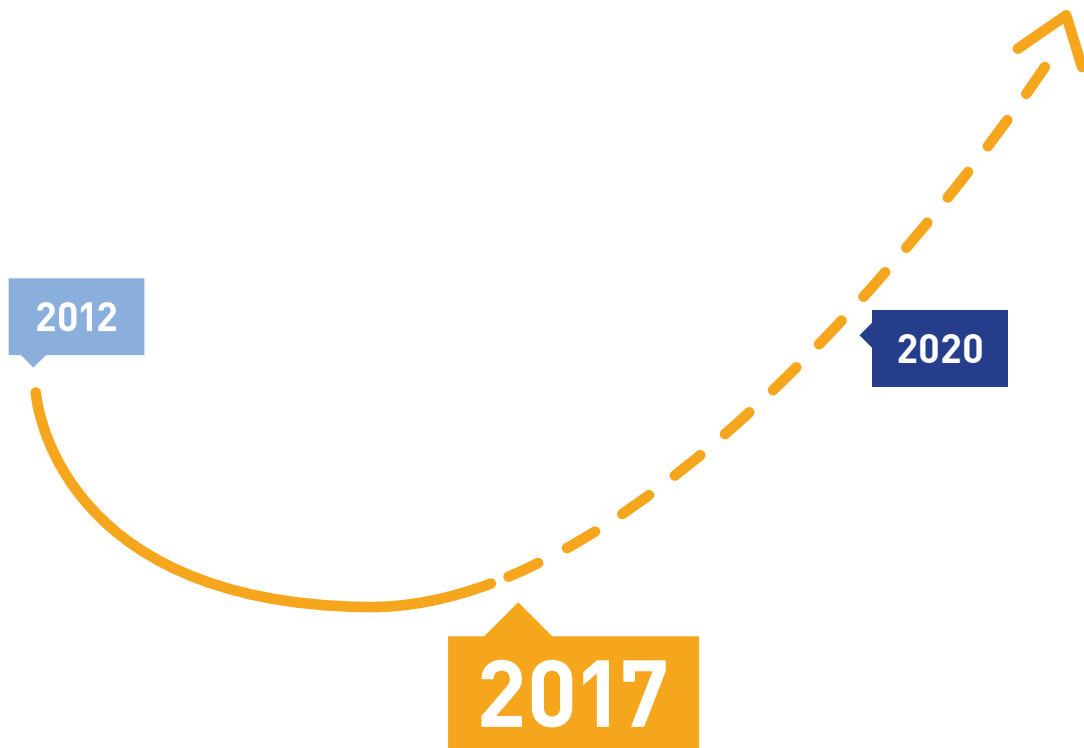


# Integrated Annual Report 2017

Excluding the notes and  
the declaration of corporate management



**On track**  
2020 strategy

# Performance indicators of the EnBW Group

## Financial and strategic performance indicators

in € million	2017	2016	Change in %
External revenue	21,974.0	19,368.4	13.5
<b>TOP</b> Adjusted EBITDA	2,113.0	1,938.9	9.0
<b>TOP</b> Share of adjusted EBITDA accounted for by Sales in € million/in %	330.0/15.6	249.7/12.9	32.2/-
<b>TOP</b> Share of adjusted EBITDA accounted for by Grids in € million/in %	1,045.9/49.5	1,004.1/51.8	4.2/-
<b>TOP</b> Share of adjusted EBITDA accounted for by Renewable Energies in € million/in %	331.7/15.7	295.3/15.2	12.3/-
<b>TOP</b> Share of adjusted EBITDA accounted for by Generation and Trading in € million/in %	377.1/17.8	337.2/17.4	11.8/-
Share of adjusted EBITDA accounted for by Other/Consolidation in € million/in %	28.3/1.4	52.6/2.7	-46.2/-
EBITDA	3,752.4	730.7	-
Adjusted EBIT	998.8	1,024.5	-2.5
EBIT	2,504.0	-1,662.9	-
Group net profit/loss <sup>1</sup>	2,054.1	-1,797.2	-
Earnings per share from Group net profit/loss in € <sup>1</sup>	7.58	-6.64	-
Retained cash flow	3,050.3	949.5	-
Retained cash flow II	1,529.5	949.5	61.1
Net (cash) investments	1,367.1	1,316.9	3.8
<b>TOP</b> Internal financing capability in %	111.9	72.1	55.2
Net financial debt <sup>2</sup>	2,917.8	3,653.8	-20.1
Coverage ratio ALM in % <sup>2</sup>	52.9	60.8	-
<b>TOP</b> Return on capital employed (ROCE) in % <sup>2</sup>	7.3	7.8	-
Weighted average cost of capital before tax in %	6.3	6.9	-
Average capital employed <sup>2</sup>	15,146.1	13,760.9	10.1
Value added <sup>2</sup>	151.5	123.8	22.4

## Non-financial key performance indicators

	2017	2016	Change in %
Customers and society goal dimension			
<b>TOP</b> Reputation Index	52.1	50.0	4.2
<b>TOP</b> EnBW/Yello Customer Satisfaction Index <sup>3</sup>	143/161	132/150	8.3/7.3
<b>TOP</b> SAIDI (electricity) in min./year	19	16	18.8
Employees goal dimension			
<b>TOP</b> Employee Commitment Index (ECI) <sup>4</sup>	60	59	1.7
<b>TOP</b> LTIF <sup>4</sup>	3.0	3.9	-23.1
Environment goal dimension			
<b>TOP</b> Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE in %	3.4/25.9	3.1/23.1	9.7/12.1
<b>TOP</b> CO <sub>2</sub> intensity in g/kWh	556	577	-3.6

## Employees of the EnBW Group<sup>5</sup>

	31/12/2017	31/12/2016	Change in %
Employees	21,352	20,409	4.6
Full-time equivalents <sup>6</sup>	19,939	18,923	5.4

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

2 The figures for the previous year have been restated.

3 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.

4 Variations in the group of consolidated companies; see also the definition of key performance indicators on page 30.

5 Number of employees excluding marginally employed persons, apprentices/trainees and inactive employees.

6 Converted into full-time equivalents.

# Profile 2017

2012

**On track.** EnBW reached an important milestone in the history of the company in 2017: a turning point in earnings on the basis of a realigned business portfolio. We thus remain on track to achieve our goals in the EnBW 2020 strategy and anticipate that we will once again reach the same level of earnings in 2020 as in 2012.


The further development of the EnBW strategy post 2020 is picking up speed: Based on our core expertise – the safe and reliable operation of critical infrastructure in the energy sector – we want to increasingly place the strategic focus of our company on the aspect of infrastructure within our existing business fields and also exploit new growth opportunities above and beyond the energy sector.

EnBW is one of the largest energy supply companies in Germany and Europe with a workforce of more than 21,000 employees and supplies electricity, gas, water and energy solutions and energy industry services to around 5.5 million customers. We aim to further strengthen our position as a sustainable and innovative infrastructure partner for customers, citizens and local authorities to an even greater extent.

2017

2020

Note: The full set of financial statements of the EnBW Group 2017 including the notes to the consolidated financial statements and the declaration of corporate management 2017 of the EnBW Group and EnBW AG, as well as the corporate governance report 2017 are available to download on our website [www.enbw.com/report2017](http://www.enbw.com/report2017).

 A detailed table of contents with an explanation on how to navigate through the report can be found on the rear cover.

# On track

EnBW has been changing more profoundly than ever before since 2012. This is necessary to accomplish the goals in the 2020 strategy. The company already reached crucial milestones such as the turning point in earnings in 2017.



2012

€2.4 billion  
adjusted EBITDA



2017

€2.1 billion  
adjusted EBITDA



2020

€2.4 billion  
adjusted EBITDA

2012

## Strategy defined for 2020

The phasing out of nuclear power, tougher competition and climate change have caused upheaval in the energy sector. EnBW was one of the first energy companies that decided to undergo radical change. In cooperation with managers and employees selected from all areas of the company, the Board of Management developed the 2020 strategy and since then, EnBW has been reorganising its business portfolio and exploiting new growth opportunities. The strategy focuses above all on the expansion of renewable energies and the grids. In addition, it concentrates on the development of new products and services for customers.

2017

## Financial trend reaches turning point

EnBW cleared an important strategic hurdle in 2017. The annual operating result rose again for the first time since 2010. An important intermediate goal of the strategy has thus been achieved because the cost of the Energiewende and the fall in electricity prices had caused the profits of EnBW to collapse. The Group countered these problems and radically simplified its structures so that today it can work more economically. EnBW spends €1 billion less per year than in 2012. This amount is set to rise to €1.4 billion per year by 2020. At the same time, increasing revenue and the expansion of renewable energies and the grids have supported the turnaround in earnings. They are making a growing contribution to the Group net profit – with, for example, the expansion of onshore wind power having a significant positive impact in 2017.

We are making every effort to further increase profits. EnBW is already earning more today through renewable energies and the grids than through gas and coal power plants. In addition, we are investing in innovative and digital products: We are developing modern storage systems, smart street lighting and virtual platforms for trading electricity and gas. But we are not travelling this road alone. We are also opening ourselves up to companies that are not from the energy industry. For example, we now have start-ups as important partners. EnBW identifies these companies outside of the Group or builds them up itself – such as at the Innovation Campus in Karlsruhe or the Company Builder in Stuttgart.



2020

## Time is on our side

We will do all we can to once again achieve earnings of €2.4 billion by 2020 and thus reach the same level as in 2012 – yet we will achieve this result under totally different conditions: renewable energies, grids and sales will contribute 85 % of the net profits. The share of the generation capacity accounted for by renewable energies will increase from the current figure of just under 26 % to 40 %. This period of radical change is likely to come to an end by 2020. We will then concentrate on growth and innovation to secure new markets.

Development of adjusted EBITDA  
in € billion



2025

## Prospects for growth

Alongside our existing growth fields of renewable energies, grids and sales, we have identified future growth fields in the area of critical infrastructure – i.e. systems that maintain important social functions. These are not only found in the energy sector but also in adjacent fields such as transport or telecommunications. EnBW can safely manage large, complex energy plants, extensive electricity and gas grids and highly complicated IT systems. We want to transfer this expertise to other sectors. The infrastructure market in Germany is highly attractive. In the next ten years alone, investment will increase by 50 percent to €150 billion – both within the energy system and also in adjacent sectors.

Group management did not develop the 2020 strategy on its own. Employees contributed their ideas in workshops and seminars.



## A look ahead to the future. Three questions for ...

### Question: Why is the energy sector changing so profoundly?

An important reason is the trend towards decarbonisation due to climate protection. Technical developments mean that renewable energies are today often cheaper than conventional energy even without subsidies. Another driver of this change is digitalisation. Customers expect innovations from energy companies that are already commonplace in other sectors.

### Question: What challenges do companies still face?

Energy companies need to focus on future sectors in which they are highly proficient – such as offshore wind or energy-related services. This will enable them to succeed against strong and new competitors from other sectors and exploit important growth opportunities. This applies above all to the end-customer business but also to the areas of infrastructure or renewable energies.

### Question: How will the energy world look in the future?

An important trend is the coupling of various different sectors of the energy industry. Electric cars could be used as storage systems for the electricity grid, while the areas of electricity, heating and gas could be combined in sustainable residential districts. The energy industry will experience another period of profound change due to this type of networking.

“Energy companies need to focus on future sectors in which they are highly proficient.”

Frank Klose,  
The Boston Consulting Group

Frank Klose is a Senior Partner and Managing Director of the strategy consultants The Boston Consulting Group (BCG). One of his specialist areas is the energy industry.



# Tailwind

The expansion of renewable energies is a central component of the future plans of EnBW. An important role will be played here by wind power – an area in which the company has already realised important projects today.



2012

**48 MW**

installed output from offshore wind energy

2017

**336 MW**

installed output from offshore wind energy

2020

**945 MW**

installed output from offshore wind energy





2012

## First milestones

Concerns about the global climate and society's demands for renewable energies have provided photovoltaics and wind power with new impetus. The expansion of renewable energies has become a core component of our strategy. Alongside onshore wind power, the massive expansion of offshore wind power in particular is making a decisive contribution. We already achieved the first milestone in 2011 when EnBW Baltic 1 was connected to the grid – the first commercial wind farm in the German Baltic Sea. Its installed output of 48 MW supplies electricity for an aggregate of around 50,000 households. In the same year, the German government decided to phase out nuclear power.

2017

## Expansion of wind power on land and at sea

We have significantly increased offshore wind power output in the last few years. EnBW Baltic 2 was connected to the grid in 2015 – with more than five times as much output as EnBW Baltic 1. The electricity generated by the wind farm supplies an aggregate of around 340,000 households. We are now moving from the Baltic Sea to even larger projects in the North Sea. The construction of two new wind farms has begun far beyond the coast of Helgoland – EnBW Albatros and EnBW Hohe See. They will feature a total of 87 turbines – only a few more than at EnBW Baltic 2. However, the individual turbines are significantly more powerful and demonstrate the technical developments that have taken place in the offshore wind industry.

This technical progress has also had an impact on land. In 2017, we placed onshore wind farms with an output of 204 MW into operation. Three quarters of these were located in Baden-Württemberg. Our onshore wind farms have a total output of 540 MW – more than three times as much as in 2012. Wind power plants do not only need to be planned and constructed, but also maintained. In order to continue to grow in this attractive business field, EnBW acquired the service provider Connected Wind Services in 2016 – a specialist in wind farm maintenance. In cooperation with the company's own operations managers, this company has thus become a powerful full-service provider in the area of wind power.

Alongside the expansion of renewable energies and the phasing out of nuclear power, the operation of our conventional power plants forms a third important pillar of our power plant business. Conventional power plants will still safeguard the reliable supply of electricity for a long time to come – especially at times when solar and wind power plants cannot generate enough electricity. To ensure we are well equipped for this task, we are optimising our conventional power plants: old coal-fired blocks are being transferred to the reserve and later decommissioned. Priority is being given to new, modern and highly efficient power plants. For example, our combined heat and power plant in Stuttgart-Gaisburg – a power plant that has so far been primarily fired with coal – is being replaced by a flexible gas power plant. This will reduce the CO<sub>2</sub> emissions and secure the environmentally friendly supply of district heating in Stuttgart, while the combined heat and power plant itself will integrate even better into the cityscape of Stuttgart.

2020

### Venturing abroad

We want to increase the share of our generation capacity accounted for by renewable energies to 40 % by 2020 – more than twice as much as in 2012. The EnBW Albatros and EnBW Hohe See wind farms with an output of more than 600 MW will be connected to the grid in 2019. The wind farms are located close to one another and will jointly make use of the maintenance and supply infrastructure. They will have twelve times as much output in total as the first wind farm EnBW Baltic 1. EnBW also wants to benefit from the growth of the offshore wind market abroad and will develop three offshore wind projects off the coast of Taiwan together with partners. In contrast, operations at the nuclear power plants will soon cease. The last two nuclear power plant blocks operated by EnBW will be disconnected from the grid in 2019 and 2022, respectively.

**Development of adjusted EBITDA  
Renewable Energies, Generation and Trading**  
in € billion



2025

### A superlative wind farm

As things currently stand, our largest offshore wind farm EnBW He Dreiht is due to be connected to the grid in 2025. The plans envisage the erection of 100 turbines with a total output of 900 MW. We want to increase our offshore capacity to around 2,500 MW over the long term. The face of the energy industry will also continue to change on land. The expansion of decentralised generation such as onshore wind power and photovoltaics means that energy will be generated in many different locations. These generators need to be sensibly networked so that they can feed in, sell or consume electricity, while the overall system remains stable despite the numerous players on the market. Many different measures will contribute to the constant balancing of supply and demand – such as virtual power plants, smart meters or modern electricity storage systems.



## A look ahead to the future. Three questions for ...

### **Question: When will it be possible to exclusively rely on renewable energies in Europe?**

The EU has set the goal of generating half of the required electricity from renewable energies by 2030. Electricity generation should then be fully decarbonised by 2050. However, electricity only accounts for 22% of the overall energy consumption in Europe. The rest is spread across the areas of heating and transport. Renewable energies currently account for 18% of the energy consumed for heating and only 6% of the energy consumed for transport. These values also need to increase significantly.

### **Question: The expansion of renewable energies requires acceptance amongst the general population. How do we win acceptance?**

It is important to involve the population in the planning of new onshore wind farms. Modernisation of the wind farms at the end of their 20 year service lives can also increase acceptance. After all, the turbines of today are much more powerful than in the past. 69 old turbines were recently replaced at a wind farm in Spain. Seven new turbines now generate twice as much electricity as before.

### **Question: How uniform is the expansion of renewable energies worldwide?**

There has been significant growth in renewable generation around the world. However, there are differences between the various regions. This becomes particularly clear if you examine the geographical distribution of the 540 GW of installed global output in 2017. There was 178 GW of output attributable to Europe, with 56 GW in Germany. Yet thanks to the massive expansion in China, the figure for Asia was 229 GW, while 105 GW was attributable to North America.

In the area of onshore wind power, EnBW will not limit itself to only the German market but will also invest in major projects abroad.



“It is important to involve the population in the planning of new onshore wind farms.”

Giles Dickson,  
WindEurope

**Giles Dickson has been CEO of the European wind energy association WindEurope in Brussels since 2015. He previously worked for the Alstom Group in France and for the British government.**



# In close proximity

The changes to the energy world will have an impact on all areas of life. We are developing smart and useful solutions for our customers that will make their lives easier and reliably cover their need for electricity and heating now and in the future.



2012

0  
quick-charging  
stations



2017

128  
quick-charging  
stations

2020

1,000  
quick-charging  
stations



2012

## Business model no longer viable

For a long period of time, EnBW primarily supplied electricity, gas, heating and water to its end customers. Since 2012, we are no longer limiting ourselves to just this role but are rather expanding renewable energies and offering new energy solutions to our customers.

2017

## Life becomes easier

In the past five years, EnBW has managed to develop numerous new products for its customers and launch them onto the market. This is demonstrated above all in the area of electromobility, where EnBW is today the number 1 in Germany with over 120 quick-charging stations. In Baden-Württemberg we have developed a comprehensive charging network covering more than 300 locations. This will enable us to exploit the benefits of networked technology and help electromobility to make the breakthrough more quickly. This starts with making payment easier. Therefore, we are combining our charging network with those from other suppliers. Electric cars were able to be charged at more than 11,000 charging stations in Germany, Austria and Switzerland using the EnBW mobility+ charging card by the end of 2017 – from different suppliers but always at the same price.

The right choice of vehicle is also important so that customers feel happy with an electric car. The EnBW mobility+ app recommends a vehicle model for customers that precisely matches their requirements. In addition, it guides them to the nearest charging station. EnBW mobility+ has really struck a chord with this service and it has become the most downloaded electromobility app in Germany.

Simple solutions are important in a complex energy world where customers are both generators and consumers all at the same time. Anyone who owns their own home does not necessarily have to feed the solar electricity generated on the roof into the grid today as they did before. EnBW solar+ enables users to utilise it to a large extent for their own consumption and share it with others: The product combines a photovoltaic power plant, storage system for the home and access to an energy community. In the past year, 680 customers have chosen to purchase EnBW solar+ and more than 300 systems have already been installed.



We often develop ideas for new products within our own ranks. Our Innovation Campus in Karlsruhe launched, for example, the multifunctional street lighting SM!GHT onto the market. It is not just a street light but also provides Internet access, measures environmental data or is equipped with a socket for charging electric vehicles. And the proportion of new business models is growing. Nine new projects were developed by Group-wide innovation management in 2017 alone.

2020

### The energy manager next door

People are increasingly becoming independent generators and consumers of energy. We want to make this possible for them through our products and services. Charging an electric car will soon not only be possible via a charging card but also via the EnBW mobility+ app. We also aim to expand the number of our quick-charging stations to 1,000 by 2020. To reduce charging times even further, we will gradually improve their performance to at least 150 kW and build quick-charging hubs in conurbations – such as in car parks where several e-cars can charge their batteries at the same time.

The ability to store and share self-generated solar electricity using EnBW solar+ will be successively expanded. It will soon be possible to also connect electromobility and heating to this smart system. The decentralised energy landscape will become a highly complex system. EnBW will use its experience to ensure that its customers can easily benefit from the energy system of the future.



2025

### Power plant? What power plant?

The number of wind, photovoltaic and biomass power plants is growing. Their output can be combined and controlled. These invisible virtual power plants are still in their infancy but will become a reality by 2025. EnBW is developing the modern IT platforms required to operate them. This networked technology should guarantee the security of supply and also help customers to sell their self-generated energy at an appropriate price on the market.

Development of adjusted EBITDA Sales  
in € billion



## A look ahead to the future. Three questions for ...

### **Question: What developments will shape the cities of tomorrow the most?**

The cities of the future will be shaped by digitalisation, decentralisation, partial dematerialisation and, above all, networking. The reasons for these developments are that we need to become more efficient, sustainable, resilient and cooperative to secure our future viability. All of these aspects are already influencing and changing the energy industry today.

### **Question: How important will the role of energy be in the smart cities of tomorrow?**

There can be no smart cities without a reliable and sufficient supply of energy. Smart cities will aspire to be sustainable but will also consume huge amounts of energy at the same time. We will utilise the opportunities offered by automation and the integration of digitalisation to a much greater extent and thus not only become much more efficient but also generate additional consumption. Therefore, we require an urban Energiewende. The competition for space and high demand for energy per square metre in cities make this transformation very challenging. It is also for this reason that the process should run hand in hand with urban planning and the residents.

### **Question: What do energy companies need to do for their customers in urban areas?**

The task of the energy supply companies and municipal utilities will be to shape the urban Energiewende. At the same time, they need to update their business models for the future and adapt them to the changing nature of public services and the associated demand. We view the supply companies as the city managers of the future. Until then, the task is to protect the interface to customers and accompany them into the future with suitable sales solutions and services. Those companies who are reliable and forward-looking should be able to defend their position against new players.

The boundaries between energy and mobility are becoming blurred. Customers will be able to take advantage of the benefits of this new era thanks to new products from EnBW. Self-generated solar electricity can, for example, be stored and sold together with that of other customers via tablet.



“Smart cities will aspire to be sustainable but will also consume huge amounts of energy at the same time.”

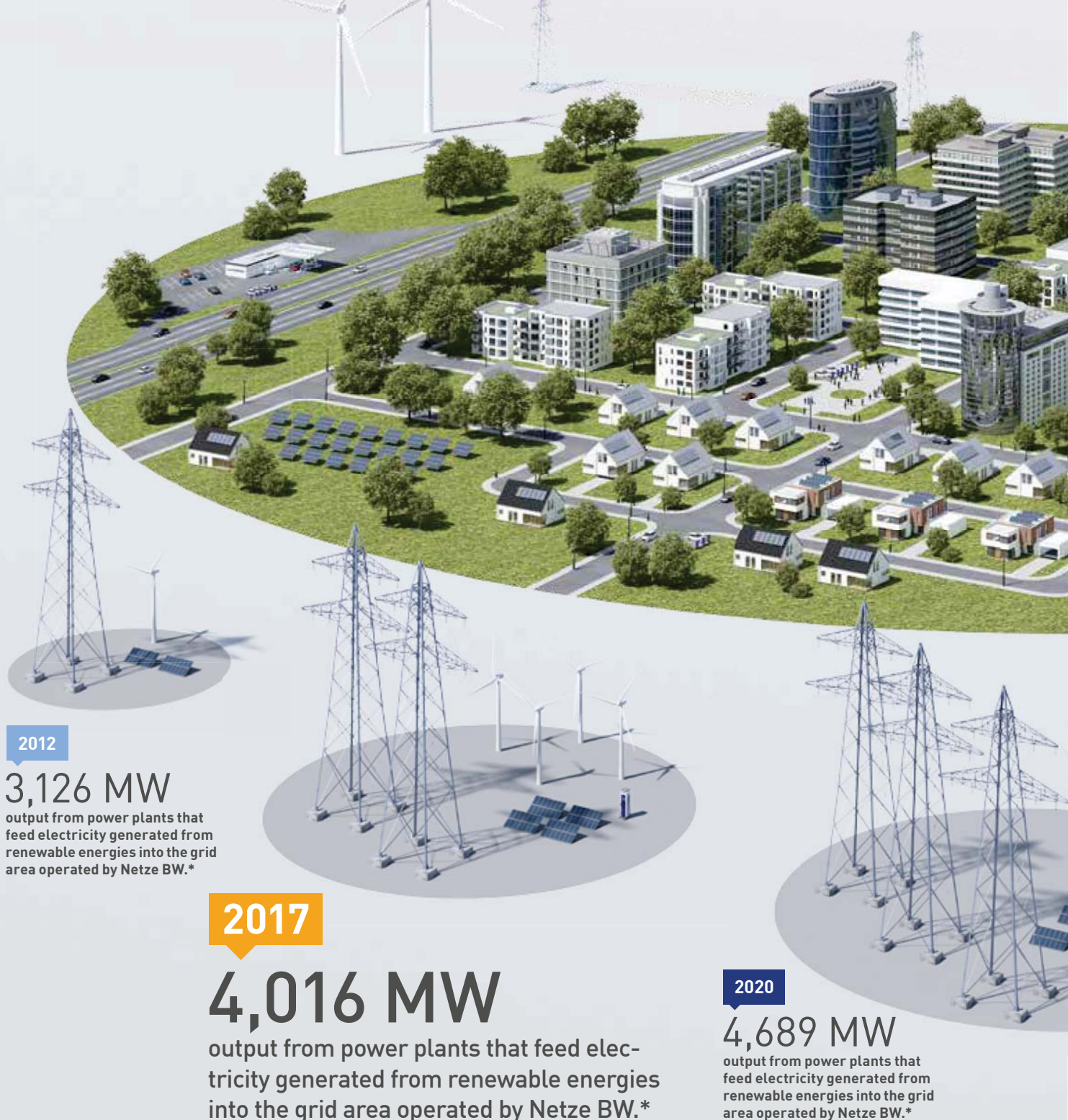
Chirine Etezadzadeh,  
SmartCity.institute

**Prof. h.c. Dr. Chirine Etezadzadeh heads the SmartCity.institute in Stuttgart. As a strategy consultant, she focuses on research themes relating to the city of the future.**



# Everything in a state of flux

The Energiewende necessitates the expansion of the grids at all levels and has set in motion the coupling of various different sectors. EnBW has invested heavily in the modernisation of an infrastructure that will stand at the centre of its business in the future.





2012

**“Simple” is a thing of the past!**

The old energy world was clearly organised – control centres managed large, centralised power plants. The electricity generated in the power plants then flowed through cables to consumers. Decentralised production in wind farms and solar power plants was barely provided for in this system.

2017

**Maintaining a clear overview**

The situation is different today. The grid needs to be expanded to receive electricity generated at many different locations. The challenge is that there is an increasing amount of “contraflow” on the grid – self-generated electricity is being fed into the grid, while customers draw electricity from the grid at the same time. In order to address this challenge, the company is contributing to the development of smart transformers and smart meters.

The intensive modernisation of the grids is necessary so that more electricity can be fed in from private rooftops. The Group invested around €200 million in the last year alone in the modernisation of the distribution grid at a local level and the strengthening or new construction of long distance connections. Electromobility places further demands on the distribution grid, for example, when a growing number of residents on the same street want to charge their electric cars at the same time. In a number of field tests, EnBW examined the impact of charging behaviour on the electricity grid. In the coming years, the company will once again invest a sum in the three-digit million euro range in electromobility.

Electricity from renewable energies is not just a regional matter. Depending on the demand, it must travel large distances to reach end customers. Therefore, the expansion of the nationwide transmission grids is important. EnBW is participating in the construction of the ULTRANET transmission line via its subsidiary TransnetBW. The construction of a converter on the site of the Philippsburg nuclear power plant that is still in operation is also planned for the same project. Furthermore, TransnetBW is involved in the construction of the SuedLink transmission line.

\* Similar development at other distribution grid operators in the Group.

Alongside reliable energy grids, fast Internet connections are also fundamental for the well-being of a region. The planning, construction and operation of fibre-optic networks is a business field with great potential for the future. We laid and placed into operation 450 kilometres of fibre-optic cables for our telecommunications subsidiary NetCom BW last year alone. NetCom BW provides 43,000 customers with a fast Internet connection. A special project is the construction of a 450 kilometre empty pipe network for 30 local communities in cooperation with the administrative district of Karlsruhe. The EnBW subsidiary Netze BW is responsible for 130 kilometres, of which 80 kilometres are already finished. These empty pipes will form the basis for a future data highway that will connect the communities in the administrative district together. Fibre-optic cables can be blown into the empty pipes later on without having to dig up the roads, paths and squares again.

2020

## Networked for the future

In the coming years, EnBW will plan the infrastructure for whole city districts. This includes electricity for the household and electromobility, fast Internet and a modern supply of heating – for example, from combined heat and power blocks that generate electricity from waste heat and work in combination with solar power plants on the roof. The area of transport management is also being expanded, for example, with the monitoring of parking spaces.

### Development of adjusted EBITDA Grids

in € billion



2025

## A smart grid

Solar power plants, electric cars or smart household devices can overload the grid if they consume or feed in electricity in an uncoordinated way. Therefore, EnBW is developing smart technology to predict when the grid will experience peak loads and to what extent. If there is a danger of the grid being overloaded, the grid operator can reduce feed-ins from solar power plants or charge electric cars more slowly. Electricity storage systems will also help to ease the burden on the grids by storing surplus energy and feeding it back in at a later point in time. An interesting option in the future may also be converting the electricity into gas via electrolysis. The energy can thus be stored in the gas grid. Another approach could be to directly transform the electricity from renewable energies into heating or cooling. This will set in motion the networking of sectors that were previously separate within the energy industry.



## A look ahead to the future. Three questions for ...

### **Question: Why does the grid infrastructure play such an important role in the Energiewende?**

In the past, if more electricity was required, another shovel of coal was simply added at the power plant. This will not be possible in the future. The generation of electricity from the wind and sun is dependent on the weather. The grid of the future will therefore need, on the one hand, a storage system, and, on the other hand, the ability to flexibly adapt consumption to the amount of electricity being generated.

### **Question: What technical requirements will be necessary for this?**

Firstly, the consumption of individual units must be large enough to make flexible management worthwhile. This is the case, for example, for charging stations for electric cars. A smart management system will ensure that the connected batteries are only charged when the grid has sufficient output. A similar principle is conceivable for industrial companies that could use energy management systems to flexibly manage their production plants.

### **Question: Why is the phrase critical infrastructure being talked about more and more in relation to grids?**

The term "grid" or "network" will have a much broader scope in the future. Flexible consumers require not only electricity but also extensive communication links. The security of the entire IT infrastructure for the energy supply system, as well as the data for individual consumers, is necessary in these networks. In addition, we need to work across sectors if we want to generate 80% of our electricity from renewable energies in the future. One example of this is heat pumps – which link together the markets for electricity and heating. Electricity can also be transformed into gas via electrolysis and thus stored in a neighbouring grid.

Smart grids can predict how much electricity will be generated and consumed. The required data will flow through fibre-optic cables.



“We need to work across sectors if we want to generate 80 % of our electricity from renewable energies in the future.”

Stefan Tenbohlen,  
University of Stuttgart

**Prof. Dr. Stefan Tenbohlen heads the Institute of Energy Transmission and High Voltage Engineering at the University of Stuttgart. He is Chairman of the Board of Management for Smart Grids-Plattform Baden-Württemberg e. V.**



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# Interview with the Board of Management



## 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)

## Dr. Bernhard Beck LL.M.

- > born 1954 in Tuttlingen
- > Member of the Board of Management
- > Chief Personnel Officer since 1 October 2002
- > appointed until 30 June 2019
- > lives in Stuttgart

## 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

## Thomas Kusterer

- > born 1968 in Pforzheim
- > Member of the Board of Management
- > Chief Financial Officer since 1 April 2011
- > appointed until 31 March 2019
- > lives in Ettlingen

## Employees ask, the Board of Management answers

**Where do we stand with regards to the implementation of our strategy? What's next for the expansion of renewable energies? These and similar questions from employees have been posed to the members of the Board of Management at various events during the year. They all came together to answer questions posed by employees as part of the internal "EnBW aktuell" series. We have summarised the most important questions posed by employees.**

### **Question: How do you rate the 2017 financial year in retrospect?**

**Dr. Frank Mastiaux:** 2017 was an important milestone in the achievement of our strategic goals. We made good progress in areas important to us and have reached the planned turning point in terms of earnings. The earnings contributions made by the individual units already look quite different to five years ago. Our rigorous approach is now paying off: We made progress in the expansion of renewable energies and have launched smart customer solutions and the first products from the Innovation Campus onto the market. However, it is still crucial that we do not let up on our efforts to improve efficiency because they will be indispensable for the further transformation of EnBW. One example: In 2017, we were the first company to have a bid accepted for a large offshore wind farm without the need for state funding and have thus given a confident signal to the market. Onshore, we erected as many wind power plants in one year as we did over several years in the past and also invested a lot in the grids. More and more quick charging stations from EnBW can be found on the motorways, which demonstrates how progress is also being made in the area of electromobility.

**Thomas Kusterer:** The 2017 financial year was an important turning point from an economic viewpoint. The operating result of EnBW was better than that of the previous year for the first time since 2010. This shows that our strategy is bearing fruit and will thus form a good basis for the



**"2017 was an important milestone in the achievement of our strategic goals."**

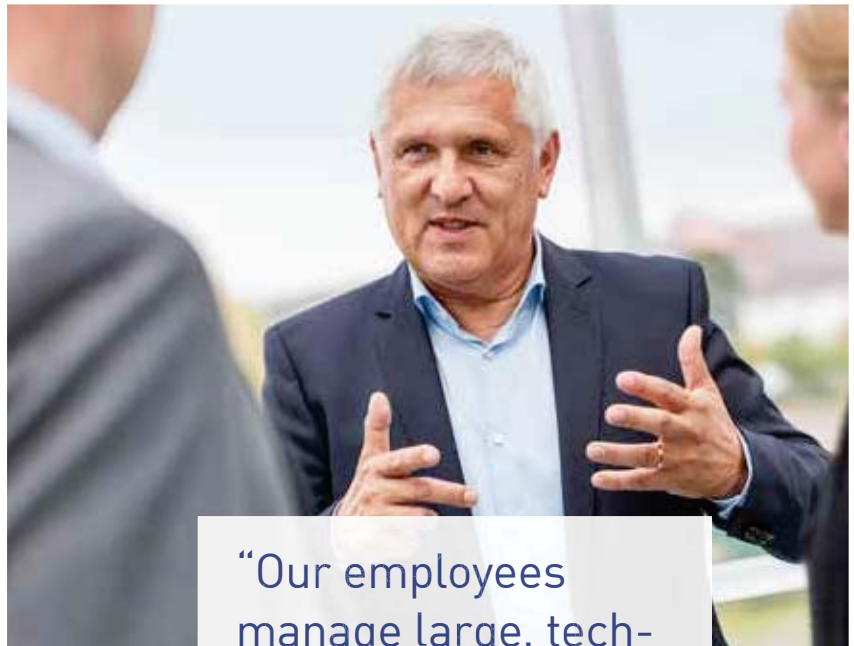
**Dr. Frank Mastiaux**

future viability of EnBW and for further growth. Both of these things are immensely important. In the summer, legislators regulated the responsibilities for the disposal of nuclear waste and we now have clarity in this area as well. And we have had the nuclear fuel rod tax reimbursed, which has given us more financial headroom.

**Dr. Hans-Josef Zimmer:** We initially faced some challenges in the 2017 financial year. We had to deal with the temporary shutdown of Block 2 of the Philippsburg nuclear power plant. Due to low water levels, we produced less electricity at the run-of-river power plants and the electricity prices on the forward market were lower than the previous year. This makes me even more pleased with how EnBW caught up during the course of 2017. We were also supported by the full consolidation of VNG and its good result.

### **Question: The Board of Management informed us a while ago about the key points of a strategy for the post-2020 period. Where do we now stand and what will be the next themes?**

**Dr. Frank Mastiaux:** I would firstly like to emphasise that the achievement of our 2020 goals has priority. We still have a long way to go. And then we will align ourselves for the period after 2020. The framework conditions are



“Our employees manage large, technically complex systems. We want to use this strength to develop infrastructure services.”

Dr. Hans-Josef Zimmer

continuing to change: the market, customers and technology will lead the way to a greater extent than legislators. We have already identified themes that fit to our areas of expertise and with which we can earn money in the future, and more will follow. We want to strategically orientate our company more and more towards the infrastructure aspects of existing business fields.

**Dr. Hans-Josef Zimmer:** Our long-standing experience will help us here. Our employees manage large, technically complex systems. We want to use this strength to develop infrastructure services. That's why we have founded the business unit "System Critical Infrastructure". It will develop new business models and take on two important roles: Firstly, it will act as a networker, mediator and facilitator within the Group because many infrastructure themes, such as broadband or also electromobility, are already being pursued in the business units. The new unit will combine them into one complete package and market them. Secondly, it will develop themes that we have not yet pursued at EnBW. We have been identifying business fields in the last few months that are starting to take shape, such as the areas of district development, safety infrastructure and transport management.



“We need to think beyond departmental boundaries.”

Dr. Bernhard Beck



Employees ask, the Board of Management answers – as here in December 2017 live in Karlsruhe.



**Question:** What do you expect from employees in the further development of EnBW? How will you ensure that everybody stays on board?

**Dr. Bernhard Beck:** It can be summed up in two words: Get involved! Everybody should ask themselves: What can I do to help make our company successful? When we are working on solutions for our customers, we need to think beyond departmental boundaries. This requires a sense of innovation and discovery, combined with team spirit. Making mistakes is fine when something new is being developed – as long as the same mistakes don't keep happening. New and agile working practices are just as important here as traditional approaches. As you can see, there are many aspects that need to be considered under the label of cultural change.

**Dr. Frank Mastiaux:** I would also like to say something about “keeping employees on board”: I have got to know the employees at EnBW as experienced people with their own opinions. They do not need any “supervision” from the Board of Management. The role of the Board of Management is, above all, to provide the framework, direction and space.

**Question:** Sustainability and climate protection are becoming increasingly important. This also applies to the business model of EnBW. How are we handling it?

**Thomas Kusterer:** We take sustainability and climate protection very seriously and this is why they have become a fixed component of the EnBW strategy. We focus intensively on the future development of the energy landscape including the associated opportunities and risks for our business. Society and many of our stakeholders are interested in these subjects and judge us on them. Therefore, we don't just act but we also report transparently about them. EnBW thus supports, for example, the development of climate-related corporate reporting. We have taken the first steps in this direction in the Integrated Annual Report 2017. And further steps will follow.



“EnBW supports climate-related corporate reporting.”

Thomas Kusterer



# Report of the Supervisory Board (condensed)



## Lutz Feldmann

- > born 1957 in Bonn
- > Chairman of the Supervisory Board since 10 May 2016
- > independent business consultant
- > lives in Bochum

The Supervisory Board dutifully and comprehensively performed all of the tasks incumbent on it in the 2017 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. 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 the 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 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 2017 financial year, the Supervisory Board dealt extensively with verbal and written reports and proposals for resolutions issued by the Board of Management at its six ordinary meetings on 27 March, 8 May, 13 July, 27 September, 9 November and 7 December. 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 key topics of the discussions and resolutions in the plenary meetings beyond the themes mentioned above were:

- > In-depth consultations and discussions with the Board of Management about the strategic positioning of EnBW AG and the EnBW Group (with a focus on the further development of the corporate strategy post 2020 and questions dealing with storage technologies and the business fields of natural gas and sales)
- > Defining the level of the short-term variable remuneration for the Board of Management for 2016 and the long-term variable remuneration for the Board of Management for 2014 (performance period 2014 to 2016)
- > Consultation on the status and further development of reputation management at EnBW
- > Consultation on the annual compliance and data protection report
- > Approval for the planning, construction and commissioning of a waste material processing centre including social and infrastructure-related buildings by Gesellschaft für nukleares Reststoffrecycling at each of the sites in Neckarwestheim and Philippsburg
- > Approval for final decommissioning of hard coal block Combined Heat and Power Plant 1 (HKW 1) in Altbach/Deizisau
- > Approval for the acquisition of the Kiyiköy and Datca wind projects by the joint venture Borusan EnBW Enerji yatirimlari ve Üretim A.S.
- > Approval for submission of a binding bid to the Federal Network Agency for acceptance of the grid connection capacity for the He Dreiht offshore wind farm
- > Approval of the required measures for the realisation of the EnBW Albatros offshore wind farm project (in the production and installation phases)
- > Redefinition of the target for the proportion of women on the Board of Management
- > Extensive consultation on the developments relating to the first onshore wind auctions
- > Consultation on the participation of ONTRAS Gastransport GmbH in the construction and operation of the EUGAL transmission line
- > Approval of the budget for the 2018 financial year and acknowledgement of the medium-term planning for the period 2018 to 2020 consisting of the Group earnings, finance, investment and personnel plans, as well as the result (HGB) and liquidity plans of EnBW AG
- > Advice and resolution on new regulations for the variable remuneration of the Board of Management
- > Defining the targets for the variable remuneration for the Board of Management 2018
- > Approval of the provision of financial resources to VNG Norge AS by VNG-Verbundnetz Gas Aktiengesellschaft for the financing and development of the offshore oil and gas field Fenja in Norway
- > Approval for investment in project companies for the erection of offshore wind farms in Taiwan, including approval of the associated development budget and the provision of sureties
- > Approval of measures to finance the joint venture Borusan EnBW Enerji yatirimlari ve Üretim A.S.
- > Regular consultations on the effects of the political events and developments in Turkey on the Turkish business of EnBW
- > Consultation on the legal and economic effects in

relation to the suspected irregularities in the business relationships with companies in the Bykov Group

- > Regular reporting on major investment projects, as well as other projects that form part of the generation strategy

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 optimally perform its functions, it has set up committees which once again met regularly in the 2017 financial year. The respective members of the committees are listed on [page 125](#). The Chairpersons of the committees regularly reported on the work of the committees at each subsequent plenary meeting of the Supervisory Board.

## Corporate governance

The Supervisory Board also approved the joint corporate governance report together with the Board of Management in the 2017 financial year, which has been published on the website of EnBW AG as part of the declaration of corporate management in accordance with section 289a (1) sentence 2 German Commercial Code (HGB) at [www.enbw.com/corporate-governance](http://www.enbw.com/corporate-governance).

## 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 2017 that were audited and issued with an unqualified audit opinion by KPMG AG Wirtschaftsprüfungsgesellschaft, and of the combined management report including the non-financial statement for the 2017 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 2017 – which have thus been ratified – and the consolidated financial statements as of 31 December 2017, as well as the combined management report including the non-financial statement for the 2017 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](http://www.enbw.com/corporate-governance).

Karlsruhe, 20 March 2018

The Supervisory Board



Lutz Feldmann  
Chairman

# About this report

## Integrated reporting

In this Integrated Annual Report – as in previous years – EnBW also takes 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. EnBW has been an active supporter of integrated reporting and the IIRC from the very beginning. We participate in the ongoing development of integrated reporting in bodies such as the IIRC Business Network and IIRC Framework Panel, where Thomas Kusterer, member of the Board of Management of EnBW, represents EnBW as a member of the IIRC.

Using the EnBW 2020 strategy as a basis, EnBW applies the concepts behind integrated reporting to strive for the comprehensive integrated management of the company. By presenting financial and non-financial corporate goals – the achievement of which is measured using key performance indicators – we are seeking to promote integrated thinking within the company and underline the importance of being comprehensively oriented towards performance and our stakeholders. The corporate performance of EnBW is thus not

only measured by financial results as the short to long-term success of the company is also dependent on the decisions EnBW takes in response to the constantly changing economic, ecological and social conditions. More about integrated reporting at EnBW can be found at [www.enbw.com/integrierte-berichterstattung](http://www.enbw.com/integrierte-berichterstattung).

Together with existing legal requirements, the IIRC reporting principles and elements create the foundations for integrated reporting. Some of the recommendations found in the IIRC reporting principles cannot be fully implemented because the different regulations are not compatible with each other. The Integrated Annual Report 2017 of EnBW contains the combined management report of the EnBW Group and EnBW AG in accordance with the regulations found in commercial law. The (Group) declaration of corporate management 2017, including the corporate governance report 2017, is not included in this report, although it is available for download on our website at [www.enbw.com/report2017](http://www.enbw.com/report2017).

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 [page 138](#).

## Financial publications 2017



### Integrated Annual Report 2017

This report is published in print and in PDF format. It 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. Selected content from this report and additional information on aspects of sustainability can be found at [www.enbw.com/report2017](http://www.enbw.com/report2017).



### Financial statements of the EnBW Group 2017

This document is published in PDF format and contains the full set of consolidated financial statements.



### Financial statements of EnBW AG 2017

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



### Declaration of corporate management 2017

of the EnBW Group and EnBW AG including the corporate governance report 2017. This document is also published as a PDF.\*

All documents relating to the financial statements for the 2017 financial year can be found at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads). We publish the quarterly statements and the six-monthly financial report at [www.enbw.com/financial-publications](http://www.enbw.com/financial-publications).

\* The report is only available in German.

## Continued development of integrated reporting

We have made our reporting more concise and transparent over the last few years to meet the increased needs of stakeholders for more information. This development has continued with the Integrated Annual Report 2017, where we have focussed above all on the implementation of the new legal requirements for strengthening non-financial reporting by companies in their management reports and Group management reports (CSR Directive Implementation Act) and the associated preparation of a non-financial declaration.

**Non-financial declaration:** The contents required in the non-financial declaration have been fully included within the Integrated Annual Report 2017. For a clear overview of the contents, we refer you to the index for the non-financial declaration of the EnBW Group and EnBW AG (p. 114). Additional sustainability information material to EnBW in accordance with the guidelines of the Global Reporting Initiative (GRI) can be found on our website at [www.enbw.com/verantwortung](http://www.enbw.com/verantwortung).

**TCFD recommendations:** Through the participation of the EnBW Chief Financial Officer in the international Task Force on Climate-related Financial Disclosures (TCFD), EnBW actively supports the strengthening of climate-related risk reporting by companies ([www.enbw.com/verantwortung](http://www.enbw.com/verantwortung)). In this Integrated Annual Report, we have taken into account the recommendations published by the TCFD in June 2017 for the first time. The aim is to present in a clearer and more understandable way how EnBW handles climate-related risks. The first steps for implementing these recommendations in this report include, for example, an overview of the EnBW scenario analysis to present the robustness of our business model in relation to climate protection (p. 15). An overview of the contents for this complex range of topics can be found in the index of TCFD recommendations on page 115.

We will also strive in future years to continuously improve our integrated reporting. Our plans for 2018 thus include the further development of the content in this report in accordance with the requirements for a non-financial declaration and the disclosures recommended by the TCFD.

### Main elements of the further development of the Integrated Annual Report 2017 of EnBW

Topic	Further development
Interdependencies (page 30f.)	Continuation and stabilisation of already achieved illustrations
Non-financial declaration (Index: page 114)	<ul style="list-style-type: none"> <li>&gt; Integration of the information for the CSR Directive Implementation Act by supplementing the relevant chapters (including Business model, Compliance, Procurement, In dialogue with our stakeholders, customer and society, employees and environment goal dimensions, Report on opportunities and risks)</li> <li>&gt; Incorporation of an index</li> </ul>
TCFD recommendations (pages 15, 115)	<ul style="list-style-type: none"> <li>&gt; Presenting the robustness of our business model in terms of climate protection</li> <li>&gt; Incorporation of an index</li> </ul>
Report on opportunities and risks (page 91 ff.)	Extended presentation of the non-financial opportunities and risks with respect to the non-financial declaration and the TCFD recommendations

## Basis for the presentation of the report


The information given on the results of operations, net assets and financial position 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). In this context, sections 289b and 315b HGB "Obligation to provide a non-financial declaration" must be applied from the 2017 financial year. 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. Building on the materiality analysis that was

conducted for the first time in 2013 with the assistance of central stakeholders of EnBW and an internal survey conducted amongst senior management, this process has been continuously transferred to the strategy process and developed further (p. 36 f.).


The reporting of sustainability topics in the 2017 reporting year has for the first time been based on the standard issued by the Global Reporting Initiative (GRI). Further information on the GRI Content Index can be found at [www.enbw.com/gri-index](http://www.enbw.com/gri-index). Further information on the fulfilment of other sustainability standards is available on our website at [www.enbw.com/weitere-kennzahlen](http://www.enbw.com/weitere-kennzahlen). Our sustainability reporting also complies with the Communication on Progress requirements for the UN Global Compact. These two framework standards 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 2017 financial year. We took into account all relevant information up to 1 March 2018. 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  page 114.

