
- > Dietrich Herd
- > Thomas Landsbek
- > Edith Sitzmann

Digitalisation committee (since 1 January 2019)

- > **Dr. Hubert Lienhard**
Chairman
- > Michaela Krütter
- > Marika Lulay
- > Jürgen Schäfer
- > Harald Sievers
- > Ulrike Weindel

Status

- > Active member
- > Inactive member

Offices held by members of the Board of Management

- > **Dr. Frank Mastiaux**
Chairman
- > **Thomas Kusterer**
 - Netze BW GmbH
 - VNG AG (Chairman)
- > **Colette Rückert-Hennen**
 - EnBW Kernkraft GmbH (Chairwoman) (since 1 July 2019)
- > **Dr. Hans-Josef Zimmer**
 - Stadtwerke Düsseldorf AG (Chairman) (since 1 January 2020)
 - EnBW Kernkraft GmbH
 - Netze BW GmbH (Chairman)
 - terranets bw GmbH (Chairman)
 - TransnetBW GmbH (Chairman)
- Vorarlberger Illwerke AG
- > **Dr. Bernhard Beck**
(until 30 June 2019)
 - EnBW Kernkraft GmbH (Chairman) (until 30 June 2019)
 - Energiedienst AG
 - Stadtwerke Düsseldorf AG (Chairman) (until 31 December 2019)
 - BKK VerbundPlus, Körperschaft des öffentlichen Rechts (alternating Chairman)
 - Energiedienst Holding AG
 - Pražská energetika a.s.

Status

- > **Active member**
- > **Inactive member**

Disclosures of office holders pursuant to section 285 No. 10 German Commercial Code (HGB)

- Membership in other statutory supervisory boards
- Membership in comparable domestic and foreign control bodies of business enterprises

Further information is available at:
www.enbw.com/board-of-management

Other offices held by members of the Supervisory Board

- > **Lutz Feldmann**
Chairman
 - Villa Claudius gGmbH (Chairman)
 - Thyssen'sche Handelsgesellschaft mbH

- > **Dietrich Herd**
Deputy Chairman
 - EnBW Kernkraft GmbH

- > **Achim Binder**
 - Netze BW GmbH

- > **Dr. Dietrich Birk**
 - SRH Holding (SdbR)

- > **Stefanie Bürkle**
 - SWEG Südwestdeutsche Landesverkehrs-AG
 - Hohenzollerische Landesbank Kreissparkasse Sigmaringen, Anstalt des öffentlichen Rechts (Chairwoman)
 - Flugplatz Mengen Hohentengen GmbH (Chairwoman)
 - SRH Kliniken Landkreis Sigmaringen GmbH (Chairwoman)
 - Sparkassenverband Baden-Württemberg, Anstalt des öffentlichen Rechts
 - Verkehrsverbund Neckar-Alb-Donau GmbH (naldo) (Chairwoman)
 - Wirtschaftsförderungs- und Standortmarketinggesellschaft Landkreis Sigmaringen mbH (Chairwoman)
 - Zweckverband Oberschwäbische Elektrizitätswerke (Deputy Chairwoman)
 - Zweckverband Thermische Abfallverwertung Donautal (TAD) (Deputy Chairwoman)

- > **Stefan Paul Hamm**
 - Netze BW GmbH

- > **Volker Hüsgen**
 - AWISTA GmbH
 - Netzgesellschaft Düsseldorf mbH
 - Stadtwerke Düsseldorf AG
 - RheinWerke GmbH

- > **Michaela Kräuter**
 - Netze BW GmbH

- > **Marianne Kugler-Wendt**
 - Bausparkasse Schwäbisch-Hall AG (until 31 May 2019)
 - EnBW Kernkraft GmbH
 - SLK-Kliniken Heilbronn GmbH (until 30 September 2019)
 - Heilbronner Versorgungs GmbH
 - Stadtwerke Heilbronn GmbH
 - Heilbronn Marketing GmbH (since 1 October 2019)

- > **Thomas Landsbek**
 - BürgerEnergiegenossenschaft Region Wangen im Allgäu eG
 - Gemeindewerke Bodanrück GmbH & Co. KG

- > **Dr. Hubert Lienhard**
 - Heraeus Holding GmbH
 - SMS Group GmbH
 - Voith GmbH & Co. KGaA
 - Voith Management GmbH
 - Broetje-Automation GmbH (Chairman) (until 31 November 2019)
 - Heitkamp & Thumann KG

- > **Marika Lulay**
 - Wüstenrot & Württembergische AG
 - GFT Technologies SE

- > **Dr. Wolf-Rüdiger Michel**
 - Kreisbaugenossenschaft Rottweil e. G. (Chairman)
 - ITEOS, Anstalt des öffentlichen Rechts
 - Kreissparkasse Rottweil, Anstalt des öffentlichen Rechts (Chairman)
 - Schwarzwald Tourismus GmbH
 - SMF Schwarzwald Musikfestival GmbH
 - Sparkassen-Beteiligungen Baden-Württemberg GmbH
 - Sparkassenverband Baden-Württemberg, Körperschaft des öffentlichen Rechts
 - Wirtschaftsförderungsgesellschaft Schwarzwald-Baar-Heuberg mbH
 - Zweckverband Bauernmuseum Horb/Sulz
 - Zweckverband Oberschwäbische Elektrizitätswerke (Deputy Chairman)
 - Zweckverband Ringzug Schwarzwald-Baar-Heuberg
 - Zweckverband RBB Restmüllheizkraftwerk Böblingen (Deputy Chairman)
 - ZTN-Süd Warthausen

Status

- > **Active member**
- > **Inactive member**

Disclosures of office holders pursuant to section 285 No. 10 German Commercial Code (HGB)

- Membership in other statutory supervisory boards
- Membership in comparable domestic and foreign control bodies of business enterprises

Further information is available at:
www.enbw.com/supervisory-board

> **Gunda Röstel**

- Universitätsklinikum Carl Gustav Carus Dresden an der Technischen Universität Dresden, Anstalt des öffentlichen Rechts (Deputy Chairwoman)
- VNG AG
- Netze BW GmbH

- Hochschulrat der Technischen Universität Dresden, Körperschaft des öffentlichen Rechts (Chairwoman)
- Stadtwerke Burg GmbH

> **Jürgen Schäfer**> **Harald Sievers**

- Oberschwabenklinik GmbH (Chairman)
- SV Sparkassenversicherung Lebensversicherung AG

- Gesellschaft für Wirtschafts- und Innovationsförderung Landkreis Ravensburg mbH (WiR) (Chairman)
- Ravensburger Entsorgungsgesellschaft mbH (REAG) (Chairman)
- Bodensee-Oberschwaben Verkehrsverbund GmbH (Deputy Chairman)
- Bodensee-Oberschwaben-Bahn VerwaltungsgmbH
- Kreissparkasse Ravensburg (Chairman of the Administrative Board)
- Zweckverband Oberschwäbische Elektrizitätswerke

> **Edith Sitzmann**

- Landesbank Baden-Württemberg, Anstalt des öffentlichen Rechts (Deputy Chairwoman)
- Landeskreditbank Baden-Württemberg, Förderbank, Anstalt des öffentlichen Rechts (Chairwoman of the Administrative Board)
- Kreditanstalt für Wiederaufbau, Anstalt des öffentlichen Rechts

- Baden-Württemberg Stiftung gGmbH

> **Ulrike Weindel**> **Lothar Wölfle**

- Abfallwirtschaftsgesellschaft der Landkreise Bodenseekreis und Konstanz (Chairman)
- Bodensee-Oberschwaben Verkehrsverbund GmbH
- Bodensee-Oberschwaben-Bahn Verkehrsgesellschaft mbH (Chairman since 1 January 2020)
- Sparkasse Bodensee (Deputy Chairman since 1 January 2020)
- Zweckverband Oberschwäbische Elektrizitätswerke (Chairman)
- Zweckverband Breitband Bodensee (Deputy Chairman) (since 24 September 2019)
- Wirtschaftsförderungsgesellschaft Bodenseekreis GmbH (Chairman)
- Regionales Innovations- und Technologietransfer Zentrum GmbH (RITZ) (Deputy Chairman)

> **Dr. Bernd-Michael Zinow**

- TransnetBW GmbH
- VNG AG

Status

- > **Active member**
- > **Inactive member**

Disclosures of office holders pursuant to section 285 No. 10 German Commercial Code (HGB)

- Membership in other statutory supervisory boards
- Membership in comparable domestic and foreign control bodies of business enterprises

Further information is available at:
www.enbw.com/supervisory-board

Service

Financial terms	256
Glossary	257
Multi-year overview	260
Important notes	262

Rear cover pages:

Financial calendar 2020

On track for growth with new wind farms in the North Sea

Financial terms

Adjusted earnings figures

Adjusted earnings figures are operational earnings figures that are adjusted for non-operating effects. They include, amongst others, adjusted EBIT and adjusted Group net profit/loss.

Adjusted EBITDA

The operating profitability of companies is often measured based on adjusted EBITDA (earnings before interest, taxes, depreciation and amortisation). It describes earnings before the investment and financial results, income taxes and amortisation, adjusted for non-operating effects. The key performance indicator adjusted EBITDA is the central earnings indicator for EnBW.