## Independent auditing and evaluation

The condensed financial statements for the 2017 financial year that form part of the Integrated Annual Report do not include the notes to the consolidated financial statements and the (Group) declaration of corporate management 2017 including the corporate governance report 2017. 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 were both audited for the 2017 financial year by KPMG AG Wirtschaftsprüfungsgesellschaft as the auditor and Group auditor elected by the Annual General

Meeting of EnBW Energie Baden-Württemberg AG on 9 May 2017. Following an extension of the auditing mandate by the Supervisory Board, KPMG AG Wirtschaftsprüfungsgesellschaft also audited the non-financial declaration with reasonable assurance. We underline the high level of integration in the whole reporting process with this first audit of the complete Integrated Annual Report with reasonable assurance. KPMG AG Wirtschaftsprüfungsgesellschaft arrived at the overall conclusion that the entire audit did not lead to any reservations and issued an unqualified audit opinion. This includes the non-financial declaration. The full set of consolidated financial statements and the combined management report for the company and the Group for the 2017 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/report2017-downloads](http://www.enbw.com/report2017-downloads).

In the 2017 financial year, KPMG AG Wirtschaftsprüfungsgesellschaft was commissioned to audit our tax compliance management system (Tax CMS) in accordance with the IDW auditing standard "Principles for the proper auditing of compliance management systems" (IDW PS 980) in relation to the following types of tax: income tax (corporate income tax and trade tax), VAT and capital gains tax. The audit covered the appropriateness and implementation of the Tax CMS of EnBW Energie Baden-Württemberg AG (EnBW), as well as – depending on the type of tax – the income tax and VAT tax group for EnBW, for companies that EnBW supports in the areas of income tax, VAT and capital gains tax, as well as for all partnerships in which EnBW directly or indirectly controls 100% of the shares. It was concluded on 14 February 2018.

# Combined management report

of the EnBW Group and EnBW AG

## Fundamentals of the Group

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Significant events after the reporting date are part of the financial statements of the EnBW Group 2017 and are available to download at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

The declaration of corporate management 2017 of the EnBW Group and EnBW AG including the corporate governance report 2017 is not included in this Integrated Annual Report 2017, although it is available for download on our website ([www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads)).

The cross-references marked with orange icons do not form part of the audited management report.



## Business report

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## Fundamentals of the Group


# Business model

## Business principles

### Business model



As an integrated energy company, EnBW operates in Germany along the entire energy industry value chain in four segments: Sales, Grids, Renewable Energies, and Generation and Trading. We draw on a variety of resources – from finances 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. EnBW has a diversified business portfolio with a once again increasingly favourable risk-return profile. Following our realignment as part of the Energiewende, the overall share of  adjusted EBITDA accounted for by the regulated grid business and the share accounted for by renewable energies is increasing.

We have closely analysed future revenue sources in the energy industry to further develop our business portfolio. According to our estimations, revenue flows in the energy industry will shift considerably. Renewable energies, grids and the decentralised solution business are growing in importance (p. 24 and 49). On this basis, we have developed the EnBW 2020 strategy guided by the principle “Energiewende. Safe. Hands on.”, which charts the course for the future development of our business model and strengthens the future viability of the company. The two complementary operating models of “Customer proximity” and the “Engine room of the Energiewende” lie at the core of the EnBW 2020 strategy. “Customer proximity” places the customer at the centre of our activities to an even greater degree, through a focused orientation on the key elements of innovation and co-operative partnership models. In the “Engine room of the Energiewende”, we rely above all on operational excellence and strict efficiency and cost orientation for the achievement of defined quality levels, to ensure the efficient and safe operation, construction and dismantling of energy supply plants (p. 24 f.).

With strength, competence and passion, EnBW is committed to the success of the Energiewende and guarantees a sustainable and reliable supply of energy. We invite our customers and partners to join us in shaping the future energy landscape and benefit from new opportunities. We convince our customers through quality and creativity, and are acutely aware of our responsibility towards our employees. We are active along the entire electricity and gas value chain. Thanks to our comprehensive and profound system competence, we remain excellently positioned despite the fundamentally changed framework conditions resulting from the Energiewende. Due to the increasing decentralisation of the energy system, we have firmly anchored customer orientation and joint business development with partners into our company. Our current activities are governed by the fostering of dialogue, the principle of partnership and a solution-based approach.

## Robustness of our business model with respect to climate protection

EnBW has analysed the robustness of its business model based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

The EnBW strategy takes into account the demands of the Energiewende and climate protection. Accordingly, an evaluation of the way the Energiewende could possibly develop over the coming years, including the opportunities and risks for the business of EnBW, constitutes a decisive component of our market analyses (p. 96).

Scenarios used to model the main input parameters for the German and European electricity markets, such as the development of demand, the development of the power plants or assumptions about price-relevant fuels, are an important element in this process. On this basis, possible paths for the long-term development of electricity prices – one of the most important market factors for the business of EnBW – can be derived. The scenarios are geared towards the international climate protection targets (such as limiting greenhouse gas concentrations to 450 ppm [parts per million]) and the resulting targets derived by the German government (a reduction of at least 80% of the CO<sub>2</sub> emissions by 2050 in comparison to 1990). The results obtained from the model for electricity prices, as well as other relevant market trends such as those in the areas of renewable energies or electromobility, enable a precise assessment of the robustness of the strategic planning at EnBW to developments caused by climate change.

In order to evaluate the robustness of our business model against the backdrop of social efforts to limit climate change and achieve the two-degree target, the following scenarios are used:

- > The Energiewende proceeds with a focus on the expansion of renewable energies in the electricity sector.
- > There are long-term regulatory interventions into the electricity market against the background of poor investment incentives due to low commodity prices worldwide.
- > The Energiewende is confined in an international environment that is oriented toward strong economic growth, also in conventional industrial sectors.




## Value added

### Value added for EnBW and its stakeholders

The aim of the corporate activities of EnBW is to add value in the short, medium and long term. This 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. 36 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. 69). Further information on the interdependencies between our key performance indicators can be found in the chapter “Interdependencies” (p. 30 f.).

Value added for EnBW and its stakeholders

Resources of EnBW	Significant activities in 2017	Value added	
		for EnBW	for stakeholders
<b>Finance</b>			
<p>A constantly solid financial structure (equity, debt, positive cash flow levels) for financing our business activities</p>	<ul style="list-style-type: none"> <li>&gt; Repayment of hybrid bond in the amount of €1 billion</li> <li>&gt; Sale of shares in EnBW Hohe See and EnBW Albatros</li> <li>&gt; Reimbursement of nuclear fuel rod tax</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Securing profitability</li> <li>&gt; <b>TOP</b> High level of financial discipline</li> <li>&gt; <b>TOP</b> Increasing Group value</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Paying interest on time to our creditors</li> <li>&gt; Wages, salaries and pensions for active and former employees</li> <li>&gt; Paying tax to the state</li> <li>&gt; Dividends for our shareholders</li> </ul>
<p><b>Financial position</b> &gt; page 60 ff.</p>	<p><b>Targets for the key performance indicators</b> &gt; page 28 f.</p>	<p><b>Value added statement</b> &gt; page 18</p>	
<b>Relationships (customers / society)</b>			
<p>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</p>	<ul style="list-style-type: none"> <li>&gt; Entering the digital product world (digital meters: EnBW is a certified supplier for smart meter gateway operation) and expansion of e-mobility (expansion of charging infrastructure)</li> <li>&gt; "We're making it happen" image campaign</li> <li>&gt; "Making it happen" bus with EnBW employees providing support where it is needed</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Increasing share of result from "Customer proximity" / Sales</li> <li>&gt; <b>TOP</b> Increasing customer satisfaction: "Customer proximity"</li> <li>&gt; <b>TOP</b> Improving reputation</li> <li>&gt; Efficient, sustainable and responsible procurement</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Increasing customer satisfaction: "Customer proximity"</li> <li>&gt; <b>TOP</b> SAIDI: Maintaining supply reliability</li> <li>&gt; Engaging in social issues with activities for our end customers, business partners and local authority target groups</li> <li>&gt; Numerous awards for our sustainability reporting</li> </ul>
<p><b>Customers and society goal dimension</b> &gt; page 69 ff.</p>	<p><b>Targets for the key performance indicators</b> &gt; page 28 f.</p>	<p><b>In dialogue with our stakeholders</b> &gt; page 36 ff.</p>	
<b>Employees</b>			
<p>The expertise, experience and diversity of our employees contribute to the success of the company, supported by an effective and efficient HR policy</p>	<ul style="list-style-type: none"> <li>&gt; Promoting diversity and inclusion through various measures and events</li> <li>&gt; Representative random sample surveys for Employee Commitment Index (ECI)</li> <li>&gt; Projects and campaigns on occupational safety and health protection</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Increasing employee commitment (ECI)</li> <li>&gt; <b>TOP</b> Improving occupational safety (LTIF)</li> <li>&gt; Always having the right employees with the right skills in the right place</li> <li>&gt; Setting targets for proportion of women in the first and second management levels</li> <li>&gt; Women's network</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Measuring employee identification with the company based on the Employee Commitment Index</li> <li>&gt; Engagement in the area of diversity ("Diversity Charter")</li> <li>&gt; Offering trainee and degree places</li> <li>&gt; Launch of the second round of the career integration programme for refugees</li> </ul>
<p><b>Employees goal dimension</b> &gt; page 72 ff.</p>	<p><b>Targets for the key performance indicators</b> &gt; page 28 f.</p>	<p><b>In dialogue with our stakeholders</b> &gt; page 36 ff.</p>	

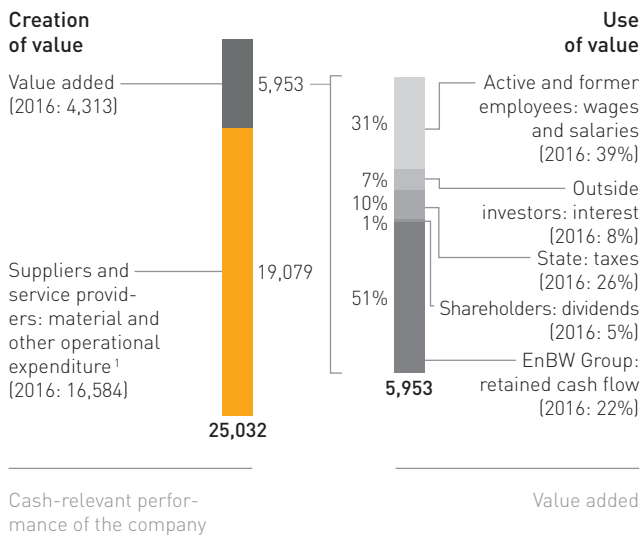
Resources of EnBW	Significant activities in 2017	Value added	
		for EnBW	for stakeholders
<b>Environment</b>			
Using the natural resources wind, water and sun to generate energy	<ul style="list-style-type: none"> <li>&gt; Constructing and expanding 21 onshore wind farms with a total of 204 MW</li> <li>&gt; Award of contract for 900 MW offshore wind farm He Dreiht in auction</li> <li>&gt; Participating in the Task Force on Climate-related Financial Disclosures (TCFD)</li> <li>&gt; Funding programme "Stimuli for Diversity" for the protection of amphibian and reptile species</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Expanding renewable energies (RE)</li> <li>&gt; <b>TOP</b> Reducing CO<sub>2</sub> intensity</li> <li>&gt; Carbon footprint</li> <li>&gt; Safe dismantling of nuclear power plants</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Expanding and integrating RE for customers and society</li> <li>&gt; <b>TOP</b> Reducing CO<sub>2</sub> intensity</li> <li>&gt; Energy-efficient products for our customers</li> <li>&gt; Responsible handling of the resource water</li> </ul>
 Environment goal dimension > page 77 ff.	Targets for the key performance indicators > page 28 f.	Overview of the segments > page 22 f.	
<b>Infrastructure</b>			
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	<ul style="list-style-type: none"> <li>&gt; Expansion of gas business through first-time full consolidation of VNG</li> <li>&gt; Investment decision for 112 MW offshore wind farm EnBW Albatros</li> <li>&gt; Start of construction of new district heating plant in Stuttgart-Gaisburg</li> <li>&gt; Expansion of charging infrastructure for e-mobility</li> <li>&gt; Expansion of broadband business through NetCom BW</li> </ul> <hr/> <ul style="list-style-type: none"> <li>&gt; SuedLink: Application for southern section and converter made by TransnetBW</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Expanding renewable energies (RE)</li> <li>&gt; <b>TOP</b> Raising the value of the Group</li> <li>&gt; <b>TOP</b> Reducing CO<sub>2</sub> intensity</li> <li>&gt; Driving the Energiewende</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> SAIDI: Supply reliability for our customers (maintained by investments in upgrading grids and expanding distribution grids)</li> <li>&gt; <b>TOP</b> Reducing CO<sub>2</sub> intensity</li> <li>&gt; <b>TOP</b> Investing in the expansion of RE for customers and society</li> <li>&gt; Contracting third-party companies and suppliers</li> </ul>
 The EnBW Group > page 56 ff.	Targets for the key performance indicators > page 28 f.	Overview of the segments > page 22 f.	
<b>Expertise</b>			
We develop models for new future business areas through our research and innovation activities	<ul style="list-style-type: none"> <li>&gt; Spin-off companies from Innovation Campus: WTT CampusONE and LIV-T</li> <li>&gt; Company Builder: accompanying internal projects and start-ups as they scale up</li> <li>&gt; Joint project by EnBW and Bosch on large batteries develops first storage system</li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>TOP</b> Securing profitability and increasing share of result from "Customer proximity" / Sales by identifying new sources of revenue</li> <li>&gt; Early identification of medium to long-term market opportunities and trends</li> </ul>	<ul style="list-style-type: none"> <li>&gt; New smart products for the benefit of our customers</li> <li>&gt; EnBW as a provider of venture capital for the development of the portfolio (opening up to the outside: New Ventures)</li> </ul>
 Research, development and innovation > page 41 ff.	Targets for the key performance indicators > page 28 f.	Overview of the segments > page 22 f.	

## Value added statement

The value added statement indicates the degree to which EnBW contributes to the prosperity of society (stakeholders) and to further economic development, particularly in Germany and Baden-Württemberg, using its financial resources. Further information on the dialogue with our stakeholders is summarised in the chapter “In dialogue with our stakeholders” (p. 36 ff.).

We define value added as the cash-relevant business performance of EnBW 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. The value added generated by the EnBW Group amounted to 23.8% in the reporting year (previous year: 20.6%). 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 of the EnBW Group is available to the company for future investments without the need to raise additional debt (p. 64). Due to the reimbursement of the nuclear fuel rod tax, retained cash flow was significantly higher in the reporting year than in the previous period. EnBW will use the reimbursement for future investments, as well as for the repayment of debt.

**Value added of the EnBW Group**  
in € million



<sup>1</sup> Includes interest and dividends received, as well as the contribution to dedicated financial assets.

As of 31/12/2017

## 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 146 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 page 32 f.

### Baden-Württemberg

EnBW has its roots in Baden-Württemberg. We are active here along the entire energy industry value chain and are positioned as a market leader. In the process, we are supported by a series of key subsidiaries.

### Germany and Europe

We also operate throughout Germany and in Europe. The most important participating interests of EnBW in relation to the value added chain and their contribution to the result of the EnBW Group include the following groups of companies:

**Energiedienst Holding (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 1,500 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 high-quality and 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. It has 3,100 employees and supplies SWD 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 its city. The company's focus is placed on the needs-based development of networked urban infrastructures in the areas of energy, mobility and property.

**VNG-Verbundnetz Gas** is based in Leipzig and has around 1,200 employees. It is a horizontally and vertically integrated corporate group in the European gas industry with more than 20 companies in eight countries. The company is active along the entire value added chain for the German and European gas industry and focuses on the four core business areas of Exploration and Production, Gas Trading and Service, Gas Transport and Gas Storage. It is actively involved in the search for and production of natural gas along the Norwegian and Danish coasts via its subsidiaries. Through its independent transmission system operator ONTRAS Gastransport GmbH, the company operates the second largest German gas transmission grid and, as the third largest national operator of storage facilities, markets its storage capacities, which comprise several underground gas storage facilities in central and northern Germany, throughout Europe.

## Customers and brands

EnBW supplies around 5.5 million customers with energy and provides them with energy solutions and energy industry services. EnBW is one of the leading providers of energy and environmental services in Germany. Another focus is placed on the development of our cooperation with municipal utilities and local authorities in Baden-Württemberg. The supply of district heating and drinking water is also part of the range of services offered by EnBW.

EnBW and its subsidiaries differentiate between two customer groups: The **B2C** customer group includes retail customers, 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 its strong brands, EnBW enjoys a close relationship with customers and is consistently oriented to their needs. As an active partner for the energy system of the future, EnBW sells electricity, gas, district heating, energy industry services, energy solutions and drinking water in the B2C sector under the **EnBW brand** ([www.enbw.com](http://www.enbw.com)). These products and services focus on Baden-Württemberg. EnBW primarily sells 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](http://www.yello.de)). The needs of ecologically oriented customers are addressed across Germany through the **NaturEnergiePlus brand** ([www.naturenergieplus.de](http://www.naturenergieplus.de)).

Under the **NaturEnergie brand** ([www.naturenergie.de](http://www.naturenergie.de)), ED sells green electricity and gas to retail customers in South Baden. It caters for business customers across Germany and in Switzerland.

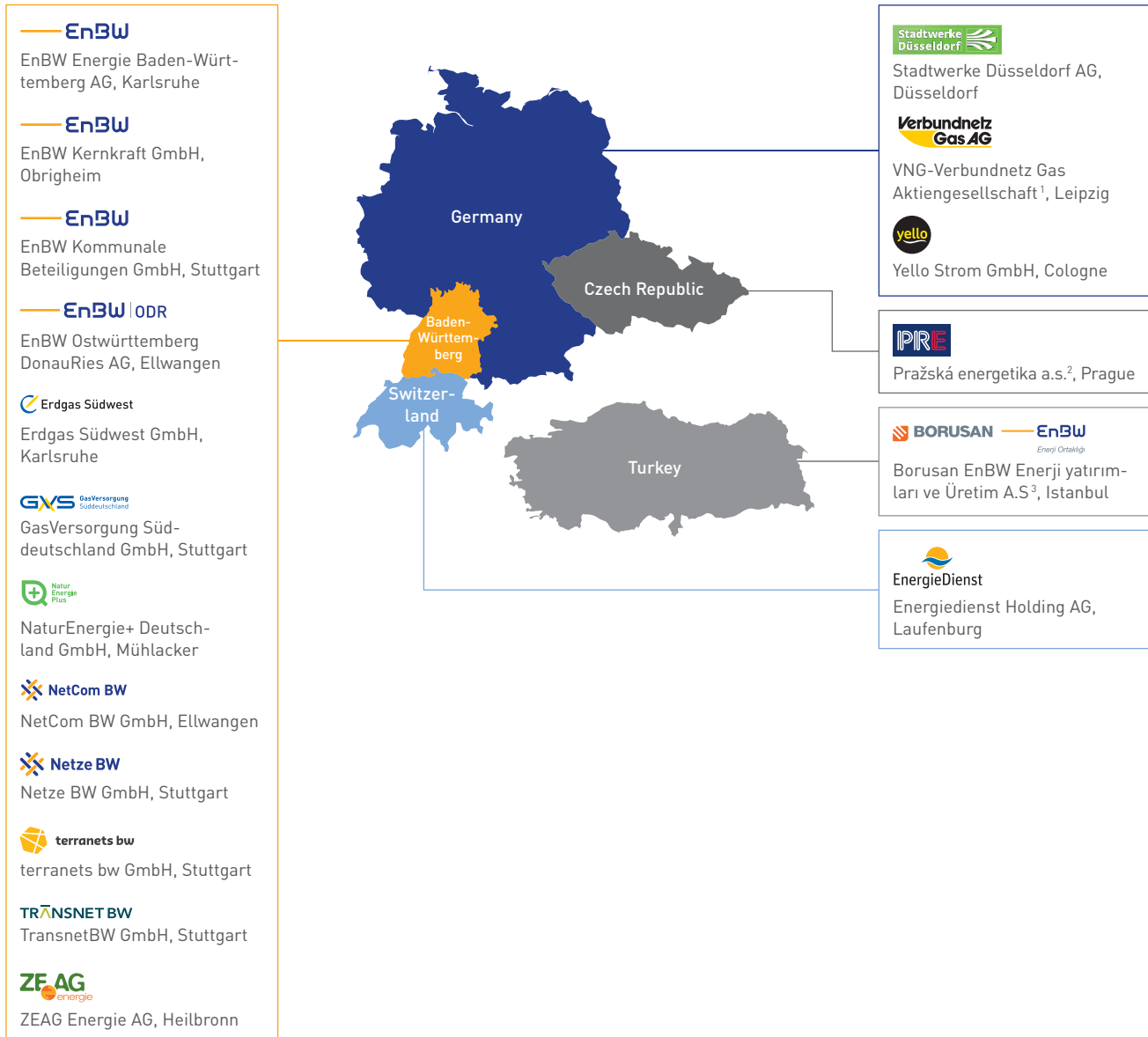
PRE sells electricity, gas, energy services and mobile communication services to retail and commercial customers in Prague and the surrounding region under the **PRE brand** ([www.pre.cz](http://www.pre.cz)). PRE also supplies electricity, gas and energy services to industrial customers across the Czech Republic under the PRE brand. Electricity and gas are sold nationwide, under the **Yello brand** ([www.yello.cz](http://www.yello.cz)), primarily via online channels to domestic and commercial customers.

SWD supplies retail and commercial customers, as well as customers in the agricultural sector, with electricity, gas, heating and drinking water in the B2C sector under the **Stadtwerke Düsseldorf brand** ([www.swd-ag.de](http://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.

VNG supplies gas to municipal utilities, regional supply companies, gas traders, power plant operators, industrial and commercial companies and contractors in Germany and Europe – from full service provision through to highly flexible products – under the **VNG brand** ([www.vng.de](http://www.vng.de)). The company goldgas GmbH, a wholly owned 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](http://www.goldgas.de)).

## Key companies

### Key EnBW companies in Baden-Württemberg, Germany and Europe



1 Full consolidation 2017.  
 2 Directly and indirectly held shares.  
 3 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 "[36] Additional disclosures". The full set of consolidated financial statements is published at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads). Further information: [www.enbw.com/beteiligungen](http://www.enbw.com/beteiligungen).



## Our operating segments

### Sales segment

The Sales segment encompasses the sale of electricity and gas. We utilise our broad energy industry and process-based expertise, as well as our existing relationships with our customers, and provide energy solutions and energy industry services (L p. 70 f.). Against the background of advancing digitalisation, we are optimising, amongst other things, our customer processes and expanding our digital range of products.

### Grids segment

The Grids segment encompasses the transmission and distribution of electricity and gas, the provision of grid-related services, e.g. the operation of grids for third parties, and the supply of water. Value added in the Grids segment is based on the existing infrastructure and the process know-how necessary to operate and expand this infrastructure efficiently. Furthermore, value added is anchored in the numerous close relationships with local authorities and citizens. We will further expand our grid business at all voltage levels in the course of the Energiewende and thus contribute to supply reliability. For example, our subsidiary TransnetBW, together with partners, is currently involved in planning two high-performance north-south connections using high-voltage DC transmission technology (E HVDC). Partnerships will also play a more important role in the distribution grid in future as we efficiently manage our customers' grid installations and infrastructures and prepare them to meet the new requirements.

### Renewable Energies segment

The company's activities in the area of power generation from renewable energy sources – where we utilise the natural resources of water, wind and sun – are combined under the Renewable Energies segment. We are expanding renewable energies, above all in the areas of onshore and offshore wind energy, and broadening our activities along the value chain (L p. 77). 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 E repowering of the plants in the future.

### Generation and Trading segment

The Generation and Trading segment encompasses electricity generation, the exploration, production and storage of gas, the trading of gas and electricity, the provision of E system services for the operators of transmission grids, the operation of reserve power plants, the gas midstream business, 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. Due to continuing, unattractive wholesale market prices and E spreads (L p. 54 f.), our fossil fuel power plants will also remain under pressure in the future. The power plants operating on the market, as well as those power plants transferred to the grid reserve, make a significant contribution to the security of supply in Germany. As equal partners, 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 marketing.

Overview of the segments

Sales 

Tasks

Sale of electricity, gas, energy solutions and energy industry services; energy efficiency consultancy; cooperation with local authorities; collaboration with municipal utilities

Significant events in 2017

- > Expansion of electromobility: expansion of EnBW's own quick-charging station network and providing an easy charging solution for at home with the EnBW mobility+ charging box
- > Expansion of our range of services, such as in the area of energy industry billing services
- > Digitalisation of customer processes
- > Strengthening digital interaction with customers: EnBW solar+ app, EnBW mobility+ app and charging card, EnBW Smile
- > Expansion of services for local authorities in the area of urban planning and digital infrastructures such as broadband and security through to smart services
- > Repositioning of the brand Yello and expansion of the bundle portfolio
- > Acquisition of bmp greengas, one of the leading biomethane dealers in Germany, by Erdgas Südwest (ESW)
- > Introduction of the energy marketplace "E-Point" by Gasversorgung Süddeutschland (GVS)

Sales in 2017



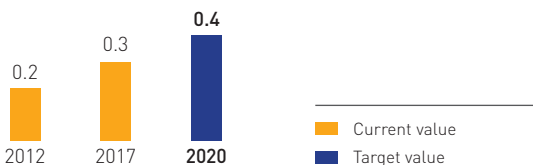
Number of B2C and B2B customers

Around **5.5** million

Key figures in 2017

<b>3,331</b>	employees (as of 31/12/2017)	<b>€330.0</b> million	adjusted EBITDA in 2017
<b>€110.6</b> million	investment in 2017	<b>15.6%</b>	share of adjusted EBITDA in 2017

Development of adjusted EBITDA (in € billion)



Grids 

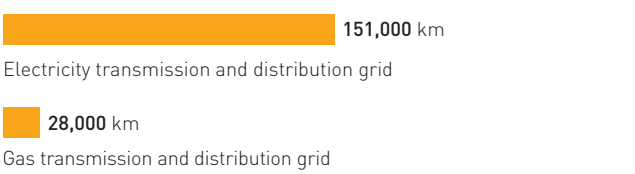
Tasks

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 2017

- > ULTRANET HVDC project: further preparations for the construction of the converter at the site in Philippsburg by TransnetBW in cooperation with EnBW Kernkraft (EnKK)
- > SuedLink HVDC project: plans adapted to meet the political guidelines (priority to underground cables) and submission of the documentation for the approval of construction of the converter at the site in Leingarten
- > Participation of VNG subsidiary ONTRAS in European pipeline project EUGAL
- > Certification as supplier for the entire smart meter gateway operation
- > Grid integration for the expansion of charging infrastructure for electromobility
- > Upgrading of the grids and connecting renewable energy power plants
- > Further expansion of broadband networks

Grid lengths in 2017



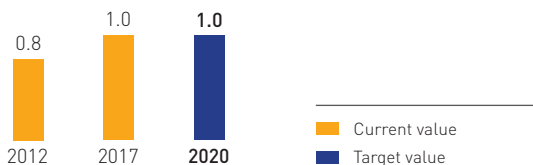
Transmission volume in 2017

<b>64.4</b> billion kWh	electricity	<b>33.1</b> billion kWh	gas
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Key figures in 2017

<b>8,858</b>	employees (as of 31/12/2017)	<b>€1,045.9</b> million	adjusted EBITDA in 2017
<b>€787.5</b> million	investment in 2017	<b>49.5%</b>	share of adjusted EBITDA in 2017

Development of adjusted EBITDA (in € billion)



**Renewable Energies**



**Tasks**

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

**Significant events in 2017**

- > Expansion of onshore portfolio: due to construction and enlargement of 21 onshore wind farms to add a total output of 204 MW in various regions of Germany, EnBW moves into the top league of project developers for wind power plants in Germany
- > The "Harthäuser Wald" wind farm from ZEAG will become the largest wind farm in Baden-Württemberg again after its expansion
- > No EnBW bids accepted in the 3 rounds of auctions for onshore wind power plants 2017. Nearly all of the bids accepted were developed by community energy cooperatives, who have less stringent conditions for participating in the auctions
- > Investment decision for offshore wind farm EnBW Albatros with capacity of 112 MW
- > Start of construction of the offshore wind farms EnBW Hohe See and EnBW Albatros with total capacity of 609 MW
- > Awarded contract for 900 MW offshore wind farm He Dreiht in auction; commissioning planned for 2025, as first offshore wind farm without state funding
- > 10 photovoltaic power plants with 29 MW capacity were added in 2017

**Generation portfolio in 2017<sup>1</sup>**

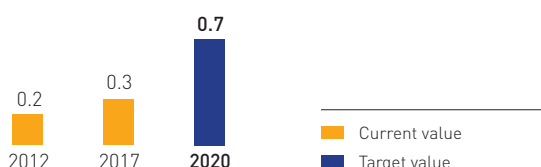
**7,088** GWh generation      **1,734** MW installed output

**Key figures in 2017**

**1,050** employees (as of 31/12/2017)      **€331.7** million adjusted EBITDA in 2017

**€706.4** million investment in 2017      **15.7%** share of adjusted EBITDA in 2017

**Development of adjusted EBITDA (in € billion)**



**Generation and Trading**



**Tasks**

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

**Significant events in 2017**

- > Start of construction of the gas-fired CHP power plant in Stuttgart-Gaisburg with a heating capacity of up to 210 MW
- > Decision to decommission block HKW 1 in Altbach/Deizisau
- > Use of blocks HKW 1 and 4 S Rheinhafen Steam Power Plant (RDK) in Karlsruhe as network reserve power plants
- > Temporary shutdown of block 2 of the Philippsburg nuclear power plant due to damaged ventilation system brackets for almost 5 months
- > Dismantling of nuclear power plants: received the decommissioning and the first dismantling approvals for the blocks GKN I and KKP 1
- > Transfer of fuel elements from Obrigheim to Neckarwestheim in 5 castor transports via the Neckar river
- > Decision to invest in a waste material processing centre at each of the sites in Neckarwestheim and Philippsburg
- > Decision not to continue with the Atdorf pump storage project
- > Final investment decision for the development of the Fenja offshore oil and gas field in Norway
- > Official opening of the natural gas storage facility "Katharina" in Saxony-Anhalt by VNG

**Generation portfolio in 2017<sup>1</sup>**

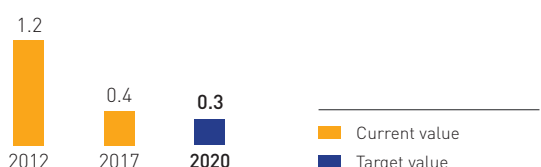
**42,827** GWh generation      **11,234** MW installed output

**Key figures in 2017**

**5,457** employees (as of 31/12/2017)      **€377.1** million adjusted EBITDA in 2017

**€140.2** million investment in 2017      **17.8%** share of adjusted EBITDA in 2017

**Development of adjusted EBITDA (in € billion)**



<sup>1</sup> 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. Some of the generation plants are assigned to other segments. The total generation of the EnBW Group is 50,194 GWh, of which 8,290 GWh or 16.5% is generated from renewable energy sources. The total installed output of the EnBW Group is 13,054 MW, of which 3,381 MW or 25.9% is from renewable energy power plants. The total generation and installed output for the Group are illustrated in detail on page 77f.

# Strategy, goals and performance management system

## Strategy

### Market conditions and structures

The energy sector in Germany has been experiencing profound change since 2012 due to the Energiewende. The share of electricity generation accounted for by renewable energies is increasing, driven by regulatory funding mechanisms, the trend towards decentralisation and technological advances. Nuclear electricity generation will cease by 2022. The use of fossil fuels, above all brown coal and hard coal, is currently the subject of intense political debate. Another driver of change in the energy sector are new patterns of demand amongst customers (local authorities, households, trade and industry) due to an increasing desire for autonomy and sustainability, as well as falling energy consumption due to improved energy efficiency (p. 49 ff.). The business models followed by energy supply companies are changing as a result.

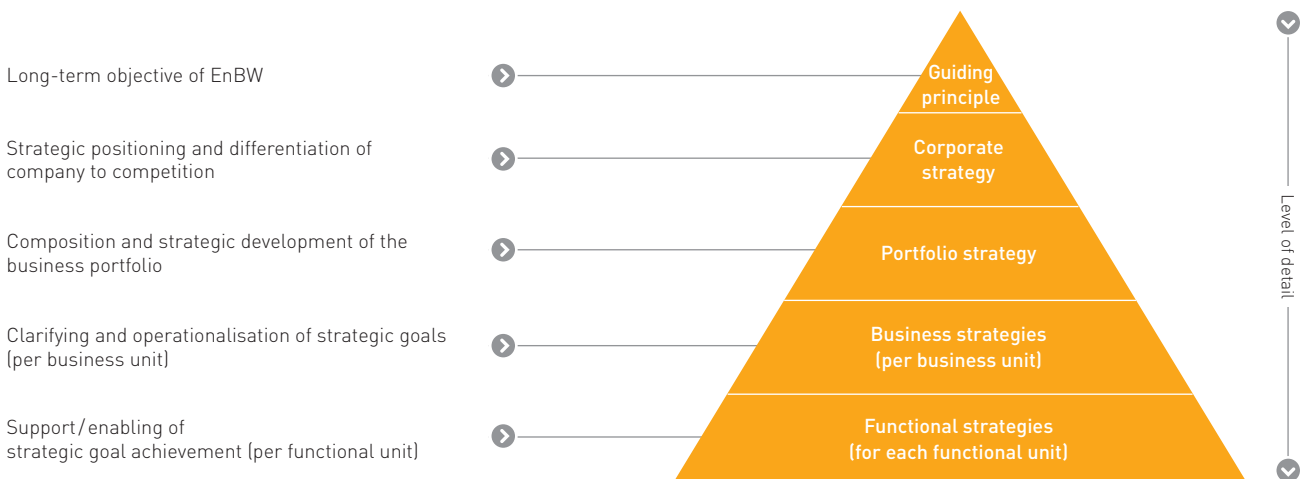
## Strategy process

The development of strategy at EnBW is governed by a uniform and structured process. This begins with our vision which is guided by the principle “Energiewende. Safe. Hands on.” The Group strategy describes our positioning and how we differentiate ourselves from our competitors. Sustainability is also an integral component of our Group strategy so that we can guarantee the creation of economic, ecological and social value for our stakeholders.

The sustainability concept at EnBW defines areas of action, targets and measures. It takes into account external demands for sustainable corporate activities, as well as integrating aspects of sustainability into the operating business along the entire value added chain (p. 36 ff.).

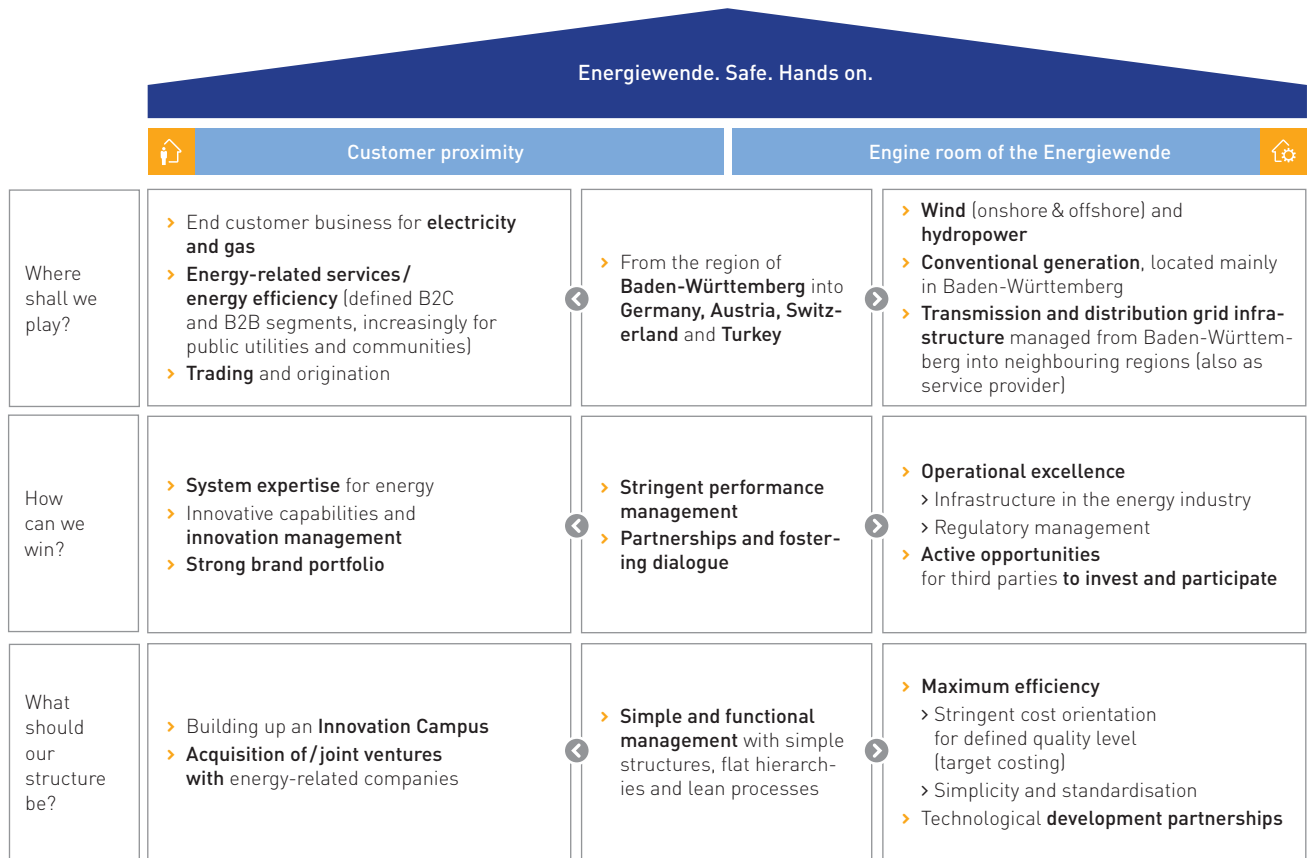
We shape the composition and strategic development of our business portfolio through our portfolio strategy. Our strategic goals are then defined and operationalised in a final step through the design of our business, investment and functional strategies.

### Process for strategic goal achievement



## Guiding principle and Group strategy

### EnBW 2020 strategy



The EnBW Group strategy developed in accordance with our guiding principle encompasses two operative and complementary models encapsulated in the EnBW Strategy House:

**Customer proximity:** The EnBW 2020 strategy places the focus on customers to an even greater degree. Targeted innovation management and short development times for new products and services will become key components. Cooperation with municipal utilities and local authorities will be expanded, primarily on the basis of partnership cooperation models. EnBW aims to gain an advantage over its competitors through the development of system and complete solutions for specific customer segments and a strong brand portfolio. An Innovation Campus supports the rapid development of forward-looking products. It is characterised by its focus on market proximity, bringing together the necessary expertise from the areas of research and development right through to sales and also by its entrepreneurial thinking. In the area of energy-related services, in particular, selective company acquisitions shall complement existing expertise and round off the range of products and services offered (p. 41 ff.).

**Engine room of the Energiewende:** Safety, simplicity and flexibility are crucial when it comes to operating system-relevant infrastructure. EnBW relies on operational excellence and a strict focus on efficiency and cost-orientation to achieve

defined standards and levels of quality. Partnerships formed in the area of technological development serve to minimise costs and risks. In addition, EnBW actively offers the opportunity to invest in grids and power plants, especially to local authorities. In the “Engine room of the Energiewende”, EnBW uses its expertise to guarantee a reliable supply of energy – which also needs to be ensured during the transformation of the energy landscape.

### Portfolio strategy

#### Repositioning the business portfolio

EnBW aims to more than double the share of its generation capacity accounted for by renewable energies from 19% (based on the reference year of 2012) to more than 40% in 2020. Our capacities from onshore wind farms should increase significantly in Germany and – should suitable framework conditions remain – Turkey. Offshore wind power represents a further opportunity for growth. By investing significantly in grid expansion, we will be making a substantial contribution to the infrastructure required by the energy system and thus to the security of supply.

Innovative products and services will form another important pillar of the company’s business. By 2020, a significant share of our earnings – the target value for adjusted EBITDA is

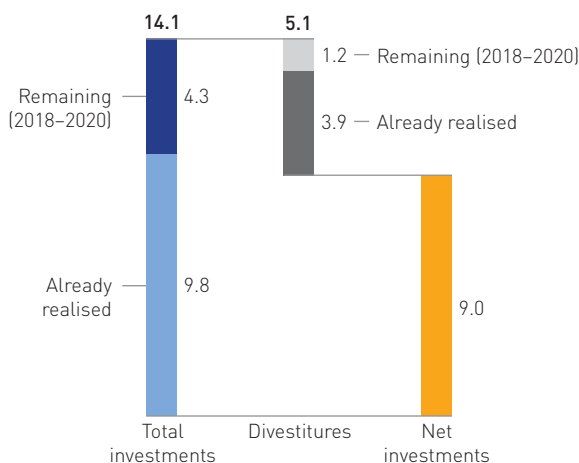
between €2.3 and €2.5 billion – is to be generated through strategic initiatives. At the same time, the overall share of adjusted EBITDA accounted for by the regulated grid business and renewable energies will increase from around 40% (based on the reference year of 2012) to at least 70% in 2020. This will improve the risk-return profile of EnBW.

### Significant investments and divestitures

EnBW intends to invest €14.1 billion in total by 2020 (based on the reference year of 2012). In this context, the focus will be placed on expanding renewable energies on an industrial scale. Moreover, we will also concentrate on the expansion and upgrading of our transmission and distribution grids right through to so-called  smart grids. Beyond Baden-Württemberg, we will be focusing our investment activities on Germany, Switzerland, the Czech Republic and Turkey. In order to obtain the financial headroom required for such significant investments, we have significantly extended our divestiture programme – involving divestitures, cash inflow from participation models, the disposal of assets and subsidies – with our EnBW 2020 strategy to around €5.1 billion (based on the reference year of 2012). Investment of €9.8 billion (around 70% of the target) had already been made and divestitures of €3.9 billion (around 75% of the target) were already completed by the end of 2017. On the basis of our current plans up to 2020, we expect to exceed the targets for both strategic investment and divestitures. You can find further information on this subject in the “Forecast” on  page 87.

#### Investments and divestitures as part of the transformation of the portfolio

in € billion



### EnBW 2020 strategy is well on track

As an integrated energy supply company, EnBW is rigorously and confidently implementing its 2020 strategy. It is clear after the half-way point of the strategy period 2013 to 2020 that the improvements in efficiency and the growth initiatives designed to place the company on new foundations ready for the future have been implemented to a significant extent, or are well on track. As a result of the full consolidation of VNG in 2017, EnBW has become the number 2 in the gas transport

sector and the third largest German gas supplier. If there is no new and unexpected massive deterioration in the general conditions, EnBW will achieve its earnings targets for 2020 at both a Group and also segment level and thus reach one of the most important milestones in the history of the company.


### Corporate strategy outlook

#### Next phase of the Energiewende

The first phase of the Energiewende in Germany was mainly driven by energy policy and regulation. A second phase of the Energiewende is now rapidly starting to take shape, the full impact of which will be seen in the period after 2020 as the market, customers and technology lead the way. There are six key trends that are most relevant to the further development of the EnBW strategy:

- > The goal of decarbonising the economy, which is shared by almost all countries in the world, is setting the political and regulatory agenda.
- > New competitors and technological advances are fundamentally changing the value added chain – every business is increasingly dependent on its own success factors.
- > Renewable energies and smart grids continue to be the focus of future, decentralised energy systems.
- > Electrification and digitalisation are shaping industrial development, while energy and infrastructure themes are converging across sector boundaries.
- > The demand for smart and reliable infrastructure is increasing due to factors such as demographic trends and urbanisation. The infrastructure market in Germany will grow from a volume of €100 billion in 2015 to an anticipated €150 billion in 2025 (source: PWC/Oxford Economics, own calculations).
- > Individualisation, digitalisation and networking are massively changing customer behaviour and making it more difficult to predict.

#### Sustainable and innovative infrastructure partner

The further development of the EnBW strategy post 2020 will focus on the key trends defining the second phase of the Energiewende. We want to increasingly place the strategic focus of our company on the aspect of infrastructure within our existing business fields and also use the core expertise of EnBW to exploit new growth opportunities above and beyond the energy sector. The core expertise of EnBW – what we do well and do better than many others – lies in the safe and reliable operation and management of critical infrastructures in the energy sector. This distinctive expertise can be transferred to other infrastructure sectors – the first themes have already been identified and work is in progress – for example in the broadband business, district development in cities or the expansion of  charging infrastructure as the basis for electromobility. 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.

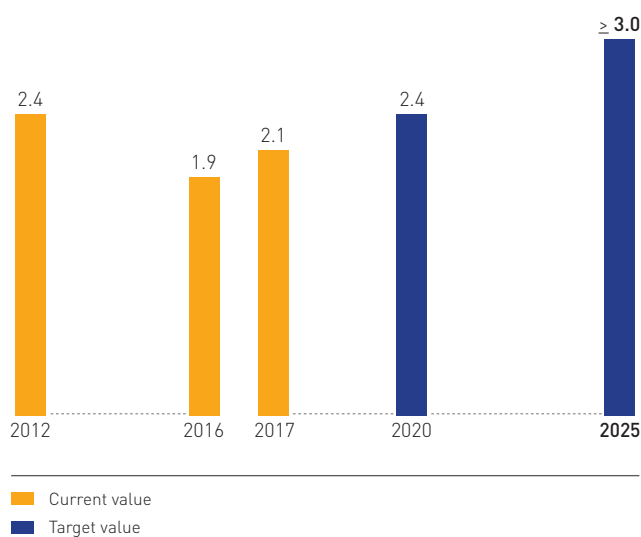
EnBW is transforming itself into a sustainable and innovative infrastructure partner with an emphasis on three central themes:

- > Sustainable Generation Infrastructure will be achieved through the further expansion of low-carbon electricity generation, the active shaping of decarbonisation in relation to coal-based conventional generation and the phasing out of nuclear energy.
- > System Critical Infrastructure comprises the expansion and operation of the transmission grids and the upgrading of distribution grids, as well as grid-related services.
- > Smart Infrastructure for customers involves us developing new, digital business models and launching them onto the market where we will then scale them up.

EnBW is focussing on growth and innovation for the markets of the future. An integral part and driver of this corporate economic development is the digital transformation of EnBW. Digitalisation permeates into all business areas, opening up new growth opportunities and earnings potential.

### Repositioning will be followed by growth

Development of adjusted EBITDA  
in € billion



EnBW will generate – if our forecasts are correct – an **E** adjusted EBITDA of around €2.4 billion in 2020 and once again achieve the same level of earnings as in 2012, although based on a drastically changed business portfolio. From 2020, EnBW will switch from a phase of business repositioning to a phase of “growth” with the aims of asserting its competitive position, offering our employees an attractive place to work with good prospects and achieving dividends for our shareholders that are in line with the market. The further development of the EnBW 2020 strategy will provide the necessary foundations. It envisages the doubling of installed output from onshore and offshore wind power to over 3.5 GW, sharp expansion in the transmission grids, profitable growth of the distribution grids and the further development of sales into a customer infrastructure business. EnBW has set itself the target of increasing the adjusted EBITDA for the Group to at least €3 billion by 2025. In addition, EnBW is striving to maintain an **E** internal financing capability  $\geq 100\%$  and thus a constant level of net financial debt. The increase in adjusted EBITDA will

thus lead to a reduction in the leverage ratio. This will also increase the value of the company. All stakeholders of EnBW shall partake in this growth.

## Goals and performance management system

We will safeguard the implementation of our 2020 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 EnBW. At the same time, it underpins the comprehensive and transparent focus on performance and stakeholders within our company.