Capital employed

Capital employed comprises all assets from the operating business. At EnBW, it primarily comprises property, plant and equipment in the form of power plants or grids. Non-interest-bearing liabilities – such as trade payables – are deducted.

Debt repayment potential

This future key performance indicator describes the > retained cash flow in relation to the > net debt and is the most significant performance indicator of the Group's ability to repay its debts internally. It will replace the > internal financing capability from 2021.

EBIT

EBIT stands for earnings before interest and taxes.

EBITDA

EBITDA stands for earnings before interest, taxes, depreciation and amortisation.

EBT

EBT stands for earnings before taxes.

Free cash flow

The cash flow freely available to the company for the distribution of dividends and for the repayment of debt.

Funds from operations (FFO)

FFO is the cash-relevant earnings from operating activities that is available to the company for investments, the distribution of dividends and the repayment of debt.

Internal financing capability

The key performance indicator internal financing capability describes the > adjusted retained cash flow in relation to the > net (cash) investment and is the most significant performance indicator in the period from 2017 to 2020 of the Group's ability to finance its activities internally.

Net financial debt

Net financial debt comprises the financial liabilities (including finance leases) taken on by the company less cash and cash equivalents and financial assets that are available to the company for its operating business. Financial liabilities are adjusted for valuation effects from interest-induced hedging transactions and for the portion of equity for the hybrid bonds.

Net (cash) investment and adjusted net (cash) investment

Net (cash) investment describes the overall cash-relevant investment less the overall cash-relevant divestitures in the financial year. In the 2019 financial year, the adjusted net (cash) investment was adjusted to take account of accelerated growth investment, which has already been paid for the EnBW 2025 growth strategy.

Net debt

Net debt comprises > net financial debt and the > net debt relating to pension and nuclear obligations.

Net debt relating to pension and nuclear obligations

Net debt relating to pension and nuclear obligations comprises the provisions for pensions and similar obligations and provisions relating to nuclear power. These provisions are netted against receivables relating to the dismantling of nuclear power plants and the > dedicated financial assets.

Non-operating figures

The non-operating figures include effects that cannot be predicted or cannot be directly influenced by EnBW and as such are not relevant to the ongoing management of the company. They include, amongst others, non-operating EBIT and non-operating Group net profit/loss.

Retained cash flow and adjusted retained cash flow

The retained cash flow is decisive for the > internal financing capability of EnBW. After covering ongoing costs and dividend payments, it is available to the company for investment without the need to raise additional debt. The adjusted retained cash flow is the retained cash flow adjusted to take into account the extraordinary effect of the reimbursement of the > nuclear fuel rod tax in 2017. In the 2018 financial year, the reimbursed funds were used for the repayment of debt and for strategic investments. We plan to distribute the remaining amount on a straight-line basis in the period 2019 to 2020, also for the purpose of strategic investment. Accordingly, this will lead to an increase in the adjusted retained cash flow over the period 2018 to 2020.

ROCE

ROCE is the return on capital employed in a company. The key performance indicator ROCE describes the relationship between adjusted EBIT including the adjusted investment result and the average capital employed and is thus the central value-oriented performance indicator of EnBW for assessing the return on capital employed in the relevant financial year.

WACC

WACC stands for the weighted average cost of capital and is used in combination with value-based performance indicators. The cost of capital is determined based on the weighted average cost of equity and debt together.

Glossary

A

Asset liability management (ALM) model

A model for asset liability and cash flow management. A cash flow-based model is used to determine the effects of the pension and nuclear provisions on the balance sheet, income statement and cash flow statement over the next 30 years. This ensures that the Group can cover its long-term pension and nuclear provisions within an economically viable time period using corresponding financial investments (so-called > dedicated financial assets).

Asset management

A financial asset management system facilitates the active management of investments that are used to cover pension and nuclear provisions. The central focus of this activity is to generate appropriate returns while taking into account the risks incurred.

B

Base

Base load product. The constant base level of supply/demand over a period of time.

Broadband

EnBW supports local authorities and municipal associations with tasks ranging from broadband planning and the installation of the infrastructure through to operation, as well as with the associated end-customer business (Internet, telephone and television).

Bundle

Product bundling (bundle offer) describes offering multiple products or services together in one package. Customers receive an appropriate add-on in addition to their purchase.

C

Cash pooling

Daily pooling of the cash or cash equivalents of one or multiple companies within a Group with the target of concentrating and transparently depicting them at the level of the parent company in order to optimise the interest result.

Certified Emission Reduction (CER)

Certified emission reductions from Clean Development Mechanism (CDM) projects. Pursuant to the Kyoto protocol, investors in industrialised countries earn these in developing countries with CDM emission reduction projects. 1 CER corresponds to 1 t CO₂. CERs can be used by companies to meet the obligation to return allowances under the European emissions trading system.

Clean Dark Spread (CDS)

The difference between the electricity price and the generation costs for a typical coal power station, which is calculated using the coal price, CO₂ allowance price and the degree of efficiency of the power station.

CO₂ allowances

CO₂ allowances have been traded on the Leipzig electricity exchange since 2005. If a company purchases a CO₂ allowance, it is entitled to emit 1 t CO₂.

CO₂ intensity

In the energy sector, CO₂ intensity refers to CO₂ emissions connected with electricity generation. It is measured in terms of g/kWh or t/MWh. CO₂ intensity as referred to here in the energy sector should not be confused with the meaning used in the wider economy.

Coal Commission

The Commission on Growth, Structural Change and Employment (commonly known as the Coal Commission) was appointed by the German government to present recommendations on, amongst other things, the themes of climate protection, safeguarding jobs and economic aspects related to the phase-out of coal generated power.

Combined Heat and Power Act (KWKG)

The Combined Heat and Power Act (KWKG) governs the remuneration and feed-in of electricity generated in combined heat and power plants (large CHP power plants and small decentralised CHP blocks).

Commercial paper (CP) programme

The CP programme is a flexible financing instrument and serves to issue unsecured bonds on the money market for the purpose of short-term financing.

Coverage ratio

Coverage of the pension and nuclear provisions of the Group by financial assets in the > dedicated financial assets.

CSR performance

CSR performance provides an indication of a company's entire sustainability performance. It examines measures to protect the environment and human rights, promote good working conditions and fight corruption within the traditional dimension of corporate social responsibility (CSR) and also focuses on which processes a company has established to guarantee them.

D

Debt Issuance Programme (DIP)

The DIP, also known as EMTN (Euro Medium Term Notes), is a standardised documentation platform for raising debt through the issuing of medium and long-term bonds on the capital market.

Dedicated financial assets

Dedicated financial assets are cash and cash equivalents and financial assets that are held to cover the pension and nuclear obligations.

Derivatives

Financial instruments whose price or market rate is derived from its underlying asset.

District development

District development deals with smart and sustainable urban planning, as well as connecting up, constructing and operating modern residential districts. It comprises urban infrastructure themes such as energy, grids, e-mobility, digital networking, safety and smart services.

E

EEG cost allocations

Cost allocations under the EEG (Renewable Energies Act) are charged by the transmission system operators (TSO). On the one hand, the cost allocations cover the difference between the income generated by the transmission system operators from selling the electricity from RE plants and the expenses incurred by the transmission system operators for the fixed feed-in remuneration and market premium payments to direct marketers of RE plants, while on the other hand, they also cover the costs of implementing the EEG. More than half of the electricity price for household customers today consists of taxes, duties and cost allocations. The EEG cost allocation accounts for the largest share.

Electromobility charging infrastructure

There are currently four different types of electrical connectors for charging electric vehicles. An AC charging station provides alternating current with up to 3.6 kW of electricity via a Schuko connector and up to 22 kW of electricity via a type-2 connector at each charging point. An AC/DC charging station (quick-charging station) is equipped with a CCS and CHAdeMO connector providing up to 50 kW (DC = direct current) of electricity and with a type-2 connector providing up to 43 kW (AC = alternating current) of electricity. A charging station can have multiple charging points. The actual charging output is dependent on how quickly a vehicle can charge. Starting in 2019, existing locations are upgraded with quick-charging stations with a charging output of up to 150 kW.

Energy saving contracting

The cross-discipline optimisation of building technology together with building operation based on cooperation in partnership. Investments in renovations or efficiency enhancement measures are financed through energy cost-savings.

Energy supply contracting

The outsourcing, for a specific period and for a specific area, of tasks relating to energy optimisation or utility energy supplies to a third party.

EPEX

The European Power Exchange (EPEX SPOT SE) is a stock exchange for the short-term wholesale trading of electricity in Germany, France, Austria, Switzerland and Luxembourg.

EU allowance (EUA)

EU emission allowance. An EUA entitles a company to emit 1 t CO₂. Each EU state allocates its supply of EUAs (1 EUA = 1 t CO₂) to its national companies either free of charge or via auctions.

EU Green Deal

The EU Green Deal is a package of measures from the European Union with the primary aim of making the EU climate neutral by 2050 and which contains staggered measures to achieve this goal.

F

Forward market

Market on which the supply and procurement of electricity, fuel and CO₂ allowances are traded for a future period. Usual periods include weeks, months, quarters and years. Settlement can be either physical or financial. The forward market has the primary function of acting as a price hedge.