### Performance management system

Since 2013, corporate management has been continually expanded through the addition of non-financial and strategic goals, so that it encompasses the dimensions of strategy, customers and society, employees and environment. The centrepiece of this integrated corporate management is the performance management system (PMS). As of 2015, the PMS incorporates all tools used in strategic and operational management. The financial and non-financial Group goals have been broken down into target agreements at all management levels since 2015, insofar as they are considered a sensible performance indicator for the relevant area. The quarterly performance reviews conducted at a Board of Management level introduced in 2013 were revised in 2015 and have since included operating performance indicators that will promote the achievement of targets for the financial and non-financial key performance indicators. In 2016, this concept was fully implemented. In terms of external communication, the PMS feeds into the integrated reporting of the financial and non-financial performance of EnBW based on the reporting framework of the International Integrated Reporting Council (IIRC). This Integrated Annual Report 2017 of EnBW incorporates the financial and non-financial aspects of our business activities.

### **TOP** Target values and further development of the key performance indicators

The key performance indicators enable us to measure the degree to which goals are achieved and to manage our company.

In the 2017 financial year, we adjusted the **E** retained cash flow to take account of the extraordinary effect of the reimbursement of the **E** nuclear fuel rod tax of €1,520.8 million (**E** retained cash flow II). In the 2018 financial year, the reimbursement will be used for a debt repayment of around €830.0 million and also for strategic investment of around €200.0 million. The remaining amount will be distributed 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 retained cash flow II over the period 2018 to 2020.

**TOP** Financial and non-financial key performance indicators and targets

Goal	Key performance indicator	2017	Target in 2020	
<b>Finance goal dimension</b>				
Secure profitability	Adjusted EBITDA in € billion	2.1	2.3–2.5	The operating result is to return to the average level achieved before the Energiewende. The total regulated business (Grids and Renewable Energies segments) together contributes around 70% to this result.
High level of financial discipline	Internal financing capability in %	111.9	≥ 100	The amount of net financial liabilities is controlled by limiting net investment to the level of retained cash flow II. The Group can thus finance its own restructuring internally.
Increasing Group value	ROCE in %	7.3	8.5–11	Return on capital employed (ROCE) is higher than the cost of capital. EnBW is creating value for its stakeholders.


 Finance and strategy goal dimension  
> pages 56 ff.

Expected trends  
> page 87 ff.

Report on opportunities and risks  
> page 91 ff.

**Strategy goal dimension<sup>1</sup>**

Share of result from "Customer proximity"/Sales	Share of overall adjusted EBITDA in € billion/in %	0.3/15.6	0.4/15.0	The operating result for the Sales segment doubles from €0.2 billion (reference year: 2012) to €0.4 billion in 2020 and represents around 15% of the Group operating result. Innovations make this possible.
Share of result from Grids	Share of overall adjusted EBITDA in € billion/in %	1.0/49.5	1.0/40.0	The operating result for the Grids segment increases by 25% from €0.8 billion (reference year: 2012) to €1.0 billion in 2020 and represents around 40% of the Group operating result. The share accounted for by stable regulated business is expanding.
Share of result from Renewable Energies	Share of overall adjusted EBITDA in € billion/in %	0.3/15.7	0.7/30.0	The operating result for the Renewable Energies segment increases by 250% from €0.2 billion (reference year: 2012) to €0.7 billion in 2020 and represents around 30% of the Group operating result. EnBW becomes more sustainable.
Share of result from Generation and Trading	Share of overall adjusted EBITDA in € billion/in %	0.4/17.8	0.3/15.0	The operating result for the Generation and Trading segment falls by 80% from €1.2 billion (reference year: 2012) to €0.3 billion in 2020 due to changed framework conditions and only represents around 15% of the Group operating result.

 Finance and strategy goal dimension  
> pages 58

Expected trends  
> page 88

Report on opportunities and risks  
> page 91 ff.



Goal	Key performance indicator	2017	Target in 2020	
<b>Customers and society goal dimension</b>				
Reputation	Reputation Index	52.1	55.4	In parallel with the restructuring of the business model, EnBW aims to continuously improve its reputation.
Customer proximity	EnBW/Yello Customer Satisfaction Index	143/ 161	> 136/ > 159	EnBW and Yello customers are satisfied customers with a high level of customer loyalty. EnBW and Yello are organisations strongly oriented towards customers and meet the needs and wishes of their customers through tailored solutions and products.
Supply reliability	SAIDI (electricity) in min./year	19	< 25	Maintaining supply quality for its customers is of central importance to EnBW in the further development of its grids. The high degree of supply reliability in the grid area operated by EnBW is based on comprehensive investment in grids and plants and our abundant system expertise.
 Customers and society goal dimension > page 69 ff.		Expected trends > page 89 f.	Report on opportunities and risks > page 91 ff.	
<b>Employees goal dimension</b>				
Employee commitment	Employee Commitment Index (ECI) <sup>2</sup>	60	65	The commitment of our employees to EnBW is very strong and there is faith in the future viability of the company.
Occupational safety	LTIF <sup>2</sup>	3.0	≤ previous year	The number of accidents at work and the resulting days of absence remains stable or is falling.
 Employees goal dimension > page 72 ff.		Expected trends > page 90	Report on opportunities and risks > page 91 ff.	
<b>Environment goal dimension</b>				
Expand renewable energies (RE)	Installed output of RE in GW and the share of the generation capacity accounted for by RE in %	3.4/ 25.9	5.0/ > 40	The share of the generation capacity accounted for by renewable energies has doubled compared with 2012. Onshore and offshore wind power and hydropower are at the forefront of this development.
Climate protection	CO <sub>2</sub> intensity in g/kWh	556	-15% to -20%	EnBW actively contributes to climate protection by successively reducing the CO <sub>2</sub> intensity of its own generation of electricity (excluding nuclear power) by 15 to 20% by 2020 compared to 606 g/kWh in the reference year 2015.
 Environment goal dimension > page 77 ff.		Expected trends > page 90	Report on opportunities and risks > page 91 ff.	

1 Other/Consolidation accounts for €0.03 billion/+1% of the overall adjusted EBITDA.

2 Variations in the group of consolidated companies; see also the definition of key performance indicators on page 30.

## TOP Definition of key performance indicators

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, and 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. 57 f. and 88). The key performance indicator **internal financing capability** describes the **retained cash flow II** in relation to the cash-relevant **net investment** and is the most significant performance indicator for the Group's ability to finance its activities internally (p. 64 and 89). After covering ongoing costs and dividend payments, the retained cash flow II is available to the company for net investment without the need to raise additional debt. Since the 2017 financial year, the internal financing capability has been calculated using the retained cash flow II, which is the retained cash flow adjusted for the effects of the reimbursement of the **nuclear fuel rod tax**. **ROCE** (return on capital employed) is the ratio of **adjusted EBIT** including the adjusted investment result to the average capital employed and forms the basis for determining the value added, reflecting the development of the company's value from a financial point of view (p. 68 f. and 89).

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) (p. 69 ff. and 89 f.). 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 – were asked about their impressions of the EnBW brand by an external market research institute. Results were 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. The key performance indicator **Customer Satisfaction Index** comprises an integrated analysis of the average satisfaction of private end consumers of electricity over the year, which is directly linked to customer loyalty. It is compiled from customer surveys carried out by an external provider. This key indicator is compiled for the Group's two core brands of EnBW and Yello. **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).

The Employee Commitment Index (ECI) and LTIF (Lost Time Injury Frequency) are utilised as performance indicators in the employees goal dimension (p. 72 ff. and 90). 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 their 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 compiled every two to three years for those companies controlled by the Group (except **ITOs**) as part of a full employee survey. Representative random sample surveys are completed in the periods between the full surveys – as was also the case in 2017. **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. This key indicator takes all employees at those companies controlled by the Group into account, except external agency workers and contractors.

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 **CO<sub>2</sub> intensity** (p. 77 f. and 90). The first 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. The emissions of CO<sub>2</sub> 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 CO<sub>2</sub> intensity. This performance indicator is calculated as the ratio between the emissions and the generated volume of electricity and thus specifically describes the amount of CO<sub>2</sub> 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.

## TOP Interdependencies between the 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 information about 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 (p. 28 f.). 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. For example, an expansion in the installed output in the area of renewable energies will also have an impact on the adjusted EBITDA and CO<sub>2</sub> intensity. Reciprocal relationships thus exist between the key performance indicators – in the most extreme case, all key performance indicators can even influence one another.

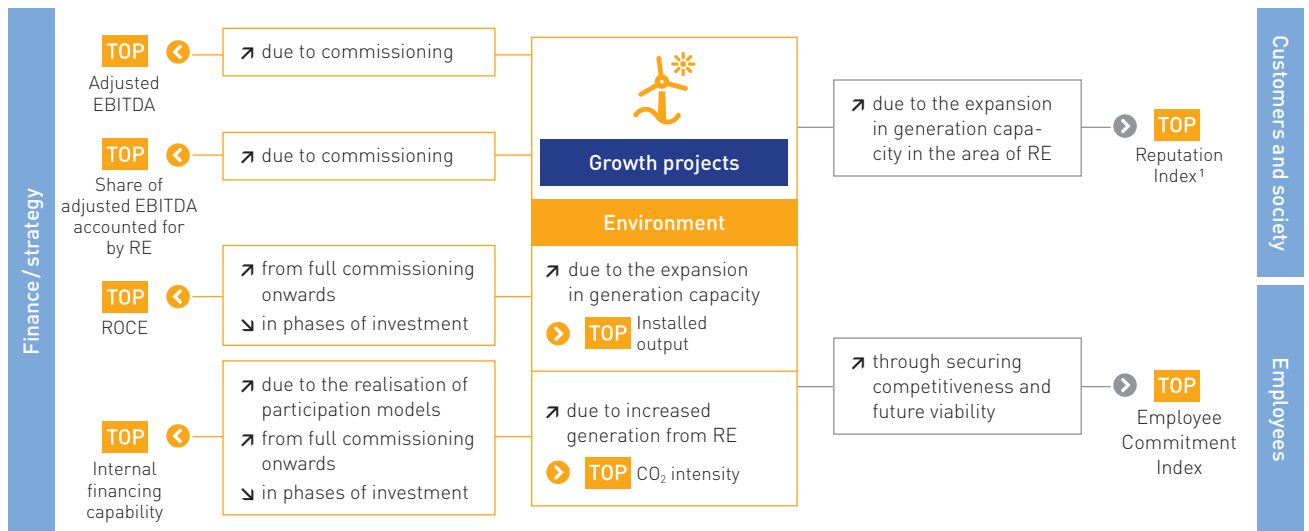
We have illustrated these interdependencies since 2015 using concrete examples that were important for the relevant financial year, and can thus also be found in other sections of the report. As part of an internal coordination process, various examples were examined by several specialist areas and selected based on the respective feedback. In order to reduce the complexity, the illustration focuses on one example.

Due to its great importance for the EnBW 2020 strategy, the illustration of the interdependencies in 2017 focuses on the key example of implementing growth projects in the area of renewable energies (p. 23). In the 2017 financial year, EnBW invested €1,324.2 million in growth projects (p. 63). In this context, EnBW placed onshore wind farms with a total output

of 204 MW into operation. At this stage, it should be pointed out that EnBW did not have any of its bids for future onshore wind projects accepted in the 2017 financial year (p. 53). In the area of offshore wind power plants, EnBW started construction of the EnBW Hohe See and EnBW Albatros offshore wind farms and had its bid for the He Dreih offshore wind farm accepted.

The key performance indicators directly influenced in this example are positioned in the centre of the diagram and are essentially directly measurable. The interdependencies between the financial and strategy key performance indicators are also essentially directly measurable and are represented in the following diagram 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. In the 2017 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. For this reason, they are represented less boldly with grey arrows. The upward pointing black 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 implementation of growth projects in the area of RE as an example



➔ Direct influence  
 ➔ Potential/long-term influence  
 ↗ Positive influence on key performance indicator  
 ↘ Negative influence on key performance indicator

1 We also anticipate a potential negative influence on the Reputation Index due to the risk of individual projects being rejected locally. However, this type of localised risk is more than compensated for by the overall potential positive influence on the Reputation Index.

# 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 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. Therefore, EnBW also meets all the recommendations of the German Corporate Governance Code ([www.enbw.com/corporate-governance](http://www.enbw.com/corporate-governance)).

As in previous years, Dr. Bernhard Beck, the member of the Board of Management responsible for corporate governance, monitored conformity with the Code at EnBW and reported extensively to the Board of Management and Supervisory Board

on all current themes pertaining to corporate governance. Both boards acknowledged his 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 7 December 2017. The current declaration of compliance and the declarations from previous years are published at [www.enbw.com/entsprechenserklaerung](http://www.enbw.com/entsprechenserklaerung).

The "Remuneration report" is contained in the management report on page 103 ff. of this report.

## Management and supervision

### Board of Management

As of 31 December 2017, the Board of Management of EnBW AG consisted of four members. 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", "personnel, law and compliance, auditing" and "technology".

Allocation of responsibilities at Board of Management level (as of 31/12/2017)

CEO	Finance	Personnel, law and compliance, auditing	Technology
Dr. Frank Mastiaux	Thomas Kusterer	Dr. Bernhard Beck (Chief Personnel Officer)	Dr. Hans-Josef Zimmer
<ul style="list-style-type: none"> <li>&gt; Corporate development/sustainability</li> <li>&gt; Strategy/energy industry</li> <li>&gt; Communication/policy</li> <li>&gt; Transformation/IT/procurement/infrastructure</li> <li>&gt; Innovation management</li> <li>&gt; Sales, marketing and operations</li> <li>&gt; Gas value chain</li> <li>&gt; Escalation: risk management and trading</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Accounting</li> <li>&gt; Tax</li> <li>&gt; Controlling</li> <li>&gt; Finance</li> <li>&gt; Investor Relations</li> <li>&gt; Mergers and acquisitions</li> <li>&gt; Risk management/ICS</li> <li>&gt; Trade</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Personnel and executive management</li> <li>&gt; Law</li> <li>&gt; Auditing</li> <li>&gt; Compliance management/data protection</li> <li>&gt; Regulatory management</li> <li>&gt; Boards/shareholder relationships</li> <li>&gt; Equity investment management</li> <li>&gt; Health management</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Generation (renewable, conventional, nuclear)</li> <li>&gt; Waste management/environmental services</li> <li>&gt; Electricity and gas transmission grids</li> <li>&gt; Distribution grids (electricity and gas)</li> <li>&gt; Grid technology</li> <li>&gt; Research and development</li> <li>&gt; Occupational safety/environmental protection/crisis management</li> </ul>

[www.enbw.com/board-of-management](http://www.enbw.com/board-of-management)

### Supervisory Board

The Supervisory Board of EnBW AG consists of 20 members in accordance with section 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, as well as 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. 124 ff.) as well as in the declaration of corporate management 2017 of the EnBW Group and EnBW AG including the corporate governance report 2017 and the Report of the Supervisory Board ([www.enbw.com/corporate-governance](http://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 2017 when compared to the previous year.

### Shareholders of EnBW

Shares in % <sup>1</sup>	
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 system

The natural compliance with the relevant legal regulations and internal company rules forms the basis for the business activities of EnBW and is part of our corporate structure. The compliance management systems (CMS) and functions at EnBW, and of the companies in which it has a participating interest, 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.

The CMS at EnBW is continuously examined and revised. It covers the directly controlled Group companies with employees<sup>1</sup>. The CMS focuses 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 is part of the compliance department at EnBW. In the reporting year, there were 27 directly controlled Group companies with employees integrated into the CMS at EnBW. The integration methods were modified in 2017 to achieve a more risk-based integration in order to make management more efficient and effective.

The compliance management systems at the de facto controlled Group companies<sup>2</sup> also cover the companies in which there is a relevant participating interest. Three companies in the ED Group were integrated into the CMS for Energiedienst Holding, while two subsidiaries have independent control over compliance. Five companies with employees were integrated into the CMS at Pražská energetika (PRE), three at Stadtwerke Düsseldorf (SWD) and 17 at VNG.

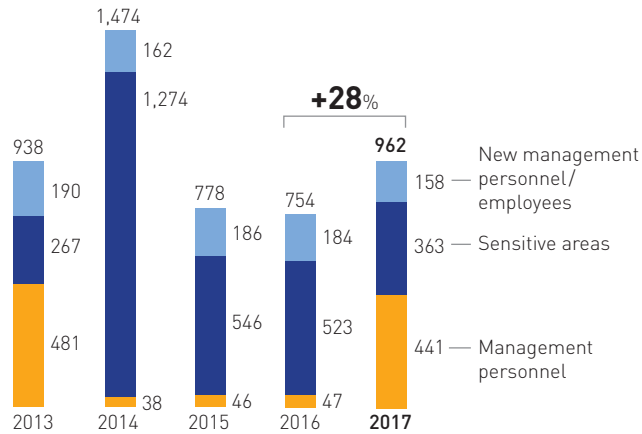
In order to safeguard the commercial success of the company against compliance risks – especially to fight corruption and bribery – preventative risk assessment methods, advisory services, training concepts and reporting channels have been set up at EnBW, the directly controlled Group companies with employees, the de facto controlled Group companies and the ITOs (independent transmission operators).

1 Directly controlled: companies with a shareholding >50%, where EnBW AG or a GmbH directly controlled by EnBW AG is listed as the shareholder; a corresponding domination agreement needs to also exist for public limited companies (Aktiengesellschaften). As well as directly controlled subsidiaries of these companies with an attributable shareholding calculated as >50%.

2 De facto controlled: public limited companies with a shareholding >50% without a domination agreement (legal presumption of Group affiliation); currently: ED, PRE, SWD, VNG, ZEAG.

## Activities this year

Number of participants in compliance training events<sup>1</sup>



<sup>1</sup> At EnBW AG and directly controlled companies with employees.

Management personnel formed the main focus of the face-to-face training events for the EnBW CMS in 2017. The third management personnel compliance campaign started at the end of 2016. It targeted all employees in a management position and emphasised the importance of a solid compliance culture during periods of change. More than 460 management personnel participated in 28 workshops. In accordance with the risk-based training plan, face-to-face training events with a focus on the prevention of corruption and antitrust issues – such as in business activities dealing with renewable energies – were held in which around 360 employees and management personnel were provided with business-relevant compliance know-how. The completion of an e-learning course or participation in face-to-face introductory training courses is obligatory for new EnBW employees. The main focus of the employee communication this year at EnBW was the compliance week in September: The necessary “culture of taking a closer look” was raised and employees were presented with real examples of compliance breaches from the past on the Intranet for the first time in order – just like with the annual compliance day – to stimulate discussion about compliant behaviour.

Employees and management personnel were also the main focus at the de facto controlled Group companies: for example, the sales team, assistants and new employees were given training on corruption risks at the ED Group (a total of 43 persons). In addition, the provision of internal information was optimised, risks relating to money laundering were analysed and the auditing of business partners was expanded. ED discusses compliance issues with its independent subsidiaries Tritec and EnAlpin. Tritec established a new compliance department in spring 2017.

In the last year, PRE provided more than 300 employees and management personnel with training after a new law dealing with the criminal liability of legal persons came into force.

This change in the law extended the range of offences that apply to legal persons. PRE introduced numerous new processes, pushed forward the integration of compliance systems into existing subsidiaries and began the process of modernising all operating standards in 2017.

VNG amended, above all, the process of auditing business partners.

The new umbrella directive dealing with compliance was the focus of the communication and training at terranets bw.

At many of the de facto controlled Group companies, employees were also made aware of compliance issues via e-learning courses.

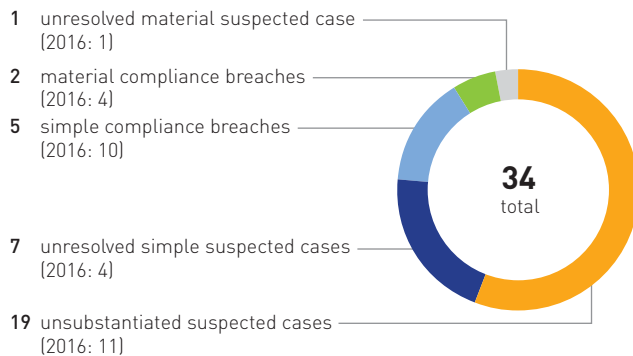
The annual compliance risk assessments at EnBW investigate the corruption, antitrust, fraud and data protection risks and act as the basis for the compliance and data protection programme, as well as for decentralised preventative activities. They were carried out at twelve Group companies in 2017. At the same time, in-depth antitrust workshops were held in the first company departments. This new in-depth approach for assessing and raising awareness for risks will be continued in 2018. The summary of the material compliance risks is contained in the “Report on opportunities and risks” (p. 95 and 98). At the de facto controlled Group companies, as well as the ITOs, risks were also assessed, such as at ED, PRE and VNG. SWD analyses the compliance risks across all 100%-owned subsidiaries with employees on a three-yearly basis, while TransnetBW analyses the risks on an annual basis. terranets bw carried out an analysis of corruption risks for the first time in 2017.

The advisory services offered by the EnBW compliance department, which form another key element of prevention, were also utilised in 2017 to the same high degree as in previous years. The compliance hotline, which is reachable by e-mail or telephone and deals with matters on a personal level, received around 1,000 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. Comparable advisory services with similar main themes exist at the subsidiaries: ED received, for example, 26 requests for advice, while SWD documented around 50 requests for advice.

### Compliance breaches and suspected cases

EnBW and the companies in which it has a participating interest have established reporting channels via which internal, and in isolated cases also external, whistle-blowers can report compliance breaches or suspected cases. Whistle-blowers always have a right to the confidential and prompt handling of any compliance breaches or suspected cases they report and can always contact the relevant compliance department or external bodies under the guarantee of complete anonymity with respect to the company (at EnBW, ED, PRE, SWD and TransnetBW).

**Number of compliance breaches and suspected cases<sup>1</sup>**



<sup>1</sup> At EnBW AG and directly controlled companies with employees. As of 17/01/2018

The number of indications received in 2017 was at the same level as in the previous year. The compliance department of EnBW received 34 indications of compliance breaches and suspicious cases in the reporting year, 3 of which were submitted to the ombudsman. The cases dealt with sales and also procurement-related matters. There was no evidence for cases of corruption. Due to their level of importance, 3 of the 34 cases were handled by the compliance committee task force. Disciplinary measures were taken in two cases. In addition, a serious case of fraud at EnBW AG from 2016 that caused significant damage to the company was rigorously pursued and handled in the reporting year.

A total of two suspected cases of corruption were investigated at TransnetBW and VNG, although they proved to be unfounded. A total of eight breaches or suspected cases were reported to the compliance department at PRE and three suspected cases were reported at the SWD subsidiaries.

The EnBW Group faced neither antitrust law penalty procedures nor third-party antitrust lawsuits in the 2017 financial year. Law enforcement agency investigations of individual employees and former members of corporate bodies relating to the so-called Russian business deals and the so-called sales tax carousel in CO<sub>2</sub> allowance trading were also ongoing in 2017. It is not possible to say at the present time when these proceedings will end.

**Data protection**

In the area of data protection, the main focus in the reporting year was placed on providing advice about the new requirements in the EU General Data Protection Regulation. Advancing digitalisation in both internal processes and in sales projects necessitates an in-depth examination of the requirements under data protection law and the provision of corresponding advice and support to the specialist departments by the compliance and data protection department. Concrete examples include the support provided for cloud solutions and for new smart products such as EnBW solar+. The number of consultations and requests for information rose as a result.


# In dialogue with our stakeholders

## Our stakeholders

Continuous and systematic dialogue with our internal and external stakeholders is an important component for determining key issues as part of our business activities. The important stakeholder groups include shareholders and the capital market, employees, customers, local authorities, 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.


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 and take these into account in the strategic positioning of our company and in our business decisions. At the same time, we inform all 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 Baden-Württemberg. Mutual understanding, social acceptance and trust are increased further through this purposeful exchange of insights and perspectives. In addition, it also means that central developments and key topics can be identified at an early stage.

## Materiality analysis

Based on the systematic materiality analysis that was carried out for the first time in 2013, EnBW has continuously expanded its 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 standard internal processes, 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) 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 EnBW. Contributions 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.

EnBW uses the materiality analysis process to ensure that the viewpoints and expectations of all stakeholders are taken into account. The importance of stakeholder perspectives is also illustrated by the expanded mapping of the resources and the effects they have on value added for the stakeholders of EnBW ( p. 14 ff.).

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. This materiality analysis is continuously updated.

The following topics are material for EnBW in the 2017 financial year:

- > **Corporate strategy and contribution to the Energiewende:** EnBW continues to work on resolutely implementing its EnBW 2020 strategy and is pushing forward the Energiewende using targeted measures in each of the individual stages along the value chain. The planned repositioning of the portfolio will be felt above all in the Grids and Renewable Energies segments. These segments generate around two thirds of the  adjusted EBITDA. In the consistent further development of the 2020 strategy, we will continue to invest heavily in growth areas such as grids, renewable energies and infrastructure for customers ( p. 26 f.).
- > **Reputation management:** EnBW strives continuously to improve its reputation. As part of the further development of our reputation management, the stakeholder team was established in 2017, with representatives from all important areas of the company, who communicate and maintain dialogue with important stakeholders. Reputation is measured using the key performance indicator Reputation Index ( p. 69).
- > **Portfolio of products and services:** EnBW develops sustainable, innovative products and digital solutions for its customers to meet their different expectations and needs ( p. 70 f.).
- > **Infrastructure:** EnBW places the focus in this area on strengthening new infrastructure businesses such as the  charging infrastructure for electromobility,  district development in cities and broadband networks ( p. 70).
- > **Efficiencies and optimisations:** The existing policy for improving the level of efficiency within EnBW continues to be rigorously pursued. Other measures to optimise processes across the whole company with a focus on the



functional units and sales have been agreed for the future (p. 90).

In the operating segments, the following key themes will be followed (p. 22 f.):

- > **Sales:** EnBW is improving customer satisfaction through new products and services, changed product logics and optimised processes tailored to customers (p. 70 f.).
- > **Grids:** The expansion of our grids business at all voltage levels as part of the Energiewende will help to guarantee a reliable supply of energy (p. 71 f.). Another main focus is the expansion of municipal data networks using the latest broadband technology.
- > **Renewable Energies:** The focal points are the significant expansion of renewable energies and the development of suitable models for other investors, such as local authorities and citizens, to participate in projects (p. 77).
- > **Generation and Trading:** The main focus is guaranteeing the security of supply through conventional and nuclear electricity generation, as well as increasing the efficiency of the power plants. An important measure in the 2017 financial year was the start of the modernisation work at the combined heat and power plant in Stuttgart-Gaisburg (p. 63). Following the decommissioning of the Neckarwestheim I and Philippsburg 1 nuclear power plants, EnBW received approval in 2017 to start the dismantling of these power plants.

Improving sustainability performance secures the future viability of the company:

- > **Development of new business models:** In the area of research and development, EnBW focuses on identifying important trends and technological advances at an early stage and developing the expertise for subsequent commercial utilisation in pilot and demonstration projects. In innovation management, the main focus is placed on the development of new business models to identify new sources of revenue for the Group (p. 41 ff.).
- > **Commitment to climate protection:** EnBW supports the global efforts to protect the climate and is emphatically advocating ambitious targets (p. 50). The company contributes to climate protection through its corporate strategy that resolutely focuses on the further expansion of renewable energies, as well as sustainable and innovative business models. In addition, EnBW is actively participating in the TCFD, is committed to the development of climate-related risk reporting (p. 96) and, by presenting the robustness of its business model in terms of climate protection in this Integrated Annual Report 2017, is implementing first elements of the TCFD recommendations (p. 15).

- > **Improving employee commitment and occupational safety:** Important areas of action in the employees goal dimension are promoting diversity and continuously improving occupational safety (p. 72 ff.). In addition, networked mobility services for employees are being developed as part of the “New Mobility” project. Employee commitment is examined using regular surveys.
- > **Responsible coal procurement:** EnBW follows the approach of organising its coal procurement as responsibly as possible and thus making a positive contribution for people and the environment in the mining areas. On the basis of the rules of conduct governing the responsible procurement of hard coal and other raw materials, the current CSR performance of existing and potential coal suppliers is regularly discussed to decide on any further action (p. 47 f.).
- > **Development of the sustainability concept:** The conceptual orientation of the company towards sustainability will be guaranteed through stronger links with the corporate strategy and the core business. The CSR committee – whose members are the managers of the relevant functional units – regularly checks, for example, the non-financial key performance indicators and determines key issues. Using a control process, the intensive cooperation between the sustainability department and the business units will be guaranteed at a management and operational level (p. 24).

## Development of the sustainability rating

EnBW also maintains close contacts with leading rating agencies and includes their analyses and evaluations in the decision-making processes for the corporate strategy, company situation and business prospects. At the same time, these analyses increase transparency with respect to the performance of EnBW – also in comparison to other companies.

EnBW strives to continuously improve its ratings from leading agencies in the area of sustainability. It thus aims to strengthen its position as a responsible and sustainable company and also wants to be an attractive investment opportunity for financial investors whose investment decisions are based wholly or partially on sustainability criteria. In 2017, EnBW achieved significant improvements in important sustainability ratings:

- > In the rating issued by oekom research AG, EnBW improved from an average rating of C+ to a good rating of B- (on a twelve step scale from D- to A+). The company thus achieved prime status and now belongs to the leading group of energy companies in Germany and Europe. The agency evaluates the performance of the company based on social, governance and environmental aspects using more than 100 sector-specific criteria.

- EnBW also received a climate protection rating of A-/Leadership for its climate reporting, after a previous rating of B/Management, from the Carbon Disclosure Project (CDP). This rating also sees EnBW taking a leading position in the sector. In 2017, more than 6,000 companies worldwide participated in the questionnaire issued by the CDP.

Further information on the sustainability ratings can be found at [www.enbw.com/weitere-kennzahlen](http://www.enbw.com/weitere-kennzahlen). Further details on non-financial performance indicators are presented in the chapter “The EnBW Group” (p. 69 ff.). Information on the ratings issued by the rating agencies Moody’s, Standard & Poor’s and Fitch can be found on page 62.

## Social engagement

EnBW is acutely aware of its responsibility towards society. Through its commitment to addressing the concerns and interests of society, it conducts its business in close customer proximity and aligns its activities to the target groups of end customers, business partners and local authorities. It is mainly involved within its primary business sphere of influence in Baden-Württemberg in this regard. Support for superordinate 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. They apply to all companies in which EnBW AG either directly or indirectly holds a majority of the shares or voting rights, and were last updated in September 2016. The activities are designed to promote the brand image of EnBW, solidify its regional roots in Baden-Württemberg and support sustainable causes. The **donations** made by EnBW are documented on a yearly basis in the donation report that is presented to the Board of Management. In 2017, the sum of all the donations made by the EnBW Group came to €1.0 million, following €1.2 million in the previous year. Donations worth €383,000 (2016: €611,000) were attributable to EnBW AG.

As in the previous year, EnBW AG supported social or charitable projects in 2017 with the **“Making it happen” bus** as part of the “We’re making it happen” campaign. Associations and charitable organisations could apply for assistance with their projects. The winners were selected via an Internet vote and were provided with support in the form of manpower, motivation and materials worth up to €5,000 per winner by an EnBW team consisting of up to ten persons. A total of 13 projects have been successfully realised up to now – of which 4 were completed in 2017. Materials worth around €60,000 have been donated in total for all of the projects. In addition, there is also the working hours of the EnBW employees given permission to work on the “Making it happen” bus ([www.enbw.com/wir-machen-das-schon](http://www.enbw.com/wir-machen-das-schon)).

The EnBW Board of Management decided a number of years ago not to send Christmas gifts to business partners but instead to make charitable donations in Baden-Württemberg. As part of the **Christmas donations** in 2017, a total of €32,000 was given to eight charitable campaigns or campaigns initiated by readers of regional newspapers in Baden-Württemberg. Netze BW also made donations in 2017 to social causes run by charitable organisations in Baden-Württemberg. In the Czech Republic, Pražská energetika (PRE) has also made donations for many years to charitable projects for the benefit of disabled people, young people and children, and in the areas of health care, culture, education and the environment. Education is made a high priority at Stadtwerke Düsseldorf (SWD). It has provided financial support for many years to Bildung<sup>3</sup> gGmbH, which helps integrate young people and adults into the training and job markets using a variety of different measures. In cooperation with the newspaper “Westdeutsche Zeitung”, the Düsseldorf School Prize was awarded for the eleventh time in 2017, with which school classes receive funding for their projects. In addition, SWD also makes donations to social institutions in Düsseldorf and the surrounding area at Christmas.

In the arts, EnBW works together closely with, amongst others, Kunstakademie Stuttgart (Stuttgart Art Academy) and regularly offers young artists space in its buildings for their **exhibitions**. Students on the “Industrial Design” course presented, for example, installations and experimental objects in the foyer of the EnBW building in Fasanenhof in Stuttgart from 20 June to 21 July 2017.

EnBW provides manpower and financial support to the **Energy & Climate Protection Foundation Baden-Württemberg**. The foundation holds numerous events dealing with questions about the energy industry, as well as on the themes of climate protection and renewable energies, digitalisation and innovation. At the Urban Energy Talks 2017 held on 29 June, the focus was placed, for example, on the **Energie-wende** in cities and individual panels discussed the future of housing, the urban infrastructures of tomorrow and urban mobility ([www.energieundklimaschutzbw.de](http://www.energieundklimaschutzbw.de)).

Although the influx of refugees into Europe, especially to Germany, has lessened over the last year, it remains a major social, political and economic challenge. Long-term perspectives for asylum seekers are just as important as short-term humanitarian assistance. EnBW is engaged here on multiple levels: EnBW already developed a training concept for refugees at the request of the Board of Management in 2015 with the goal of providing sustainable support with an eye to the future for the affected people and their countries of origin. Following its initial success in 2016, EnBW also offered a **career integration programme** in 2017. Around 160 refugees participated in introductory and orientation days in Karlsruhe und Stuttgart in the first half of 2017. Around 90 of these refugees completed an integration programme in Karlsruhe and Stuttgart to prepare them for an apprenticeship at EnBW. In

September 2017, 31 refugees selected from the pre-study placement programme started their one-year introductory qualification in preparation for their technical apprenticeship at EnBW, while 13 participants from the previous year's programme started their apprenticeship at EnBW. Alongside these integration measures, EnBW is continuing to support employees who are voluntarily providing assistance to refugees and encouraging them to network with each other in order to coordinate aid measures, exchange experiences and mobilise other helpers. Numerous small aid projects are also being promoted that mainly focus on language training, sport and meaningful leisure activities. Around 40% of the donation pot established by EnBW for this purpose had been utilised by the end of 2017.

We also refer you to the details provided in the "Report on opportunities and risks" (p. 95).

## Dialogue with citizens

The **expansion of renewable energies** is an important goal that EnBW is pursuing with great commitment. We plan, construct and operate wind power plants and solar parks 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. Our employees guide visitors through the large technical plants, explain how the plants work and their interactions and answer any questions.

The **expansion of the grids** for the purpose of connecting up renewable energies is gaining more and more attention amongst the media and general public. At the very forefront of this work are the central infrastructure projects forming part of the Energiewende to expand the transmission grids with the two north-south connections SuedLink and ULTRANET by

our subsidiary TransnetBW GmbH. The early involvement of citizens provides transparency and creates trust. The SuedLink project team was a guest at 36 events held in six German federal states who presented the project and the different proposals for the corridors with underground cables that run from Schleswig-Holstein to Bavaria and Baden-Württemberg. Over 5,000 visitors received information in discussions with the specialists about the possible routes, the technology and the implementation plans. Dialogue with the general public is also a fundamental component of the planning and implementation of ULTRANET. For this reason, there is a comprehensive range of opportunities for citizens to participate both before and during the public law proceedings, e.g. via channels such as council meetings, local events for citizens and the media.

Alongside economic and technical aspects, the Energiewende and the associated phasing out of nuclear energy also encompass elements of social responsibility. EnBW unequivocally assumes responsibility for the safe **dismantling** of the nuclear power plants it operates. This process is accompanied by intensive and open dialogue with all stakeholder groups to ensure transparency and acceptance. A current example is the transfer of fuel rods from the Obrigheim nuclear power plant to the intermediate storage site in Neckarwestheim. The total of five transports by ship were all successfully completed in 2017. EnBW had already begun to inform the public about its plans to transfer the fuel rods from Obrigheim in 2013. This public relations work was continued and intensified once the decision to realise the project was taken in June 2016. Alongside the general public, particular attention was also given to those communities neighbouring the transport route. EnBW has set up a project website to provide further information to the public. Further information and also short films that explain the processes involved in the transport can be found at [www.enbw.com/castortransport](http://www.enbw.com/castortransport).

# Stakeholder dialogue

## In dialogue with our stakeholders (examples)

Stakeholder	Opportunity for dialogue	Main themes	Further information
 Shareholders/ capital market	Financial reports	Financial and non-financial development of the company	<a href="http://www.enbw.com/financial-publications">www.enbw.com/financial-publications</a>
	Annual General Meeting	Dialogue with shareholders	<a href="http://hv.enbw.com">http://hv.enbw.com</a>
	Telephone conferences/updates for analysts and investors	Corporate economic development, positioning on capital market	<a href="http://www.enbw.com/investor-update">www.enbw.com/investor-update</a> <a href="http://www.enbw.com/conferencecall">www.enbw.com/conferencecall</a>
	Bankers' Day and Capital Market Day	Current themes in the sector and EnBW strategy	<a href="http://www.enbw.com/bankersday">www.enbw.com/bankersday</a> <a href="http://www.enbw.com/capital-markets-day">www.enbw.com/capital-markets-day</a>
 Employees	EnBW aktuell	Mid-term review of EnBW 2020 strategy and strategic outlook, current insights into the themes of wind power and gas, questions from employees	
	Strategy dialogue workshops	71 workshops with more than 1,500 participants on the EnBW 2020 strategy and strategic outlook for the post 2020 period	 page 72
	Compliance week/day	Example compliance breach demonstrations and discussions on compliance culture	 page 33 ff.
	4th and 5th series of "1492"	Project teams work on cross-departmental projects outside normal Group processes	 page 44
	EnBW InnovationDays	For the third time, employees have 72 hours to develop the first business models based on their ideas	
 Customers	E-mobility campaign day, specialist conference and accompanying trade fair EVS 30 in Stuttgart	EnBW and Netze BW use the world's largest e-mobility symposium to present their mobility solutions to a wide audience	<a href="http://www.evs30.org">www.evs30.org</a> <a href="http://www.dialog-energie-zukunft.de">www.dialog-energie-zukunft.de</a> <a href="http://www.enbw.com/elektromobilitaet">www.enbw.com/elektromobilitaet</a>
	Platforms for dialogue and discussion with customers	For example: customer parliament, Energy Strategy Days, practical day on current billing themes and a forum for existing customers	
	EnBW Smile	World of experience for customers and registered employees with exclusive offers from the areas of art and culture, events, sport or gastronomy	<a href="http://www.enbw.com/smile">www.enbw.com/smile</a>
	Social media/customer blog & newsletter/customer magazine	Information on latest news, products, services and events	<a href="https://twitter.com/enbw">https://twitter.com/enbw</a> <a href="http://www.facebook.com/enbw">www.facebook.com/enbw</a> <a href="http://www.enbw.com/blog">www.enbw.com/blog</a>
 Local authorities/ public utilities	Community 4.0	Developing future concepts for local authorities	<a href="http://www.enbw.com">www.enbw.com</a>
	Kooperationsnetzwerk Baden-Württemberg e. V.	Association for developing innovative solutions in the energy sector	<a href="http://www.kooperationsnetz-bw.de">www.kooperationsnetz-bw.de</a>
	TCFD Conference in the EnBW representative offices in Berlin	"New developments in climate reporting – TCFD recommendations: added value or added work?"	<a href="http://www.fsb-tcfd.org">www.fsb-tcfd.org</a>
 Society/ environment	Biodiversity: funding programme: "Stimuli for Diversity"	100th project for the protection and preservation of habitats for indigenous amphibians and reptiles	<a href="http://www.enbw.com/biodiversitaet">www.enbw.com/biodiversitaet</a>  page 80
	Green Innovation and Investment Forum	Honouring the best green tech ideas in cooperation with bwcon and Umwelttechnik BW	<a href="http://www.energieundklimaschutzbw.de">www.energieundklimaschutzbw.de</a>
	Supporting events for children and young people	For example: Science Days in the Europa-Park, Children's and Youth Festival in Stuttgart, environmental education initiative "Neckar Junior Ranger"	<a href="http://www.science-days.de">www.science-days.de</a> <a href="http://www.kinder-jugendfestival.de">www.kinder-jugendfestival.de</a> <a href="http://www.energieundklimaschutzbw.de">www.energieundklimaschutzbw.de</a>
	Start-up summit Baden-Württemberg	EnBW is participating in this major networking event for start-ups	
 Suppliers/ business partners	Development discussions with suppliers	Dialogue and training events for suppliers to further develop cooperation	
	Dialogue on the responsible handling of coal procurement	Continuous dialogue with stakeholders with a focus on Germany and Colombia	<a href="http://www.enbw.com/kohlebeschaffung">www.enbw.com/kohlebeschaffung</a>  page 47 f.
	Joint project "The road to a <2° economy"	Development of inter-enterprise projects for reducing emissions and decarbonisation	<a href="http://www.stiftung2grad.de/en">www.stiftung2grad.de/en</a>
 Politics/ media	EnBW Energy and Business Club (EWC)	Various events on future themes in energy policy	
	Five debate evenings held by the Energy & Climate Protection Foundation	Events dealing with energy and climate policy themes, digitalisation and electromobility	<a href="http://www.energieundklimaschutzbw.de">www.energieundklimaschutzbw.de</a>
	Active and transparent communication via the media	Alongside traditional media such as newspapers or magazines, also via social media channels such as Twitter or Facebook	

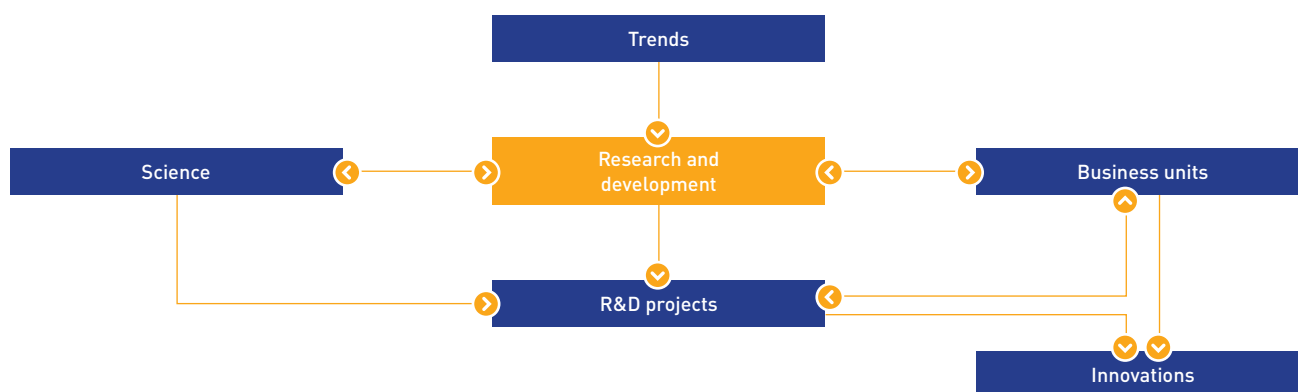
# Research, development and innovation

## Research and development: Goals, guidelines and processes

The goal of research and development at EnBW is to identify important trends and technological developments at an early stage and to develop the know-how for subsequent commercial utilisation in pilot and demonstration projects. For this purpose, research projects are carried out in collaboration with the operational units at EnBW or with customers – directly at the site of their subsequent application. They form a project

portfolio that is centrally coordinated for all EnBW units. This ensures that successful research projects deliver innovations for EnBW. The research and development activities are integrated into an external and internal network of partners. Research, development and innovation also leads in many cases to inventions and patents. The portfolio of patents grew by nine patents (previous year: eight) in 2017; the EnBW Group held 183 patents (previous year: 174) at the end of the year. The patents held by EnBW focus mainly on the areas of smart solutions and electromobility.

The research process at EnBW



## Research and development: Key points and selected results

Research and development at EnBW focuses on renewable energies and storage systems for the smart digital energy world.

### Renewable Energies

**Photovoltaics:** The University of Stuttgart has developed a new laser process that enables the inexpensive production of non-toxic silicon solar cells with a high level of efficiency. Since August 2017, EnBW has been participating in a government-funded research project at the university that now aims to bring the laser-based process for linking these cells together to form modules to maturity. As part of these activities, the EnBW subsidiary EnPV was founded in December 2017. If the project is successful, EnPV will form the nucleus of the future marketing of this patented production process.

**Weather forecasts:** Energy supply companies are increasingly dependent on wind and sunshine forecasts due to the ongoing expansion of renewable energies. Weather forecasts for the energy trade have only been available for a standard period of around 14 days up to now. Against this background, the European Union approved a project in July 2017 that aims to improve the quality of forecasts that are made for a period of several months. Twelve European weather institutes and companies – including EnBW as the only German energy company – are working together on the project. The first results are due by the end of 2018.


**Soultz-sous-Forêts geothermal power plant:** The partners Electricité de Strasbourg and EnBW jointly operate the Soultz-sous-Forêts geothermal power plant in the Alsace region of France that uses a natural geothermal reservoir lying at a depth of 5,000 metres. The electrical output of the power plant is 1.7 MW. Following the end of research operation, the commercial generation of geothermal electricity started in autumn 2016. In 2017, the power plant generated 7.7 GWh of electricity with an availability of 90% (7,900 operating hours).

**Bruchsal geothermal power plant:** EnBW has operated the Bruchsal geothermal power plant together with Energie- und Wasserversorgung Bruchsal GmbH since 2009. The demonstration plant generates electricity with a nominal output of 0.5 MW using 120 degree hot thermal water pumped from a depth of 2,500 metres. The plant achieved 2,100 operating hours in 2017. The replacement of a connecting pipeline between the power plant and the borehole was brought forward after there were a number of leaks. The power plant can commence operating again in the spring. From autumn 2018, the power plant will not only generate electricity but also provide a public facility in the local vicinity with heating. The supply contract was concluded in December 2017. EnBW is thus expanding its geothermal expertise to include the supply of heating to customers.

### Storage systems for the smart digital energy world

**Electromobility:** As part of the “SLAM – Quick-Charging Network for Road Axes and Metropolises” research project funded by the German Federal Ministry for Economic Affairs and Energy, a total of 68 quick-charging stations was installed by EnBW at 34 motorway service stations across Germany by the start of 2017. Business models for the operation of quick-charging stations with very high charging outputs were developed in the SLAM project. The cooperation with Germany’s largest service station operator Autobahn Tank & Rast GmbH is an important component for the implementation of the e-mobility strategy at EnBW, which aims to make it possible for customers to quickly and easily charge their electric cars everywhere. EnBW installed a quick-charging station at each of an additional 117 locations operated by Autobahn Tank & Rast GmbH by the end of 2017, 80 of which with the help of funding from the Federal Ministry of Transport. Technical improvements were made in 2017 to the charging network installed in Stuttgart with the help of state funding and it is now even more user friendly. New developments in the area of parking space sensors and value added services were initiated and will be field tested in 2018.


EnBW is investigating how green electricity can be used to cover regional demands to a greater extent than ever before with the help of storage systems in a variety of research projects:

**Storage systems for commercial customers:** In 2017, EnBW cooperated with the storage system supplier ads-tec, the solar experts from Pohlen Solar and the retail company Aldi Süd to find out how the discount store could use even more self-generated solar electricity in their branches. Photovoltaic power plants fitted to the roofs of more than 1,200 branches generated climate-friendly solar electricity, of which around 80% was used for the company’s own consumption. The solar power plants have now been combined with a battery storage system at three branches in the Frankfurt am Main region to create a  virtual power plant. EnBW was responsible for energy management and used a self-developed algorithm to

continuously evaluate whether it was more beneficial for Aldi Süd to directly consume the solar electricity, store it or make it available on the energy market. In this practical test, EnBW was able to demonstrate the great potential offered by solar power plants and storage systems when they are combined to form a virtual power plant.

**Storage systems for household customers:** In autumn 2016, three household customers were fitted with storage systems in order to develop a smart control system that can adapt to the availability of electricity on the grid and postpone the times electricity is drawn from the grid without any loss in comfort. In the 2017 measurement phase, EnBW determined how to manage the household storage system to the benefit of the customer so they are able to make use of any electricity surpluses on the regional grid.