G

Green bonds

Green bonds are issued exclusively to finance climate-friendly projects. The proceeds are invested in sustainable environmental and climate protection projects.

Greenhouse gas emissions

The increase in the concentration of various greenhouse gases, especially carbon dioxide (CO₂), increases the greenhouse effect and leads to global warming, which itself has many consequences. Alongside carbon dioxide, other greenhouse gases include methane, nitrous oxide, fluorinated hydrocarbons, sulphur hexafluoride and nitrogen trifluoride.

Greenhouse Gas (GHG) Protocol

The Greenhouse Gas Protocol (GHG Protocol) is a globally recognised standard for calculating CO₂ and greenhouse gas emissions. To identify the main sources of emission in a company, it is very important to correctly define and categorise relevant direct and indirect sources of emissions. The GHG Protocol defines the fundamental principles with respect to relevance, completeness, consistency, transparency and precision. It is based on the principles of financial accounting and divides the greenhouse gas emissions into three emission categories: Scope 1, Scope 2 and Scope 3.

H

Hedging

Hedging is a structured approach for securing against financial risks through financial transactions. Hedging involves engaging in countertrade transactions to offset a transaction or an existing position. This is usually carried out in the form of futures contracts.

HVDC

High-voltage DC transmission lines (HVDC) are used to transport electrical energy across large distances. The transmission lines use direct current for transportation as the transmission losses are lower.

I

Independent Transmission Operator (ITO)

The "Independent Transmission Operators" must fulfil the European unbundling regulations for greater liberalisation of the electricity and natural gas markets (3rd EU internal energy market package), which were implemented in the German Energy Industry Act (EnWG) in 2011. The aim of the unbundling regulations defined in the EnWG is to increase competition on the European energy market. An important prerequisite here is that the transmission grids are made available to all market participants as a neutral platform in a non-discriminatory way.

Intraday trading

Intraday trading of electricity is carried out on both the > [EPEX SPOT](#) in Paris and the OTC (Over-the-Counter) market, i.e. via contracts negotiated off-exchange between electricity purchasers and sellers. It describes the continuous purchase and sale of electricity that is delivered on the same day. Therefore, it is also described as short-term wholesale electricity trading.

Investment-grade rating

An investment-grade rating exists if a credit rating of at least Baa3 (Moody's) or BBB- (Standard & Poor's) has been issued.

N

Network Development Plan Electricity (NDP Electricity)

This plan describes the measures that need to be deployed over the next 10 and 20 years to expand and restructure the German land-based high-voltage grid to ensure the secure operation of the network. These measures make a significant contribution to the integration of rapidly growing renewable energies and thus also to the Energiewende. The NDP Electricity is prepared jointly by the four German transmission system operators every two years (since 2016), before being submitted to the German Federal Network Agency (BNetzA) as the responsible regulator.

Network Development Plan Gas (NDP Gas)

In the NDP Gas, German gas transmission system operators calculate the transportation capacities that they will require in the future. The plan is prepared every two years in close cooperation with the German Federal Network Agency (BNetzA) and in consultation with relevant market participants.

Nuclear fuel rod tax

This tax was imposed from 2011 to 2016 at a rate of €145/g of nuclear fuel employed. However, it was declared unconstitutional on 7 June 2017 and also repaid to all energy supply companies in 2017.

P

Pari passu clause

A pari passu clause (Latin "pari passu" = on equal footing) is an obligation in financial agreements (for example, in bond agreements or loan agreements). The debtor/issuer obligates themselves during the term of the uncollateralised financial liability (for example, bond or loan) to the principle of equality, meaning future uncollateralised financial liabilities will not be given precedence over the existing financial liability.

R

Repowering

Old power plants for generating energy are replaced by newer and more efficient ones. The term is mainly used in connection with wind turbines.

S

Sectoral productivity factor (Xgen)

The sectoral productivity factor (Xgen) reflects the difference between cost developments in the efficient operation of electricity and gas grids and the development of prices within the whole economy. It is used as an adjustment factor for the consumer price index and is taken into account in the revenue cap for the grid operators.

Sector coupling

Sector coupling is the networking of electricity, heating, mobility and industrial processes for the purpose of lowering carbon dioxide emissions. As sector coupling offers synergy effects in the integration of high proportions of renewable energies, it is viewed as a key concept for the Energiewende and the development of energy systems using 100% renewable energies. There is a general consensus that sector coupling is necessary for the implementation of the Energiewende and the achievement of climate protection targets.

Smart grid

The smart electricity grid: a communication and control network that monitors and optimises the operation of its interconnected elements – from electricity generators, storage systems, consumers of electricity and network operating equipment in energy transmission and distribution grids. The aim is to optimise the supply of energy by operating the system efficiently, reliably and cost-effectively.

Special technical equipment for grids

Special technical equipment for grids are generation plants that will secure the electricity supply in the event of grid-related supply bottlenecks after the last nuclear power plants have been shut down.

Spot market

Market on which electricity supply and procurement quantities are offered and requested for the following day.

System services

The complete set of services required to ensure the quality of electricity supplies: provision of operating reserves, maintaining frequency stability, maintaining voltage levels, re-establishing supply, management services.

T

TCFD (Task Force on Climate-related Financial Disclosures)

The Task Force on Climate-related Financial Disclosures (TCFD) has developed recommendations for the climate-related opportunity and risk reporting by companies. Companies are encouraged to disclose climate-related information – in the four key areas of Governance, Strategy, Risk Management and Metrics and Targets – where such information is considered material for the company. EnBW is represented on the international task force appointed by the G20 through its Chief Financial Officer Thomas Kusterer (www.fsb-tcfd.org).

TEG (Technical Expert Group on Sustainable Finance)

The European Commission set up an expert group in July 2018 with the task of drawing up key aspects for the development of a sustainable financial system for the European internal market. Alongside the development of a taxonomy for sustainable economic activity, the aim is to develop minimum standards for green bonds and sustainability benchmarks, as well as to update the non-binding guidelines on non-financial disclosure while paying particular consideration to climate-related information. The Chief Financial Officer of EnBW, Thomas Kusterer, was appointed to the expert group.

V

Virtual power plant

A virtual power plant is a business segment where products are marketed through a single platform that increases the value of decentralised energy plants – renewable energies, storage systems, loads – by bundling, marketing and optimising them together.

Multi-year overview

Financial and strategic performance indicators

EnBW Group		2019	2018	2017	2016	2015
Earnings						
External revenue ²	in € million	18,765	20,815	21,974	19,368	21,167
TOP Adjusted EBITDA	in € million	2,433	2,158	2,113	1,939	2,110
EBITDA	in € million	2,245	2,090	3,752	731	1,918
Adjusted EBIT	in € million	945	958	999	1,025	1,182
EBIT	in € million	597	876	2,504	-1,663	277
Group net profit/loss ¹	in € million	734	334	2,054	-1,797	158
Earnings per share from Group net profit/loss ¹	in €	2.71	1.23	7.58	-6.64	0.58
Balance sheet						
Non-current assets	in € million	29,321	24,643	24,878	23,382	24,388
Total assets	in € million	43,288	39,609	38,785	38,535	38,158
Equity	in € million	7,445	6,273	5,863	3,216	5,123
Equity ratio	in %	17.2	15.8	15.1	8.3	13.4
Net financial debt	in € million	6,022	3,738	2,918	3,654	3,329
Coverage ratio ALM	in %	48.1	51.8	53.3	60.8	74.2
Cash flow						
Retained cash flow	in € million	1,241	999	3,050	950	1,718
TOP Internal financing capability ²	in %	82.6	92.2	111.9	72.1	347.8
Total investment ²	in € million	3,315	1,786	1,770	2,585	1,462
Profitability						
TOP Return on capital employed (ROCE)	in %	5.2	6.5	7.3	7.8	9.5
Weighted average cost of capital before tax	in %	5.2	6.3	6.3	6.9	6.9
Average capital employed	in € million	19,315	16,053	15,120	13,761	13,627
Value added	in € million	0	32	151	124	354
Sales						
Electricity	in billions of kWh	153	137	122	115	115
Gas ²	in billions of kWh	297	329	250	139	135
Sales						
Electricity sales ²	in billions of kWh	37	38	40	44	48
Gas sales ²	in billions of kWh	74	68	57	54	82

Financial and strategic performance indicators

EnBW Group		2019	2018	2017	2016	2015
External revenue ²	in € million	7,679	7,348	7,354	7,771	9,061
TOP Adjusted EBITDA ²	in € million	294	268	330	250	255
Grids						
External revenue	in € million	3,460	3,215	7,472	6,644	6,351
TOP Adjusted EBITDA	in € million	1,311	1,177	1,046	1,004	747
Renewable Energies						
Electricity sales	in billions of kWh	3	2	2	3	3
External revenue	in € million	653	478	508	511	447
TOP Adjusted EBITDA	in € million	483	298	332	295	287
Generation and Trading						
Electricity sales ²	in billions of kWh	112	97	80	68	65
Gas sales ²	in billions of kWh	223	260	193	85	53
External revenue ²	in € million	6,970	9,768	6,631	4,434	5,300
TOP Adjusted EBITDA ²	in € million	384	431	377	337	777