**Power plant storage systems:** Cross-sector considerations on how storage systems can provide added value led to a cooperation with Bosch to develop battery solutions for the energy market. A large 5 MW battery was installed at the Heilbronn coal power plant in November that will enable the plant to respond even better to fluctuating decentralised feed-ins from spring 2018. EnBW is responsible for the marketing of the stored energy in this joint venture.

**Power to x:** EnBW has been researching the possibilities for generating and storing climate-friendly energy sources such as biogas and hydrogen from green electricity ( sector coupling) since 2011, with funding from, amongst others, the German government. The projects have revealed the conditions necessary to already make synthetic fuels economically viable today. EnBW gained experience in the storage of green electricity and the use of hydrogen in the transport sector, for example, with a hydrogen filling station in both Stuttgart and Karlsruhe. Following the end of the project in 2016, EnBW is continuing to supply the hydrogen buses operated by Stuttgarter Straßenbahn AG at the bus extension to the Stuttgart filling station that was built with state funding. In another project, the EnBW subsidiary ZEAG is generating hydrogen from green electricity sourced from the nearby “Harthäuser Wald” wind farm, also with the help of state funding, and is supplying it to the rocket test rig at the German Aerospace Center (DLR) in nearby Lampoldshausen.

In the Biohybrid project, the EnBW subsidiary Erdgas Südwest has developed a concept to make biogas with the quality of natural gas available everywhere where customers may require electricity and heating. This also includes providing bio-liquefied natural gas for the transport sector, the market for which is starting to emerge. The first biohybrid plant is due to be constructed in Ostrach in the Sigmaringen region in 2018. Energiedienst Holding (ED) also intends to build a plant for synthetic liquid fuel (power to liquid) in 2018. One of the fundamental substances required is hydrogen, which will be generated using hydropower. The ED power-to-gas plant in Wyhlen is under construction and should be placed into operation by the end of 2018.

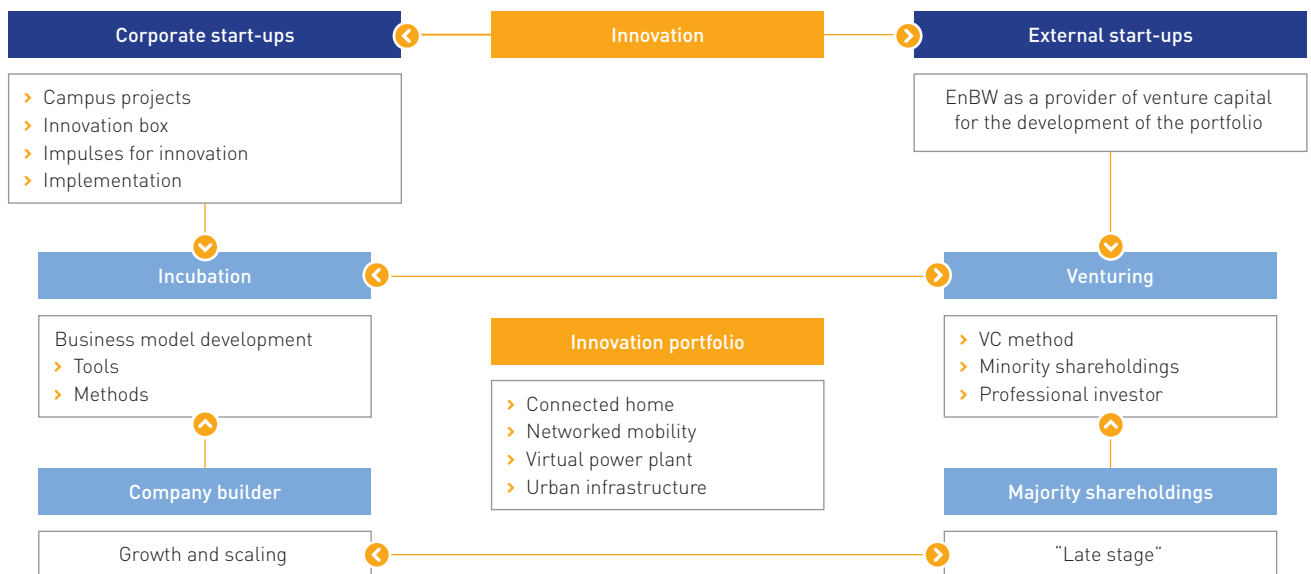
## Innovation management: Goals, guidelines and processes

EnBW develops new business models outside of its core business with the central innovation management system in order to quickly identify new sources of revenue for the Group and bring them to the market. The development of new skills and work processes plays a major role. An agile innovation culture has been established at EnBW in this way – supported by selected partnerships and participating interests in start-up companies. The innovation strategy focuses on two main approaches: the internal generation and scaling up of new business models in corporate start-ups and investments in external start-ups by EnBW New Ventures GmbH. In the internal generation of new business ideas, innovation management has developed a new framework in the form of the Company Builder that provides additional skills to support the scaling up of corporate start-ups after they are launched onto the market. The Company Builder provides the start-ups

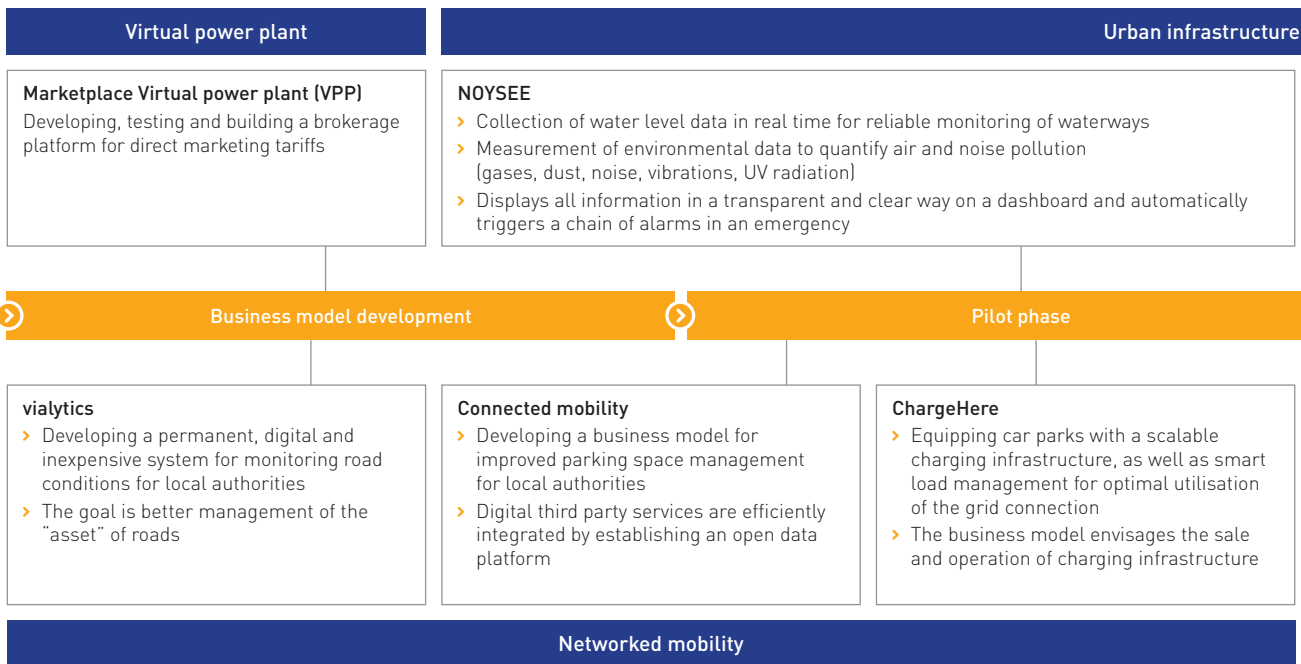
with experts from controlling, sales and marketing so that they can optimise their products and establish them on the market. Above all, it supports the start-ups in the expansion of existing sales channels and the development of new ones.

EnBW New Ventures invests in start-ups that are pushing forward the converging markets for energy, mobility and urban living. It focuses on entrepreneurial teams who realise value added for their customers using 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. EnBW New Ventures plays the role of an active investor here: it supports the start-ups as a sparring partner and is represented on their boards. Via EnBW New Ventures, the start-ups receive access to professional investor expertise and a customer and supplier network on the energy market. In addition, commercial cooperation with the operative units at EnBW is also possible.

The innovation process at EnBW




## Current projects at the EnBW Innovation Campus



## Innovation: Key points and selected results

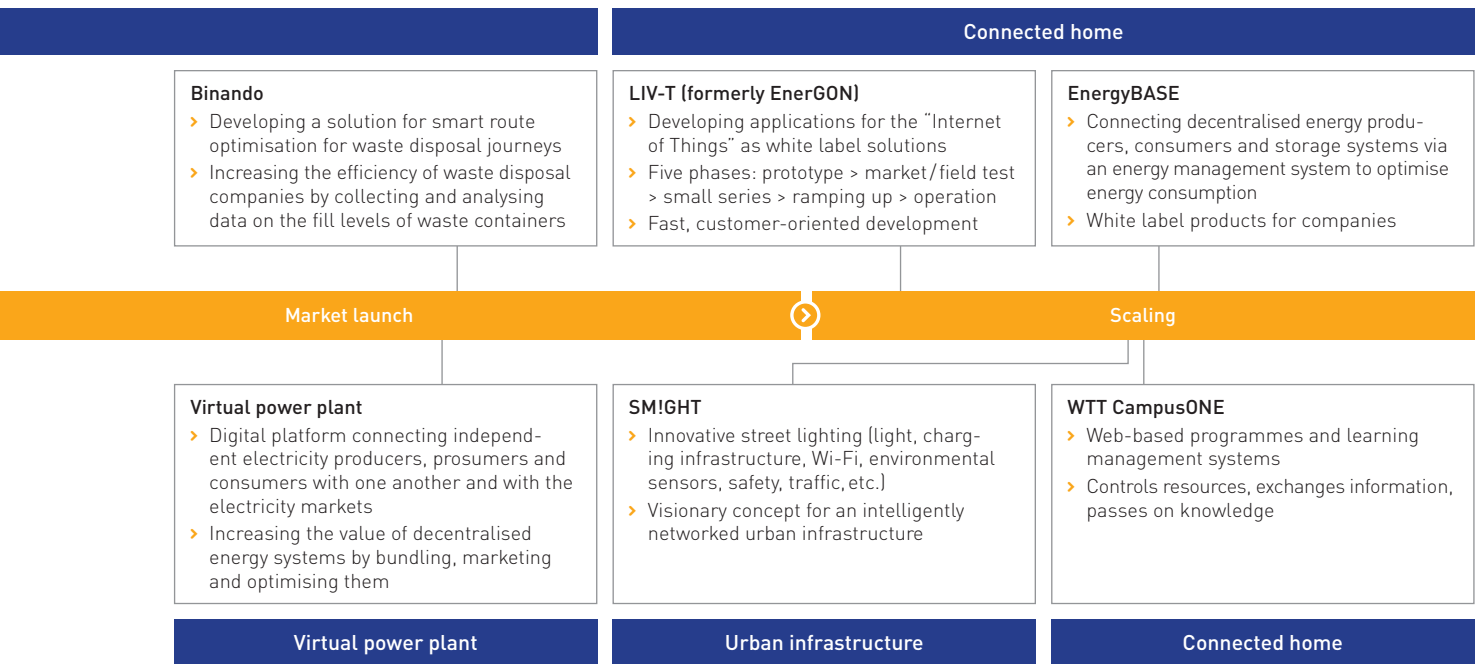
**1492@EnBW:** In 2013, the concept 1492@EnBW was brought to life by human resources and innovation management. It is designed to take up business ideas that cannot be developed in normal operations so that they can be independently developed by Group-wide, interdisciplinary teams. If successfully developed, the projects are transferred back to the corresponding business unit or to the EnBW Innovation Campus to take them through to market maturity. The kick-off event for the fifth 1492@EnBW season was held at the Innovation Campus on 15 November 2017. In the previous four seasons, which usually run for four to six months, a total of 16 business ideas were developed.

**External accelerator programme ACTIVATR:** After participating in 2016, EnBW took part in this programme with interdisciplinary external teams for the second time in 2017. The aim of the programme is to take ideas for new business models through to market maturity and found start-ups. One successful example is the start-up Binando, which aims to make waste management innovative and digital. As part of the  smart city strategy in cooperation with EnBW, the fill level of waste containers can be detected so that they can be emptied at the right time. This enables waste management companies to work up to 40% more efficiently. The vialytics project is currently developing the business model "smart sensors for better roads" for the management of road

maintenance. It comprises a complete digital solution for continuously and automatically monitoring the quality of roads for local authorities. The project grew out of the last ACTIVATR programme and is being supported by EnBW.

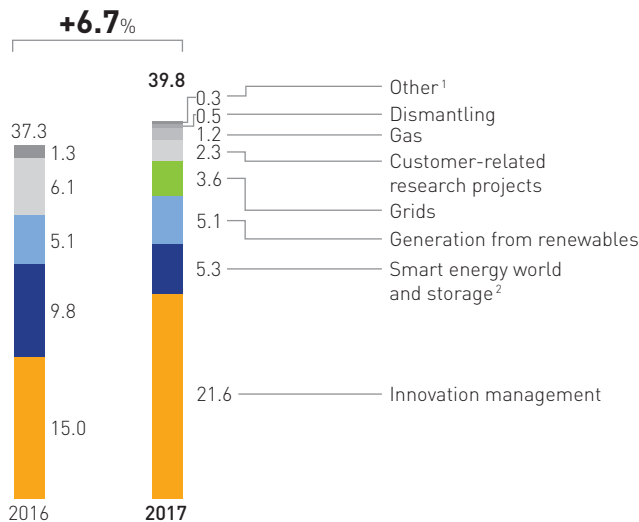
**Spin-off of LIV-T:** The EnerGON (today LIV-T) project was started at the Innovation Campus almost two years ago. After the first spin-off company WTT CampusONE GmbH was formed on 1 January 2017, a second independent company was formed by innovation management with effect from 1 October 2017. The new company based in Munich is called LIV-T GmbH and develops data-based Internet-of-things (IoT) products that allow the energy infrastructure in buildings to be smartly networked. Alongside EnBW as the majority shareholder, company builder Mantro GmbH from Munich is also participating in this joint venture. In cooperation with Mantro, two products have already been developed and launched on the market: Oilfox is an intelligent fill-level sensor for oil tanks. The oil level can be read using the associated app at any time and more oil can be ordered directly. Oilfox is being distributed throughout Germany by BayWa AG and the trading company Mobene GmbH & Co. KG. Many thousands of units have been sold since March 2017. The heating and air conditioning system Raumgold automatically detects whether a room is being used or not and adjusts the temperature accordingly. The system consists of a central unit with various different sensors and is used above all in public buildings such as schools. Local authorities were able to reduce their energy costs by 18% on average using Raumgold.





## Expenditure and personnel

Expenditure on research, development and innovation in € million



1 Also includes conventional generation.  
 2 Includes, e.g. electromobility and hydrogen.

The EnBW Group spent €39.8 million (previous year: €37.3 million) on research, development and innovation in the 2017 financial year. The Group received government research grants of €2.9 million (previous year: €3.8 million). A total of 61 staff (previous year: 38) were employed in the areas of research, development and innovation in 2017. The increase in expenditure and personnel is due to the expansion of the group of consolidated companies. A further 105 employees (previous year: 72) were involved in innovation projects. 193 employees (previous year: 155 employees) were involved in research and development projects as part of their operational work.

The main points of focus of the research and development activities in the grids sector were the integration of electromobility, smart electricity grids and the application of sustainable operating materials. Innovation projects mainly focussed on the theme of digitalising grid and customer processes.

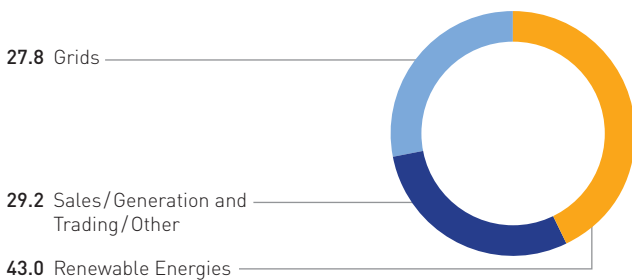
# Procurement

## Efficient and sustainable procurement processes

Purchasing at EnBW views itself as a partner for generating added value within the Group. It ensures the supply of materials and services at the best possible quality/cost ratio and thus strengthens the competitiveness of the company. EnBW places great emphasis on the efficient design of its procurement processes for achieving cost-effective purchasing results, as well as on sustainable procurement – while 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 2017 (without ITOs) amounted to around €4.1 billion (previous year: around €2.4 billion).

Procurement volumes of the EnBW Group by segment  
in %



A large number of suppliers and service providers contribute to the services rendered by EnBW. They play an important role in the company's efforts to achieve a leading position on the energy market. Supplier management promotes successful cooperation between suppliers and EnBW because it makes the performance of the suppliers transparent and also makes continuous optimisation in partnership possible. This is connected with the desire to procure high-quality materials and services that are safe and socially acceptable.

Sustainable procurement begins with the careful selection of business partners. Central purchasing at EnBW AG uses a standardised pre-qualification process for this purpose. Starting from a certain procurement volume, suppliers are required to provide a self-assessment via the EnBW supplier

portal about 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 submitted by 93% of our suppliers by the end of 2017 (measured by procurement volume). Centralised documenting of certificates enables us to ensure that all the necessary prerequisites for awarding a contract are fulfilled. The information is updated every three years on the basis of a renewed self-assessment.

Companies in which EnBW has a participating interest that are not overseen by central purchasing address a number of non-financial aspects. Challenges in the area of human rights do not exist in the opinion of EnBW due to the existing minimum standards in Europe, where the vast majority of the suppliers are based.

Energiedienst Holding (ED) works closely together 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 Switzerland or neighbouring EU countries. ED believes that cooperation with these suppliers has proven its worth due to good supplier relationships and short response times. In addition, the purchasing guidelines have been revised with the aim of bundling procurement orders to a greater extent.

The purchasing department at Pražská energetika ensures that key sustainability aspects are observed by suppliers, such as the payment of social security contributions, the settlement of tax liabilities and the prevention of money laundering. Potential suppliers are required to 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 defined in the supplier contracts.

Stadtwerke Düsseldorf uses compliance guidelines, environmental management system manuals and process descriptions to fight corruption and bribery, as well as for the protection of the environment.

The fundamental principles for procurement at VNG-Verbundnetz Gas are regulated by a code of conduct, the management handbook and Group guidelines. Aspects such as sustainable environmental protection and the protection of corruption are fixed components of the procurement regulations and the compliance management system.

In order to identify potential new sources of supply, such as in Asia, and to expand the supplier portfolio, market analyses on

global procurement markets are carried out and meetings with suppliers are held. Procurement plays an important role in the strategically important expansion of the portfolio of power plants in the area of renewable energies. EnBW was able to achieve significant savings in the area of procurement for onshore and offshore wind power plants.

Due to the growing focus on results in purchasing, suppliers increasingly attempt to make supplementary claims above and beyond the originally agreed order volumes. In order to reduce the risk of supplementary claims, contract management is working on further improving the general quality of the contracts for supplier relationships. One measure is, for example, the close cooperation between the legal, technology and purchasing departments, especially in the field of onshore and offshore wind power plants.

The opportunities and risks in relation to procurement can be found in the "Report on opportunities and risks" (p. 95).

## Responsible raw materials procurement in the coal sector

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

In October 2017, the Board of Management of EnBW confirmed the existing approach for the responsible procurement of coal and also resolved additional measures. The aim is to significantly strengthen the company's influence on the Colombian producers and also improve their CSR performance. For this purpose, EnBW will strengthen the influence it has over producers through the targeted expansion of direct supplier relationships. By adding CSR clauses to direct supply contracts, the producers will be obligated to observe the EnBW code of conduct. The first contract based on the resolutions made by the Board of Management was already concluded at the end of 2017, which will significantly increase the proportion of direct supplier relationships with Colombian producers over the next few years.

In accordance with the Guiding Principles on Business and Human Rights of the United Nations, EnBW strives to procure coal responsibly and thus to fulfil its human rights responsibilities. Due to the special challenges faced in the area of coal procurement, especially in Colombia, the current CSR performance of potential coal suppliers is regularly discussed

on the basis of the rules of conduct governing the responsible procurement of hard coal and other raw materials ([www.enbw.com/verhaltenskodex](http://www.enbw.com/verhaltenskodex)), which were adopted in July 2014, and used to determine any future action. The coal suppliers are evaluated on the basis of relevant international standards, such as the UN Global Compact, the OECD Guidelines and the IFC (International Finance Corporation) Performance Standards. The latest studies by competitors and international initiatives also flow into the evaluation of the producers, such as information and contributions from civil society organisations.

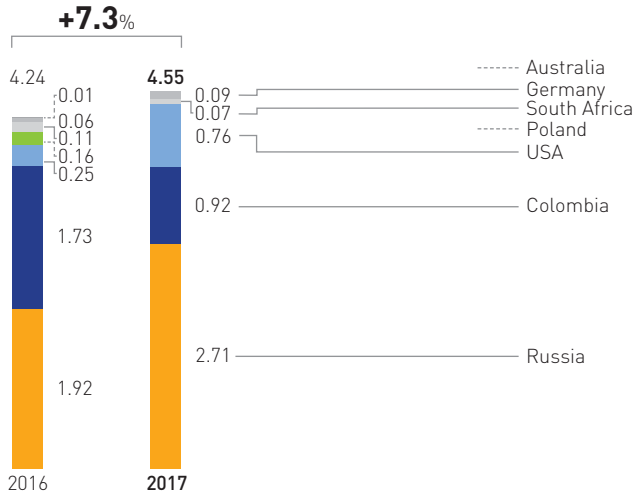
Our code of conduct in combination with an internal implementation guide act as the foundations for the targeted achievement of responsible coal procurement. The annual assessment of coal producers is carried out using the EnBW sustainability index, which covers all areas of the code of conduct. In addition to regular auditing of the sustainability performance of business partners, a multi-stage auditing process will come into force in the event of suspected breaches of the code, which can lead to the termination of the business relationship or exclusion from our procurement process. The results of the analyses in the sustainability index are discussed as part of a control process by the committee for the responsible procurement of raw materials (comprising members from all relevant specialist departments) at least once a year. Findings from discussions with external stakeholders 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, where necessary, in cooperation with the producers for existing supply contracts. The committee for the responsible procurement of raw materials met on two occasions in 2017, to discuss the sustainability performance of all significant supplier companies on the basis of existing findings from the sustainability index.

### 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. Some 4.55 million t of coal were delivered to EnBW power stations in 2017 (previous year: 4.24 million t of coal). This corresponds to a procurement volume of €340.4 million. In the reporting year, Russia further strengthened its position as the main country of origin for coal supplies. The share accounted for by Colombian coal fell significantly.

**Origin of coal supplies to EnBW power plants**

in million t



As the three major coal producers in Colombia have their own shipping ports, it is possible to precisely trace the source of the coal from this country. The Colombian coal delivered to EnBW power plants was sourced via various contracts, primarily from the producers Drummond and Prodeco. Coal from the USA originated mainly from coal mines in the Illinois Basin, where the controversial method of mountaintop removal mining is not used. A small amount originated from non-traceable sources in the USA. The origin of coal sourced from Russia can only be localised to the mining region due to the large number of coal mines and coal producers in the country. The Russian coal sourced by EnBW originates from the Kusnezsk Basin.

EnBW places 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. EnBW covers the largest part of its coal requirements through contracts with trade intermediaries, which usually define quality standards but not from where the coal originates. In addition, direct business relationships exist with selected coal producers which we will expand in the future. More information on coal procurement by EnBW can be found on our website at [www.enbw.com/kohlebeschaffung](http://www.enbw.com/kohlebeschaffung) and in our Energiewende blog at [www.dialog-energie-zukunft.de/infografik\\_kohle](http://www.dialog-energie-zukunft.de/infografik_kohle).

The opportunities and risks in relation to raw materials procurement can be found in the “Report on opportunities and risks” (p. 95).

**Observance of the code of conduct and other measures**

All current coal suppliers fulfil the minimum requirements of the code of conduct. The developments in Colombia, particularly in relation to the implementation of the peace process, is a special area of focus. In order to continue to discuss and agree suitable measures in cooperation with the suppliers in the sense of the direct, constructive dialogue practised over the past few years, discussions have been held with representatives of the Colombian government and civil society. In addition, EnBW is expanding its activities in Russia. We have been supporting, for example, a project headed by the UNDP (United Nations Development Programme) and the WWF (World Wide Fund For Nature) for identifying and evaluating the sustainability activities of companies in the coal sector. The further development of our own measures for responsible coal procurement is significantly influenced by the recommendations of the National Action Plan for Business and Human Rights from the German government – with EnBW having intensified its discussions with governmental and non-governmental representatives for this purpose.

## Business report

# General conditions

## External influences

The business performance of EnBW is greatly influenced by a wide range of external factors. These include, above all, the development of the wholesale market prices for electricity, the political/regulatory framework conditions and also the weather conditions. The price of electricity is not only dependent on demand but also on the development of the global fuel and CO<sub>2</sub> markets. In an environment characterised by a constantly growing share of generation accounted for by renewable energies, earnings are naturally influenced by the weather conditions. In addition to these factors, the energy sector is still experiencing a period of fundamental change due to the transition to increasingly carbon-neutral methods of energy generation. On the sales side of the business, there is very intensive competition with ever more newer players joining the market.

## Macroeconomic trends

### Economies

Economic growth accelerated in 2017 in almost all of the economies relevant to EnBW. The growth in economic output was based above all on buoyant levels of private consumption. However, there was also an increase in economic and political risks, such as populist and separatist movements and the abandonment of tried-and-tested international trade agreements.

The general conditions for the business activities of EnBW should remain favourable in 2018. Economic growth in Europe is expected to be at the same level as in the previous year. The slower rate of growth anticipated in Turkey and the Czech Republic will not have any significant effect on the business performance of EnBW.

### Development of gross domestic product (GDP)

in %	2018	2017	2016 <sup>1</sup>
World	3.9	3.7	3.2
Eurozone	2.2	2.4	1.8
Germany	2.3	2.2	1.9
Switzerland	2.0	1.0	1.4
Czech Republic	3.3	4.4	2.6
Turkey	3.5	7.5	3.2

<sup>1</sup> The figures for the previous year have been restated.

## Development of interest rates

The European Central Bank (ECB) continued its expansive monetary policy in 2017. In the middle of the year, suggestions of a possible reduction in the purchase of securities by the central bank led to a temporary rise in yields for government bonds, which declined again during the remainder of the year.

The discount rates, especially those for the pension and nuclear provisions of the company, also followed this trend. For the year as a whole, both the discount rates and also the present value of the pension and nuclear provisions remained almost stable.

The average of the consensus forecasts for the ECB main financing rate has remained unchanged at 0.0% since the middle of March 2016.

## Development of the sector and competitive situation

The energy sector is still undergoing a period of fundamental change. The Energiewende has concentrated up to now on the generation of electricity using renewable energies, but the focus will expand in future to bring the themes of heating and electromobility more and more into play. This will result in fierce competition in all segments of the market.

Many new business models are being developed and new competitors are emerging on the market offering new products and services. In this challenging environment, traditional energy supply companies need to review their business models and orientate themselves to the new market conditions (p. 14 f. and 24).

## International, national, regional and new competitors

Competitor segment	Companies	Characteristics
International competitors	EDF, Enel, Engie, E.ON, Uniper, Iberdrola, RWE, innogy, Vattenfall	<ul style="list-style-type: none"> <li>&gt; Broad-based, internationally oriented growth strategy</li> <li>&gt; Growth especially in renewable energies, grids and sales/solutions</li> </ul>
National competitors (DACH region)	ALPIQ, EVN, Verbund	<ul style="list-style-type: none"> <li>&gt; Stable national position, activities in selected foreign markets</li> <li>&gt; Focus on market development, for example in renewable energies, grids, sales and/or solutions</li> </ul>
Regional competitors	Badenova, EWE, MVV, SWM, Thüga	<ul style="list-style-type: none"> <li>&gt; Focus on regional markets</li> <li>&gt; Main focus of the business activities mostly in area of grids and sales</li> </ul>
New competitors	1&1, Capital Stage, Deutsche Telekom, Google, NEXT Kraftwerke, sonnen, Tesla, wpd	<ul style="list-style-type: none"> <li>&gt; Entry of new market participants increases competition and leads to a fragmentation of the value chain</li> </ul>

## Cross-segment framework conditions

## Climate protection

The business activities of EnBW will be significantly influenced by international climate protection targets and the associated measures for their achievement. The 23rd UN Climate Change Conference was held in Bonn in November 2017. Its main aim was to push forward with the practical implementation of the Paris Climate Change Agreement. The achievement of Germany's climate protection targets for 2020 and maybe also those for 2030 is under threat. Therefore, further measures are now required – with political discussions focussing above all on the accelerated phasing out of coal-fired power generation.

The achievement of Germany's climate protection targets up to 2050 will affect all levels of the value added chain for electricity and gas in which EnBW is active. Starting with the transition from generation using fossil fuels to renewable energies such as wind and sun, the implementation of the climate protection targets will involve the expansion of the grid infrastructure as well as customer-oriented areas of activity, such as energy efficiency, e-mobility or energy services, for all customer segments from household customers through to the housing industry, industrial customers and local authorities.

EnBW published a Declaration on Climate Policy together with the development and environmental organisation Germanwatch, Foundation 2°, B.A.U.M and more than 50 companies ([www.enbw.com/klimaschutz](http://www.enbw.com/klimaschutz)). It demands that climate protection together with concrete measures in this area are made a central task of the future German government.

In addition, Thomas Kusterer, EnBW Chief Financial Officer, is a member of the Task Force on Climate-related Financial Disclosures (TCFD) and committed to the development of climate-related risk reporting. The TCFD published recommendations for effective climate reporting in summer 2017. It emphasises that, by implementing the recommendations, companies can demonstrate how they handle climate-related opportunities and risks. In addition, the TCFD standard requires companies to explain how robust their business models are on the way towards creating a low-carbon

economy. Presenting the robustness of our business model with respect to climate protection (p. 15) and an index of the TCFD recommendations (p. 115) represents the first steps towards its implementation in this report.

The strategy being followed by EnBW of concentrating investment on renewable energies, expanding the grids and developing new and increasingly digitalised business models supports the achievement of the targets set at the Climate Change Conference, while the strategy itself is being promoted by the international efforts for climate protection.

## Energiewende 2.0

At the beginning of the Energiewende, the main focus was placed on the expansion of energy generation using renewable sources. Since the Paris Climate Change Agreement in 2015, it has become clear that transforming the energy industry will not be sufficient on its own for the achievement of the greenhouse gas targets. Rather, all other sectors need to be included in order to achieve the climate target of limiting the increase in global temperature to well below two degrees Celsius.

The residual budget that is still available for greenhouse gas emissions for Germany in 2050 of 250 million tCO<sub>2</sub> (80% target) or 62 million tCO<sub>2</sub> (95% target) will be required to a significant extent for remaining process-related emissions in industry and agriculture. Therefore, private households, industry, trade and commerce, as well as transport and the energy industry, need to make a greater contribution to the reduction of greenhouse gases and be almost fully decarbonised by 2050. This will require a complete transformation of the energy system because fossil fuels will by and large need to be completely replaced.

Sector coupling – the networking of the three sectors of electricity, heating and transport – is associated with an increase in the levels of complexity. Balancing the generation of electricity from renewable energies that cannot be directly controlled and the demand for energy is an important aspect of the Energiewende. The necessary flexibility will, to a certain extent, mean controlling demand, such as the charging of e-vehicles at times beneficial to the system and the short-term

or seasonal storage of energy. This movement towards a holistic approach across all sectors, the stronger links to sustainable infrastructure themes as a result and the development of numerous cross-sector business models will act as an important basis for the strategy of EnBW in the post 2020 period (p. 26 f.). We are already developing one growth field through the provision of a charging infrastructure for electric vehicles.

### Activities in Turkey

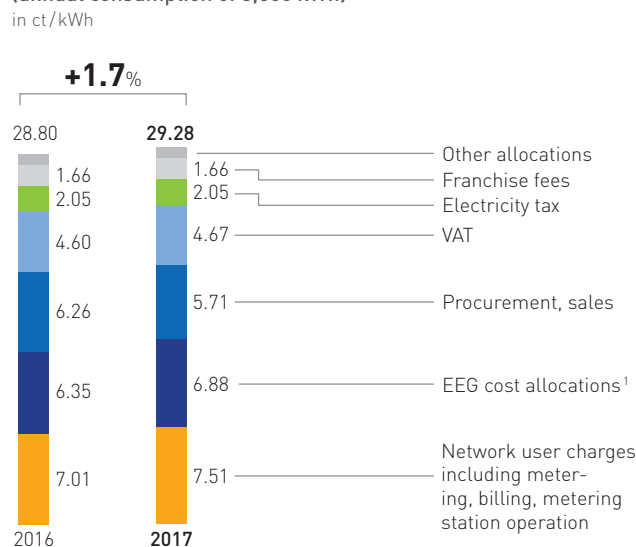
EnBW has been actively involved in the expansion of electricity generation in Turkey, above all through investment in wind power plants, as part of its joint venture with its Turkish partner Borusan since 2009. In 2017, the joint venture was the second most successful company in the auctions for wind projects with bids accepted for around 400 MW. It was thus able to increase its existing generation portfolio from around 750 MW to around 1,150 MW. In the past few years, the economic and political conditions in Turkey have deteriorated noticeably. EnBW continues to closely monitor these developments. In our opinion, there is currently no immediate danger to the employees working in Turkey or to the security of the investments made jointly with our Turkish partner.

## 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 2018, the average monthly electricity bill for a household with an annual consumption of 3,500 kWh in 2017 came to €85.42 compared to €83.99 in the previous year. Taxes and levies account for more than half of this amount. EnBW was able to keep the price for the basic supply of electricity stable in 2017 as lower wholesale market prices compensated for the increase in levies. In the case of industrial customers receiving a medium-voltage supply, the average electricity price including electricity taxes increased according to calculations made by the BDEW by 9.9%, from 15.55 ct/kWh in the previous year to 17.09 ct/kWh in 2017.

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



<sup>1</sup> Use of the German Compensation Mechanism Ordinance (AusglMechV) applies since 2010.

Source: BDEW  
As of January 2018

According to calculations by the German Federal Statistical Office in 2017, natural gas prices for private households had fallen by 3.0% compared to the previous year; the price of natural gas for industrial customers had risen by 3.8%.

### Structural changes

In the area of **energy services**, there will be new applications for electricity in the areas of electromobility and urban infrastructure and in other business fields. In the long term there may even be an increase in demand as fossil fuels are replaced by electricity – such as through the use of heat pumps – and due to the politically desired expansion of electromobility. More than 20% of new buildings are now equipped with heat pumps. An expanding range of vehicles with electric drives and the increase in state funding in 2016 has led to a significant rise in newly registered e-vehicles: Growth of 133% was recorded in the first half of 2017 alone compared to the previous year. The expansion of the public charging infrastructure is also accelerating: Around 10,700 publicly accessible charging points were available in Germany by the middle of 2017 – which represented an increase of over 4,000 charging points in comparison to the previous year. EnBW made an important contribution in 2017 with the expansion of the charging infrastructure at around 120 motorway service stations together with Autobahn Tank & Rast GmbH. EnBW believes that the “transport transition” (Verkehrswende) – a further component of the Energiewende – is an important prerequisite for achieving the German climate protection targets. For this reason, electromobility is a strategically relevant area of activity.

The increasing digitalisation of the energy supply system is also acting as the basis for the development of innovative business models. The digitalisation law that came into force in 2016 includes an obligation for the installation of **smart meters** in progressive stages. Large consumers with annual consumption of more than 10,000 kWh will receive digital smart meters from 2017. Smart meters will then become obligatory for private households with an annual consumption of 6,000 kWh or more from 2020. The certification of the devices by the Federal Office for Information Security (BSI) has been delayed – the roll-out will begin as soon as the first certified devices are available on the market.

The act to promote **tenant electricity** came into force on 25 July 2017. Tenant electricity describes electricity that is generated in solar power plants on the roof of a residential building and supplied to end consumers – especially tenants – in the same building or in residential buildings and ancillary facilities in the immediate vicinity without transmission via the grid. The electricity that is not used by the tenants is fed into the grid for general supply and reimbursed accordingly. Funding could only be provided up to now for electricity from PV power plants that was fed into the grid for the general supply of electricity. The new regulations should also allow tenants to enjoy the benefits of decentralised, renewable generation. EnBW believes that the improved general conditions offer opportunities for developing innovative business models and is already offering an innovative product called EnBW solar+ that optimally combines a photovoltaic power plant and a storage system.

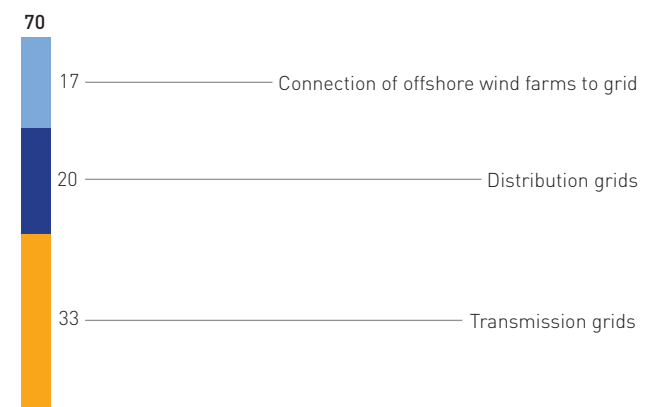
The German Federal Ministry for Economic Affairs and Energy (BMWi) published the “**Funding strategy for energy efficiency and heating from renewable energies**” in May 2017. The strategy describes measures for the further development of energy efficiency funding in the new legislative period and contains recommendations for action to define the climate protection plan in concrete terms in relation to energy efficiency and heating from renewable energies. The aim is over the next few years to combine, for example, energy efficiency and renewable energy funding programmes and align them towards specific target groups. In addition, the funding of heat generation that is exclusively based on fossil fuels is due to be phased out from 2020. EnBW believes that the pending “heating transition” (Wärmewende) offers opportunities for the provision of energy-efficient and low-carbon heating solutions.

## Grids segment

The success of the Energiewende is closely linked to the **expansion of the transmission and distribution grids**. The connection of renewable energies will require further construction measures at all levels of the electricity grid. Furthermore, the electricity grid also needs to be equipped for the expected escalation in the number of electric cars. The distribution grid operators at EnBW are preparing to face these challenges.

The **Network Development Plan Electricity (NDP Electricity)** up to 2030 anticipates further demand for new power lines for the German transmission grid. The Federal Network Agency (BNetzA) has examined and approved 16 new projects for inclusion in the Federal Requirements Plan. According to assessments made by the transmission system operators (TSO), further expansion of the grid will be necessary even after 2030, which could also comprise pure high-voltage direct current transmission lines (HVDC lines). Our transmission system operator TransnetBW is involved in these grid development plans through the SuedLink and ULTRANET projects.

Investment for the expansion of the German electricity grid up to 2030  
in € billion



Source: Own estimates based on latest Network Development Plan Electricity from TSO and the BMWi 2014 Distribution Grids Study.

The final version of **Network Development Plan Gas (NDP Gas)** 2016 to 2026 from 16 October 2017 comprises an investment volume of €3.9 billion to expand the transmission gas pipelines by 823 km and increase compressor capacity by 429 MW. This does not include expansion measures with a volume of around €500 million linked to the Nord Stream 2 pipeline that has not yet been approved. If approval for Nord Stream 2 is received, the gas transmission grid operators want to include these measures again in an addendum to the final NDP Gas. There are no measures for the grid area operated by ONTRAS in the NDP Gas. As part of the work to strengthen the German and European gas supply, ONTRAS is participating in the European Gas Pipeline Link (EUGAL) as a project shareholder. A further revision was necessary to create the conditions for the future development of the power plant sites in Altbach and Heilbronn am Neckar as possible locations for gas-fired grid reserve power plants. Both of these planned power plants are located in the grid area covered by our gas transmission grid operator terranets bw.

The German government passed a law on the modernisation of grid fees (**Netzentgeltmodernisierungsgesetz, NEMoG**) on 30 June 2017. NEMoG envisages the stepwise harmonisation of the transmission grid fees from 2019 until 1 January 2023. Furthermore, the remuneration for decentralised feed-ins (so-called avoided grid fees) will be



adjusted: The payments for all controllable power plants will be frozen at the grid fees for 2016 and adjusted for the costs of connecting up the offshore wind farms and of the underground cables for the transmission grids. In the case of non-controllable power plants (wind and photovoltaic power plants), the avoided grid fees will be phased out from 2018 in three stages up to 1 January 2020. It can be assumed that cost components for the Energiewende across Germany will be additionally contained within the network user charges for TransnetBW, as the network user charges are currently lower than at other German TSOs. The earnings for our EnBW power plants from the decentralised feed-in remuneration will reduce in accordance with the legal agreements.

The natural gas market in Germany has been split into the two balancing zones **NetConnect Germany (NCG)** and **GASPOOL** – both of which supply **L-gas** and **H-gas** – since October 2011. The Bundesrat agreed on the **reform to the Gas Grid Access Directive (GasNZV)** on 7 July 2017. In particular, the reform requires the merging of the two German market areas by 1 April 2022. This is seen as an important step for future European developments that could also include a cross-border market area with German participation. This would prevent any discrimination within Germany caused by the integration of only one of the two German market areas. We view the merging of the two German market areas as a necessary intermediate step in the further development of the national gas market, as well as for cross-border integration, such as with the Benelux countries. In particular, we anticipate that this will result in an improvement to the liquidity situation on the **forward market**.

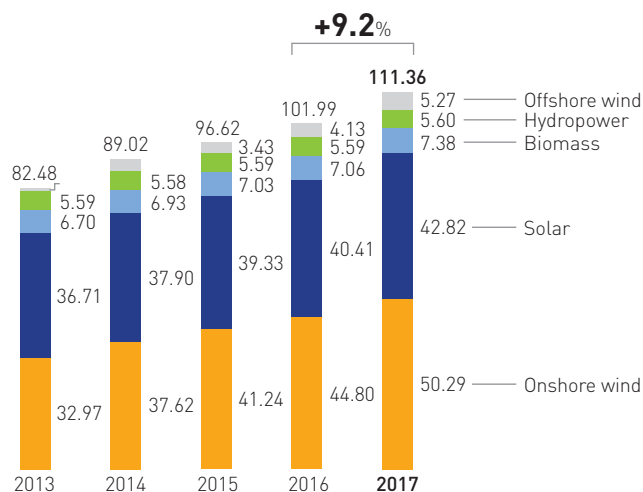
As part of the cost assessments for the third incentive regulation period, the electricity grid operators submitted their **network user charge applications** using the data for base year 2016 by 30 June 2017. The corresponding network user charge notices for the third regulatory period for electricity (2019 to 2023) are only expected during the course of 2018. The gas grid operators had already submitted their network user charge applications for the third regulatory period for gas (2018 to 2022) in 2016, using the 2015 financial year as a basis. The cost assessments are very relevant for our grid operators because the results have a significant effect on their earnings situation.

## Renewable Energies segment

**Renewable energies in Germany** experienced significant growth in 2017 both in terms of their capacity and also the volume of electricity generated. According to the Fraunhofer ISE, the proportion of total German electricity generation accounted for by renewable energies increased to 38.4% (2016: 33.6%). Generation from photovoltaics increased by around 1%. Generation from wind power increased by around 32% in comparison to 2016, which had experienced relatively poor wind conditions. The area of onshore wind power experienced especially strong growth in 2017 with the addition of more than 5 GW of capacity.

Installed net output for electricity generation from renewable energies in Germany

in GW/year



Source: AGEE, BMWi, Bundesnetzagentur  
As of 02/01/2018

For **onshore wind power plants**, there is a transitional period for the completion of already approved projects with fixed funding up to the end of 2018. Three rounds of auctions were held in 2017 for later projects. The existing privileges for **community energy cooperatives (BEG)** meant that nearly all of the bids accepted were for projects from these types of cooperative. EnBW did not have any of its bids accepted in Germany in 2017. The rate of expansion is set to decrease in 2018 and 2019 because BEG enjoy greater freedom for the implementation of the projects. The first two rounds of auctions without privileges for BEG will be held in 2018, which means that all of the projects can bid under the same conditions in these auctions. It is anticipated that BEG will once again enjoy the same privileges in the two subsequent rounds of auctions.

For **offshore wind power plants**, the target of 15 GW of installed output by 2030 has been defined. There will also be a period of transition to competitive auctions for offshore wind power plants: All wind farms that are placed into operation by 2020 will receive funding in accordance with the EEG 2014. The first of a total of two transitional auctions for wind turbines to be connected to the grid between 2021 and 2024 was held in April 2017. Three projects that did not require any state funding were accepted, including the He Dreht project from EnBW. The central auction process will apply to new projects from 2025. EnBW will realise its EnBW Hohe See and EnBW Albatros projects as planned by 2019 and participate in the tender procedures with its subsequent projects (p. 90).


A central auction model is also being used for **photovoltaic power plants** with an installed output of more than 750 kWp. The prices in the accepted bids for the participating projects fell during the course of the three rounds of auctions in 2017, from an initial 6.6 ct/kWh to 4.9 ct/kWh. The development of photovoltaic output in Germany is also dependent on the growth of smaller power plants, whose profitability is in-

creasingly characterised by own consumption models. A continuous fall in the cost of battery storage systems in combination with lower feed-in remuneration already makes these models an attractive option today.

## Generation and Trading segment

### Electricity wholesale market


Following a low in 2016 and lateral movement in the first half of 2017, prices on the wholesale market for electricity rose significantly during the remainder of the year. While the market prices for the 2018 delivery year stood at €30/MWh on average in the first half of the year, prices already increased in the third quarter to €33/MWh and in the fourth quarter to €37/MWh. The increased prices on the electricity market were due primarily to higher prices for hard coal and emission certificates. As a result, the pressure on generation from coal power plants remains high, especially in Germany. The trend for electricity generated at large power plants to be driven out of the market by the increasing level of generation from renewable energies is continuing.

The front year  base load prices in 2018 will remain highly dependent on the development of prices for fuel and CO<sub>2</sub> allowances. In the medium term, the price level will be increasingly influenced by changes in energy and environmental policies at home and abroad.

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

in €/MWh	Average 2017	Average 2016
Spot	34.19	28.98
Rolling front year price	32.38	26.58

### Gas market

Long-term gas import contracts form a primary basis of Germany's gas supply. The wholesale markets, such as the TTF and the trading point of the  NetConnect Germany (NCG) market area, are other important sources of natural gas. Prices track the oil price trends with a time lag. In addition, prices on the European wholesale market have developed more autonomously because the increased supply of Liquefied Natural Gas (LNG) from the USA and Australia has meant that gas and oil prices have become less and less tightly linked to one another. The border price index for natural gas published monthly by the German Federal Office of Economics and Export Control (BAFA) stood at €16.34/MWh in August 2017, which was 7.2% below the December 2016 figure (€17.60/MWh) and 15.5% above the figure for the same month in the previous year (€14.15/MWh). As a result of the oversupply on the gas markets, we do not anticipate that prices will recover further in the short term.

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

in €/MWh	Average 2017	Average 2016
Spot	17.29	14.02
Rolling front year price	16.98	15.40


### Oil market

The oil market in 2017 was primarily supported by the joint production cuts agreed by OPEC, but not including Libya and Nigeria, as well as by some non-OPEC countries such as Russia. Due to the more limited supply from these countries, global stocks fell steadily in 2017 but still continued to be above the target five-year average. The very dynamic growth in oil production in the USA, combined with a sometimes poor level of compliance by individual OPEC countries and the threat that the agreement to limit production would expire at the end of June 2017 meant that oil prices were consistently under pressure from March to June. The extension to the production cuts initially up to the end of March 2018 and then until the end of 2018 ultimately ended the fear of a return to oversupply. As a result, oil prices recovered by September to the levels seen at the start of the year, before the impact of the hurricanes Harvey and Nate as well as – from the middle of October – a series of geopolitical risks led to a further increase in prices to more than US\$60/bbl. These risks included the conflict between the Iraqi central government and the Kurds in northern Iraq, new tensions between Saudi Arabia and Iran, the internal power struggle in Saudi Arabia, the potential reintroduction of US sanctions against Iran and the threat of Venezuela going bankrupt. We thus anticipate that the sharp increase in oil production outside of OPEC will mean that any price rises to anything significantly over US\$70/bbl will be prevented, as long as there are no further production shortfall or geopolitical crises.