1 In relation to the profit/loss attributable to the shareholders of EnBW AG.

2 The figures for the 2018 financial year have been restated.

Non-financial performance indicators

	2019	2018	2017	2016	2015
Customers and society goal dimension					
TOP Reputation Index	52.8	51.3	52.1	50.0	48.5
TOP EnBW/Yello Customer Satisfaction Index ¹	116/157	120/152	143/161	132/150	136/152
TOP SAIDI (electricity) in min./year	15	17	19	16	15
Employees goal dimension					
TOP Employee Commitment Index (ECI) ²	66	62	60	59	60
TOP LTIF for companies controlled by the Group ³ /LTIF overall ⁴	2.1/3.8	2.3/3.6	3.0/- ⁵	3.9/- ⁵	3.8/- ⁵
Environment goal dimension					
TOP Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE in %	4.4/31.8	3.7/27.9	3.4/25.8	3.1/23.1	3.1/23.6
TOP CO ₂ intensity in g/kWh	419	553	556	577	606

1 EnBW has been working together with a new market research company since 2017. Despite using the same survey methodology and random sampling, current and earlier values are only comparable to a limited extent.

2 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered [except ITOs]).

3 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except for companies in the area of waste management as well as external agency workers and contractors).

4 Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered except for external agency workers and contractors).

5 This performance indicator has only been compiled since 2019. No figures for the comparative periods 2017 to 2015 are available.

Important notes

Published by

EnBW Energie Baden-Württemberg AG

Coordination and editor

Communication Media & Events, Karlsruhe

Concept and design

Truffle Bay Management Consulting GmbH, Munich

Illustrations

Jindrich Novotny, Hanover

Photos for image section

EnBW Energie Baden-Württemberg AG; Uli Deck, Karlsruhe; Rolf Otzipka, Hamburg; Ingo Rack, Bad Buchau; Sebastian Spasic, Delbrück

Photos of the Board of Management

Catrin Moritz, Essen; Uli Deck, Karlsruhe; Paul Gärtner, Karlsruhe

Photo of the Supervisory Board

Matthias Hangst, Karlsruhe

Typesetting

In-house using ns.publish

Printed by

Elanders GmbH, Waiblingen
Printed on RecyStar Polar
(Recycled paper with Blue Angel certification,
produced climate neutrally)

ISBA: R.3616.2003

Publication of the Integrated
Annual Report 2019: 26 March 2020

Contact

General

Phone: 0800 1020030 (only within Germany)
E-mail: kontakt@enbw.com
Internet: www.enbw.com

Investor Relations

E-mail: investor.relations@enbw-ir.com
Internet: www.enbw.com/investors



www.twitter.com/enbw

Publication in the German Federal Gazette

The complete consolidated financial statements prepared by EnBW Energie Baden-Württemberg AG and audited by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft and the management report, which is combined with the Group management report, will be published in the German Federal Gazette (“Bundesanzeiger”) together with the unqualified audit opinion. The necessary documents will be submitted to the German Federal Gazette (“Bundesanzeiger”) by 30 April 2020 at the latest.

No offer or investment recommendation

This report has been prepared for information purposes only. It does not constitute an offer, an invitation or a recommendation to purchase or sell securities issued by EnBW Energie Baden-Württemberg AG (EnBW), a company of the EnBW Group or any other company. This report also does not constitute a request, invitation or recommendation to vote or give consent. All descriptions, examples and calculations are included in this report for illustrative purposes only.

Forward-looking statements

This report contains forward-looking statements which are based on current assumptions, plans, estimates and forecasts made by the management of EnBW. Forward-looking statements of this kind are therefore only valid at the time they were first published. Forward-looking statements are indicated by the context, but may also be identified by the use of the words “can”, “will”, “should”, “plans”, “intends”, “expects”, “thinks”, “estimates”, “forecasts”, “potential”, “continued” and similar expressions.

By nature, forward-looking statements are subject to risks and uncertainties that cannot be controlled or accurately predicted by EnBW. Actual events, future results, the financial position, development or performance of EnBW and the companies of the EnBW Group may therefore diverge considerably from the forward-looking statements made in this report. Therefore, it cannot be guaranteed nor can any liability otherwise be assumed that these forward-looking statements will prove complete, correct or precise, or that expected and forecast results will actually occur in the future.

No obligation to update the information

EnBW assumes no obligation of any kind to update the information contained in this report or to adjust or otherwise update forward-looking statements to future events or developments. This Annual Report can also be downloaded from the Internet in German or English. In cases of doubt, the German version shall be authoritative.