#### Development of prices on the oil markets

in US\$/bbl	Average 2017	Average 2016
Crude oil (Brent), front month (daily quotes)	54.75	45.13
Crude oil (Brent), rolling front year price (daily quotes)	54.87	49.35

### Coal market





In the first half of 2017, the prices of API #2 quality coal for delivery in the 2018 calendar year (API #2 Cal 18) fluctuated on the  forward market in a range between US\$60/t and US\$70/t. In the second half of the year, prices rose continuously to a value above US\$85/t. The main reason for this were the severe restrictions on Chinese coal production due to comprehensive safety checks in the country's coal mines. Coal imports into China rose as a result to more than 27 million t in September 2017, which was the highest monthly volume since December 2014. The demand for coal was higher than in the previous year in many other, primarily Asian

countries, which resulted in global coal imports increasing by more than 20 million t in 2017 compared to 2016. In addition, higher freight costs and oil prices led to a rise in prices for deliveries to Europe. We thus anticipate that coal prices on the spot market in 2018 will level off at a price of over US\$80/t if the high demand for coal in Asia continues.



#### Development of prices on the coal markets

in US\$/t	Average 2017	Average 2016
Coal – API #2 rolling front year price	73.70	53.63
Coal – API #2 spot market price	84.52	60.05

#### CO<sub>2</sub> allowances



Under the European emissions trading system, proof must be provided of  CO<sub>2</sub> allowances for CO<sub>2</sub> emissions from power plants. In the first half of 2017, the price of EU allowances (EUA) fluctuated between €4.30/tCO<sub>2</sub> and almost €6/tCO<sub>2</sub>. In the second half of the year, the prices for emission allowances rose to around €8/tCO<sub>2</sub>. The total supply of  EUA certificates was slightly above the anticipated emissions in 2017. However, the  hedging demand was higher due to the increase in  clean dark spread during the course of the year. In addition, the ongoing negotiations on the reform of the EU Emissions Trading System (ETS) have provided some impetus for prices to rise. A general increase in EUA prices is expected in 2018.

#### Development of prices for emission allowances/daily quotes

in €/t CO <sub>2</sub>	Average 2017	Average 2016
 EUA, rolling front year price	5.77	5.34
 CER, rolling front year price	0.23	0.38

#### Nuclear power

The Act for the Reorganisation of Responsibility in Nuclear Waste Management came into force in the middle of June 2017. It 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 obligations remain with the companies. The transport, intermediate storage and final storage of the waste will be the responsibility of the German government in future. A fund under public law took over these obligations from the operators on 3 July 2017. The payment of a risk premium of around 35% releases the operators from any subsequent liability for the areas of responsibility transferred to the German government. The law is accompanied by a public law contract between the government and the operators that not only clarifies the rules established in the law in more detail but also stipulates the further course of action to be taken regarding the repatriation of reprocessing waste from France and Great Britain. The operators are obligated in the contract to prepare applications for the storage of this waste at selected intermediate storage sites. The transport of the waste will only be carried out when the intermediate storage sites for highly radioactive waste have been transferred to the German government; this will not be the case before 1 January 2019.

On 7 June 2017, the Federal Constitutional Court declared the law for the  nuclear fuel rod tax unconstitutional; EnBW has received a tax refund as a result ( p. 56 ff.).

# The EnBW Group

## Finance and strategy goal dimensions

### Results of operations

#### Electricity sales increase slightly, gas sales significantly higher due to full consolidation of VNG

##### Electricity sales of the EnBW Group (without Grids)

in billions of kWh	Sales		Renewable Energies		Generation and Trading		Total (without Grids)		Change in %
	2017	2016	2017	2016	2017	2016	2017	2016	
Retail and commercial customers (B2C)	15.0	15.0	0.0	0.0	0.0	0.0	15.0	15.0	0.0
Business and industrial customers (B2B)	23.7	28.2	0.0	0.0	0.0	0.0	23.7	28.2	-16.0
Trade	1.0	0.7	2.2	3.3	80.1	67.6	83.3	71.6	16.3
<b>Total</b>	<b>39.7</b>	<b>43.9</b>	<b>2.2</b>	<b>3.3</b>	<b>80.1</b>	<b>67.6</b>	<b>122.0</b>	<b>114.8</b>	<b>6.3</b>

In the 2017 financial year, electricity sales of the EnBW Group were slightly above the level in the previous year. Adjusted for consolidation effects, there was hardly any change (+0.1%). It was possible to more than offset the falling sales in the business and industrial customer sector (B2B) by a small margin through the effects in trade of the full consolidation of VNG-Verbundnetz

Gas and an increase in trading activity. However, the effect of trading activities on the earnings potential of the company is limited. In a persistently challenging competitive environment, electricity sales in business with retail and commercial customers (B2C) reached the same level as in the previous year, due mainly to the full consolidation of VNG.

##### Gas sales of the EnBW Group (without Grids)

in billions of kWh	Sales		Generation and Trading		Total (without Grids)		Change in %
	2017	2016	2017	2016	2017	2016	
Retail and commercial customers (B2C)	14.4	10.8	0.0	0.0	14.4	10.8	33.3
Business and industrial customers (B2B)	42.6	41.5	51.1	0.0	93.7	41.5	125.8
Trade	0.3	2.1	141.7	84.7	142.0	86.8	63.6
<b>Total</b>	<b>57.3</b>	<b>54.4</b>	<b>192.8</b>	<b>84.7</b>	<b>250.1</b>	<b>139.1</b>	<b>79.8</b>

The gas sales of the EnBW Group increased significantly in 2017 compared to the previous year. Adjusted for consolidation effects, there was only a slight increase of 1.2%. Gas sales in the retail customer business (B2C) were significantly above the level in the previous year due to the full consolidation of VNG. Sales to business and industrial

customers (B2B) also benefited considerably from the full consolidation of VNG. The level of trading activity was significantly higher than in the previous year, which was also due to the full consolidation of VNG. However, the effect of the trading activities on the earnings potential of the company is limited.

## External revenue higher than the previous year due to consolidation effects

### External revenue of the EnBW Group by segment

in € million <sup>1</sup>	2017	2016	Change in %
Sales	7,354.3	7,771.1	-5.4
Grids	7,471.8	6,643.7	12.5
Renewable Energies	507.5	510.6	-0.6
Generation and Trading	6,631.1	4,433.9	49.6
Other/Consolidation	9.3	9.1	2.2
<b>Total</b>	<b>21,974.0</b>	<b>19,368.4</b>	<b>13.5</b>

<sup>1</sup> After deduction of electricity and energy taxes.

**Sales:** In the 2017 financial year, revenue in the Sales segment was slightly below the figure in the previous year. Adjusted for consolidation effects, this would have been a fall of 9.4% or €765.4 million. This was mainly due to lower sales volumes as a result of the withdrawal from the B2B commodity business under the EnBW and Watt brands.

**Grids:** Revenue in the Grids segment increased in 2017 compared to the previous year. Adjusted for consolidation effects, this would have been an increase of 9.1% or €621.5 million. Revenue in this segment grew mainly as a result of higher EEG revenues.

**Renewable Energies:** In the 2017 financial year, external revenue in the Renewable Energies segment was at the same level as in the previous year. Adjusted for consolidation effects, there was a fall of 5.8% or €31.4 million. The decrease in revenue was primarily due to the fact that less electricity was delivered by our hydropower plants and was also sold on the forward market at lower wholesale market prices than was the case for deliveries in the previous year.

**Generation and Trading:** Revenue in the Generation and Trading segment increased significantly in 2017 in comparison to the previous year. Adjusted for consolidation effects, revenue increased by 5.2% or €326.9 million. There were higher gas revenues due to the growth in trading activities. In contrast, our electricity deliveries were sold on the forward market at lower wholesale market prices than in the previous year.

### Material developments in the income statement

The balance from other operating income and other operating expenses increased from €-417.4 million in the previous year to a positive value of €1,587.2 million in the reporting year, which was mainly due to the reimbursement of the nuclear fuel rod tax that was declared unconstitutional in June 2017. In addition, there was the sale of 49.89% of the shares in each of the EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG wind farms and the revaluation of the remaining shares. The cost of materials stood at €18,189.3 million, which was 9.0% higher than the figure in the previous year. This was primarily attributable to consolidation effects. The decrease in amortisation and depreciation of

€1,145.2 million is primarily attributable to high impairment losses on power plants in the previous year as a consequence of the Act for the Reorganisation of Responsibility in Nuclear Waste Management. The investment result stood at €159.3 million, which was €41.7 million higher than the figure in the previous year. This development was mainly due to consolidation effects. The financial result improved significantly in the reporting year in comparison to the previous year by €1,371.2 million to €194.6 million (previous year: €-1,176.6 million). This was primarily due to expenses in the previous year relating to the Act for the Reorganisation of Responsibility in Nuclear Waste Management, interest effects on the nuclear provisions and interest received due to the legal proceedings for the reimbursement of the nuclear fuel rod tax in 2017. Overall, earnings before tax (EBT) totalled €2,857.9 million in the 2017 financial year, compared with €-2,721.9 million in the previous year. The complete consolidated financial statements can be found at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

### Earnings

The Group net profit/loss attributable to the shareholders of EnBW AG increased from €-1,797.2 million in 2016 by €3,851.3 million to €2,054.1 million in the reporting period. Earnings per share amounted to €7.58 in the 2017 financial year compared to €-6.64 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 sheet. The non-operating result includes effects that either cannot be predicted or cannot be directly influenced by EnBW 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" (p. 59). 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 of EnBW. 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 of the EnBW Group by segment**

in € million	2017	2016	Change in %	Forecast 2017
Sales	330.0	249.7	32.2	+15% to +25%
Grids	1,045.9	1,004.1	4.2	-5% to +5%
Renewable Energies	331.7	295.3	12.3	+5% to +15%
Generation and Trading <sup>1</sup>	377.1	337.2	11.8	0% to -10%
Other/Consolidation	28.3	52.6	-46.2	-
<b>Total</b>	<b>2,113.0</b>	<b>1,938.9</b>	<b>9.0</b>	<b>0% to +5%</b>

<sup>1</sup> The forecast for the Generation and Trading segment was adjusted during the year.

**Share of adjusted EBITDA for the EnBW Group accounted for by the segments**

in %	2017	2016	Forecast 2017
Sales	15.6	12.9	10% to 20%
Grids	49.5	51.8	45% to 55%
Renewable Energies	15.7	15.2	15% to 20%
Generation and Trading	17.8	17.4	10% to 20%
Other/Consolidation	1.4	2.7	-
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	

The adjusted EBITDA for the EnBW Group increased in the 2017 financial year by 9.0% compared to the previous year. Consolidation effects – mainly the full consolidation of VNG on 18 May 2017 – were responsible for 7.6 percentage points of this growth. Adjusted for consolidation effects, the adjusted EBITDA of the EnBW Group would have remained almost constant at 1.4% above the previous year. The increase thus exceeded our forecast of between 0% and 5%. In particular, the Sales and Generation and Trading segments performed better than forecasted.

**Sales:** The adjusted EBITDA for the Sales segment in 2017 exceeded our forecast (+15% to +25%) with an increase of 32.2% compared to the previous year. Adjusted for consolidation effects, this would have been an increase of 22.1%. Alongside the positive effects from the withdrawal from the B2B commodity business under the EnBW and Watt brands, the billing service for other sales and network operators contributed to the improvement in earnings due to lower start-up costs. In addition, unsustainable positive out-of-period effects – including, amongst other things, the reversal of provisions for issues that have since lapsed – were also a reason for exceeding the forecast. The share of the adjusted EBITDA for the Group accounted for by this segment grew in line with our forecast in comparison to the previous year.

**Grids:** The adjusted EBITDA for the Grids segment grew in the 2017 financial year within the range of our forecast (-5% to +5%) by 4.2% compared to the previous year. The earnings performance in this segment was decisively impacted by the

full consolidation of VNG. Adjusted for consolidation effects, there was a fall of 5.8%. This was mainly due to lower earnings from the use of the distribution grids in comparison to the previous year. The share of the adjusted EBITDA for the Group accounted for by this segment remained almost constant in line with our forecast.

**Renewable Energies:** In the Renewable Energies segment, the adjusted EBITDA increased by 12.3% compared to the previous year and was thus within the range of our forecast (+5% to +15%). Adjusted for consolidation effects, this would have been an increase of 12.5%. The wind yields at our offshore wind farms were higher than the previous year, while further onshore wind farms with a total capacity of 204 MW were placed into operation (p. 31). In contrast, lower water levels negatively impacted the electricity generation from our run-of-river power plants in comparison to the previous year. In addition, the electricity delivered from our hydropower plants was sold on the forward market at lower wholesale market prices than in the previous year. The share of the adjusted EBITDA for the Group accounted for by this segment rose slightly in comparison to the previous year and was thus within the range of our forecast.

**Generation and Trading:** In the Generation and Trading segment, the adjusted EBITDA rose in the 2017 financial year by 11.8% compared to the previous year. The result thus exceeded both our original forecast (-10% to -20%) and also our adjusted forecast (0% to -10%). The earnings performance in this segment was decisively impacted by the full consolidation of VNG, which led to a significantly better result than expected. Adjusted for consolidation effects, the result for this segment was at the same level as in the previous year (+0.2%). In addition, there were positive effects from the elimination of the nuclear fuel rod tax and positive out-of-period effects from, amongst other things, decentralised feed-ins. As a result, it was possible to compensate for the negative impacts of the temporary shutdown of Block 2 of the Philippsburg nuclear power plant (KKP 2) due to damaged ventilation system brackets and the fact that our electricity deliveries were sold on the forward market at lower wholesale market prices than in the previous year. The share of the adjusted EBITDA for the Group accounted for by this segment increased slightly in line with our forecast.

**Non-operating EBITDA benefits from reimbursement of the nuclear fuel rod tax****Non-operating EBITDA of the EnBW Group**

in € million	2017	2016	Change in %
Income/expenses relating to nuclear power	1,278.2	-860.6	-
Income from the reversals of other provisions	25.7	18.9	36.0
Result from disposals	317.8	28.4	-
Reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	59.2	-198.1	-
Income from reversals of impairment losses	93.1	5.9	-
Restructuring	-70.0	-110.4	36.6
Other non-operating result	-64.6	-92.3	30.0
<b>Non-operating EBITDA</b>	<b>1,639.4</b>	<b>-1,208.2</b>	<b>-</b>

Non-operating EBITDA increased significantly in the reporting year compared to the previous year. This positive earnings performance can be primarily attributed to the reimbursement of the nuclear fuel rod tax. In contrast, the previous year was impacted by the effects of the Act for the Reorganisation of Responsibility in Nuclear Waste Management. In addition, the sale of 49.89% of the shares in each of the EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG wind farms in 2017 and the revaluation of the remaining shares had a positive impact on earnings.

Furthermore, provisions for onerous contracts for long-term electricity procurement agreements were reversed in 2017, whereby additions to these provisions were still necessary in the previous year. The reversals of impairment losses on power plants also had a positive effect; in the previous year, high impairment losses on power plants were still necessary. This was offset to some extent by costs in the reporting year related to the decision not to continue with the Atdorf pump storage project, which were reported under the other non-operating result.

**Group net profit also influenced by the reimbursement of the nuclear fuel rod tax****Group net profit of the EnBW Group**

in € million	2017	2016	Change in %
Adjusted EBIT	998.8	1,024.5	-2.5
Adjusted EBITDA	(2,113.0)	(1,938.9)	9.0
Scheduled amortisation and depreciation	(-1,114.2)	(-914.4)	21.9
Non-operating EBIT	1,505.2	-2,687.4	-
Non-operating EBITDA	(1,639.4)	(-1,208.2)	-
Impairment losses	(-134.2)	(-1,479.2)	-90.9
<b>EBIT</b>	<b>2,504.0</b>	<b>-1,662.9</b>	<b>-</b>
Investment result	159.3	117.6	35.5
Financial result	194.6	-1,176.6	-
Income tax	-681.6	1,049.4	-
<b>Group net profit/loss</b>	<b>2,176.3</b>	<b>-1,672.5</b>	<b>-</b>
of which profit/loss shares attributable to non-controlling interests	(122.2)	(124.7)	-2.0
of which profit/loss shares attributable to the shareholders of EnBW AG	(2,054.1)	(-1,797.2)	-

The increase in scheduled amortisation and depreciation was due to, amongst other things, changes to the group of consolidated companies. The sharp fall in impairment losses was because of high impairment losses in the previous year. These were mainly carried out on power plants – due to the implementation of the Act for the Reorganisation of Responsibility in Nuclear Waste Management. Another reason was the adjustment to the evaluation of the service life of our conventional power plants following discussions about future


decarbonisation. The increase in the investment result was due above all to changes in the group of consolidated companies. The substantial increase in the financial result in comparison to the previous year was attributable to expenditure in the previous year in relation to the Act for the Reorganisation of Responsibility in Nuclear Waste Management. Due to their short-term nature, the provisions to be transferred to the “fund for the financing of the disposal of nuclear waste” (disposal fund) were no longer increased to


reflect the compounding in the reporting period. Another effect was the reimbursement of interest relating to the legal proceedings for the nuclear fuel rod tax. The change in income tax was primarily due to the change in deferred taxes. The high income from deferred taxes in the previous year was mainly attributable to the adjustment to the provisions relating to nuclear power as a result of the Act for the Reorganisation of Responsibility in Nuclear Waste Management (KFK). This effect is no longer included in the 2017 financial year.


## Financial position

### Financial management of EnBW


#### Basis and objectives

Financial management is responsible for securing the existing financial assets of the EnBW Group and their development, for the optimisation of financing, as well as for guaranteeing a sufficient level of liquidity reserves. This ensures that the Group is able to meet its payment obligations at all times without restriction. The  treasury guidelines of the EnBW Group define the financial transactions permitted by the Board of Management of EnBW and the specified scope within which they may be carried out. The guidelines are applicable to all companies that are either fully consolidated or with which EnBW AG has a profit and loss transfer agreement. The guidelines also act as basic principles for all other companies. The centralised financial management system serves to minimise risks, provide transparency and optimise costs.

In the operating business,  derivatives 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. Propriety trading is only permitted within narrow, clearly defined limits.

Another important aspect of financial management is to manage financial assets ( asset management) in order to cover the corresponding obligations to make provisions.

#### Treasury


In general, the  treasury controls all processes in all companies that are fully consolidated, or with which EnBW AG has a profit and loss transfer agreement. Liquidity management is based on a rolling liquidity planning system and applies within the scope of validity defined above. The treasury is also responsible for the central management of credit lines and bank guarantees, the issuing of guarantees and letters of comfort, as well as interest rate risk and currency management.

#### Interest rate risk and currency management



Interest rate risk and currency management involves the management and monitoring of interest-bearing and interest-sensitive assets and liabilities. The consolidated companies regularly report on the existing risk position via the rolling liquidity planning system. An interest rate risk strategy is devised based on 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 the financial liabilities of the EnBW Group 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 the interest earnings of EnBW. 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 the operating result of EnBW. 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 24 of the notes to the consolidated financial statements at  [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

#### Asset management

Our aim is to cover the Group's non-current pension and nuclear provisions within an economically feasible period of time by means of appropriate financial assets. EnBW uses an  Asset Liability Management model (ALM model) based on cash flows to determine the effects on the balance sheet, income statement and cash flow statement over the next 30 years. Alongside the anticipated return on financial assets, the actuarial valuations of pension provisions and sector-specific appraisals by external experts on costs for nuclear decommissioning and disposal are taken into account. The goal of this model is to limit the effect on the operating business which the utilisation of the pension and nuclear obligations may have. Accordingly, funds are also taken from the financial assets for this purpose. This model also allows simulations of various alternative scenarios. Following the cash outflow of €4.8 billion to finance the disposal fund on 3 July 2017, the position continues to remain stable. As of 31 December 2017, the  dedicated financial assets for pension and nuclear provisions totalled €6,232.7 million (previous year adjusted: €9,917.1 million). Alongside the dedicated financial assets, there are plan assets to cover certain pension obligations with a market value of €1,226.6 million as of 31 December 2017 (previous year: €1,138.5 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 2017. 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



### Financing facilities

In addition to the internal financing capability from the retained cash flow II of €1,529.5 million in 2017 (previous year: €949.5 million) and its own funds, the EnBW Group had the following instruments at its disposal to cover its overall financing needs (as of 31 December 2017):

- > Debt Issuance Programme (DIP), via which bonds are issued: €3.0 billion of €7.0 billion has been drawn
- > Hybrid bonds: €2.0 billion
- > Commercial paper (CP) programme: €2.0 billion undrawn
- > Syndicated credit line: €1.5 billion undrawn with a term until 2021
- > Bilateral free credit lines: €1.4 billion. The free credit lines have increased significantly due to the full consolidation of VNG. The credit lines are used to finance all business activities of VNG, including in particular the financing of the

seasonal requirement for working capital in the gas trading business and for hedging liquidity risks.

- > Project financing and low-interest loans from the European Investment Bank (EIB)

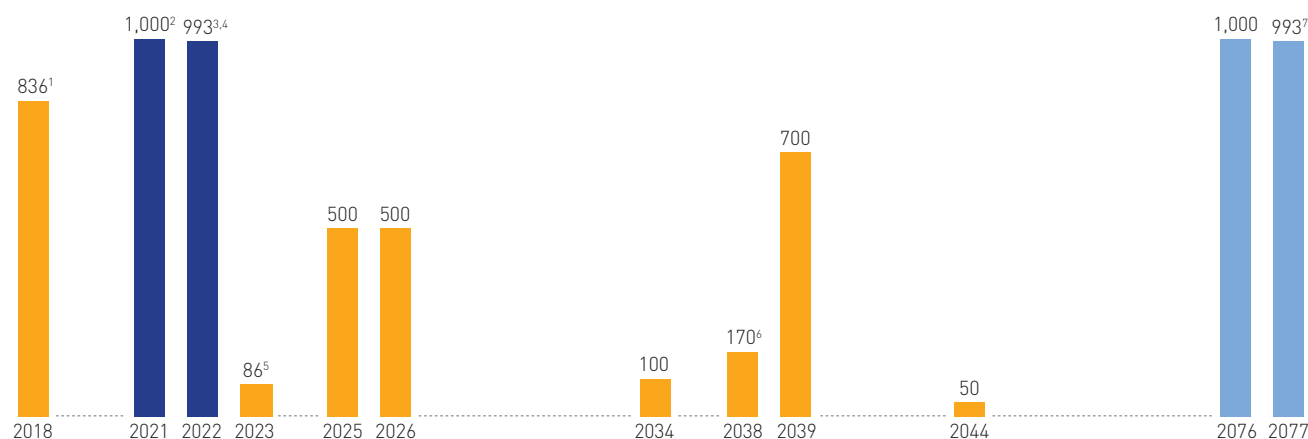
### Established issuer on the debt capital market

EnBW has sufficient and flexible access to the capital market at all times. The EnBW bonds continue to have a well-balanced maturity profile. As part of its financing strategy, EnBW constantly assesses capital market development with regard to the current interest rate environment and to any potentially favourable refinancing costs.

In February 2017, EnBW exercised the call option on its hybrid bond issued in 2011 and increased in 2012 as of the first call date. The repayment of the security with a total volume of €1.0 billion was carried out on 3 April 2017. No senior bonds were due for repayment in 2017.

### Maturity profile of EnBW bonds

in € million



- Senior bonds
- First call dates for hybrid bonds
- Hybrid bonds

- 1 Includes CHF 100 million, converted in € as of 31/12/2017.
- 2 First call date: hybrid maturing in 2076.
- 3 First call date: hybrid maturing in 2077.
- 4 Includes US\$300 million, coupon before swap 5.125%.
- 5 CHF 100 million, converted in € as of 31/12/2017.
- 6 JPY 20 billion (swap in €), coupon before swap 3.880%.
- 7 Includes US\$300 million, converted in € as of at rate of 05/10/2016.

Documentation of short-term and long-term borrowings on the capital market under the established DIP and CP programmes of EnBW AG, as well as all other credit documentation with banks (e.g. syndicated lines of credit) includes internationally standardised clauses. The issuing of a negative pledge, as well as a pari passu clause, to all creditors forms a key element of the financing policy of EnBW. The use of undrawn credit lines is not subject to restrictions.

Details on financial liabilities are presented in note 21 and explanations on other financial commitments are presented in note 25 of the notes to the consolidated financial statements at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

### Rating and rating development

EnBW targets to maintain a solid investment-grade rating. By limiting the cash-relevant net investment to the retained cash flow II, measured by the internal financing capability, EnBW manages the level of net financial debt. The company thus maintains its high level of financial discipline, irrespective of the interest rate-related volatility of the pension and nuclear provisions (p. 49). EnBW ensures the timely coverage of the pension and nuclear obligations using an asset liability management model (p. 60). The burden of the operating business to meet the pension and nuclear obligations is limited to €300 million annually (adjusted for inflation) due to an ongoing contribution from 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.

With a solid **B** investment-grade rating, we want to ensure:

- > permanent access to capital markets
- > being a credible financial counterpart
- > being a reliable business partner in our trading activities
- > low capital costs
- > the implementation of an appropriate number of projects and thereby maintain the future viability of the company

#### Overview of the ratings for EnBW – rating/outlook

	2017	2016	2015	2014	2013
Moody's	Baa1/stable	A3/negative	A3/negative	A3/negative	A3/negative
Standard & Poor's	A-/stable	A-/negative	A-/stable	A-/stable	A-/stable
Fitch	A-/stable	A-/stable	A-/stable	A-/stable	A-/stable

Moody's downgraded its rating for EnBW by one notch to Baa1 on 24 May 2017. The rating outlook was raised from negative to stable because Moody's believes that EnBW is well positioned in the current rating category. On 20 June 2017,

Standard & Poor's (S&P) confirmed its A- rating for EnBW and raised the outlook from negative to stable. Fitch confirmed its EnBW rating on 27 February 2017.

#### Assessment by the rating agencies

Moody's (24/05/2017)	Standard & Poor's (20/06/2017)	Fitch (07/07/2017)
Conventional generation to remain challenging, EnBW 2020 strategy to compensate for negative impact of changing market conditions	Considerable progress in its business repositioning strategy	Ratings reflect strong integration, expected increase in earnings visibility and lower financial leverage than many of its peers
De-risking of EBITDA mix, increasing contribution from more stable profit streams	Funding of nuclear waste-related liabilities without major disruptions to strategy or capital structure	Payment to the state-run nuclear fund (KFK) puts pressure on credit metrics
KFK agreement creates additional financial burden	Nuclear tax refund will support recovery of credit measures	Prudent investment and dividend policy supporting credit ratios
Continuing implementation of measures to defend credit quality	Stable outlook reflects expectation that network operations and growing renewable business will mitigate volatility in power generation and sales, and that credit measures will recover in the near term	Nuclear fuel tax refund will lead to increased headroom assuming that at least part of the amount will be used for strengthening the balance sheet
Strong shareholder support		

The current ratings reflect the repositioning of the EnBW portfolio towards low-risk activities. The following aspects, amongst others, contribute to this goal:

- > the planned increase in the share of **B** EBITDA accounted for by regulated business (Grids segment and Renewable Energies segment) to around 70% by 2020

- > a solid financial profile
- > a conservative financial policy with flexible dividend distribution
- > a stable shareholder structure
- > a cash flow based **B** asset liability management model for covering the pension and nuclear obligations of EnBW

## Investment analysis

### Net cash investment of the EnBW Group

in € million <sup>1</sup>	2017	2016	Change in %
Investments in growth projects <sup>2,3</sup>	1,324.2	2,070.7	-36.0
Investments in existing projects	446.1	514.4	-13.3
<b>Total investments</b>	<b>1,770.3</b>	<b>2,585.1</b>	<b>-31.5</b>
Divestitures <sup>4</sup>	-298.5	-1,123.6	-73.4
Participation models	61.9	32.0	93.4
Other disposals and subsidies	-166.6	-176.6	-5.7
<b>Total divestitures</b>	<b>-403.2</b>	<b>-1,268.2</b>	<b>-68.2</b>
<b>Net (cash) investment</b>	<b>1,367.1</b>	<b>1,316.9</b>	<b>3.8</b>

1 Excluding investments held as financial assets.

2 Does not include cash and cash equivalents acquired with the acquisition of fully consolidated companies. These amounted to €0.0 million in the reporting period (previous year: €2.1 million).

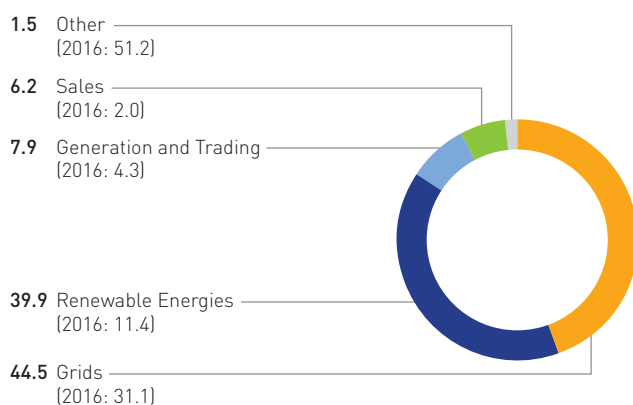
3 In the reporting period, this includes cash and cash equivalents of €51.0 million relinquished with sale of the shares in EnBW Hohe See GmbH & Co. KG and cash and cash equivalents of €6.8 million relinquished with sale of the shares in EnBW Albatros GmbH & Co. KG, because they will be used for future investments for the realisation of both offshore wind farms.

4 Does not include cash and cash equivalents relinquished with the sale of fully consolidated companies. These amounted to €57.8 million in the reporting period (previous year: €1.4 million).

The **investments** of the EnBW Group decreased significantly in 2017 compared to the previous year. In the previous year, they included the acquisition of 74.21% of the shares in VNG-Verbundnetz Gas Aktiengesellschaft. Adjusted for this effect in the previous year, investment was above the value in the previous year. Around 74.8% of overall gross investment was attributable to growth projects; the proportion of investments in existing facilities stood at 25.2%.

#### Investment by segment

in %



In the reporting year, €110.6 million was invested in strengthening the **Sales** segment. In the previous year, investment in this segment stood at €52.0 million.

Investment in the **Grids** segment stood at €787.5 million, compared to €802.9 million in the previous year. This was mainly attributable to measures for the expansion and upgrade of the grids.

Investment in the **Renewable Energies** segment of €706.4 million was significantly higher than the figure in the previous year (€294.7 million) because both the offshore wind farms EnBW Hohe See and EnBW Albatros have entered the implementation phase. In addition, significantly more on-shore wind farms have been built.

Investment in the **Generation and Trading** segment stood at €140.2 million in 2017, compared to €111.1 million in the previous year, due mainly to the modernisation of the combined heat and power plant in Stuttgart-Gaisburg.

**Divestitures** were significantly lower than the level in the previous year.

Divestitures reduced significantly in the reporting year compared to the previous year. They mainly included the sale of 49.89% of the shares in each of the EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG wind farms. In the same period of the previous year, the divestitures mainly included the disposal of a 20% shareholding in EWE Aktiengesellschaft.

The divestitures from participation models contain payments due to capital decreases in non-controlling interests of €55.0 million (previous year: €25.6 million).

Other disposals and subsidies were at the same level as in the previous year.

Capital commitments for the procurement of intangible assets and property, plant and equipment amounted to €829.1 million as of 31 December 2017 (previous year: €478.5 million). Commitments to purchase companies totalled €454.1 million (previous year: €553.3 million). The capital commitments will be financed from the newly defined **II** retained cash flow II.

## Liquidity analysis

### Retained cash flow of the EnBW Group

in € million	2017	2016	Change in %
<b>EBITDA</b>	<b>3,752.4</b>	<b>730.7</b>	-
Changes in provisions	-472.3	721.9	-
Non-cash-relevant expenses/income	-385.9	-78.1	-
Income tax received/paid	81.1	-243.4	-
Interest and dividends received	591.7	345.1	71.5
Interest paid for financing activities	-425.6	-351.3	21.2
Dedicated financial assets contribution	-6.4	50.7	-
<b>Funds from operations (FFO)</b>	<b>3,135.0</b>	<b>1,175.6</b>	-
Dividends paid	-84.7	-226.1	-62.5
<b>Retained cash flow</b>	<b>3,050.3</b>	<b>949.5</b>	-
+/- effects from the reimbursement of the nuclear fuel rod tax	-1,520.8	0.0	-
<b>Retained cash flow II</b>	<b>1,529.5</b>	<b>949.5</b>	<b>61.1</b>

The **€** funds from operations (FFO) increased significantly in comparison to the previous year. This increase was mainly attributable to the reimbursement of the **€** nuclear fuel rod tax. In addition, interest and dividends received increased, mainly due to interest relating to the legal proceedings for the nuclear fuel rod tax that was reimbursed in the third quarter. Furthermore, income tax refunds, which were offset in the previous year by higher income tax paid, led to an increase in FFO in the reporting year. This was offset to some extent by higher interest paid, primarily due to the interest due on the payment to the disposal fund at the beginning of July. Mainly as a result of the sharp increase in FFO, **€** retained cash flow also rose significantly. In addition, lower dividends paid in comparison to the previous year had a positive effect. The retained cash flow reflects the **€** internal financing capability of EnBW after all stakeholder needs have been settled. It is

available to the company for investment without the need to raise additional debt (p. 18). The reimbursement of the nuclear fuel rod tax of €1,520.8 million in the 2017 financial year will be used by EnBW, as well as for the debt repayment in 2018 of around €830.0 million, for future investments in 2018 to 2020. For this purpose, we have translated the retained cash flow into the retained cash flow II, which eliminates the reimbursement of the nuclear fuel rod tax. In the 2017 financial year, this led to a reduction in retained cash flow II compared to retained cash flow and will lead to an increase of €690.0 million in subsequent years up to and including 2020 (nuclear fuel rod tax adjusted for the debt repayment). Of this, an amount of €200.0 million has been earmarked for 2018 and we anticipate that the remaining amount will be distributed on a straight line basis in the period 2019 to 2020.

### TOP Internal financing capability of the EnBW Group

	2017	2016	Change in %
Retained cash flow II in € million	1,529.5	949.5	61.1
Net (cash) investment in € million	1,367.1	1,316.9	3.8
<b>Internal financing capability in %</b>	<b>111.9</b>	<b>72.1</b>	<b>55.2</b>

Due to the increase in retained cash flow II in the reporting year compared to 2016 and the fact that **€** net investment was at around the same level as in the previous year, the internal financing capability increased and reached our target value of  $\geq 100\%$ . As part of the restructuring of shareholdings, there was the acquisition of shares in VNG and the associated disposal of shares in EWE in the previous year. Adjusted for

this effect in the net investment, the internal financing capability would also have been above our target of  $\geq 100\%$ .

The **€** internal financing capability is the key performance indicator for the Group's ability to finance its activities internally. We aim to achieve an internal financing capability of  $\geq 100\%$  each year.

## Free cash flow of the EnBW Group

in € million	2017	2016	Change in %
<b>Funds from operations (FFO)</b>	<b>3,135.0</b>	<b>1,175.6</b>	-
Change in assets and liabilities from operating activities	-4,671.4	-657.5	-
Capital expenditure on intangible assets and property, plant and equipment	-1,419.2	-1,189.4	19.3
Disposals of intangible assets and property, plant and equipment	52.8	115.5	-54.3
Cash received from construction cost and investment subsidies and tax refunds from recognised exploration expenditure	113.8	61.1	86.3
<b>Free cash flow</b>	<b>-2,789.0</b>	<b>-494.7</b>	-

Despite the considerable increase in **FFO**, the **free cash flow** fell significantly in the reporting year. The reason for this was primarily the payment to the disposal fund at the beginning of July 2017 included in the net balance of assets

and liabilities from operating activities. In addition, higher capital expenditure contributed to the fall in the free cash flow. Overall, free cash flow fell in comparison to the same period of the previous year by €2,294.3 million.

## Condensed cash flow statement of the EnBW Group

in € million	2017	2016	Change in %
Cash flow from operating activities	-1,696.1	473.6	-
Cash flow from investing activities	2,160.7	333.9	-
Cash flow from financing activities	-1,541.3	-316.6	-
<b>Net change in cash and cash equivalents</b>	<b>-1,076.7</b>	<b>490.9</b>	-
Change in cash and cash equivalents due to changes in the consolidated companies	300.3	0.0	-
Net foreign exchange difference	-1.9	-0.4	-
<b>Change in cash and cash equivalents</b>	<b>-778.3</b>	<b>490.5</b>	-

Cash flow from operating activities fell significantly in comparison to the previous year. This was mainly due to the fact that the payment to the disposal fund was significantly higher than the reimbursement of the **nuclear fuel rod tax**. This was offset to some extent by the income tax received, which itself was offset by payments of tax arrears in the previous year.

Cash flow from investing activities increased significantly in 2017 in comparison to 2016. The cash inflow was due primarily to higher sales of securities against the background of the cash outflow to finance the disposal fund at the beginning of July 2017. In addition, the interest relating to the legal proceedings for the nuclear fuel rod tax was reimbursed in the third quarter of 2017. Furthermore, the acquisition of VNG shares from EWE as part of the restructuring of shareholdings also led to a cash outflow in the same period of the previous year.


The significantly higher cash outflow from financing activities in comparison to the previous year was mainly due to the repayment of the first hybrid bond in the amount of €1 billion in April 2017. A bond with a volume of €500 million was repaid in the same period of the previous year. This was offset by the issuing of two hybrid bonds with volumes of €725 million and US\$300 million, respectively.

The solvency of the EnBW Group was ensured at all times throughout the 2017 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. 60 ff.).

## Net assets

### Condensed balance sheet of the EnBW Group



in € million	31/12/2017	31/12/2016	Change in %
<b>Assets</b>			
Non-current assets	26,766.6	25,418.4	5.3
of which intangible assets	(1,905.9)	(1,636.5)	16.5
of which property, plant and equipment	(15,597.4)	(13,481.9)	15.7
of which entities accounted for using the equity method	(1,388.6)	(1,835.6)	-24.4
of which other financial assets	(5,985.7)	(6,428.0)	-6.9
of which deferred taxes	(956.4)	(1,268.9)	-24.6
Current assets	12,015.3	12,943.9	-7.2
Assets held for sale	3.0	173.0	-98.3
	<b>38,784.9</b>	<b>38,535.3</b>	<b>0.6</b>
<b>Equity and liabilities</b>			
Equity	5,862.9	3,216.2	82.3
Non-current liabilities	21,919.7	22,172.0	-1.1
of which provisions	(13,124.5)	(13,011.9)	0.9
of which deferred taxes	(799.4)	(652.8)	22.5
of which financial liabilities	(5,952.0)	(6,720.2)	-11.4
Current liabilities	11,002.3	13,123.1	-16.2
of which provisions	(1,598.7)	(6,060.2)	-73.6
of which financial liabilities	(1,306.8)	(1,208.7)	8.1
Liabilities directly associated with assets classified as held for sale	0.0	24.0	-100.0
	<b>38,784.9</b>	<b>38,535.3</b>	<b>0.6</b>

As of 31 December 2017, the total assets held by the EnBW Group were slightly higher than the level at the end of the previous year. The increase in non-current assets by €1,348.2 million was primarily attributable to changes in the group of consolidated companies, mainly due to the first-time consolidation of VNG. This was partly offset by the sale of securities to finance the payment made to the disposal fund in July 2017. Current assets fell by €928.6 million. This fall resulted primarily from the reduction of the liquid medium-term and short-term securities due to the payment made to the disposal fund on 3 July 2017. This was partly offset by the reimbursement of the  nuclear fuel rod tax including the interest relating to the associated legal proceedings, as well as an increase due to changes in the group of consolidated companies. The fall in the assets held for sale of €170.0 million was mainly due to the sale of shares in EnBW Hohe See GmbH & Co. KG.

The equity held by the EnBW Group increased by €2,646.7 million as of the reporting date of 31 December 2017. The equity ratio increased from 8.3% at the end of 2016 to 15.1% on the 2017 reporting date as a result. This was due primarily to an increase in revenue reserves by

€2,054.1 million to €3,636.6 million because of the high annual net profit. In addition, the non-controlling interests increased by €417.0 million due to changes in the group of consolidated companies. Non-current liabilities decreased by €252.3 million. The reason for this was the repayment of the hybrid bond in April 2017. However, this was offset by the interest rate-related increase in pension provisions, as well as the increase in other provisions and deferred taxes due to changes in the group of consolidated companies. Current provisions fell by €4,461.5 million. This was mainly attributable to the payment of €4.8 billion to the disposal fund on 3 July 2017. This was offset by the increase in current liabilities that was mainly due to changes in the group of consolidated companies. The decrease in liabilities directly associated with assets held for sale was mainly the result of the sale of shares in EnBW Hohe See GmbH & Co. KG.

### Net debt

As of 31 December 2017,  net debt, which is relevant from a ratings perspective, decreased significantly by €1,586.5 million compared to the figure posted at the end of 2016. This fall was mainly due to the reimbursement of the  nuclear fuel rod tax that was declared unconstitutional in June 2017 and the

interest relating to the associated legal proceedings. In addition, the sale of 49.89% of the shares in each of the offshore wind farms EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG also contributed to the fall in net debt. This was offset in net financial debt by the repayment of the hybrid bond in April 2017 due to it being partly classified as equity.

As a result of the payment to the disposal fund on 3 July 2017, the nuclear obligations and the dedicated financial assets have each decreased by around €4.8 billion. The amount to be paid to the fund increased from the original figure of €4.7 billion to €4.8 billion. The reason for this was the final determination of the payment contributions by the German

Federal Ministry for Economic Affairs and Energy that took into account differences between the estimated expenditure for 2015 and 2016 and the actual expenditure.

The coverage ratio describes the dedicated financial assets in relation to the pension and nuclear obligations less the receivables associated with nuclear obligations. Against the background of the payment to the disposal fund, the coverage ratio fell from 60.8% (adjusted) as of 31 December 2016 to 52.9% as of 31 December 2017. Within the scope of its ALM model, EnBW is still in a position to cover its future cash outflows for pension and nuclear provisions without burdening the cash flow from operating activities to an above-average extent.

#### Net debt of the EnBW Group

in € million <sup>1</sup>	31/12/2017	31/12/2016	Change in %
Cash and cash equivalents available to the operating business	-2,954.7	-2,264.3	30.5
Current financial assets available to the operating business	-277.0	-320.7	-13.6
Long-term securities available to the operating business	-4.3	-42.5	-89.9
Bonds	4,934.3	6,008.1	-17.9
Liabilities to banks	1,705.6	1,455.5	17.2
Other financial liabilities	618.9	465.3	33.0
Valuation effects from interest-induced hedging transactions	-96.4	-109.2	-11.7
Restatement of 50% of the nominal amount of the hybrid bonds <sup>2</sup>	-996.3	-1,496.3	-33.4
Other	-12.3	-42.1	-70.8
<b>Net financial debt</b>	<b>2,917.8</b>	<b>3,653.8</b>	<b>-20.1</b>
Provisions for pensions and similar obligations <sup>3</sup>	6,341.2	6,116.7	3.7
Provisions relating to nuclear power	5,802.7	10,972.0	-47.1
<b>Pension and nuclear obligations</b>	<b>12,143.9</b>	<b>17,088.7</b>	<b>-28.9</b>
Long-term securities and loans to cover the pension and nuclear obligations <sup>4</sup>	-5,487.6	-6,096.4	-10.0
Cash and cash equivalents to cover the pension and nuclear obligations	-258.6	-1,727.3	-85.0
Current financial assets to cover the pension and nuclear obligations	-307.2	-2,060.0	-85.1
Surplus cover from benefit entitlements	-179.3	-33.4	-
<b>Dedicated financial assets</b>	<b>-6,232.7</b>	<b>-9,917.1</b>	<b>-37.2</b>
Receivables relating to nuclear obligations	-369.5	-779.4	-52.6
<b>Net debt relating to pension and nuclear obligations</b>	<b>5,541.7</b>	<b>6,392.2</b>	<b>-13.3</b>
<b>Net debt</b>	<b>8,459.5</b>	<b>10,046.0</b>	<b>-15.8</b>

1 The figures for the previous year have been restated.

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

3 Less the market value of the plan assets of €1,047.3 million (31/12/2016: €1,105.1 million).

4 Includes equity investments held as financial assets.

### TOP ROCE and value added

The **E** cost of capital before tax represents the minimum return on average **E** 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 (**E** 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.

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 invested capital. 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.

#### Value added to the EnBW Group for 2017 by segment

	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result <sup>1</sup> in € million	262.8	686.8	164.9	-27.0	21.2	1,108.7
Average capital employed in € million	836.8	5,919.2	3,276.9	2,242.4	2,870.8	15,146.1
<b>ROCE in %</b>	<b>31.4</b>	<b>11.6</b>	<b>5.0</b>	<b>-1.2</b>	<b>-</b>	<b>7.3</b>
Weighted average cost of capital before tax in %	7.7	5.4	6.1	8.0	-	6.3
<b>Value added in € million</b>	<b>198.3</b>	<b>367.0</b>	<b>-36.0</b>	<b>-206.3</b>	<b>-</b>	<b>151.5</b>

1 Investment result of €77.6 million, adjusted for taxes (investment result/0.706 - investment result; with 0.706 = 1 - tax rate 29.4%). Does not include write-ups and write-downs 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 to the EnBW Group for 2016 by segment<sup>1</sup>

	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result <sup>2</sup> in € million	193.2	668.2	130.1	44.8	40.2	1,076.5
Average capital employed in € million	619.7	5,108.5	2,996.9	2,091.7	2,944.1	13,760.9
<b>ROCE in %</b>	<b>31.2</b>	<b>13.1</b>	<b>4.3</b>	<b>2.1</b>	<b>-</b>	<b>7.8</b>
Weighted average cost of capital before tax in %	8.3	5.8	7.5	8.4	-	6.9
<b>Value added in € million</b>	<b>141.9</b>	<b>372.9</b>	<b>-95.9</b>	<b>-131.8</b>	<b>-</b>	<b>123.8</b>

1 The figures for the previous year have been restated.

2 Investment result of €36.9 million, adjusted for taxes (investment result/0.71 - investment result; with 0.71 = 1 - tax rate 29%). Does not include write-ups and write-downs 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.



The value added generated by the EnBW Group increased in the 2017 financial year compared to the previous year to €151.5 million. The adjusted EBIT including the adjusted investment result increased slightly, while the average capital employed also rose slightly. Due to the consistently low interest rate, the risk-adjusted weighted average cost of capital fell on average by 0.6 percentage points compared to the previous year. The ROCE of 7.3% was slightly higher than our forecast for the 2017 financial year (Forecast 2017: 6.3% to 7.2%).

**Sales:** Value added in the Sales segment increased in 2017 by €56.4 million. This was mainly due to the increase in adjusted EBIT including the adjusted investment result. The average capital employed increased, which was due, amongst other things, to the consolidation of VNG's activities in the gas sector from the second quarter of 2017.

**Grids:** Value added in the Grids segment stood at the same level as in 2016. Both the adjusted EBIT including the adjusted investment result and also the capital employed rose slightly. This was primarily due to the consolidation of the gas grids operated by VNG from the second quarter of 2017.

**Renewable energies:** Value added in the Renewable Energies segment improved in comparison to the previous year to €36.0 million. The adjusted EBIT including the adjusted investment result increased as expected to €164.9 million. In addition, value added was positively influenced by the adjustments to the capital costs in the Renewable Energies segment. In contrast, investments in the expansion of onshore and offshore wind power led to an increase in the capital base in the reporting year.

**Generation and Trading:** The Generation and Trading segment achieved value added of €206.3 million. In contrast to the increase in adjusted EBITDA, the adjusted EBIT including the adjusted investment result for the Generation and Trading segment fell to €27.0 million. This was due, above all, to higher impairment losses on the power plants. At the same time, the average capital employed increased by €150.7 million, which was due primarily to the consolidation of VNG from the second quarter of 2017.

## 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.

Especially for companies in the energy industry, which is undergoing a period of fundamental change, this social acceptance is vitally important. A good reputation signals the willingness of society and its different stakeholder groups to cooperate with and invest in the company.

EnBW aims to continuously improve its reputation. The Supervisory Board and the Board of Management dealt with this theme in depth in 2017 and agreed to the further development of reputation management. The focal point of this concept is the stakeholder team, consisting of representatives from all important areas of the company, that was established in 2017. The stakeholder team directly or indirectly communicates and maintains dialogue with relevant stakeholder groups. It gathers the opinions of stakeholders and passes them onto the company, identifies reputational opportunities and risks, develops measures to protect and improve the reputation of the company, advises the Board of Management and management and gives recommendations for action. Reputation is thus becoming an important aspect for all meaningful decisions made by the company. Protecting and improving the reputation of EnBW are tasks and responsibilities of the entire management team.

### TOP Reputation Index

Reputation is measured using the key performance indicator Reputation Index.

Key performance indicator				
	2017	2016	Change in %	Forecast 2017
Reputation Index	52.1	50.0	4.2	51.4

The Reputation Index increased noticeably in the reporting year to 52.1 index points and thus stands at a medium level – below that of public utilities but significantly better than the values for larger comparable companies. The image campaign “We’re making it happen”, focusing on the themes of wind power and electromobility, which started in 2016 and was continued in 2017, contributed to an improvement in the reputation of EnBW. The forecast for 2017 was thus achieved.

Opportunities and risks related to reputation exist, for example, in the area of responsible coal procurement, a topic which the Board of Management addressed once again in 2017 (p. 47 f.). In this context, the reputation management department commissioned a representative survey in Germany, analysed and evaluated the results and used this information to develop four scenarios in cooperation with the relevant specialist departments that were then presented to the Board of Management for a decision. The Board of Management approved the recommendations made by the stakeholder team. This systematic management of reputation supports the implementation of the company's strategy and the operating business of EnBW.

More details on reputational risks can be found in the “Report on opportunities and risks” on p. 95.

## Customer proximity

The customers of EnBW increasingly desire digital interaction both in the area of energy sales and also the grids business. The type and intensity of these interactions are also changing. Local authorities are increasingly viewing digital infrastructure as a decisive location factor. This area offers EnBW great opportunities for acquiring new customers using tailored digital services and solutions and for generating additional revenue.

### TOP Customer Satisfaction Index

Customer loyalty is based on high customer satisfaction. Customer satisfaction is measured in accordance with the requirements of the EnBW Group standard for market research and surveys. The Group standard regulates the general procedure for the preparation, implementation and follow-up work for market research studies. It is binding for EnBW AG and all Group companies that are controlled by EnBW AG. The Customer Satisfaction Index for the two core brands EnBW and Yello are compiled from customer surveys carried out by an external provider.

#### Key performance indicator

	2017	2016	Change in %	Forecast 2017
EnBW/Yello Customer Satisfaction Index <sup>1</sup>	143/161	132/150	8.3/7.3	128-138/ 145-155

<sup>1</sup> 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.

The satisfaction of the customers of EnBW reached a very good level again in 2017 at 143 points, which was above the forecasted range for 2017 (128–138). A very good level starts at a value of 136 points for the Customer Satisfaction Index.

It was possible to further increase the satisfaction of Yello customers again in comparison to the previous year. It stood at 161 points in 2017, which was once again at a very high level and above the forecasted range for 2017.

In 2017, EnBW expanded its portfolio of energy industry services and energy solutions considerably and carried out numerous sales activities and communication measures. In the process, EnBW strongly oriented the range of services to the individual expectations and needs of customers by closely integrating customers into product development at an early stage – for example in customer workshops and discussions with customers. In addition, the opportunities for customers to engage in dialogue with the company include apps, dialogue boxes or feedback buttons. This enables customers to quickly and easily inform us of their experiences and expectations in relation to our products and services. We use this information to constantly improve our customer orientation and expand the digital literacy of EnBW in a targeted manner.

The establishment of the Net Promoter Score (NPS), which is designed for directly collecting and utilising customer opinions, is also delivering some initial insights (p. 95).

On our path towards becoming one of the leading developers of **broadband infrastructure** in Baden-Württemberg, we were able to grow considerably in 2017. EnBW supports local authorities and municipal associations with tasks ranging from broadband planning and the installation of infrastructure through to operation and the end customer business. Cost efficiency, fast implementation and customer satisfaction hold the highest priorities in this area.

Modern inner city residential districts also need to be conceived for efficiency and networking in future. Therefore, we are utilising our expertise in the area of **district development** and advising local authorities on urban planning and urban infrastructures – holistically across the product areas of energy, grids, e-mobility, communication/digital networking, safety and smart services.

Electromobility is not only a key theme in urban districts, which is why we are offering an easy charging solution for the home with the **EnBW mobility+ charging box**. The **EnBW mobility+ app** shows users where the nearest charging station is located when they are out and about. In addition, anyone who is still undecided can use the app to find out whether to make the switch to electromobility – and if yes – what electric car would be the right choice for them. The **EnBW mobility+ charging card** can be used to charge vehicles at the same tariff within our roaming network at more than 8,000 charging points in Germany, Austria and Switzerland. The expansion of EnBW's own charging network is progressing at full speed. We now operate quick-charging stations at more than 120 locations in total. In addition, EnBW has intensified its contact with possible cooperation partners in order to be able to offer e-mobility customers more than 1,000 **quick-charging stations** by 2020.

E-mobility will also play a role in the future through our complete photovoltaic solution **EnBW solar+**. EnBW solar+ enables customers to generate their own solar energy, store it and sell it to the energy community. In future, our customers will also be able to integrate heating solutions into EnBW solar+ and charge their electric cars at home using self-generated electricity.

**Bundle offers** are used to provide customers with more added value – EnBW Entertain gives customers, for example, free membership to Amazon Prime. As the first energy industry partner for Amazon in Germany, we are breaking new ground in the sector with this offer and thus creating a unique selling point for ourselves. EnBW Secure combines an electricity or gas tariff with household insurance cover that will quickly provide support in the event of accidents or problems at home. We will continue to expand our bundle portfolio in a targeted manner.

The very successful performance of **Yello** demonstrates that **bundle offers** not only promote market penetration but also

strengthen customer loyalty. Therefore, Yello expanded its bundle range in 2017: customers can now select exclusive hardware products such as the Samsung AddWash™ washing machine or the Playstation 4 Pro in a plus tariff with an electricity or gas contract. In addition, bundle products are now also available in the Yello Shop – with a large and regularly updated range of hardware products available.

Furthermore, a cooperation with the Bild newspaper (Bild Electricity and Gas powered by Yello) was started in 2017. Bild readers are able to select from three different Yello tariffs. Alongside the cooperation with Bild, the interface between sales and customers has been digitally expanded through the Yello app kWhapp, which enables users to directly conclude their electricity contract via the app. In addition, the app also provides an overview of electricity and gas costs. Yello also expanded its product range to include Yello Solar in 2017. This is a complete photovoltaic product that enables customers to lease a solar power plant. The e-mobility offer in cooperation with Sixt Neuwagen was also very successful. It enabled customers to lease and test a BMW i3 in a Yello design at a very low price to see how electromobility would work for them in everyday life. The stock of BMW i3 cars for the offer was sold out within one day.

Due to its product range, which has grown constantly over the years, and changing market requirements, it was a logical step to turn Yello Strom into the **Yello brand** at the beginning of 2017. The company has had a new logo and corporate design since then, as well as the new tagline “More than you think.”, because the range of products and services now extends far beyond electricity. The repositioning of the brand has been accompanied by an image campaign.

The **EnBW campaign** “We’re making it happen” was successfully continued in 2017. The key themes of wind power and electromobility were presented in the spring and autumn via various different communication channels. Our aim is to rejuvenate the EnBW brand and show that EnBW has changed in a positive way. That’s why, in addition to previous measures, we also produced an unconventional advertising video for the first time. Animated, talking birds play the lead roles and present the subject of electricity sourced from renewable energies in a totally new way for EnBW. The commercial received very positive feedback on the social media channels operated by EnBW and was rated one of the top 5 YouTube advertising videos in December 2017 ([youtu.be/RSEEqQQTi0A](https://youtu.be/RSEEqQQTi0A)).

The business models of the future are digital and will emerge from customers. We want to play an active role in shaping this digital future and the networking of energy industry services for our market. But to achieve this we need to develop the ability to impress customers, remain commercially viable and achieve operational excellence all at the same time. In order to take on these challenges, we have created the necessary foundations in the form of the new sales and operation platform **EnPower**. EnPower enables us to achieve operational

excellence in terms of digitalisation, automation and streamlining existing processes, as well as ensuring optimal interaction externally between customers and the brands of EnBW. EnPower was launched for the first time for the sustainability brand NaturEnergiePlus in the middle of 2017. We have thus taken an important step on the path to a 100% online brand to meet the needs of consumers. Yello and EnBW will also utilise this platform in the future.

Customer orientation also plays a central role in the area of contracting. In 2017, EnBW concluded an important contract with the international chemical company Dow: an **energy supply contract** that guarantees the long-term supply of energy in the form of electricity and steam from the Bomlitz combined heat and power plant. In this context, the plants were modernised and expanded to include two highly efficient combined heat and power blocks and three additional steam boilers.

The Law on Digitalizing the Energiewende will present energy supply companies with great challenges. EnBW has developed this theme into a new field of business and, following the successful certification of the smart meter gateway operation, has produced a holistic solution for the roll-out and operation of **smart meters**. Smartpack100 – the first lean entry-level package for gateway administration and the receipt of meter readings – was developed and has been in great demand.

We also refer you to the details provided in the “Report on opportunities and risks” (p. 95).

## Supply reliability

Guaranteeing a reliable supply of electricity to our customers is a key goal of EnBW. It means that the generation and consumption of electricity must be continuously synchronised and sufficient generation capacities must be made available at peak times. Ultimately, electricity grids must be able to fulfil their transport role and feature control mechanisms to guarantee grid stability at all times. SAIDI is used as an indicator for supply reliability; it states the average duration of supply interruptions per connected customer in minutes per year.

### TOP SAIDI

SAIDI is one of the key performance indicators in the area of grids and is optimised by the distribution grid operators of EnBW using various processes that are sometimes integrated with one another: the desired **grid topology** in the long term is thus already oriented towards optimising SAIDI at the planning stage. As part of an IT-supported asset simulation, various technical variants and their associated investment budgets are then analysed. Once the chosen variant has been implemented, the available investment budget for optimising SAIDI is distributed to the various different projects on an annual basis. The specific measures are selected based on performance indicators for plant reliability.

## Key performance indicator

	2017	2016	Change in %	Forecast 2017
SAIDI (electricity) in min./year	19	16	18.8	15

A similarly good level for SAIDI was achieved in the EnBW Group in 2017 as in the previous year. The deviation from the level achieved in the previous year as well as from the forecasted level were within the acceptable range.

## Employees goal dimension

The key tasks of HR are providing the company with employees, including the promotion of young talent, encouraging loyalty to the company amongst employees and maintaining and fostering their motivation, satisfaction and employability. Leadership, corporate culture, HR development and health management are key aspects in this area. Other important elements of a successful HR policy are ensuring the best possible employment conditions, such as in the negotiation of collective bargaining agreements, as well as adapting the organisational structure to the business environment.

Therefore, 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
- > Health management

## Employee commitment

### TOP Employee Commitment Index (ECI)

The key performance indicator ECI is an important indicator for EnBW 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.

## Key performance indicator

	2017	2016	Change in %	Forecast 2017
Employee Commitment Index (ECI) <sup>1</sup>	60	59	1.7	≥ 60

<sup>1</sup> Variations in the group of consolidated companies; see also the definition of key performance indicators on p. 30.

The third short survey for monitoring the ECI – MAB-Blitzlicht (Employee Flashlight) – was carried out between 18 September and 6 October 2017. Following last year's full employee survey, the MAB-Blitzlicht survey was carried out as in 2014 and 2015 by using just twelve questions and taking a random representative sample. As in the full surveys, it collected information on the level of commitment of the employees to the Group and to their respective company. The ECI from MAB-Blitzlicht in 2017 revealed a positive trend and improved slightly from 59 (2016) to 60 points. The target set for 2017 was thus achieved. In an external comparison, the ECI stabilised at an average level.

The positive development of the ECI can be attributed to employees being able to better assess the current competitiveness of the company and having greater trust in the future viability of the company. Following the last survey, the Board of Management set itself the goal of reducing the uncertainty and scepticism of the workforce with respect to these two factors. This was achieved through the resolute implementation of the 2020 strategy, in which we have made successful progress, and the presentation of the post 2020 strategy in dialogue with managers and employees across all departments and companies. In particular, the significant improvement in the assessment of the competitiveness and future viability of the company by top and upper management demonstrated that the strategy presented and followed by the Board of Management of the Group has been met with acceptance and support. The aim is now to transfer this increasingly positive assessment to the remaining management team and employees, and integrate them even more strongly into the process.

## Areas of focus in HR

The main measures and activities carried out by the key Group companies in these areas of focus are reported below.

**Leadership:** “Drive – Work together – Deliver” has been the motto followed by top management since 2016 in the area of leadership. EnBW anchors these leadership principles within the company using targeted measures to bring them to life. This includes programmes for leadership development and receiving feedback from managers, as well as special theme-based measures such as dialogue on the strategic outlook to 2025, the concept of “digital leadership experience” and the “reflection for managers” workshop.

At Pražská energetika (PRE), the active participation in specialist conferences and discussion forums form an

important measure for developing leadership skills and the knowledge potential of managers at all levels. In 2017, 39 management personnel at the PRE Group participated in 20 events. The international energy forum “New Business Models in the Energy Sector” and the nationwide conference Energetika 2017 were, for example, important platforms for discussing current themes in the energy industry.

At Stadtwerke Düsseldorf, the concept “Start-up assistance for new managers” was established in the reporting year. It comprises a workshop to clarify expectations, a training course on communication, networking events, start-up coaching and a mentoring programme.

VNG-Verbundnetz Gas completed the “Leadership compass” project in 2017, in which the principles for respectful management were developed with the management personnel. It was followed by a 180 degree feedback process for all management personnel at VNG which included a self-assessment by the managers and also an assessment by their superiors and employees. A meeting to discuss the results was then held with the managers and the employees with the participation of an external consultant.

The digital energy industry is characterised by a high level of complexity. In order to be able to react and lead appropriately in this environment, new skills are required. The key companies are thus focussing their leadership development activities on the development of these skills. Special importance is being given here to the improvement of cross-departmental cooperation and the formation of effective leadership coalitions, which are also supported by the increased use of agreements on team targets. In addition, the new tasks, responsibilities and value contributions of leaders and also the significance of digital, data-driven business models is being communicated in a digital leadership programme. The programme uses modern learning formats that enable participants to directly experience contemporary leadership at work. The aim is to realise the digital transformation of the Group more quickly and effectively.

**Safeguarding and promoting expertise:** An important goal for EnBW is to be an attractive employer so that it can secure the expertise it requires and then retain this expertise within the company. In particular, the concepts and measures developed for this purpose focus on the themes of diversity, the promotion of young talent and the attractiveness of the employer.

EnBW promotes **diversity** amongst its employees. Under the motto “Diversity generates added value”, EnBW relies on a diverse workforce in terms of numerous different criteria such as gender, age or disability, but also education and life situations. We hope to use this diverse range of people to better respond to the needs of the market, accelerate the speed of innovation, be an attractive employer and thus shape a successful future. The aim is to utilise the opportunities offered by diversity in all areas of the company so as to generate added value for employees and also for EnBW.

#### Diversity at EnBW

in %	2017	2016	Change
Proportion of women in the overall workforce	26.2	25.4	0.8
Proportion of women in management positions	15.2	12.5	2.7
Proportion of women in management positions at EnBW AG			
First level below the Board of Management <sup>1</sup>	4.3	4.5	-0.2
Second level below the Board of Management <sup>1</sup>	14.0	13.0	1.0
Total proportion of part-time employees <sup>2</sup>	9.4	8.9	0.5
of which women <sup>2</sup>	82.6	85.1	-2.5
of which men <sup>2</sup>	17.4	14.9	2.5

1 The values refer to EnBW AG.

2 Excluding those in semi-retirement.

The increase in the proportion of women in management positions by 2.7 percentage points is due to the full consolidation of VNG.

With respect to gender, EnBW AG has binding targets for the proportion of women in management positions at the first two levels below the Board of Management. In the period from 1 January 2017 until 31 December 2020, the goal is to increase the proportion of women at the first level (top management) and second level (upper management) of management to at least 20%. These target values were not yet achieved in the first year of the evaluation period for the achievement of the targets (status: 31 December 2017). After increasing the ratios in the previous evaluation period (1 January 2016 until 31 December 2016), it was not possible to make any noticeable improvement in 2017 despite a great deal of effort.

Above and beyond the statutory requirements, the Board of Management focuses on diversity when filling management positions at the EnBW Group and also strives to give appropriate consideration to women. A fundamental goal of EnBW is not only to appoint women to the two management levels below the Board of Management but also to other levels of the hierarchy. The internal EnBW women's network is a well used platform for female employees to exchange information and ideas. As part of the mentoring programme, dialogue is promoted between management and female employees with potential. Following a successful pilot programme, the “CareerCompass” service will offer advice to female employees throughout the Group who are interested in their first management position.

In the external recruitment of young female leadership talent, EnBW relies on, amongst other measures, the Femtec network and participates in trade fairs and discussion forums tailored specifically for women. As a result, half of those enrolled on the Group trainee programme were young female talent. In addition, EnBW has signed up to the “Diversity Charter”

(Charta der Vielfalt) and actively participates in the “Initiative Chefsache” network, which focuses on the theme of promoting equal opportunities across companies. A particularly noteworthy development here was the creation of a “Flex Report” that highlights the possibility of more flexible forms of working for managers and proposes specific courses of action. In the individual business units, sector-specific events and campaigns are carried out to attract female managers.

#### Promotion of young talent

in %	2017	2016	Change
Promotion of trainees including DH students	4.3	4.3	0.0
Proportion of working students/interns	4.2	4.2	0.0

Another part of the HR policy is **promoting young talent**. The EnBW Group employed 955 trainees and students from the Cooperative State University (DH) as of 31 December 2017. There are plans to appoint 293 new trainees and DH students in 2018.

VNG started discussions with the Berufsakademie Sachsen, Staatliche Studienakademie Leipzig (University of Cooperative Education) in 2017 about replacing the apprenticeship to become an industrial merchant with a dual degree. In particular, the new course should take into account the requirements of the digital world. The aim is for VNG and the university to develop a module on digitalisation together by 2019 that accounts for around 30% of the teaching content.

An online platform has been created on the Internet with access for almost 60% of the Group employees – the **EnBW project exchange** – that enables them to apply to take part in temporary and interdepartmental cooperation in projects. This project exchange collects together all project activities from short secondments that only last a few weeks and assignments that only take up part of the employee's working hours through to full-time activities lasting many months. The project announcements and the application process have been purposely kept simple. The specific form of activities are individually agreed between the employee, their departmental manager and those responsible for the project. After the conclusion of the project, the employee resumes their full activities in their original team.

In 2017, EnBW AG was honoured by the business magazine Focus as one of the 1,000 **top employers** in Germany. In the industry rankings, EnBW achieved 21st place – ahead of RWE (37th place), E.ON (49th place) and Vattenfall (50th place). Furthermore, EnBW AG was also certified by the Top Employers Institute as a Top Employer Germany 2017 based on a comprehensive catalogue of criteria and an external audit. VNG Norge was ranked in seventh place in the Great Place to Work list in 2017 in the category for companies with 50 to 199

employees. The ratings are based on the assessments of more than 28,000 employees from 191 Norwegian organisations.

**Employment conditions and structures:** Further **efficiency measures** in the operational areas and functional units of EnBW AG are required to achieve additional savings up to 2020. For this purpose, discussions are being held with employee representatives about a diverse range of workplace optimisations and job retention solutions. In those areas facing consistently tough competition, the aim is to find the best possible solutions for reducing costs, achieving greater flexibility and being able to respond appropriately to different market situations. As part of the negotiations about reduction and restructuring tools for the functional units, the company and works council have agreed as a first step to offer semi-retirement plans in selected areas in order to achieve the planned workforce reductions by 2020.

EnBW achieved its ambitious earnings target for 2017. The Board of Management believes that this was possible thanks to the whole EnBW team. In agreement with shareholders and employee representatives, it was thus agreed that the existing agreement to suspend **profit sharing plans** for employees in 2017 would be lifted and the profit sharing bonuses would be paid in 2017.

The **collective remuneration negotiations** between the union ver.di and the Employers Association for Electricity Power Plants in Baden-Württemberg came to the following result on 19 February 2018: remuneration will increase by 3.0% as of 1 February 2018. In addition, a special bonus of 9% of the holiday pay will be made. Monthly remuneration for apprentices will rise by €70.00. The collective agreement becomes valid after the agreed deadline for the declaration expires, with retroactive effect as of 1 January 2018 and can be terminated at the earliest as of 28 February 2019.

The HR department at PRE plays an active role in the integration of acquired companies. Following the acquisition of the company KORMAK in 2016, all HR activities and processes at this new Group company were initially handled by an external service provider. The HR department at PRE took over responsibility for the entire payroll accounting at the beginning of 2017 and human resources management, social issues and training from the middle of the year. They then took over responsibility for occupational, fire and environmental protection at the beginning of 2018. The HR department at PRE was able to perform all these tasks for the new subsidiary without increasing its own personnel thanks to the modification and streamlining of its internal processes.

VNG started an earnings performance programme in 2015 against the background of poor results of operations. As part of this programme, the total number of 400 employees at VNG AG was reduced by around 100 in a socially responsible manner in 2016 and 2017 via semi-retirement schemes, severance payments and through the natural turnover of employees.

**Health management:** The welfare of employees has always been an important issue for EnBW. As part of occupational health and safety management, the company offers a variety of activities in the areas of occupational safety and health protection in the key companies. A centrally managed and anonymous online survey on the subject of “Risk assessment – psychological stress” was thus carried out at 18 Group companies from 24 April to 16 May 2017. The survey was precipitated by the legal requirement to supplement risk assessments with the aspect of psychological work stress. The aim of the survey was to identify collective psychological stresses at work in order to derive possible areas for action and preventative measures. The results were available to the Board of Management from the end of June and were also shared with management personnel and the works councils. The areas and teams have introduced, where necessary, specific measures based on the evaluation reports. Managers are legally obligated to document the measures and examine their effectiveness. SWD and VNG had already complied with the legal obligation and had already conducted their own surveys at the time the centrally managed survey was completed. Overall, 85% of the workforce within the scope of the law were covered by the survey.

In the area of generation at EnBW AG and EnBW Kernkraft GmbH, a number of staggered health days were held at seven power plant sites – dealing with the theme of “Health and movement”. In cooperation with the staff restaurants and a number of statutory health insurance funds, a holistic health programme was subsequently offered at the individual sites.

## Other performance indicators

### Employees of the EnBW Group<sup>1</sup>

	31/12/2017	31/12/2016	Change in %
Sales	3,331	3,244	2.7
Grids	8,858	8,330	6.3
Renewable Energies	1,050	1,029	2.0
Generation and Trading	5,457	5,076	7.5
Other	2,656	2,730	-2.7
<b>Total</b>	<b>21,352</b>	<b>20,409</b>	<b>4.6</b>
Number of full-time equivalents <sup>2</sup>	19,939	18,923	5.4

<sup>1</sup> Number of employees excluding apprentices/trainees and inactive employees.

<sup>2</sup> Converted into full-time equivalents.

As of 31 December 2017, the EnBW Group had 21,352 employees. The increase compared to the figure at the end of the 2016 financial year was primarily attributable to the first-time consolidation of the VNG Group. This effect impacts all of the segments with the exception of Renewable Energies. The further increase in the number of employees in the Grids segment was due to the growing importance of regulated business and the associated increase in activities. In Other, the increase in employees due to VNG was more than balanced

Employees were able, for example, to have their flexibility, endurance or strength measured as part of the programme. In addition, it was possible for employees to talk to specialists from the areas of occupational medicine and health management at all of the sites involved in the health programme. The aim of these campaigns was not only to make the theme of health more tangible for employees but also to create new momentum in relation to health issues and use this for further campaigns.

Our subsidiaries are also active in the area of health management: Occupational health management was intensified at the Swiss company Energiedienst Holding during the course of 2017 on the basis of targeted interviews with employees and managers. PRE offers, amongst other things, a comprehensive cancer prevention programme that focuses on breast, skin and prostate cancer. SWD has a programme focussing on health-oriented management at the team leader level. VNG offers a comprehensive range of preventative occupational medicine via its company doctors and also arranges appointments with specialist doctors at short notice in cooperation with a healthcare centre in Leipzig.

### Sickness ratio

in %	2017	2016	Change
Sickness ratio	5.0	4.8	0.2

The sickness ratio did not change significantly compared to the previous year.

out by efficiency programmes in the functional units at EnBW AG and the planned departure of employees based on an earlier restructuring programme. Alongside the increase due to VNG, the acquisition of Messerschmid Energiesysteme GmbH and winsun AG by Energiedienst Holding AG increased the number of employees in the Sales segment. However, these two effects were almost balanced out by the closure of the B2B business under the EnBW and Watt brands and the reduction in employees in the operations area of EnBW AG.

The expansion of the offshore business led to an increase in the number of employees in the Renewable Energies segment. In the Generation and Trading segment, the increase in the number of employees due to VNG is partially compensated for by the reduction in employees in conventional generation.

#### Turnover

in %	2017	2016	Change
Employee turnover ratio	7.0	5.2	1.8

Employee turnover ratio increased, which was due primarily to the severance payments and planned retirement of employees based on an earlier restructuring programme.

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/weitere-kennzahlen](http://www.enbw.com/weitere-kennzahlen).

We also refer you to the details provided in the “Report on opportunities and risks” (p. 96).

### Occupational safety

The main goals of EnBW in the area of occupational safety are to avoid accidents and work-related illness, to create a safe working environment and clearly regulate responsibilities, roles and processes. In order to achieve these targets, EnBW already founded the Occupational Safety Working Group (AK KAS) in 2003. AK KAS has the task of regulating issues that affect all companies uniformly within the Group. Its scope of application covers those companies that use LTIF as a performance indicator. 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 accidents at work and the resulting days of absence. Every Group company included in the consolidated companies for the LTIF receives an individual target from the Board of Management for the relevant year – the fulfilment of this LTIF target flows into the monetary assessments for the achievement of relevant targets. Above and beyond these targets, the companies also set their own individual targets.

#### Key performance indicator

	2017	2016	Change in %	Forecast 2017
LTIF <sup>1</sup>	3.0	3.9	-23.1	≤ 3.7 <sup>2</sup>

<sup>1</sup> Variations in the group of consolidated companies; see also the definition of key performance indicators on p. 30.

<sup>2</sup> Three-year target for 2017, 2018 and 2019.

The LTIF improved significantly in 2017 to 3.0 compared to the previous year (3.9) – average days of absence per accident increased slightly to 16.8 compared to the previous year (14.5).

In the reporting year, there was a fatal accident at a third-party company that was working on behalf of the EnBW Group.

The measures for achieving the target are independently defined by the Group companies. There were various different activities focussing on occupational safety in 2017:

The new software EcoWebDesk (EWD) was introduced into further areas at EnBW. In the next few months, it will be rolled out to around 10,000 employees. Important elements of the EWD are the documentation of risk assessments and hazardous substance management.

In the Grids segment, a series of campaigns to further improve the safety culture have been or will be carried out:

- > Seminars for managers to raise awareness and explain different tools such as incentives, safety briefings and inspections of behavioural conduct
- > A short workshop for managers on the practical completion of safety briefings
- > The preventative health programme “Think about me, your back” for technical and commercial employees
- > The project “Working safely on the grid” (SaiN) that is designed to ensure that employees working on behalf of the grid operating company are trained sufficiently

In the area of conventional and renewable energies, weekly inspections with a focus on occupational safety were conducted by management. In addition, the “100 days without accidents” campaign started in 2015 was continued. The 100-day goal was achieved a total of eight times across a number of power plants.

We also refer you to the details provided in the “Report on opportunities and risks” (p. 96).



## Environment goal dimension

The main Group companies at EnBW have an environmental management system certified according to DIN ISO 14001:2015. It follows a concept of continuous improvement in environmental performance and is based on the method Plan – Do – Check – Act (PDCA). The system encompasses the definition and realisation of environmental targets with their performance indicators and corresponding measures, the procedures and responsibilities and the identification of environmentally relevant risks and opportunities. Using defined due diligence processes and an audit programme, the agreed regulations and guidelines are then monitored in terms of legal and other requirements, as well as with regard to the defined targets. If necessary, the processes and guidelines, as well as the targets and measures, will be adjusted. The consistent implementation and further development of the environmental management system guarantees that negative impacts on the environment can be avoided as well as possible during all activities (p. 78 ff.). Risks generally exist in the area of environmental protection due to the operation of power plants and the possible consequences for the air, water and soil. These risks are countered by EnBW using an emergency and crisis management system that has been implemented throughout the Group and includes comprehensive organisational and procedural measures.

Our key environmental targets are related to the expansion of renewable energies and 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 CO<sub>2</sub> intensity.

## Expansion of Renewable Energies

### Key performance indicator

	2017	2016	Change in %	Forecast 2017
Installed output of RE in GW and the share of the generation capacity accounted for by RE in %	3.4/25.9	3.1/23.1	9.7/12.1	3.3-3.4/25-26

### 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 by 241 MW to around 3.4 GW and was thus within the range of the forecast.

Some 204 MW of this was attributable to the construction and expansion of several onshore wind farms with a total of 66 wind turbines. In contrast, the installed output of the EnBW Group fell to 13.0 GW, primarily as a result of the transfer of the RDK 4 S power plant at the Rheinhafen Steam Power Plant in Karlsruhe (gas) and the Combined Heat and Power Plant 1 (HKW 1) in Altbach/Deizisau (hard coal) to the grid reserve. As a result, the share of the generation capacity accounted for by RE increased – as forecast – to 25.9%.

Own generation of the EnBW Group fell significantly in 2017 compared to the previous year to around 50.2 TWh. This was caused by a considerable reduction in own generation from nuclear power due to the temporary shutdown of KKP 2, while generation based on renewable energies increased slightly. The proportion of own generation from renewable energy sources increased to 16.5%, which was attributable to higher production in the area of wind power. This was offset by the lower electricity generation from run-of-river power plants due to consistently low water levels.

### Breakdown of the generation portfolio of the EnBW Group<sup>1</sup> (as of 31/12)

Electrical output <sup>2</sup> in MW	2017	2016
<b>Renewable energies</b>	<b>3,381</b>	<b>3,140</b>
Run-of-river power plants	1,034	1,032
Storage/pumped storage power plants using the natural flow of water <sup>2</sup>	1,327	1,322
Wind onshore	540	336
Wind offshore	336	336
Other renewable energies	144	114
<b>Thermal power plants<sup>3</sup></b>	<b>9,673</b>	<b>10,442</b>
Brown coal	875	875
Hard coal	3,523	3,956
Gas	1,448	1,784
Other thermal power plants	349	349
Pumped storage power plants that do not use the natural flow of water <sup>2</sup>	545	545
Nuclear power plants	2,933	2,933
<b>Installed output of EnBW Group<sup>5</sup></b>	<b>13,054</b>	<b>13,582</b>
of which renewable in %	25.9	23.1
of which low CO <sub>2</sub> in % <sup>4</sup>	15.3	17.1

- 1 The generation portfolio includes long-term procurement agreements and generation from partly owned power plants.
- 2 Output values irrespective of marketing channel, for storage: generation capacity.
- 3 Including pumped storage power plants that do not use the natural flow of water.
- 4 Excluding renewable energies; only gas power plants and storage power plants that do not use the natural flow of water.
- 5 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.

## Climate protection

### Key performance indicator

	2017	2016	Change in %	Forecast 2017
CO <sub>2</sub> intensity in g/kWh	556	577	-3.6	-5% to +5%

### TOP CO<sub>2</sub> intensity

The CO<sub>2</sub> intensity of own generation of electricity excluding nuclear power fell in comparison to the previous year – despite the higher utilisation of the power plants for redispatch due to the requirements of the transmission system operators – by 3.6% to 556 g/kWh and was thus within our forecasted range. The fall was due to the higher generation from renewable sources in comparison to 2016 and the simultaneous increase in electricity generation from a more efficient mix of fossil fuel-fired power plants, especially the use of block RDK 8 at the Rheinhafen Steam Power Plant in Karlsruhe.

### Own generation of the EnBW Group<sup>1</sup> by primary energy source

in GWh	2017	2016
<b>Renewable energies</b>	<b>8,290</b>	<b>8,257</b>
Run-of-river power plants	5,012	5,284
Storage/pumped storage power plants using the natural flow of water	946	1,052
Wind onshore	661	413
Wind offshore	1,416	1,265
Other renewable energies	255	243
<b>Thermal power plants<sup>2</sup></b>	<b>41,904</b>	<b>44,538</b>
Brown coal	6,027	5,802
Hard coal	12,977	12,625
Gas	3,436	3,199
Other thermal power plants	211	174
Pumped storage power plants that do not use the natural flow of water	1,721	1,722
Nuclear power plants	17,532	21,016
<b>Own generation of the EnBW Group</b>	<b>50,194</b>	<b>52,795</b>
of which renewable in %	16.5	15.6
of which low CO <sub>2</sub> in % <sup>3</sup>	10.3	9.3

- 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.

## Other performance indicators

In addition to the key performance indicators in the area of the environment, EnBW utilises 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 page 79. A comprehensive presentation of the environmental performance indicators for EnBW can be found on the Internet at [www.enbw.com/umweltschutz](http://www.enbw.com/umweltschutz).

There is also information available here on our wide-ranging measures to improve energy efficiency, the conservation of biological diversity and the protection of nature and species, such as our EnBW amphibian protection programme or activities to protect birds in the grids sector. In addition, further information relating to the Global Reporting Initiative (GRI G4) can be found on the Internet.

**Carbon footprint:** Direct CO<sub>2</sub> emissions are determined mainly by the deployment of power plants. Despite the increase in electricity generation from renewable energies, direct CO<sub>2</sub> emissions increased moderately from 16.3 to 16.8 million t CO<sub>2</sub>eq. This was due to the slightly higher electricity generation from fossil fuels in comparison to the previous year. Slightly higher indirect CO<sub>2</sub> emissions from grid losses led to an increase in Scope 2 CO<sub>2</sub> emissions from 1.1 million t CO<sub>2</sub>eq to 1.2 million t CO<sub>2</sub>eq. The Scope 3 CO<sub>2</sub> emissions are mainly influenced by the gas consumption of our customers. EnBW significantly expanded its gas sales due to the full consolidation of VNG. Accordingly, EnBW recorded a significant increase in Scope 3 CO<sub>2</sub> emissions. Numerous activities at EnBW also avoid CO<sub>2</sub> emissions: primarily that of generating electricity from renewable energy sources. The reduction in the underlying avoidance factors by the German Environment Agency by more than 10% (publication Climate Change 23/2017, Version October 2017) led to a decrease in the CO<sub>2</sub> emissions avoided in 2017 compared to the previous year from 6.8 million t CO<sub>2</sub>eq to 6.6 million t CO<sub>2</sub>eq despite the increase in electricity generation from renewable energies.

**Energy consumption:** Total final energy consumption includes the consumption of final energy for the business activities of EnBW. 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. In comparison to the previous year, final energy consumption increased from 2,784 GWh to 3,247 GWh. The main reasons for this were the increase in the pump energy at the pumped storage power plants as well as the higher own consumption and operating consumption of the power plants due to increased electricity generation from fossil fuels.

The proportion of renewable energies in final energy consumption increased from 47.9% in 2016 to 48.8% in 2017. This was primarily due to an increase in the pump energy at the pumped storage power plants operated by Vorarlberger Illwerke, which utilises green electricity.

The energy consumption of our buildings per employee increased from 9,456 kWh in 2016 to 9,582 kWh in 2017. The reason for this increase was the above-average fall in energy consumption in buildings in 2016 due to extraordinary effects.

**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. Due to the increased expansion in the areas of onshore and offshore wind power, investment in environmental protection increased to €650 million and current environmental protection expenses increased to €348 million.

#### Environmental performance indicators<sup>1</sup>

	Unit	2017	2016
<b>Carbon footprint</b>			
Direct CO <sub>2</sub> emissions (Scope 1) <sup>2,3</sup>	millions of tCO <sub>2</sub> eq	16.8	16.3
Indirect CO <sub>2</sub> emissions (Scope 2) <sup>4</sup>	millions of tCO <sub>2</sub> eq	1.2	1.1
Other indirect CO <sub>2</sub> emissions (Scope 3) <sup>5</sup>	millions of tCO <sub>2</sub> eq	23.7	12.4
CO <sub>2</sub> emissions avoided <sup>3,6</sup>	millions of tCO <sub>2</sub> eq	6.6	6.8
CO <sub>2</sub> intensity of business journeys and travel <sup>7</sup>	g CO <sub>2</sub> /km	176	180
<b>Energy consumption</b>			
Total final energy consumption <sup>8</sup>	GWh	3,247	2,784
Proportion of renewable energies in final energy consumption <sup>3,9</sup>	%	48.8	47.9
Energy consumption of buildings per employee <sup>10</sup>	kWh/MA	9,582	9,456
<b>Environmental protection expenditure<sup>11</sup></b>			
Investment in environmental protection	€ millions	650	315
Current environmental protection expenses	€ millions	348	311

1 Unless otherwise indicated, the data reflect the business entities and plants of the consolidated Group.

2 Preliminary data.

3 The figures for the previous year have been restated.

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

5 Includes greenhouse gas emissions through consumption of purchased electricity volumes by customers, consumption of gas by customers, fuel provision and business travel.

6 Includes CO<sub>2</sub> emissions avoided through the expansion of renewable energies, through energy efficiency projects with customers/partners and through the generation and sale of biogas.

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

8 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.

9 For electricity consumers 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 32% is used. For fuels, a proportion of 5% bioethanol is generally used.

10 Calculated partially on the basis of assumptions and estimations.

11 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).

**Electromobility at EnBW:** In 2017, EnBW expanded its fleet of electric vehicles even further. Netze BW has now passed the mark of 100 electric vehicles and is thus the largest operator of electric fleets in Germany. The purchased vehicles once again include numerous e-Golfs and a number of “Streetscooters” adapted by the company Deutsche Post. The vehicles are operated from around 20 Netze BW locations across the whole of Baden-Württemberg.

**Conservation of biological diversity:** EnBW initiated the programme “Stimuli for Diversity” for the protection of amphibian species together with the LUBW (Baden-Württemberg State Institute for the Environment) in 2011. Due to the major success of, and positive response to, the programme in the first five years, the funding programme was updated in 2016 to include funding for protective measures for reptiles. The EnBW funding programme “Stimuli for Diversity” 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 first conservation programme of this scope from a company both in Baden-Württemberg and nationwide that not only funds the protection of one single species but two whole groups of species across the state. The successful realisation of the 100th project was celebrated in the reporting year. Due to the numerous different measures implemented in the programme, it was possible to successfully improve the living conditions for numerous endangered species in the state. EnBW will also continue the funding programme in 2018 based on this tried-and-tested method.

We also refer you to the details provided in the “Report on opportunities and risks” (p. 96).

# EnBW AG

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

The financial statements as audited by the KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, as well as the management report of EnBW AG contained in the combined 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. 24 ff. and 49 ff.).

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

The full financial statements of EnBW AG are available for download at ([www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads)).

## Results of operations of EnBW AG

### Condensed income statement of EnBW AG

in € million <sup>1</sup>	2017	2016	Change in %
Revenue	16,734.6	16,288.5	2.7
Cost of materials	-15,969.4	-15,513.0	2.9
Amortisation and depreciation	-436.4	-591.4	-26.2
Other operating result	1,228.7	131.8	-
<b>Earnings before interest and taxes</b>	<b>1,557.5</b>	<b>315.9</b>	-
Financial result	673.9	-532.5	-
Tax	-241.7	-15.3	-
<b>Annual net profit/loss</b>	<b>1,989.7</b>	<b>-231.9</b>	-

<sup>1</sup> In accordance with German commercial law.

EnBW AG reports an annual net profit of €1,989.7 million. The substantial increase in comparison to the previous year was influenced mainly by €1,241.6 million higher earnings before interest and taxes and the increase in the financial result of €1,206.4 million.

The operating result of EnBW AG is determined primarily 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 revenues of €446.1 million was offset by a corresponding increase in the cost of materials of €456.4 million.

The revenue (after the deduction of electricity and energy taxes) of €16,734.6 million primarily includes revenue from electricity sales of €8,399.1 million and from gas sales of €7,449.0 million. Electricity and gas sales comprise both sales activities in the form of the direct delivery of energy to end

customers and also trading business involving deliveries to trading partners and stock exchanges.

Revenues from sales activities were split into €1,854.9 million for electricity and €209.2 million for gas, which represented an overall fall of €112.4 million.


In the retail and end customer sector (B2C), electricity sales were slightly below the level in the previous year, decreasing by 0.1 billion kWh to 7.2 billion kWh, which was also reflected in the fall in revenues. In the same period, gas sales of 3.8 billion kWh were at the same level as the previous year although revenues fell. This was primarily due to a price adjustment as of 1 October 2016, the full impact of which was only felt for the first time in the 2017 financial year.

The trading business was positively influenced above all by the increase in the trading volume for gas, which was primarily due to the higher volumes purchased by Gasversorgung Süddeutschland GmbH. This mainly resulted in the significant

increase in revenues of €663.4 million, which was almost fully offset by a corresponding increase in the cost of materials of €662.8 million. Revenue from the trading business for electricity fell slightly in the same period. The increased trading volumes were more than offset by lower wholesale market prices.

The cost of materials includes costs for electricity procurement of €6,529.3 million and costs for gas procurement of €7,294.8 million.

Alongside scheduled amortisation and depreciation, the amortisation and depreciation item includes impairment losses of €100.4 million.

The considerable increase in the other operating result can be primarily explained by the positive extraordinary effect of the reimbursement of the  nuclear fuel rod tax (including the interest relating to the legal proceedings) that was declared unconstitutional. The share of the reimbursement attributable to EnBW AG was €1,340.0 million for the years 2011 to 2016.

The positive development of the financial result was mainly influenced by the increase in income from profit and loss transfer agreements of €410.0 million, which was primarily due to the positive extraordinary effect of the reimbursement of the nuclear fuel rod tax, which was declared unconstitutional, to a subsidiary in the amount of €180.8 million. In addition, there were higher returns on the investment fund of €282.3 million compared to the previous year. The fall in the interest expense for nuclear provisions of €316.0 million was due to the transfer of the obligations for intermediate and final storage of radioactive waste and the significantly lower discounting basis compared to the previous year as a result. The interest expense for personnel provisions that was €152.1 million lower was primarily due to positive valuation effects within the Contractual Trust Arrangement (CTA) as of the reporting date.

The tax expense in the 2017 financial year was €241.7 million, which represents an increase of €226.4 million. The taxes mainly comprise current corporate income tax and trade tax expenses. 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 <sup>1</sup>	31/12/2017	31/12/2016	Change in %
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	762.2	930.7	-18.1
Property, plant and equipment	1,385.3	1,315.8	5.3
Financial assets	19,558.1	20,017.6	-2.3
	<b>21,705.6</b>	<b>22,264.1</b>	<b>-2.5</b>
<b>Current assets</b>			
Inventories	594.9	559.0	6.4
Receivables and other assets	3,123.1	3,297.2	-5.3
Securities	114.3	1,466.9	-92.2
Cash and cash equivalents	1,655.7	2,884.9	-42.6
	<b>5,488.0</b>	<b>8,208.0</b>	<b>-33.1</b>
<b>Prepaid expenses</b>	<b>545.0</b>	<b>285.6</b>	<b>90.8</b>
<b>Surplus from offsetting</b>	<b>266.1</b>	<b>144.2</b>	<b>84.5</b>
	<b>28,004.7</b>	<b>30,901.9</b>	<b>-9.4</b>
<b>Equity and liabilities</b>			
<b>Equity</b>			
Subscribed capital	708.1	708.1	0.0
Treasury shares	-14.7	-14.7	0.0
Issued capital	(693.4)	(693.4)	(0.0)
Capital reserve	776.0	776.0	0.0
Revenue reserves	2,124.5	1,161.5	82.9
Retained earnings	963.2	-63.5	-
	<b>4,557.1</b>	<b>2,567.4</b>	<b>77.5</b>
<b>Extraordinary items</b>	<b>23.6</b>	<b>21.6</b>	<b>9.3</b>
<b>Provisions</b>	<b>10,965.9</b>	<b>13,751.0</b>	<b>-20.3</b>
<b>Liabilities</b>	<b>12,044.4</b>	<b>14,300.0</b>	<b>-15.8</b>
<b>Deferred income</b>	<b>413.7</b>	<b>261.9</b>	<b>58.0</b>
	<b>28,004.7</b>	<b>30,901.9</b>	<b>-9.4</b>

<sup>1</sup> In accordance with German commercial law.

The net assets of EnBW AG as of 31 December 2017 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.

The main changes in comparison to the previous year were the implementation of the Act for the Reorganisation of Responsibility in Nuclear Waste Management based on the recommendations made by the "Commission to examine the financing of the phase-out of nuclear power" appointed by the German Federal Ministry for Economic Affairs and Energy in 2015. EnBW AG paid the total amount of €4.8 billion due for the

EnBW Group to the fund for financing the disposal of nuclear waste (disposal fund) on time on the first working day after 1 July 2017 (3 July 2017). The financial burden for the transport, intermediate storage and final storage of the waste has thus been transferred to the German government. Transferring these obligations mainly resulted in both a fall in the provisions of €2,785.1 million and also a fall in liabilities to affiliated companies of €1,178.5 million because EnBW AG made payments for its subsidiaries TWS Kernkraft GmbH and Kernkraftwerke Obrigheim GmbH of €916.6 million and €420.2 million, respectively. In preparation for the payment to the disposal fund, securities from non-current and current assets were sold, which resulted in decreases to these items of €1,356.7 million and €1,352.6 million, respectively, in comparison to the previous year.

Financial assets primarily consist of shares in affiliated entities to the amount of €13,021.4 million, securities from non-current assets to the amount of €2,751.8 million and equity investments to the amount of €1,916.5 million. The fall in financial assets of €459.5 million includes the disposal of securities. This was offset by the increase in shares in affiliated entities of €293.9 million, primarily as a result of payments into the capital reserve of EnBW Offshore 3 GmbH of €191.8 million. In addition, loans to affiliated entities increased by €162.1 million in comparison to the previous year.


Trade receivables to the amount of €1,371.4 million mainly comprise receivables for trading activities and consumption accruals for electricity and gas deliveries not yet invoiced. This was €163.8 million above the figure in the previous year.

The cash and cash equivalents of EnBW AG totalling €1,655.7 million mainly consist of positive bank balances, which are invested as fixed-term deposits to the amount of €1,526.2 million. More details on the composition of this item can be found under "Financial position of EnBW AG".

Provisions relating to nuclear power of €3,741.4 million are recorded for EnBW AG, which arise due to public law obligations and requirements in the operating licences. Furthermore, provisions for pensions and similar obligations to the amount of €4,264.0 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 €312.1 million was mainly due to the effect of the further decrease in the discount rate as in the previous year.

Of the liabilities totalling €12,044.4 million, €6,095.1 million have a residual term of more than one year. Overall, there are liabilities of €8,333.2 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 fall in liabilities by a total of €2,255.6 million was attributable to the repayment of a hybrid bond with a volume of €1,000.0 million and also the fall in liabilities to affiliated companies of €1,178.5 million. This fall includes the payments made to the disposal fund on behalf of the subsidiaries of €1,336.8 million.

Non-current liabilities exist to the amount of €2,199.3 million to EnBW International Finance B.V. as part of the  Debt Issuance Programme (DIP), to the amount of €1,992.6 million from the issuing of three hybrid bonds and to the amount of €738.6 million from loan agreements with credit institutions.


The non-current provisions relating to nuclear power as well as for pensions and similar obligations to the total amount of €7,493.4 million are mainly offset by shares in investment assets, which are recorded as securities in non-current assets. This mixed fund focusing on assets in the eurozone countries consists mainly of direct or indirect investments in fixed-interest securities and shares. In addition, EnBW AG holds shares in an investment company with variable capital (SICAV), where infrastructure funds are bundled. Furthermore, these long-term obligations are offset by directly held fixed and variable interest securities which form part of the non-current assets, as well as by other equity investments, which had a total carrying amount on the reporting date of €1,579.7 million.