Financial calendar 2020

• **26 March 2020**

Publication of the Integrated
Annual Report 2019

• **Annual General Meeting 2020**

Due to the current COVID-19 crisis, the Annual General Meeting
has been postponed. A new date has not yet been set.

• **15 May 2020**

Publication of the Quarterly Statement
January to March 2020

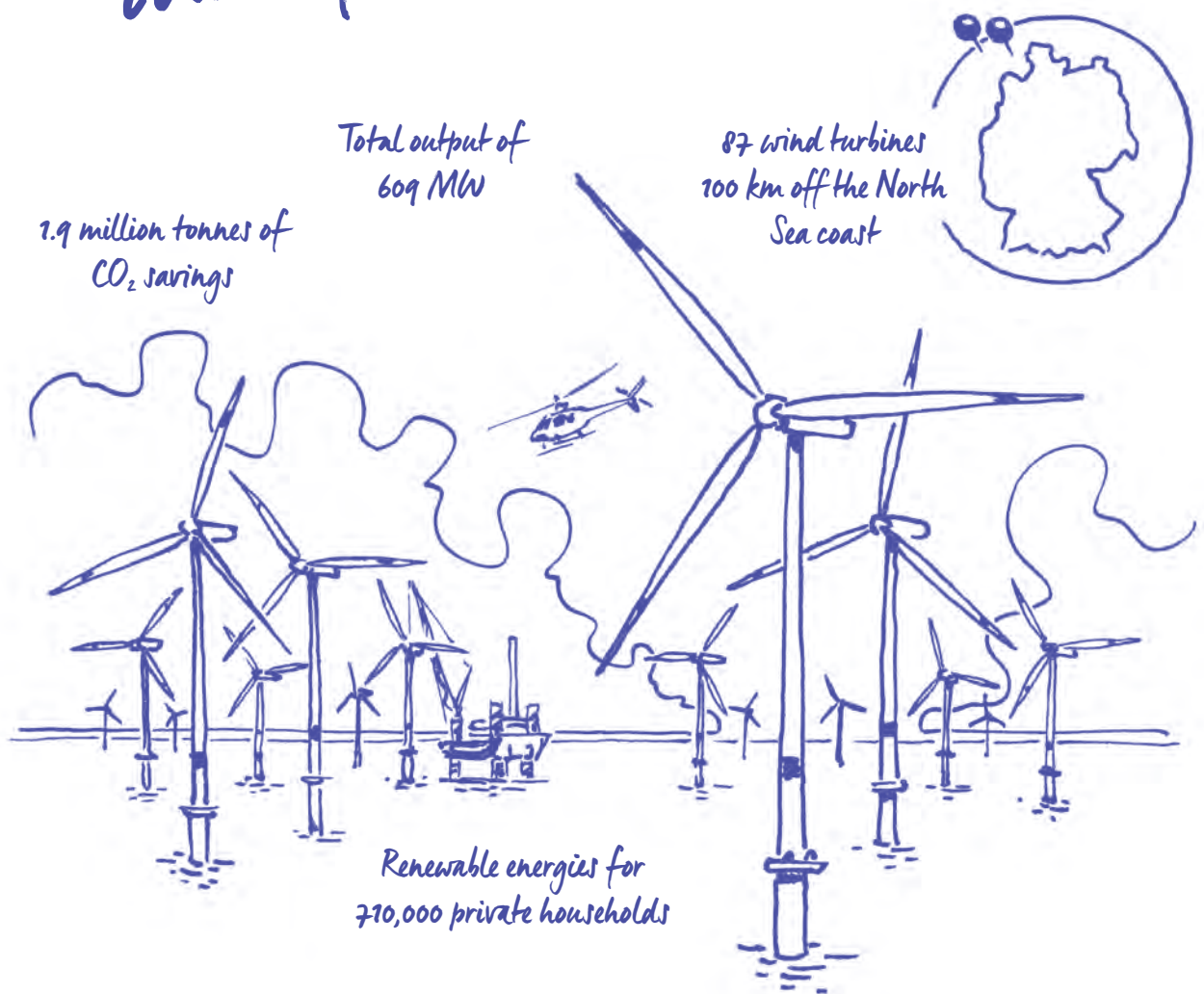
• **30 July 2020**

Publication of the Six-Monthly Financial Report
January to June 2020

• **13 November 2020**

Publication of the Quarterly Statement
January to September 2020

On track for growth with new wind farms in the North Sea



Completed in 2019, EnBW Hohe See and EnBW Albatros have a total capacity of 609 MW, which makes these two wind farms the largest offshore project to be built in Germany to date.

We are continuing to push forward the expansion of renewable energies and are planning to construct the EnBW He Dreiht wind farm in the North Sea with 900 MW of output – for the first time without state funding.