The goal is to cover these non-current pension and nuclear provisions with appropriate financial assets within an economically feasible time period. Overall, non-current assets of €21,705.6 million are offset by long-term debt of €13,588.5 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

The liquidity of EnBW AG decreased from €2,884.9 million by €1,229.2 million to €1,655.7 million in comparison to the reporting date in the previous year.

The cash flows of EnBW AG arise fundamentally from both its own operating business and also those of its subsidiaries which balance payments received and made via the bank accounts of EnBW AG as part of the intercompany  cash pooling system 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:


The most important liquidity-related business transaction in the 2017 financial year was the timely payment of €4.8 billion by EnBW AG to the disposal fund, which transferred the financial burden for the intermediate storage and final storage of the radioactive waste to the German government.

This was offset to some extent by the reimbursement to EnBW AG of the  nuclear fuel rod tax that was declared unconstitutional, in the amount of €1,520.8 million.

The sale of securities from the non-current and current assets, against the background of the payment to the disposal fund, led to a further cash inflow of €2,150.0 million. In addition, the changes in financial assets included the return of share certificates from the fund assets of €700.0 million and the sale of shares in a subsidiary of €216.9 million, which also increased liquidity.




In the 2017 financial year, EnBW AG received tax refunds for previous years (including the associated interest) in the amount of €403.4 million.

Terminating the  cash pooling for the EEG account of the subsidiary TransnetBW GmbH led to a cash outflow during the course of the year of €407.5 million.

In addition, the call option on the hybrid bond with a volume of €1,000.0 million issued in 2011 and increased in 2012 was exercised as of the first call date and repaid.

## 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 2017 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 €250 million was expected for 2017. The annual net profit for 2017 stands at €1,989.7 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 via profit and loss transfer agreements. Important effects not relevant to the ongoing management of the company included the reimbursement of the  nuclear fuel rod tax that was declared unconstitutional in July 2017 of €1,520.8 million (of which €1,340.0 million was reported under the other operating result of EnBW AG). In addition, fund distributions of €364.0 million, income from the return of share certificates from the fund assets of €218.4 million and the reversal of impairment losses on property, plant and equipment and financial assets of €322.9 million also had a positive effect.


This was offset by higher interest expenses for pension provisions and provisions relating to nuclear power of €434.7 million (of which €365.7 million was reported under the interest expenses of EnBW AG). In addition, allocations to the provisions relating to nuclear power of €159.2 million (of which €121.4 million was reported under the cost of materials of EnBW AG) and impairment losses on intangible assets and property, plant and equipment of EnBW AG of €100.4 million had a negative effect.

Based on an annual net profit of €1,989.7 million and taking account of the loss carried forward of €63.5 million and the transfer to other revenue reserves of €963.0 million, retained earnings amounted to €963.2 million.

We anticipate an annual net loss of around €400 million in 2018. 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. In 2018, we expect a negative impact

on earnings due to effects not relevant to the ongoing management of the company of between €600 million and €700 million overall. Adjusted for these effects, the annual net profit will be between €200 million and €300 million. The amount from the valuation of the provisions for pension obligations that is ineligible for distribution as dividends will stand at around €800 million by 31 December 2018. In 2019 and 2020, we expect further negative impacts on earnings due to the falling average interest rate.



## 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. 91 ff.).

## Comments on reporting

The consolidated financial statements of EnBW AG are prepared in accordance with section 315e (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 6b (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](http://www.enbw.com/shareholder-structure)), events on the financial markets and the development of the DAX generally only have a very minor influence on the development of the EnBW share price. The price of EnBW shares was €20.00 at the start of 2017 and stood at €28.78 at the end of the year ( [www.enbw.com/stock-chart](http://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 pursues the goal of disclosing a positive  internal financing capability in each financial year and refraining from building up any additional  net financial debt. The size of the dividend is based on the amount of  net investment and the  retained cash flow. Based on the annual net profit of EnBW AG of €1,989.7 million and taking account of the loss carried forward of €63.5 million and the transfer to other revenue reserves of €963.0 million, there are retained earnings of €963.2 million for the financial year and thus dividends will be paid for the 2017 financial year. If approved by the Annual General Meeting, the dividend to be distributed for the 2017 financial year will be €0.50 per share.

# Overall assessment of the economic situation of the Group

In Germany and the surrounding countries, the Energiewende has fundamentally changed the political and regulatory conditions. In 2017, the adoption of the Act for the Reorganisation of Responsibility in Nuclear Waste Management established a long-term arrangement. In addition, the nuclear fuel rod tax was declared unconstitutional by the supreme court in the summer of 2017 and the taxes paid up to then were reimbursed. For the expansion of renewable energies, state incentive systems are being increasingly replaced by market-driven developments. The continuing low prices and spreads on the wholesale markets for electricity and the trend of growing generation from renewable energies have kept the pressure on conventional power plants at a high level. At the same time, market and competitive structures are changing. The energy landscape is becoming more decentralised and sustainable, as well as becoming increasingly interconnected with other economic sectors. As a consequence, energy supply companies require new business models and a more dynamic corporate culture.

EnBW is well on track in its EnBW 2020 strategy to once again achieve the same level of earnings in 2020 as in 2012 – although on the basis of a realigned business portfolio. An important milestone was reached by EnBW in 2017 when the operating result improved on the figure in the previous year for the first time since 2010.

The operating business of the EnBW Group developed better in 2017 than expected and forecast at the start of the year: The adjusted EBITDA of the EnBW Group increased by 9.0% in comparison to the previous year and thus exceeded our forecast. The full consolidation of VNG had a significant effect, which was also felt in the individual segments. Adjusted for consolidation effects, the adjusted EBITDA would have remained almost constant at 1.4% above the previous year. The result in the Sales segment developed very positively in the reporting year. The result in the Grids segment was impacted by the full consolidation of VNG. In contrast, there were lower earnings from the use of the distribution grids. In the positive earnings performance in the Renewable Energies segment, the higher contributions made by the offshore and onshore wind farms more than offset the lower electricity generation from our run-of-river power plants. The result in the Generation and Trading segment developed better than expected. There was a positive influence on earnings due, above all, to the full consolidation of VNG and the elimination of the nuclear fuel rod tax. These effects more than compensated for the negative impacts of the temporary shutdown of Block 2 of the Philippsburg nuclear power plant (KKP 2) and the continuing low wholesale market prices on the forward market for electricity. In total, the Grids and Renewable Energies segments contributed around two thirds of the adjusted EBITDA of EnBW.

The non-operating result, which includes effects not relevant to the ongoing management of the company, stood at a high positive value in 2017. In the previous year, the non-operating EBIT was impacted by, amongst other things, large impairment losses on power plants. The positive earnings performance in the reporting year was mainly attributable to the reimbursement of the nuclear fuel rod tax and the sale of shares in the offshore wind farms EnBW Hohe See and EnBW Albatros.

In total, these developments – together with the changes in the investment result, financial result and income taxes – resulted in a Group net profit attributable to EnBW shareholders for the 2017 financial year of €2,054.1 million. A net loss of €1,797.2 million was reported in the previous year. Earnings per share amounted to €7.58 in 2017 compared to €-6.64 in the previous year.

The financial position of the company remains sound. The solvency of the EnBW Group was ensured at all times throughout the 2017 financial year thanks to the company's available liquidity and the external sources available for financing. The key performance indicator internal financing capability stood at 111.9% and was thus above the target value of  $\geq 100\%$ . The fall in the key performance indicator ROCE was mainly due to the increase in the average capital employed.

In the customers and society goal dimension, the reputation of EnBW improved noticeably in 2017, which was due to, amongst other things, the image campaign focusing on the themes of wind power and electromobility. The satisfaction of the customers of EnBW and Yello also increased in comparison to the previous year. Supply reliability continued to remain at a high level in 2017. In the employees goal dimension, the degree to which employees identify with EnBW improved slightly due to, amongst other things, a better assessment of the current competitiveness of the company. Occupational safety improved in comparison to the previous year. This is demonstrated by a fall in the LTIF. In the environment goal dimension, the expansion of renewable energies continued according to plan. The year 2017 was characterised above all by the expansion of onshore wind farms. The CO<sub>2</sub> intensity of own generation of electricity decreased in 2017 because generation from renewable sources increased slightly and a more efficient mix of fossil fuel-fired power plants was used.

In the estimation of the Board of Management, the operating business of the EnBW Group developed positively, and largely according to expectations in 2017. EnBW is also on course in the non-financial goal dimensions. We will continue to rigorously implement our EnBW 2020 strategy and we assume from our current perspective that the goals being pursued through it will be achieved with a high degree of probability.

# Forecast

In our forecast we take a look, as far as possible, at the expected future growth and development of EnBW in the years 2018 to 2020.

The expected economic, political and regulatory conditions are presented in the chapter “General conditions” (p. 49 ff.). Potential factors influencing the forecast are described in detail in the “Report on opportunities and risks” (p. 91 ff.).

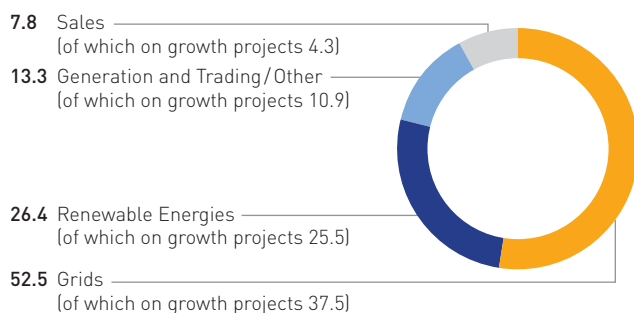
## Expected trends in the finance and strategy goal dimensions

### Implementation of the strategy for a three-year period

In order to continue to play an active role in shaping the Energiewende, **gross investment** of €6.3 billion is planned for the 2018 to 2020 period. This represents on average €2.1 billion per year. Some €1.4 billion (22%) of this investment will be on existing projects and €4.9 billion (78%) on growth projects. Around 63% of the gross investment or 80% of the growth investment is earmarked for regulated business.

Total investments 2018–2020

in %



Around 53% of the investment will flow into the Grids segment, of which around 38% will be for growth projects and 15% for existing projects. In order to make the transport of renewable energies from the north to the south of Germany possible, investment in the transmission grid is planned to realise two corridors that are part of the Network Development Plan, in which our subsidiary TransnetBW GmbH is involved. In addition, significant investment in the expansion and upgrading of the existing grids is planned.

Around 26% of the total investment will be attributable to the Renewable Energies segment – almost exclusively for growth investment. This includes funds for the realisation of the offshore wind farms EnBW Hohe See and EnBW Albatros with a total output of 609 MW, which are planned to be placed into operation in 2019. In addition, funds have been allocated for the erection of onshore wind farms from our comprehensive project pipeline.

Around 8% of the investment will be attributable to the Sales segment, split 50/50 between growth and existing investment. The investment is mainly intended for the expansion of electromobility, as well as for the development of EnBW as a supplier of decentralised solutions.

Around 13% of the total investment will be attributable to the Generation and Trading segment and Other. This will be primarily for growth investment. In the planning period, the modernisation of the combined heat and power plant in Stuttgart-Gaisburg to guarantee the supply of district heating for the greater Stuttgart area and the exploration and production business of VNG will be the main areas of investment.

This 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.

It is expected that the target set in the EnBW 2020 strategy of making gross investment of around €14 billion by 2020 (based on the reference year of 2012) will be exceeded by around €2 billion.

In order to finance the entire investment volume of around €6 billion, **divestitures** amounting to €1.7 billion are planned in the years 2018 to 2020. This includes divestitures in the onshore sector, which will build on our already realised participation models. The remaining divestitures will involve the sale of property, the receipt of construction cost subsidies and the disposal of subsidiaries.

It is expected that the target set in the EnBW 2020 strategy of €5.1 billion in divestitures (based on the reference year of 2012) will be exceeded because divestitures of around €3.9 billion were already realised by the end of 2017 and divestitures of €1.7 billion are still planned.

The balance of gross investment and divestitures gives the **net investment**, which is €4.6 billion or €1.5 billion on average per year. The net investment will be fully financed from the company's own funds.

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

Development in 2018 (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	
	2018	2017	2018	2017
Sales	-5% to -15%	€330.0 million	10% to 15%	15.6%
Grids	+5% to +15%	€1,045.9 million	45% to 60%	49.5%
Renewable Energies	+10% to +20%	€331.7 million	15% to 20%	15.7%
Generation and Trading	0% to -10%	€377.1 million	15% to 20%	17.8%
Other/Consolidation	-	€28.3 million		1.4%
<b>Adjusted EBITDA, Group</b>	<b>0% to +5%</b>	<b>€2,113.0 million</b>		<b>100.0%</b>

In the **Sales** segment, we expect a drop in earnings in 2018 in comparison to the previous year. This is due to the elimination of out-of-period effects such as the reversal of provisions for issues that have since lapsed, which benefited the result in the previous year. However, this fall will be compensated for to some extent by the full-year earnings contribution of VNG. Therefore, we expect a slight decrease in the share of the **E** adjusted EBITDA for the Group accounted for by this segment.

The adjusted EBITDA for the **Grids** segment will increase further in 2018. It will continue to be the segment with the highest earnings. On the one hand, there is the positive effect of the full-year earnings contribution of VNG, and on the other hand, we anticipate higher revenues from the grid user charges that have now been published. The share of the adjusted EBITDA for the Group accounted for by this segment is expected to remain stable or increase slightly.

The adjusted EBITDA for the **Renewable Energies** segment will increase further in 2018. This is due, on the one hand, to the better water levels for the run-of-river power plants expected in comparison to the previous year. Our forecast is based on the long-term average and the water levels in 2017 were below the long-term average. This will be offset to some extent by a negative effect from the electricity deliveries for 2018 from our run-of-river power plants already placed on the **E** forward market: The margins achieved were slightly lower than those for 2017. In addition, the onshore wind farms already realised in 2017 and the planned expansion of onshore wind farms in 2018 will have a positive effect on earnings. In the offshore wind sector, there will not be any further expansion until the planned commissioning of our offshore wind farms EnBW Hohe See and EnBW Albatros in 2019. The wind yield forecasts are based on the long-term average. As the wind conditions in 2017 were higher than in the previous year but still below the long-term average, this alone will result in slightly higher earnings in 2018 in comparison to 2017. However, the level of improvement is dependent on the actual wind strength. We

expect a stable or a slight increase in the share of the adjusted EBITDA for the Group accounted for by this segment.

The adjusted EBITDA for the **Generation and Trading** segment will once again fall slightly in 2018. This is due to the fact that we have already placed most of the electricity deliveries for 2018 on the forward market at lower margins than in 2017. In addition, we anticipate lower out-of-period earnings compared to the previous year because 2017 was influenced by positive effects such as decentralised feed-ins. The full-year earnings contribution of VNG will mitigate to some extent the negative earnings performance in comparison to the previous year. We expect a slight decrease in the share of the adjusted EBITDA for the Group accounted for by this segment.

The **adjusted EBITDA** for the EnBW Group in 2018 will increase further and be between 0% and +5% above the level in 2017. This will be primarily due to the areas of growth in the Grids and Renewable Energies segments, as well as the year-round full consolidation of VNG. In the Sales and Generation and Trading segments, we expect a weaker performance because the positive out-of-period effects from the previous year no longer exist. Due to the planned commissioning of our offshore wind farms in the second half of 2019 and the early achievement of our efficiency targets in the amount of €650 million for 2019, we anticipate a positive development of the adjusted EBITDA for the Group in 2019. We expect – based on the status today – a growth in earnings in the range of between +0% and +5% compared to 2018.

The **E** EBITDA can only be forecast to a limited extent because it is strongly influenced by effects not relevant to the ongoing management of the company that cannot be planned for, such as reversals to impairment losses or impending losses for onerous contracts for electricity procurement agreements. From today's perspective, we expect an EBITDA in 2018 that will be slightly lower than the adjusted EBITDA. This will be due primarily to increased provisions for semi-retirement plans.

The EBT, which will be relevant in future for the remuneration of the Board of Management, is expected to be between €800 to €900 million and will thus fall significantly in comparison to the previous year. The result in the previous year was positively influenced by the extraordinary effect of the reimbursement of the nuclear fuel rod tax. In comparison to the EBITDA, the accuracy of the forecast for the EBT for the year is, however, still dependent on other exogenous factors that cannot be planned for, such as impairment losses and interest rate changes.

Assuming an increase of up to 5% in the adjusted EBITDA, the retained cash flow II (p. 64) will reach a level of between €1.4 and €1.5 billion. This will include an increase of €200 million from the reimbursement of the nuclear fuel rod tax. Adjusted for this effect and the anticipated dividend payment of around €250 million, we expect a FFO of between €1.5 and €1.6 billion. The FFO will be a further performance indicator for the remuneration of the Board of Management in future.

### TOP Internal financing capability

Key performance indicator

	2018	2017
Internal financing capability in %	≥ 100	111.9

We anticipate that we will also be able to cover our net investment from the retained cash flow II in 2018 so that the internal financing capability will continue to be ≥ 100%. We will also be striving to achieve this in subsequent years. The aim is to receive a solid investment-grade rating. In 2018, a bond with a volume of CHF 100 million and a bond with a volume of €750 million will be due for repayment. Based on the current plans, the bonds will be repaid from the reimbursement of the nuclear fuel rod tax received in 2017.

### TOP ROCE

Key performance indicator

	2018	2017
ROCE in %	6.3–7.0	7.3

The ROCE in 2018 will be influenced by the anticipated slight decrease in the adjusted EBIT (including the adjusted investment result) and the increase in capital employed compared to the previous year. This increase will be primarily due to growth investments and the full-year consolidation of VNG. These factors mean that in comparison to the previous year the ROCE is anticipated to fall to between 6.3% and 7.0%. In general, investments tend to lead at first to a fall in ROCE due to a low initial contribution to earnings. In accordance with our strategy, we also expect a high volume of investment with a further increase in earnings in subsequent years. After the commissioning of our offshore wind farms EnBW Hohe See and EnBW Albatros, we expect the ROCE to increase again from 2020.

## Expected trends in the customers and society goal dimension

Key performance indicators

	2018	2017
Reputation Index	52.7	52.1
Customer Satisfaction Index EnBW/Yello	128–138/ 148–159	143/ 161
SAIDI (electricity) in min./year	15–20	19

### TOP Reputation Index

The Reputation Index should improve continuously over the coming years. We anticipate an increase in the Reputation Index to 52.7 points for the 2018 reporting year. The “We’re making it happen” image campaign that ran successfully in 2017 will be continued in 2018. In addition, the expanded reputation management department and the new stakeholder team that was founded in 2017 will carefully monitor its development and implement further measures where necessary.

### TOP Customer Satisfaction Index

We anticipate that other competitors, in some cases financially strong companies with impressive ranges of products, from other sectors will enter the energy market in 2018. In addition, exogenous factors will 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, increasing costs or delays to the expansion of the grids. To improve the satisfaction of the customers of EnBW, we are thus expanding our range of sustainable energy industry services and energy solutions and targeting our sales activities in this direction. By introducing additional products close to home, such as EnBW Secure, we will present ourselves as a partner for our customers. Customers will continue to enjoy up-to-date and convincing experiences of the highest level as a result of our new digital capabilities. On this basis, we are striving to achieve an index value of between 128 and 138 points in the 2018 financial year – as in the previous year.

We also want to maintain the satisfaction of Yello customers at a stable, high level of between 148 and 159 points in 2018. To ensure this is successful despite the difficult market conditions, the image campaign with the tagline “More than you think” will be continued on TV and online in 2018. The aim is to maintain a high level of awareness for the brand on the market and thus amongst customers. In addition, the Yello Shop will be expanded and the range of products offered in its bundles enlarged. The upcoming conversion to the new sales and operation platform EnPower (p. 71) will help to ensure that products and services are developed for our customers and launched on the market even more quickly than before.

### TOP SAIDI

EnBW has always ensured a highly reliable supply throughout its grid area and for its customers. The corresponding key performance indicator SAIDI, which states the average

duration of supply interruptions per connected customer per year, stood at 19 minutes in 2017. We are striving to achieve a value of between 15 and 20 minutes in the 2018 financial year and subsequent years.

## Expected trends in the employees goal dimension

### Key performance indicators

	2018	2017
Employee Commitment Index (ECI) <sup>1</sup>	62	60
LTIF <sup>1</sup>	< 3.7 <sup>2</sup>	3.0

1 Variation in the group of consolidated companies; see also the definition of key performance indicators on page 30.

2 Three-year target for 2017, 2018 and 2019.

### TOP Employee Commitment Index

The Employee Commitment Index (ECI) increased from 59 to 60 points in 2017. The implementation of the 2020 strategy is already bearing fruit, while the communication of the post 2020 strategy was positively received by management and employees. The perception of the competitiveness and future viability of the company has improved. Therefore, EnBW has set itself the target for 2018 of further increasing the ECI to 62 points.

### TOP LTIF

Our goal is to continuously improve occupational safety within the company for both our own and third-party employees. Therefore, EnBW has implemented numerous accident prevention measures. In 2018, we are striving to once again keep the value for this key performance indicator for occupational safety below the three-year target. The main focus will be placed on the roll-out of the new software EcoWebDesk (EWD) and an awareness for unsafe situations and conditions. Consistent reporting of these types of occurrences and communication amongst employees about hazardous situations will help EnBW to increase the awareness of employees. EnBW intends to lower the LTIF in small steps in the long term.

### Further significant developments

In view of the difficult conditions, it will be important over the coming years to realise further improvements in efficiency across the entire company. There will be a moderate increase in the number of employees in the Renewable Energies and Grids segments as part of the repositioning of our business portfolio. This will be offset by further measures to optimise processes across the entire company with a focus on the functional units, sales and operations of EnBW AG and in the area of thermal power plants.

## Expected trends in the environment goal dimension

### Key performance indicators

	2018	2017
Installed output of RE in GW and the share of generation capacity accounted for by RE in %	3.6–3.7/ 27–28	3.4/ 25.9
CO <sub>2</sub> intensity in g/kWh	-10% to 0%	556

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

The installed output of renewable energies is expected to increase by around 300 MW in 2018 as a result of the construction of a number of onshore wind farms and photovoltaic power plants, as well as the commissioning of the pumped storage power plant Obervermuntwerk II. As a result, the share of the generation capacity of the EnBW Group accounted for by renewable energies will increase appreciably. In subsequent years, we also expect a continuous increase in the installed output of renewable energies, especially due to the commissioning of the offshore wind farms EnBW Hohe See (497 MW) and EnBW Albatros (112 MW) in the North Sea scheduled for 2019. This will also increase the share of the generation capacity accounted for by RE further.

### TOP CO<sub>2</sub> intensity

In 2018, we expect an increase in own electricity generation from renewable energy sources due to the further expansion of renewable energies. We also expect the continued good availability of our highly efficient hard coal power plants this year. Important factors for uncertainty in the 2018 forecast include the volatility of the wind supply, the further development of the clean dark spread and the utilisation of the power plants for redispatch. We anticipate a positive development overall and expect a reduction in the CO<sub>2</sub> intensity of between -10% and 0% in 2018 in comparison to the 2017 reporting year. In the coming years, we continue to expect a gradual reduction in CO<sub>2</sub> intensity.

## Overall assessment of anticipated developments by the management

We expect an increase in adjusted EBITDA for the Group in 2018 compared to 2017. The shift in earnings between the segments laid out in our strategy will continue in 2018. We are well on the way to achieving our 2020 targets at a Group and segment level. We are adhering to the implementation of our divestiture programme and are able to continue to make sufficient investment funds available to enable us to play an active role in shaping the Energiewende. This also supports our aim to maintain a solid investment-grade rating. With respect to our non-financial key performance indicators, we expect a stable to positive development in 2018 towards our 2020 targets.

# 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	Implementation 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 areas	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 infrastructure for customers	Personnel	Operative 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						

● Corporate Social Responsibility (CSR)  
 ● Task Force on Climate-related Financial Disclosures (TCFD)

The integrated opportunity and risk management system (iRM) of EnBW is based on the internationally established COSO II framework 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 provisions, as well as rules for risk tolerance. For this purpose, EnBW defines 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 processes in the iRM were fundamentally revised and expanded to take account of the guidelines for a non-financial declaration. In order to identify and categorise opportunities and risks, the opportunity and risk map that is anchored throughout the Group is utilised. The map now explicitly considers – alongside the previous themes – possible opportunities and risks that affect the sustainable orientation of EnBW. As well as focusing on the fulfilment of the requirements for a non-financial declaration, the recommendations of the  Task Force on Climate-related

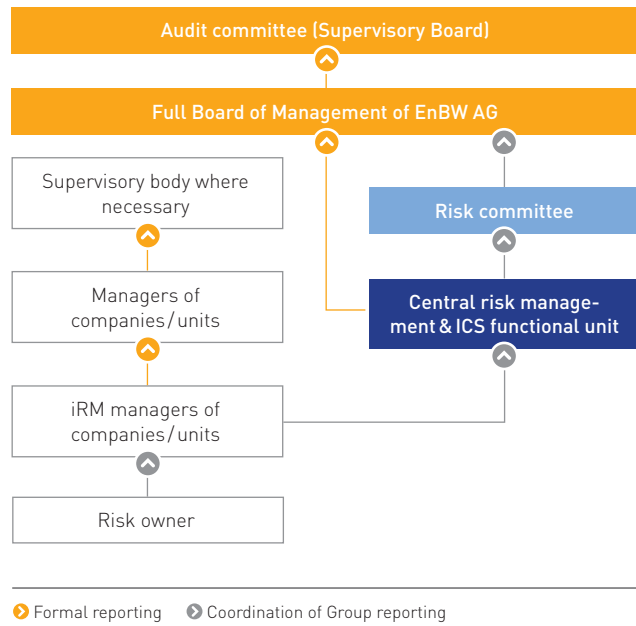
Financial Disclosures (TCFD) were also taken into account. In addition, the efficiency of all the processes in the iRM and reporting were improved further. Amongst other things, this involved making the risk map leaner and improving the technical aspects of reporting.

## Structure and processes of the integrated opportunity and risk management system

The structures and processes of the iRM are anchored throughout the Group in all relevant business entities, business units and functional units. 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 business units/entities – is responsible for clarifying relevant issues from various Group perspectives, as well as for determining the top opportunities/risks.

The iRM is regularly checked by the Group auditing department and the results of the audit are presented to the Supervisory Board.

### Structure and processes of the iRM system



### Relevance filter for classifying opportunities and risks

Reporting level	Company, business and functional unit		
Relevance class	0	1	2
<b>Strategic/sustainability</b>			
Achievement of strategic targets, sustainability targets, e.g. climate protection, environmental protection, reputation	None	No relevant impact on the achievement of strategic/sustainability targets	The ability to achieve the strategic/sustainability targets of the company/business units/functional units is negatively impacted
<b>Operative</b>			
Achievement of business targets, functional processes, retaining added value, customer/external effects	None	<ul style="list-style-type: none"> <li>➤ One operational target for an internal department/area is not achieved</li> <li>➤ Short-term negative impact on a relevant process without a material effect on the maintenance of operations</li> </ul>	<ul style="list-style-type: none"> <li>➤ Several operational targets for an internal department/area are not achieved</li> <li>➤ Short-term negative impact on a relevant process with maintenance of operations negatively impacted</li> </ul>
<b>Financial</b>			
Achievement of financial targets, generally in accordance with medium-term planning or approved (project) budgets	None	≤ €0.2 million	≥ €0.2 million (relevance threshold for small companies/business units)
<b>Compliance</b>			
Compliance with legal/official regulations and internal regulations	None	Breach of legal/official regulations and/or internal regulations with minor negative consequences for the department/area (trivial breaches)	Breach of legal/official regulations and/or internal regulations with negative consequences for the department/area











For the purposes of evaluation, 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. The relevance class is determined in each case based on quantitative and qualitative criteria for each of the four dimensions: strategic/sustainability, operational, financial and compliance.

The opportunities and risks allocated to relevance class 5 or higher and with a probability of occurrence of over 50% are generally included in the Group report on opportunities and risks. Insofar as a financial evaluation is possible, this corresponds to a value of €50 million within the medium-term planning period. 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.

The probability of occurrence is split into six levels:

iRM levels for the probability of occurrence

Description	Level for the probability of occurrence
Very low	0% to 10%
Low	10% to 30%
Medium	30% to 50%
High	50% to 70%
Very high	70% to 90%
Almost certain	90% to 100%

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) and the  retained cash flow or  net investment (with any associated impact on the  internal financing capability) are considered. Alongside these financial effects, opportunities and risks can also have impacts on the other key performance indicators ( p. 30 f.), which are discussed with those responsible in the specialist areas.

		Group	
3	4	5	6
One strategic/sustainability target for the company/business units/functional units is not achieved	Several strategic/sustainability targets for the company/business units/functional units are not achieved	One strategic/sustainability target for the EnBW Group is not achieved	Several or all strategic/sustainability targets for the EnBW Group are not achieved
<ul style="list-style-type: none"> <li>&gt; One operational target for the company/business units/functional units is not achieved</li> <li>&gt; Long-term negative impact on one/multiple relevant process with maintenance of operations severely impacted</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Several operational targets for the company/business units/functional units are not achieved</li> <li>&gt; The value added of the company/business units/functional units is massively disrupted</li> </ul>	<ul style="list-style-type: none"> <li>&gt; One key operational target for the EnBW Group is not achieved</li> <li>&gt; The value added is massively disrupted beyond the company/business units/functional units</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Several or all operational targets for the EnBW Group are not achieved</li> <li>&gt; Value added across the whole Group is massively disrupted</li> </ul>
≥ €1 million (relevance threshold for medium-sized companies/business units)	≥ €5 million (relevance threshold for large companies/business units)	≥ €50 million (relevance threshold for functional units and EnBW Group)	≥ €250 million
Breach of legal/official regulations and/or internal regulations with negative consequences for the company/business units/functional units	Breach of legal/official regulations and/or internal regulations with serious negative consequences for the company/business units/functional units	Breach of legal/official regulations and/or internal regulations with negative consequences for the EnBW Group	Breach of legal/official regulations and/or internal regulations with serious negative consequences for the EnBW Group

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. 91) 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.

### Non-financial declaration

As part of the non-financial declaration, EnBW will analyse the non-financial opportunities and risks for compliance (main focus: fighting corruption and bribery), social engagement, procurement, the customers and society goal dimension, the employees goal dimension and the environment goal dimension in more detail from the 2017 financial year onwards. For this purpose, processes in the iRM established across the Group and other associated processes have been fundamentally revised and the risk map and relevance filter expanded to ensure the fulfilment of the requirements for a non-financial declaration. From relevance class 5 and a probability of occurrence of over 50%, opportunities and risks will also be reported externally. 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). You can find further information on this subject on page 115.

## Structure and processes of the accounting-related internal control system

### Principles

Alongside the internal control system (ICS) that is anchored within the company's business processes via the iRM, an accounting-related ICS was 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 an individual business entity and 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 – an internationally accepted framework for internal control systems.

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 to 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 exceptional cases, the effectiveness of the ICS can be impaired by unforeseeable changes in the control environment, fraud or human error.

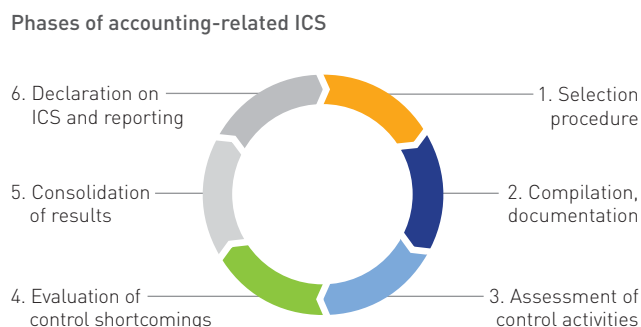
### Structure

The accounting-related ICS at EnBW is organised at both a centralised and decentralised level. All important business entities, 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, which is approved by the management of the business entity or unit. The ICS officer at Group level assists the business entities/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, as well as 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 business entities/units, significant items in the financial statements and processes including their associated control measures. This selection process is based on quantitative and qualitative risk indicators.



The defined processes and controls are recorded in a central documentation system. The effectiveness of the various control activities is then assessed. This includes analysing whether the control activities are generally appropriate for the purpose of reducing the risk of erroneous financial reporting. In addition, regular monitoring of the implementation of the controls and their documentation is carried out to review the functionality of the defined controls, as well as the operational effectiveness of the processes. If any control weaknesses are identified, their effect on the financial statements is evaluated. The results are reported at both a business entity or unit level and at a Group level. Furthermore, the Group auditing department performs ICS reviews as part of its risk-oriented audit planning.

**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 any individual issue. 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 responsibility of the Compliance Management System, which includes regular risk assessments of this type. Risks related to fighting corruption and bribery are addressed on [p. 33](#) 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.

**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.

**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. These risks are managed using defined processes in purchasing, especially in the pre-qualification process. Compliance with the rules is ensured by regularly checking individual product groups. In addition, around 85% of the suppliers are based in the EU. In the area of raw materials procurement, respect for human rights is ensured using a multi-stage auditing process as part of the procurement process – with all 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. Increasing civil society activity in this context can in turn increase reputational risks. EnBW is in constant contact with representatives from civil society and keeps them informed about the advances made and challenges faced in all sustainability topics.

In gas procurement, EnBW has carried out the first preliminary checks so that it can better assess whether human rights risks exist in the supply chain. The first results indicate that there are no risks.

**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 Reputation Index [\(p. 69\)](#). 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 above all in connection with changing competitive conditions and the associated risk of a negative impact on the customer base and sales volumes. In addition, there are also opportunities due to, amongst other things, changing demand for climate friendly products [\(p. 49\)](#). Therefore, EnBW will also continue to expand its range of sustainable energy industry services and energy solutions in the future. EnBW is also currently establishing a system to continuously collect customer feedback (Net Promoter Score – NPS). The resulting findings could be used to recognise product, service and process deficiencies and identify business opportunities and risks more quickly, making it possible to tackle them better from a customer perspective.

## 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. 72 ff.).

**Occupational safety:** Risks generally exist in the areas of occupational safety and health protection in our business activities. The EnBW Group counters 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. EnBW also views these measures as an opportunity to preserve the capacity of its 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 within the employees goal dimension (p. 76).

## Environment goal dimension

**Expansion of Renewable Energies:** In relation to the expansion of renewable energies, there is a general risk posed by the auction process and thus the sluggish expansion of onshore wind power. 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 and the share of the generation capacity accounted for by renewable energies" (p. 77).

**Climate protection:** Risks generally exist in the area of environmental protection due to the operation of power plants and the possible consequences for the air, water, soil and ozone layer. The importance of climate protection is taken into account in, amongst other things, the key performance indicator CO<sub>2</sub> intensity (p. 78 f.).

EnBW counters these risks using, amongst other things, an environmental management system certified according to DIN ISO 14001, which has been established at key Group companies (p. 77). EnBW takes the safety of the population and the environment very seriously. In this context, risks also exist due to external circumstances, such as extreme weather conditions. These risks are countered by EnBW using an emergency and crisis management system that has been implemented throughout the Group and includes comprehensive organisational and procedural measures. EnBW ensures that the risks posed by crisis and emergency situations are mitigated quickly, effectively and with a coordinated approach through the use of regular crisis management exercises and other measures. Through its diverse range of activities in the

areas of environmental, nature and species protection, EnBW also utilises the opportunity – beyond its 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, the Reputation Index (p. 69).

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 an especially negative impact 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 availability 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. 49 ff.). For this reason, the top opportunity/risk wind fluctuations has been reported since the Integrated Annual Report 2016, although this has 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 the operation of power plants. These risks are managed and mitigated in internal processes using targeted control measures.

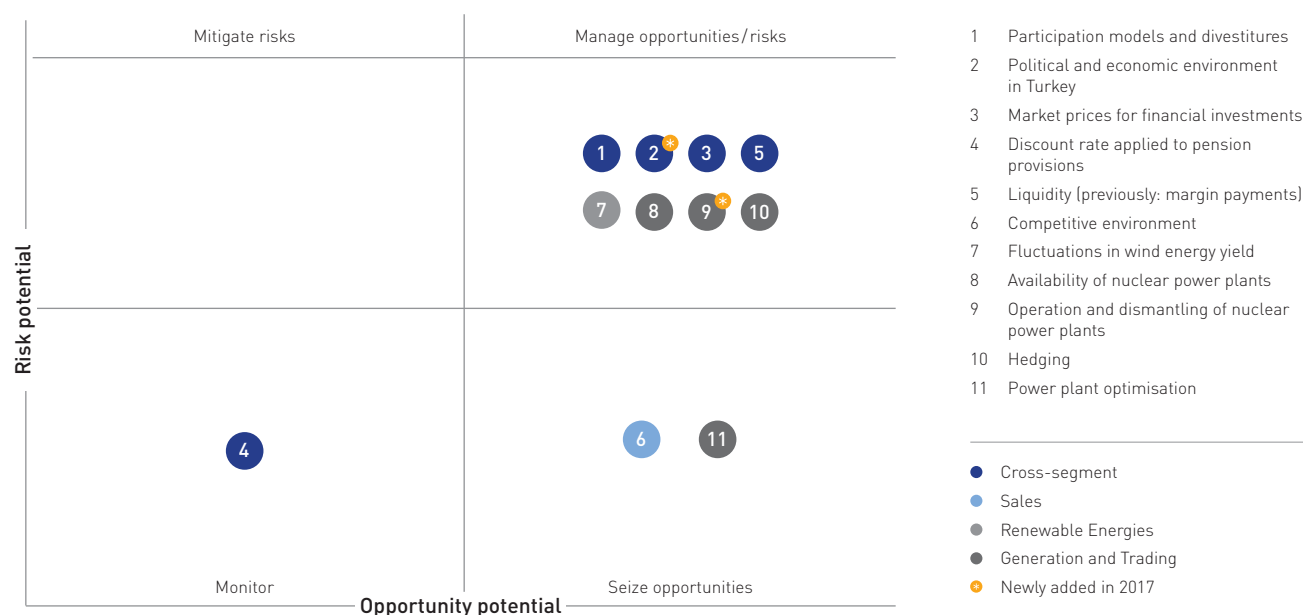
Alongside changes in physical climate parameters and other developments relating to or governed by environmental factors, regulatory guidelines and changes in the market also flow into the risk evaluation process. However, there are also opportunities such as changing customer needs (p. 70 f.) and an 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) have been implemented and are communicated in the report on opportunities and risks.

## Opportunity and risk position

The following diagram 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 whether EnBW can employ control measures to exploit the opportunities or to counteract the risks.

On the basis of the individual evaluation of the top opportunities/risks, the diagram illustrates what effects – based on the relative level of opportunity/risk they could likely have on – the adjusted EBITDA, adjusted EBIT, capital employed, retained cash flow or retained cash flow II and net investment. The risks are depicted after the implementation of risk limitation measures.

Top opportunities/risks as of 31/12/2017



The following important opportunities and risks emerged in 2017:

- > **Political and economic environment in Turkey:** The economic and political framework conditions in Turkey have deteriorated noticeably in the past few years. EnBW is monitoring these developments very closely. This risk is handled as a top opportunity/risk.
- > **Operation and dismantling of nuclear power plants:** At the two power plants GKN I and KKP 1, there is a possibility of delays and additional costs due to an increase in complexity and expenses during the dismantling and disposal process. Deadlines and costs are being permanently monitored and controlled within a strategic dismantling project. This risk is now handled as a top opportunity/risk.

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**

EnBW faces general risks from legal proceedings due to its contractual relationships with customers, business partners and employees (**previously: Legal risks**). 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, EnBW is still striving to reach an amicable settlement. The court proceedings were placed on hold from January 2015 until the end of 2016 to give the parties the opportunity to reach an amicable settlement. Unfortunately, it was not possible to reach such an agreement – even after the reactivation of the court proceedings by the City of Stuttgart at the end of 2016 – due to a difference of opinion on the valuation. The next negotiations are due to be held in April 2018. Therefore, there continues to be a risk in 2018 of losing the water grid without receipt of adequate compensation.

Due to the multitude of different investments, there are opportunities and risks due to changes in share prices for equity investments that are to be stated at market value using share prices (**previously: Impairment risks**). A risk of impairment exists if there is a negative trend in share prices. In contrast, there is a possible opportunity that the value of these investments will increase due to positive developments in share prices.

**Strategic opportunities and risks**

① **Participation models and divestitures:** Opportunities and risks exist due to surplus or reduced revenue, as well as time delays, in the investment and divestiture portfolio. The majority of the planned divestitures have now been implemented. Opportunities and risks exist for the years 2018 and 2019 that could have an impact on net investment and thus on the key performance indicator internal financing capability,

insofar as the actual revenue from the investments and divestitures does not meet our medium-term planning goals. We currently identify a balanced level of opportunity and risk in this area.

**2 Political and economic environment in Turkey:** EnBW has been commercially active in Turkey for many years in the expansion of energy generation from wind power and hydropower. In the past few years, the economic and political framework conditions in Turkey have deteriorated noticeably. EnBW is continuing to monitor these developments very closely, especially because it has a duty of care for those employees working in Turkey. There has been an increased security risk for a number of years. However, an immediate danger to local employees does not exist. EnBW is in regular contact with the German embassy, the German Consulate General, our partner Borusan and other German companies active in Turkey so that it will be able to identify any negative developments as early as possible and respond in good time.

### Financial opportunities and risks

**3 Market prices of financial investments:** The financial investments managed by the **E** asset management system are subject to opportunities and risks due to price changes and other valuation changes as a result of the volatile financial market environment (**L** p. 60). A significantly higher amount of securities held within the reserve funds will be measured at fair value through profit or loss in accordance with IRFS 9 from 2018. Fluctuations in the value of these securities will be directly shown on the income statement in future. Due to the implementation of the Act for the Reorganisation of Responsibility in Nuclear Waste Management, there was a large cash outflow in 2017, which has significantly reduced the opportunities and risks. In the 2017 financial year, impairment losses stood at €3.8 million (previous year: €133.3 million). Through corresponding effects, this could have both a positive and negative impact in 2018 and 2019 on **E** 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.

**4 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. At the end of the 2017 financial year, the discount rate was 1.8%, which was down 0.1 percentage points on the rate at the end of the previous year (1.9%). This resulted in the present value of the defined pension benefit obligations increasing by €117.8 million (previous year: €463.3 million). The future development of interest rates could have a positive or negative impact in the low three-digit million euro range on **E** net debt in 2018, and a positive impact in the medium three-digit million euro range or a negative impact in the low four-digit million euro range on net debt in 2019. Against the background of the expected development of interest rates in future, we currently identify a high level of opportunity and a low level of risk.

**5 Liquidity (previously: Margin payments):** Due to unforeseeable payments, especially margin payments, unused project funds or tax issues, as well as exogenous shocks, such as financial market crashes, the Group's liquidity planning is subject to uncertainty that could lead to deviations from the planned payments. There is also a risk that the rating agencies will downgrade the credit rating of EnBW due to further deterioration of the economic and political conditions or unfulfilled expectations (**L** p. 61 f.). In the case of a downgraded rating (**previously: Rating**) and the associated deterioration in capital market conditions, it is possible that this will result in additional liquidity requirements in the form of refinancing costs. These effects could have a negative impact in the low double-digit to mid three-digit million euro range in 2018, and a positive impact in the low double-digit million euro range or a negative impact in the low three-digit million euro range in 2019 on the key performance indicator **E** ROCE. In this context, we currently identify a medium level of opportunity and a high level of risk.

### Compliance opportunities and risks

The Compliance Risk Assessment focuses, 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 EnBW derives 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 **L** page 33 ff.

In addition, there are antitrust risks in the sales activities of some Group companies that could result in fines and also have significant strategic implications and damage reputation. This risk is countered by the joint preventative measures of the compliance and legal departments.

The incorrect handling, illicit disclosure or use of personal data poses data protection risks. The risks are increasing due to the digital transformation of many business activities, as well as a raised level of awareness for this subject due to new legislation. Advisory and awareness services and process controls are in place to guarantee adherence to legal data protection requirements in the Group.

The risk of failing to implement the requirements of the EU General Data Protection Regulation is countered by EnBW through a corresponding Group data protection project. Company-specific measures are coordinated via the compliance and data protection departments.

## Sales segment

### Financial opportunities and risks

6 **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. The willingness of customers to switch suppliers and the pressure on prices remain high. 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 (L p. 24 ff.). Alongside the traditional supply of electricity and gas, EnBW also sees good long-term opportunities here for offering its customers additional innovative energy solutions in the areas of energy technology in the home, such as with the product EnBW solar+, corporate energy efficiency or also electromobility (L p. 70 f.). The aim is to generate corresponding earnings contributions for EnBW. This could result in both a positive or negative effect in 2018 and 2019 on the key performance indicator adjusted EBITDA in the low single to double-digit million euro range. 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 (previously: HVDC projects):** TransnetBW plans to set up new connections using E HVDC transmission technology 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 E 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 surplus or deficit on the account balance can have a temporary positive or negative effect on the calculation of the E net debt of EnBW, respectively. As of the reporting date on 31 December 2017, a net surplus in the mid three-digit million euro range existed on the EEG bank account of our subsidiary TransnetBW GmbH. Due to the E EEG cost allocations defined for 2018, we anticipate a positive value for the bank account for 2018.

## Renewable Energies segment

### Financial opportunities and risks

7 **Fluctuations in wind energy yield:** There is a general opportunity or risk for wind power plants due to wind fluctuations because the amounts of electricity generated by them are subject to fluctuations in the mean annual wind speed. In order to take these wind fluctuations into account, wind reports are created. This could result in both a positive or negative effect in 2018 and 2019 on the key performance indicator E adjusted EBITDA and the key performance indicator internal financing capability in the low double-digit million euro range. We identify a balanced low 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 a risk of a delay in the return of waste to the local intermediate storage facilities (**previously: 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.

In addition, following the adoption of the Act for the Reorganisation of Responsibility in Nuclear Waste Management, the remaining provisions with shorter maturities held by EnBW were re-evaluated (**previously: Changes to interest rates on nuclear provisions**). We currently identify a low level of opportunity and risk for the remaining 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 (**previously: Impairment losses and provisions for onerous contracts**).

### Operative opportunities and risks

8 **Availability of nuclear power plants:** There is a general risk that exogenous and endogenous factors will have an influence on the availability of 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. In 2018 and 2019, this could result in both a positive or also negative effect on the key performance indicator adjusted EBITDA and on the key performance indicator internal financing capability in the low single to double-digit million euro range. We currently identify a relatively low level of opportunity and risk in this area.

9 **Operation and dismantling of nuclear power plants:** At the two power plant blocks GKN I and KKP 1, there is a possibility of delays and additional costs due to an increase in complexity and expenses during the dismantling and disposal process. Deadlines and costs are being permanently monitored and controlled within a strategic dismantling project. This could have a negative effect on the net debt in the low to mid double-digit million euro range in 2018 and 2019. We currently identify a relatively low level of risk in this area.

### Financial opportunities and risks

10 **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 also involves the exploitation of opportunities and the limitation of risks. The hedging instruments utilised in 2017 were forwards, futures and swaps. The EnBW Group has exposure to foreign exchange risks from procurement and hedging of prices for its fuel requirements, as well as from gas and oil trading business. This could have a positive effect in 2019 on the key performance indicator adjusted EBITDA and on the key performance indicator internal financing capability in the low to high double-digit million euro range. We currently identify a medium level of opportunity in the area of hedging for 2019. Further information can be found in the section “Accounting for financial instruments” in the notes to the consolidated financial statements ([www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads)).

11 **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, through the sale of system services and through placements on the spot and intraday trading platforms. However, regulatory interventions continue to have a strong influence. In particular, fluctuating revenues from system services and volatility on the forward and spot markets could have a positive or negative effect on the key performance indicator adjusted EBITDA in 2018 and 2019 in the low double-digit million euro range. We currently identify a low level of opportunity and risk that is dependent on the development of market prices.

Compared with the previous year, the following opportunities and risks were either eliminated or will no longer be included in the Group reporting due to their low level of relevance:

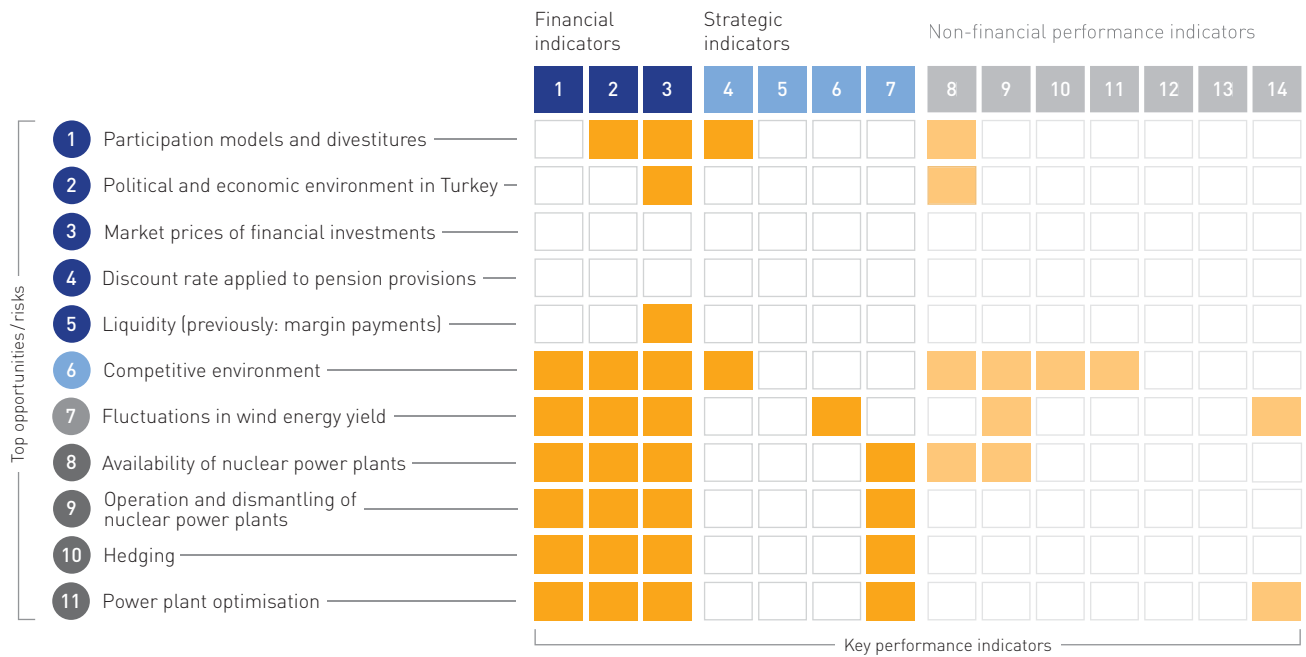
- > **Final storage:** This risk no longer exists due to the fact that the Act for the Reorganisation of Responsibility in Nuclear Waste Management has come into effect, the corresponding contract has been signed and the risk premium paid by EnBW.
- > **Moratorium lawsuit:** In signing the contract for financing the costs of the phase-out of nuclear power, EnBW obligated itself to withdraw the moratorium lawsuit.
- > **Nuclear fuel rod tax:** The Federal Constitutional Court declared the law for the nuclear fuel rod tax unconstitutional on 7 June 2017, which was the subject of the opportunity “Lawsuit against the nuclear fuel rod tax”. The opportunity has thus been realised as a result of this judgement, while the basis for the risk or the risk of an extension of the nuclear fuel rod tax to the end of the operating life of the nuclear power plants has now been eliminated.
- > **EU sanctions against Russia:** The risk of possible sanctions with a negative impact on existing business relations with Russian companies cannot be completely excluded, yet due to the continuing unchanged political developments, this risk falls short of the materiality threshold for reporting.
- > **Shutdown and early inspection of KKP 2:** The damaged ventilation system brackets identified during routine inspections of Block 2 of the Philippsburg nuclear power plant (KKP 2) have been repaired. The power plant has been back in operation since 15 May 2017. This risk thus no longer exists.
- > **Improvements in efficiency:** The increases in earnings due to efficiency improvement measures have now mostly been realised so that this top opportunity/risk has fallen short of the materiality threshold for reporting.

### 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 in nature and 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

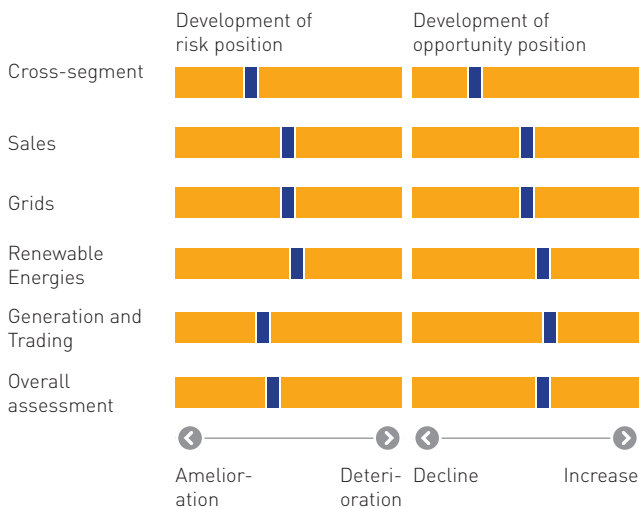


- Cross-segment
- Sales
- Renewable Energies
- Generation and Trading

- 1 Adjusted EBITDA
- 2 Internal financing capability
- 3 ROCE
- 4 Share of overall adjusted EBITDA accounted for by "Customer proximity" / Sales
- 5 Share of overall adjusted EBITDA accounted for by Grids
- 6 Share of overall adjusted EBITDA accounted for by Renewable Energies
- 7 Share of overall adjusted EBITDA accounted for by Generation and Trading
- 8 Reputation Index
- 9 EnBW/Yello Customer Satisfaction Index
- 10 SAIDI (electricity)
- 11 Employee Commitment Index (ECI)
- 12 LTIF
- 13 Installed output of RE and share of generation capacity accounted for by RE
- 14 CO<sub>2</sub> intensity

Overall assessment by the Group management

Risk and opportunity position 2017



The risk situation for the EnBW Group reduced significantly in 2017. Changes to the framework conditions for the entire sector of energy companies are continuing. However, the major uncertainties with respect to risk potential and payment flow have reduced. Due to increased fuel prices and a recovery in the CO<sub>2</sub> prices, 2017 was thus characterised by a recovery in electricity prices. After the nuclear fuel rod tax was declared unconstitutional, the tax payments already made by the company were reimbursed. The risk of these tax payments continuing until the end of the service lives of the power plants thus no longer exists. In addition, there was a significant reduction in the risks related to final storage for nuclear energy due to the implementation of the Act for the Reorganisation of Responsibility in Nuclear Waste Management. 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 laws 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 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, the EnBW Group believes there are opportunities in the dismantling of power plants due to synergy effects, which could have a positive impact on the opportunity position in the future. In addition, EnBW is developing a diverse range of customer-oriented measures such as innovative energy

solutions in the areas of energy technology, for example the product EnBW solar+, corporate energy efficiency and electromobility. The commercial development of environmentally friendly and CO<sub>2</sub>-efficient energy solutions will be resolutely pushed forward. The implementation of our post 2020 strategy thus aims to secure the future viability of the company and tap into this potential for growth.

Although several risks were reduced or eliminated during the course of 2017, additional risks for EnBW have either emerged or were exacerbated. No risks currently exist that might jeopardise the EnBW Group as a going concern.

# 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) and the German Accounting Standard (GAS) 17 (amended in 2010) into consideration in this respect. It also contains disclosures required by German commercial law included in the notes pursuant to section 314 of the German Commercial Code (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 current version of the Board of Management remuneration system is valid until 31 December 2017. The remuneration for 2017 consists of the following essential components:




### Fixed remuneration

This remuneration component comprises fixed basic annual remuneration and other earnings.

### Variable remuneration

> **Performance bonus (Short Term Incentive – STI):** The level of the performance bonus depends on the extent to which the respective targets agreed for the financial year have been achieved. These include financial targets at a Group level (corporate targets), which are measured relative to the two performance indicators  EBITDA and  ROCE, as well as individual targets. The Supervisory Board is entitled to adjust the targets if events arise that are not relevant to the ongoing management of the company. The size of the performance 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 be found in the table “Target income of members of the Board of Management”. The performance bonus for the current assessment year is paid immediately. The delayed payment from 2014 for the year 2016 (deferral 2, payment in 2017) was adjusted to reflect the extent to which the corporate targets were met in 2016. Interest of 3% per annum is accrued on this payment, which is made following ratification of the annual financial statements (see table “Payments to Board of Management members”).

> **Value appreciation bonus (Long Term Incentive – LTI):** The value appreciation bonus consists 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. As with the performance bonus, the Supervisory Board defines target values, lower limits and upper limits in advance. The basic LTI is determined by the accumulated contribution to value 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 2017 financial year

in €	Dr. Frank Mastiaux, Chairman		Dr. Bernhard Beck, LL.M.	
	2017	2016	2017	2016
<b>Fixed remuneration</b>				
Basic remuneration	990,000	990,000	515,000	515,000
Other remuneration <sup>1</sup>	30,933	26,960	32,078	66,036
<b>Variable remuneration</b>				
Without long-term incentive	999,350	878,268	593,950	508,016
With long-term incentive	1,282,331 <sup>2</sup>	1,241,349	755,354 <sup>2</sup>	647,960
<b>Total</b>	<b>3,302,614</b>	<b>3,136,577</b>	<b>1,896,382</b>	<b>1,737,012</b>

1 Other remuneration includes monetary benefits, particularly from the provision of company cars amounting to €126,911 (previous year: €159,603).

2 Current preliminary value appreciation bonus for the performance periods 2016 to 2018 (and 2017 to 2019) is €1,301,710 for Dr. Frank Mastiaux (€1,315,516), €773,984 for Dr. Bernhard Beck (€780,822), €675,836 for Thomas Kusterer (€671,550) and €665,227 for Dr. Hans-Josef Zimmer (€671,550). The exact level of the value appreciation bonus for the performance periods 2016 to 2018 (and 2017 to 2019) can only be determined following the end of the 2018 financial year (and 2019 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 Management<sup>1</sup>

in €	Dr. Frank Mastiaux Chief Executive Officer				Dr. Bernhard Beck, LL.M. Chief Personnel Officer			
	2017	2017 (min.)	2017 (max.)	2016	2017	2017 (min.)	2017 (max.)	2016
Fixed remuneration	990,000	990,000	990,000	990,000	515,000	515,000	515,000	515,000
Fringe benefits	30,933	30,933	30,933	26,960	32,078	32,078	32,078	66,036
<b>Total</b>	<b>1,020,933</b>	<b>1,020,933</b>	<b>1,020,933</b>	<b>1,016,960</b>	<b>547,078</b>	<b>547,078</b>	<b>547,078</b>	<b>581,036</b>
One-year variable remuneration performance bonus	748,000	0	1,089,000	748,000	455,000	0	628,000	455,000
Multi-year variable remuneration LTI 2015 to 2017	1,026,000	0	1,494,000	1,026,000	630,000	0	870,000	630,000
<b>Total</b>	<b>2,794,933</b>	<b>1,020,933</b>	<b>3,603,933</b>	<b>2,790,960</b>	<b>1,632,078</b>	<b>547,078</b>	<b>2,045,078</b>	<b>1,666,036</b>
Pension expenses	545,005	545,005	545,005	-57,648	222,398	222,398	222,398	-282,520
<b>Total remuneration</b>	<b>3,339,938</b>	<b>1,565,938</b>	<b>4,148,938</b>	<b>2,733,312</b>	<b>1,854,476</b>	<b>769,476</b>	<b>2,267,476</b>	<b>1,383,516</b>

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 members<sup>1</sup>

in €	Dr. Frank Mastiaux Chief Executive Officer		Dr. Bernhard Beck, LL.M. Chief Personnel Officer	
	2017	2016	2017	2016
Fixed remuneration	990,000	990,000	515,000	515,000
Fringe benefits	30,933	26,960	32,078	66,036
<b>Total</b>	<b>1,020,933</b>	<b>1,016,960</b>	<b>547,078</b>	<b>581,036</b>
One-year variable remuneration performance bonus	892,250	974,178	503,050	542,906
Multi-year variable remuneration Deferrals from 2013	-	520,374	-	320,230
Deferrals from 2014	445,231	493,657	261,901	290,387
LTI 2014 to 2016	796,118	-	386,059	-
<b>Total</b>	<b>3,154,532</b>	<b>3,005,169</b>	<b>1,698,088</b>	<b>1,734,559</b>
Pension expenses	545,005	-57,648	222,398	-282,520
<b>Total remuneration</b>	<b>3,699,537</b>	<b>2,947,521</b>	<b>1,920,486</b>	<b>1,452,039</b>

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		Dr. Hans-Josef Zimmer	
	2017	2016	2017	2016
	515,000	515,000	515,000	515,000
	23,313	29,116	41,309	41,642
	514,994	448,500	514,820	448,500
	651,327 <sup>2</sup>	585,164	651,327 <sup>2</sup>	585,164
	<b>1,704,634</b>	<b>1,577,780</b>	<b>1,722,456</b>	<b>1,590,306</b>

	Thomas Kusterer Chief Financial Officer				Dr. Hans-Josef-Zimmer Chief Technical Officer			
	2017	2017 (min.)	2017 (max.)	2016	2017	2017 (min.)	2017 (max.)	2016
	515,000	515,000	515,000	515,000	515,000	515,000	515,000	515,000
	23,313	23,313	23,313	29,116	41,309	41,309	41,309	41,642
	<b>538,313</b>	<b>538,313</b>	<b>538,313</b>	<b>544,116</b>	<b>556,309</b>	<b>556,309</b>	<b>556,309</b>	<b>556,642</b>
	390,000	0	546,000	390,000	390,000	0	546,000	390,000
	535,000	0	749,000	535,000	535,000	0	749,000	535,000
	<b>1,463,313</b>	<b>538,313</b>	<b>1,833,313</b>	<b>1,469,116</b>	<b>1,481,309</b>	<b>556,309</b>	<b>1,851,309</b>	<b>1,481,642</b>
	320,993	320,993	320,993	-533,743	239,981	239,981	239,981	-307,973
	<b>1,784,306</b>	<b>859,306</b>	<b>2,154,306</b>	<b>935,373</b>	<b>1,721,290</b>	<b>796,290</b>	<b>2,091,290</b>	<b>1,173,669</b>

	Thomas Kusterer Chief Financial Officer		Dr. Hans-Josef-Zimmer Chief Technical Officer	
	2017	2016	2017	2016
	515,000	515,000	515,000	515,000
	23,313	29,116	41,309	41,642
	<b>538,313</b>	<b>544,116</b>	<b>556,309</b>	<b>556,642</b>
	475,294	503,870	475,120	478,870
	-	288,207	-	288,207
	235,711	261,348	235,711	261,348
	349,453	-	349,453	-
	<b>1,598,771</b>	<b>1,597,541</b>	<b>1,616,593</b>	<b>1,585,067</b>
	320,993	-533,743	239,981	-307,973
	<b>1,919,764</b>	<b>1,063,798</b>	<b>1,856,574</b>	<b>1,277,094</b>

## 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 were 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: €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 current 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: €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 in the event of the premature termination of service on the Board of Management due to a change of control, 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.

**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 2017 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.		Thomas Kusterer		Dr. Hans-Josef Zimmer	
	2017	2016	2017	2016	2017	2016	2017	2016
Vested benefit from previous entitlement p.a.	80,676	80,676	195,846	195,846	89,523 <sup>2</sup>	89,523 <sup>2</sup>	174,636	174,636
Capital from contribution model	877,398	408,885	312,129	171,059	515,493	256,636	254,643	126,773
Annual expenses for pension obligations <sup>1</sup>	545,005	-57,648	222,398	-282,520	320,993	-533,743	239,981	-307,973
Present value of pension obligations [defined benefit obligations]	2,899,870	1,895,835	4,971,364	5,602,207	2,786,574	2,223,910	4,564,216	4,722,748

<sup>1</sup> Including an addition to capital for pension benefits totalling €74,580 (previous year: €101,001). This is a pension commitment financed through voluntarily waiving part of the salary. An extraordinary item (income) of €-2,528,767 is included in the figure for the previous year, which results from the conversion of the pension commitments.

<sup>2</sup> 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 €15.2 million for the current members of the Board of Management (previous year: €14.4 million).

Former members of the Board of Management and their surviving dependants received total remuneration of €4.7 million in the 2017 financial year (previous year: €6.5 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 €98.8 million (previous year: €97.2 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.

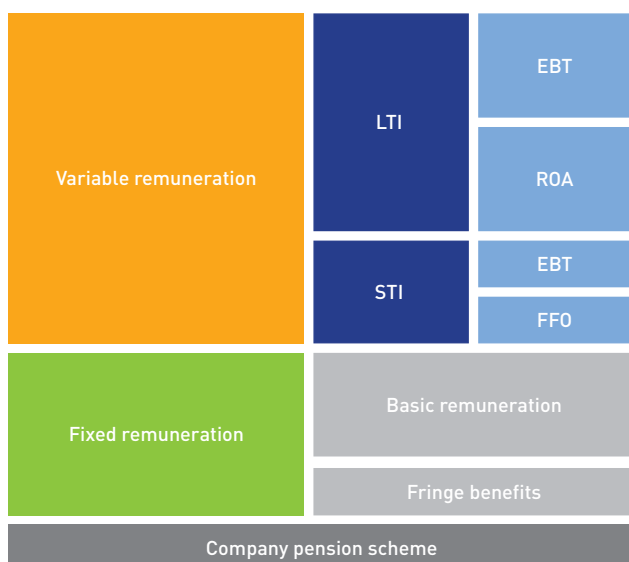
## Restructuring of the remuneration system

The Supervisory Board of EnBW AG passed a resolution on 7 December 2017 for the restructuring of the remuneration system for the members of the Board of Management, effective as of 1 January 2018. The new regulations will be presented to the Annual General Meeting on 8 May 2018 for approval in accordance with article 120 (4) AktG. The following description is not part of the remuneration report.

The aim of the restructuring is, above all, to reduce complexity and thus increase the transparency and clarity of the system. In addition, it is designed to increase the incentive effect by focussing on the achievement of targets that can be influenced by the Board of Management. This applies, in particular, with a view to the long-term ability to distribute dividends and increasing the competitiveness of the remuneration system, while at the same time, maintaining the fundamental orientation of the system towards sustainable development and the long-term growth of the company and Group.

The existing remuneration structure, consisting of basic remuneration, one-year and multi-year variable remuneration, the (unchanged) contributions as part of the company pension scheme and the regulations in the event of the premature termination of service, remains unchanged. The ratio of basic remuneration to the target remuneration for the variable remuneration components has also been retained. The ratio of single-year to multi-year variable remuneration is 40% to 60%. Multi-year variable remuneration will thus still significantly outweigh single-year variable remuneration in the future. In general, the variable remuneration components have a multi-year measurement basis in accordance with section 4.2.3 sentence 4 DCGK. The single-year variable remuneration component is also described below as the Short Term Incentive (STI) while the multi-year variable remuneration component is described as the Long Term Incentive (LTI). The following diagram shows the structure of the total remuneration:

Components of the target remuneration



### Fixed remuneration


The fixed remuneration, consisting of basic remuneration and fringe benefits, remains unchanged.

### 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.
- >  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 about 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 on the underachievement or overachievement of the target value, which is 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.

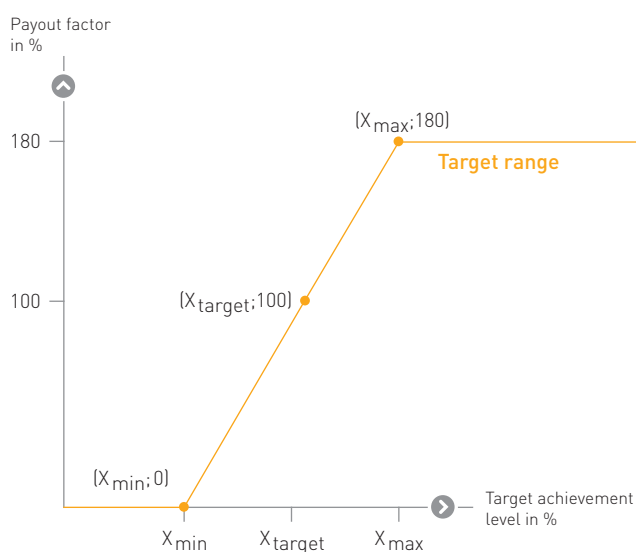
In the event of the overachievement of the target, the maximum possible remuneration that can be paid is limited to 180% of the partial target remuneration defined for each performance indicator (partial remuneration cap). The sum of



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.

**Target range**



The target range corresponds to a linear function, as shown in the above 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 linear function for the 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 determined primarily 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 paragraph 2 DCGK.

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
- > 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 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 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 of the LTI target remuneration. In the event of the underachievement of the target, the amount of the 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 on the target range 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 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.

## 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 receive fixed remuneration of €40,000 each payable at the end of the financial year in addition to reimbursement of their expenses for the entire 2017 financial year. 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 2017 financial year:

The disclosures for the remuneration for members of the Supervisory Board include attendance fees amounting to

€227,250 (previous year: €240,000) and attendance fees totalling €20,265 in the remuneration for offices held at subsidiaries (previous year: €20,515). 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	
	2017	2016	2017	2016	2017	2016
Lutz Feldmann, Chairman	113,000	92,378	0	0	113,000	92,378
Dietrich Herd, Deputy Chairman	88,500	85,000	9,800	10,400	98,300	95,400
Dr. Dietrich Birk	57,250	17,986	0	0	57,250	17,986
Stefanie Bürkle <sup>1</sup>	54,250	36,628	0	0	54,250	36,628
Stefan Paul Hamm <sup>2</sup>	66,250	61,250	7,513	9,413	73,763	70,663
Michaela Krütter <sup>2</sup>	46,000	49,250	1,500	1,500	47,500	50,750
Silke Krebs <sup>3</sup>	61,000	59,500	0	0	61,000	59,500
Marianne Kugler-Wendt <sup>2</sup>	56,500	60,500	6,400	7,000	62,900	67,500
Thomas Landsbek	46,000	32,292	0	0	46,000	32,292
Dr. Hubert Lienhard	55,000	55,750	0	0	55,000	55,750
Sebastian Maier	56,500	55,586	6,615	6,615	63,115	62,201
Arnold Messner	66,250	63,500	8,113	8,413	74,363	71,913
Dr. Wolf-Rüdiger Michel <sup>1</sup>	54,250	59,500	0	0	54,250	59,500
Gunda Röstel	66,250	67,000	11,513	7,427	77,763	74,427
Klaus Schörnich	56,500	60,500	11,150	12,500	67,650	73,000
Heinz Seiffert <sup>1</sup>	55,750	58,000	0	0	55,750	58,000
Edith Sitzmann <sup>4</sup>	55,750	18,736	0	0	55,750	18,736
Ulrike Weindel	56,500	38,628	0	0	56,500	38,628
Lothar Wölfe <sup>1</sup>	64,750	59,500	0	0	64,750	59,500
Dr. Bernd-Michael Zinow	68,500	68,750	12,200	12,747	80,700	81,497
Dr. Claus Dieter Hoffmann (Member and Chairman until 10/05/2016)	0	37,753	0	0	0	37,753
Wolfgang Lang (until 10/05/2016)	0	21,751	0	0	0	21,751
Dr. Nils Schmid <sup>3</sup> (until 31/08/2016)	0	39,167	0	0	0	39,167
Carola Wahl (until 31/07/2016)	0	27,029	0	0	0	27,029
Dietmar Weber (until 10/05/2016)	0	22,001	0	0	0	22,001
<b>Total</b>	<b>1,244,750</b>	<b>1,247,935</b>	<b>74,804</b>	<b>76,015</b>	<b>1,319,554</b>	<b>1,323,950</b>

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 term of office of Mr Seiffert ended on 30 September 2016. From 1 October 2016, the regulations for LBeamTVG apply.

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 have agreed to relinquish any remuneration received for membership of supervisory 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 of the Ancillary Activities Ordinance (LNTVO) analogously, provided that the extent to which the remuneration received in the calendar year exceeds a gross total of €6,100 (council of ministers resolution dated 24 May 2011). The membership of Mrs. Krebs and Dr. Schmid in the cabinet of the state government ended on 18 March 2016 and 11 May 2016, respectively.

4 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 of the Ancillary Activities Ordinance (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 5 July 2016).

# Disclosures pursuant to sections 289a (1) and 315a (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 289a (1) and 315a (1) German Commercial Code (HGB) and explains this in accordance with section 176 (1) sentence 1 German Stock Corporations Act (AktG).

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 section 21 German Securities Trading Act (WpHG)" and the notes to the consolidated financial statements in section "Related parties (entities)".

Details on the treasury shares are presented in note 18 of the notes to the consolidated financial statements at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-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 German Co-determination Act (MitbestG), responsibility for the appointment and dismissal of members of the Board of Management rests with the Supervisory Board. This competence is stipulated in section 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. 5 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 section 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 of the purpose of the company would require a higher majority of the capital stock. Pursuant to section 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 2017, 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 2017, 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, two bilateral bank loans together totalling €50 million and a syndicated loan, of which around €192 million was drawn as of 31 December 2017, taken out by Stadtwerke Düsseldorf AG (SWD) relating to the financing of their CCGT power plant could become due for repayment given a change of control at SWD, including an indirect change of control. This does not apply if, after the change of control, the majority of shares in SWD are held directly or indirectly by German government entities and the City of Düsseldorf holds at least 25.05% of the shares in SWD.

A promissory note loan of €80 million and a syndicated credit line of €1 billion, of which €44.2 million was drawn as of 31 December 2017, taken out by VNG-Verbundnetz Gas Aktiengesellschaft could each 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 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 is now the Federal State of Baden-Württemberg) or Zweckverband OEW or another German state-owned public law corporation.

Two bilateral long-term bank loans, drawn to the value of €400 million and €409 million as of 31 December 2017, 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 is now the Federal State of Baden-Württemberg) 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.

Nos. 4 and 5 of sections 289a (1) and 315a (1) HGB were not relevant for EnBW in the 2017 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 are obligated to issue a non-financial declaration from the 2017 financial year onwards. EnBW is complying with the new requirements in the Act on Strengthening Non-Financial Reporting by Companies in Management Reports and Group Management Reports (CSR Directive Implementation Act) through a non-financial declaration that is fully integrated into the Integrated Annual Report as part of the combined management report of the

EnBW Group and EnBW AG. We comply with all of the aspects required by the act and also with other material aspects by providing the respective information in each relevant section of the Integrated Annual Report 2017. The following table describes the relevant aspects that are contained in the integrated report. They each provide explanations of the concepts and processes, measures, performance indicators and risks.

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

Themes	Aspects	Chapter	Page reference
Compliance	<ul style="list-style-type: none"> <li>&gt; Fighting corruption and bribery</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Corporate governance</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 33 ff.</li> <li>page 91 ff.</li> </ul>
Social engagement	<ul style="list-style-type: none"> <li>&gt; Social issues</li> </ul>	<ul style="list-style-type: none"> <li>&gt; In dialogue with our stakeholders</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 38 f.</li> <li>page 95</li> </ul>
Procurement	<ul style="list-style-type: none"> <li>&gt; Respect for human rights</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Procurement</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 46 ff.</li> <li>page 95</li> </ul>
<b>Customers and society goal dimension</b>			
Reputation	<ul style="list-style-type: none"> <li>&gt; Standing in society</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The EnBW Group</li> <li>&gt; Forecast</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 69</li> <li>page 89</li> <li>page 95</li> </ul>
Customer proximity	<ul style="list-style-type: none"> <li>&gt; Customer satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The EnBW Group</li> <li>&gt; Forecast</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 70 f.</li> <li>page 89</li> <li>page 95</li> </ul>
Supply reliability	<ul style="list-style-type: none"> <li>&gt; Supply quality</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The EnBW Group</li> <li>&gt; Forecast</li> </ul>	<ul style="list-style-type: none"> <li>page 71 f.</li> <li>page 89 f.</li> </ul>
<b>Employees goal dimension</b>			
Employee commitment	<ul style="list-style-type: none"> <li>&gt; Employee issues</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The EnBW Group</li> <li>&gt; Forecast</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 72 ff.</li> <li>page 90</li> <li>page 96</li> </ul>
Occupational safety	<ul style="list-style-type: none"> <li>&gt; Employee issues</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The EnBW Group</li> <li>&gt; Forecast</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 76</li> <li>page 90</li> <li>page 96</li> </ul>
<b>Environment goal dimension</b>			
Expand renewable energies	<ul style="list-style-type: none"> <li>&gt; Environmental issues</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The EnBW Group</li> <li>&gt; Forecast</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 77 f.</li> <li>page 90</li> <li>page 96</li> </ul>
Climate protection	<ul style="list-style-type: none"> <li>&gt; Environmental issues</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Business model</li> <li>&gt; General conditions</li> <li>&gt; The EnBW Group</li> <li>&gt; Forecast</li> <li>&gt; Report on opportunities and risks</li> </ul>	<ul style="list-style-type: none"> <li>page 15</li> <li>page 50</li> <li>page 78 ff.</li> <li>page 90</li> <li>page 96</li> </ul>

The non-financial declaration is issued jointly for the EnBW Group and EnBW AG. Differences between the statements for the Group and EnBW AG are clearly identified in the text. Information on the business model can be found in the section Business model (p. 14 ff.). We have not identified any material individual risks in the 2017 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 is based as previously on the guidelines issued by the Global Reporting Initiative (GRI), as well as, in the 2017 financial year for the first time, on the GRI standard and can be viewed at [www.enbw.com/gri-index](http://www.enbw.com/gri-index). Our sustainability reporting also complies with the Communication on Progress requirements 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](http://www.enbw.com/corporate-governance).

KPMG AG 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 2017 financial year are accessible to the public on the website at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

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

## Task Force on Climate-related Financial Disclosures (TCFD)

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Strategy	> Climate-related opportunities and risks of a short, medium and long-term nature	page 24 ff. page 36 f. page 50 f.
Risk management	> Company processes for identifying and evaluating climate-related risks	page 91 ff. page 96
Performance indicators and targets	> Performance indicators and targets for the evaluation of climate-related opportunities and risks (including CO <sub>2</sub> emissions)	page 29 f. page 77 ff. page 90

# Condensed financial statements

of the EnBW Group

From page

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# Income statement

in € million <sup>1</sup>	Notes	2017	2016	Change in %
Revenue including electricity and energy taxes		22,622.7	20,080.2	12.7
Electricity and energy taxes		-648.7	-711.8	-8.9
<b>Revenue</b>	(1)	<b>21,974.0</b>	<b>19,368.4</b>	<b>13.5</b>
Changes in inventories		22.7	15.9	42.8
Other own work capitalised		134.9	118.5	13.8
Other operating income	(2)	2,750.3	807.5	-
Cost of materials	(3)	-18,189.3	-16,681.3	9.0
Personnel expenses	(4)	-1,777.1	-1,673.4	6.2
Other operating expenses	(5)	-1,163.1	-1,224.9	-5.0
<b>EBITDA</b>		<b>3,752.4</b>	<b>730.7</b>	<b>-</b>
Amortisation and depreciation	(6)	-1,248.4	-2,393.6	-47.8
<b>Earnings before interest and taxes (EBIT)</b>		<b>2,504.0</b>	<b>-1,662.9</b>	<b>-</b>
Investment result	(7)	159.3	117.6	35.5
of which net profit/loss from entities accounted for using the equity method		(43.3)	(-10.0)	-
of which other profit/loss from investments		(116.0)	(127.6)	-9.1
Financial result	(8)	194.6	-1,176.6	-
of which finance income		(704.1)	(431.9)	63.0
of which finance costs		(-509.5)	(-1,608.5)	-68.3
<b>Earnings before tax (EBT)</b>		<b>2,857.9</b>	<b>-2,721.9</b>	<b>-</b>
Income tax	(9)	-681.6	1,049.4	-
<b>Group net profit/loss</b>		<b>2,176.3</b>	<b>-1,672.5</b>	<b>-</b>
of which profit/loss shares attributable to non-controlling interests		(122.2)	(124.7)	-2.0
of which profit/loss shares attributable to the shareholders of EnBW AG		(2,054.1)	(-1,797.2)	-
<b>EnBW AG shares outstanding (million), weighted average</b>		<b>270.855</b>	<b>270.855</b>	<b>0.0</b>
<b>Earnings per share from Group net profit/loss (€)<sup>2</sup></b>	(23)	<b>7.58</b>	<b>-6.64</b>	<b>-</b>

1 We publish the full set of consolidated financial statements at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

2 Diluted and basic; in relation to profit/loss attributable to the shareholders of EnBW AG.

# Statement of comprehensive income

in € million <sup>1</sup>	2017	2016	Change in %
<b>Group net profit/loss</b>	<b>2,176.3</b>	<b>-1,672.5</b>	-
Revaluation of pensions and similar obligations	86.6	-427.4	-
Entities accounted for using the equity method	0.0	1.4	-100.0
Income taxes on other comprehensive income	-14.7	124.1	-
<b>Total of other comprehensive income and expenses without future reclassifications impacting earnings</b>	<b>71.9</b>	<b>-301.9</b>	-
Currency translation differences	46.0	7.0	-
Cash flow hedge	4.5	247.8	-98.2
Available-for-sale financial assets	103.8	192.8	-46.2
Entities accounted for using the equity method	-4.1	-39.8	89.7
Income taxes on other comprehensive income	-33.1	-105.2	68.5
<b>Total of other comprehensive income and expenses with future reclassifications impacting earnings</b>	<b>117.1</b>	<b>302.6</b>	<b>(61.3)</b>
<b>Total other comprehensive income</b>	<b>189.0</b>	<b>0.7</b>	-
<b>Total comprehensive income</b>	<b>2,365.3</b>	<b>-1,671.8</b>	-
of which profit/loss shares attributable to non-controlling interests	(135.6)	(130.3)	4.1
of which profit/loss shares attributable to the shareholders of EnBW AG	(2,229.7)	(-1,802.1)	-

<sup>1</sup> Further information is available in the notes under [18] "Equity". We publish the full set of consolidated financial statements at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

# Balance sheet

in € million <sup>1</sup>	Notes	31/12/2017	31/12/2016
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	(10)	1,905.9	1,636.5
Property, plant and equipment	(11)	15,597.4	13,481.9
Entities accounted for using the equity method	(12)	1,388.6	1,835.6
Other financial assets	(13)	5,985.7	6,428.0
Trade receivables	(14)	320.9	357.4
Other non-current assets	(15)	611.7	410.1
Deferred taxes	(20)	956.4	1,268.9
		<b>26,766.6</b>	<b>25,418.4</b>
<b>Current assets</b>			
Inventories		958.1	806.8
Financial assets	(16)	588.1	2,389.5
Trade receivables	(14)	4,408.7	3,129.1
Other current assets	(15)	2,847.1	2,626.9
Cash and cash equivalents	(17)	3,213.3	3,991.6
		<b>12,015.3</b>	<b>12,943.9</b>
<b>Assets held for sale</b>	(22)	3.0	173.0
		<b>12,018.3</b>	<b>13,116.9</b>
		<b>38,784.9</b>	<b>38,535.3</b>
<b>Equity and liabilities</b>			
<b>Equity</b>	(18)		
<b>Shares of the shareholders of EnBW AG</b>			
Subscribed capital		708.1	708.1
Capital reserve		774.2	774.2
Revenue reserves		3,636.6	1,582.5
Treasury shares		-204.1	-204.1
Other comprehensive income		-1,367.4	-1,543.0
		<b>3,547.4</b>	<b>1,317.7</b>
Non-controlling interests		2,315.5	1,898.5
		<b>5,862.9</b>	<b>3,216.2</b>
<b>Non-current liabilities</b>			
Provisions	(19)	13,124.5	13,011.9
Deferred taxes	(20)	799.4	652.8
Financial liabilities	(21)	5,952.0	6,720.2
Other liabilities and subsidies	(21)	2,043.8	1,787.1
		<b>21,919.7</b>	<b>22,172.0</b>
<b>Current liabilities</b>			
Provisions	(19)	1,598.7	6,060.2
Financial liabilities	(21)	1,306.8	1,208.7
Trade payables	(21)	4,838.1	3,193.0
Other liabilities and subsidies	(21)	3,258.7	2,661.2
		<b>11,002.3</b>	<b>13,123.1</b>
<b>Liabilities directly associated with assets classified as held for sale</b>	(22)	0.0	24.0
		<b>11,002.3</b>	<b>13,147.1</b>
		<b>38,784.9</b>	<b>38,535.3</b>

<sup>1</sup> We publish the full set of consolidated financial statements at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

# Cash flow statement

in € million <sup>1</sup>	2017	2016
<b>1. Operating activities</b>		
EBITDA	3,752.4	730.7
Changes in provisions	-472.3	721.9
Result from disposals	-317.8	-28.4
Other non-cash expenses/income	-68.1	-49.7
Change in assets and liabilities from operating activities	-4,671.4	-657.5
Inventories	[-27.3]	[67.9]
Net balance of trade receivables and payables	[277.6]	[-302.6]
Net balance of other assets and liabilities	[-4,921.7]	[-422.8]
Income tax received/paid	81.1	-243.4
<b>Cash flow from operating activities</b>	<b>-1,696.1</b>	<b>473.6</b>
<b>2. Investing activities</b>		
Capital expenditure on intangible assets and property, plant and equipment	-1,419.2	-1,189.4
Disposals of intangible assets and property, plant and equipment	52.8	115.5
Cash received from construction cost and investment subsidies and tax refunds from recognised exploration expenditure	113.8	61.1
Acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations	-227.9	-961.3
Sale of subsidiaries, entities accounted for using the equity method and interests in joint operations	235.4	189.9
Cash paid for investments in other financial assets	-721.2	-331.6
Sale of other financial assets	3,491.0	2,065.2
Cash received/paid for investments in connection with short-term finance planning	44.3	39.4
Interest received	452.1	203.0
Dividends received	139.6	142.1
<b>Cash flow from investing activities</b>	<b>2,160.7</b>	<b>333.9</b>
<b>3. Financing activities</b>		
Interest paid for financing activities	-425.6	-351.3
Dividends paid	-84.7	-226.1
Cash received for changes in ownership interest without loss of control	1.5	0.0
Cash paid for changes in ownership interest without loss of control	0.0	-8.0
Increase in financial liabilities	302.3	999.2
Repayment of financial liabilities	-1,279.8	-704.8
Payments from alterations of capital in non-controlling interests	-55.0	-25.6
<b>Cash flow from financing activities</b>	<b>-1,541.3</b>	<b>-316.6</b>
<b>Net change in cash and cash equivalents</b>	<b>-1,076.7</b>	<b>490.9</b>
Change in cash and cash equivalents due to changes in the consolidated companies	300.3	0.0
Net foreign exchange difference	-1.9	-0.4
<b>Change in cash and cash equivalents</b>	<b>-778.3</b>	<b>490.5</b>
Cash and cash equivalents at the beginning of the period	3,991.6	3,501.1
<b>Cash and cash equivalents at the end of the period</b>	<b>3,213.3</b>	<b>3,991.6</b>

<sup>1</sup> Further information is available in the notes under [31] "Notes to the cash flow statement". We publish the full set of consolidated financial statements at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

# Statement of changes in equity

in € million <sup>1</sup>	Other comprehensive income <sup>3</sup>										Total
	Subscribed capital and capital reserve <sup>2</sup>	Revenue reserves	Treasury shares	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Available-for-sale financial assets	Entities accounted for using the equity method	Shares of the shareholders of EnBW AG	Non-controlling interests <sup>3</sup>	
<b>As of 01/01/2016</b>	1,482.3	3,634.8	-204.1	-1,482.7	-54.4	-256.9	213.1	-63.3	3,268.8	1,854.4	5,123.2
Other comprehensive income				-301.9	6.2	159.2	170.0	-38.4	-4.9	5.6	0.7
Group net profit/loss		-1,797.2							-1,797.2	124.7	-1,672.5
<b>Total comprehensive income</b>	<b>0.0</b>	<b>-1,797.2</b>	<b>0.0</b>	<b>-301.9</b>	<b>6.2</b>	<b>159.2</b>	<b>170.0</b>	<b>-38.4</b>	<b>-1,802.1</b>	<b>130.3</b>	<b>-1,671.8</b>
Dividends paid		-149.0							-149.0	-59.1	-208.1
Other changes		-106.1						106.1	0.0	-27.1	-27.1
<b>As of 31/12/2016</b>	<b>1,482.3</b>	<b>1,582.5</b>	<b>-204.1</b>	<b>-1,784.6</b>	<b>-48.2</b>	<b>-97.7</b>	<b>383.1</b>	<b>4.4</b>	<b>1,317.7</b>	<b>1,898.5</b>	<b>3,216.2</b>
Other comprehensive income				67.7	36.2	-11.5	87.3	-4.1	175.6	13.4	189.0
Group net profit/loss		2,054.1							2,054.1	122.2	2,176.3
<b>Total comprehensive income</b>	<b>0.0</b>	<b>2,054.1</b>	<b>0.0</b>	<b>67.7</b>	<b>36.2</b>	<b>-11.5</b>	<b>87.3</b>	<b>-4.1</b>	<b>2,229.7</b>	<b>135.6</b>	<b>2,365.3</b>
Dividends paid									0.0	-84.7	-84.7
Other changes									0.0	366.1	366.1
<b>As of 31/12/2017</b>	<b>1,482.3</b>	<b>3,636.6</b>	<b>-204.1</b>	<b>-1,716.9</b>	<b>-12.0</b>	<b>-109.2</b>	<b>470.4</b>	<b>0.3</b>	<b>3,547.4</b>	<b>2,315.5</b>	<b>5,862.9</b>

1 Further information is available in the notes under [18] "Equity". We publish the full set of consolidated financial statements at [www.enbw.com/report2017-downloads](http://www.enbw.com/report2017-downloads).

2 Of which subscribed capital €708.1 million (31/12/2016: €708.1 million, 01/01/2016: €708.1 million) and capital reserve €774.2 million (31/12/2016: €774.2 million, 01/01/2016: €774.2 million).

3 Of which other comprehensive income directly associated with the assets held for sale as of 31/12/2017 to the amount of €0.0 million (31/12/2016: €0.0 million, 01/01/2016: €-45.4 million). Of which attributable to the shareholders of EnBW AG: €0.0 million (31/12/2016: €0.0 million, 01/01/2016: €-45.4 million). Of which attributable to non-controlling interests: €0.0 million (31/12/2016: €0.0 million, 01/01/2016: €0.0 million).

## Information on the result of the audit of the consolidated financial statements and the combined management report of the company and the Group of the 2017 financial year

The condensed financial statements for the 2017 financial year that form part of the Integrated Annual Report do not include the notes to the consolidated financial statements and the declaration of corporate management 2017 of the EnBW Group and EnBW AG including the corporate governance report 2017. The full set of consolidated financial statements – including the notes to the consolidated financial statements – and the combined management report for the company and the Group, both for the 2017 financial year, were audited by KPMG AG Wirtschaftsprüfungsgesellschaft as the auditor and Group auditor elected by the Annual General Meeting of EnBW Energie Baden-Württemberg AG on 9 May 2017. Based on its audit, KPMG AG Wirtschaftsprüfungsgesellschaft arrived at the overall conclusion that the audit did not lead to any reservations and issued an unqualified audit opinion. The full set of consolidated financial statements and the combined management report for the company and the Group, both for the 2017 financial year, as well as the unqualified audit opinion issued by the auditor, can be accessed on the website of EnBW Energie Baden-Württemberg AG.

# Corporate bodies

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# The Supervisory Board

## Members

- > **Lutz Feldmann, Bochum**  
Independent Business Consultant,  
Chairman
- > **Dietrich Herd, Philippsburg**  
Chairman of the Group works council for  
the EnBW Group and Chairman of the  
central works council for the "production  
sector" of EnBW Energie Baden-  
Württemberg AG  
Deputy Chairman
- > **Dr. Dietrich Birk, Göppingen**  
Managing Director of the Verband  
Deutscher Maschinen- und Anlagen-  
bau e.V. (VDMA), Regional Association  
for Baden-Württemberg
- > **Stefanie Bürkle, Sigmaringen**  
District Administrator of the  
Sigmaringen district
- > **Stefan Paul Hamm, Gerlingen**  
Head of the Department for Utilities and  
Waste Management, ver.di  
Baden-Württemberg
- > **Michaela Kräutter, Stutensee**  
Union Secretary for Utilities and Waste  
Management, ver.di Central  
Baden/North Black Forest district
- > **Silke Krebs, Stuttgart**  
Freelance Consultant (strategic and  
organisational consultancy)
- > **Marianne Kugler-Wendt, Heilbronn**  
Regional Director, ver.di  
Heilbronn-Neckar-Franconia district
- > **Thomas Landsbek, Wangen im Allgäu**  
Member of the Group works council for  
the EnBW Group and 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
- > **Dr. Hubert Lienhard,  
Heidenheim an der Brenz**  
Chief Executive Officer  
of Voith Management GmbH
- > **Sebastian Maier, Ellenberg**  
Member of the Group works council for  
the EnBW Group and Chairman of the  
works council at EnBW Ostwürttemberg  
DonauRies AG
- > **Arnold Messner, Aichwald**  
Deputy Chairman of the Group works  
council for the EnBW Group and  
Chairman of the central works council  
of Netze BW GmbH
- > **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
- > **Klaus Schörnich, Düsseldorf**  
Member of the Group works council  
for the EnBW Group and Chairman  
of the works council of Stadtwerke  
Düsseldorf AG
- > **Heinz Seiffert, Ehingen**  
District Administrator (retired)
- > **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**  
Consultant for HR and member of  
the Karlsruhe works council for the  
"functional units sector" of EnBW  
Energie Baden-Württemberg AG
- > **Lothar Wölfle, Friedrichshafen**  
District Administrator of the Lake  
Constance district
- > **Dr. Bernd-Michael Zinow, Pfinztal**  
Head of the functional unit Legal  
Services, Compliance and Regulation  
(General Counsel) at EnBW Energie  
Baden-Württemberg AG

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### Key

- > Active member
- > Inactive member



## Committees

### Personnel committee

- > Lutz Feldmann  
Chairman
- > Stefan Paul Hamm
- > Dietrich Herd
- > Silke Krebs
- > Arnold Messner
- > Lothar Wölfle

### Audit committee

- > Gunda Röstel  
Chairwoman
- > Marianne Kugler-Wendt
- > Dr. Hubert Lienhard
- > Sebastian Maier
- > Dr. Wolf-Rüdiger Michel
- > Klaus Schörnich
- > Heinz Seiffert
- > Ulrike Weindel

### Ad hoc committee (since 7 June 2010)

- > Dr. Bernd-Michael Zinow  
Chairman
- > Stefanie Bürkle
- > Dietrich Herd
- > Gunda Röstel

### Finance and investment committee

- > Lutz Feldmann  
Chairman
- > Dr. Dietrich Birk
- > Stefan Paul Hamm
- > Dietrich Herd
- > Arnold Messner
- > Edith Sitzmann
- > Lothar Wölfle
- > Dr. Bernd-Michael Zinow

### Nomination committee

- > Lutz Feldmann  
Chairman
- > Dr. Dietrich Birk
- > Silke Krebs
- > Gunda Röstel
- > Heinz Seiffert
- > Lothar Wölfle

### Mediation committee (committee pursuant to section 27 (3) of the German Co- determination Act (MitbestG))

- > Lutz Feldmann  
Chairman
- > Dietrich Herd
- > Silke Krebs
- > Thomas Landsbek

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#### Key

- > Active member
- > Inactive member

# Offices held by members of the Board of Management

- > **Dr. Frank Mastiaux**  
Chairman
  - EWE Aktiengesellschaft  
(Deputy Chairman of the Supervisory Board and member of the Executive Committee of the Supervisory Board) (until 16 May 2017)
- > **Dr. Bernhard Beck**
  - EnBW Kernkraft GmbH (Chairman)
  - Energiedienst AG
  - Stadtwerke Düsseldorf AG (Chairman)
  - BKK VerbundPlus, Körperschaft des öffentlichen Rechts (alternating Chairman)
  - Energiedienst Holding AG
  - Pražská energetika a.s.
- > **Thomas Kusterer**
  - Netze BW GmbH
  - VNG-Verbundnetz Gas Aktiengesellschaft (Chairman)
  - EVN AG (until 19 January 2017)
- > **Dr. Hans-Josef Zimmer**
  - EnBW Kernkraft GmbH
  - Netze BW GmbH (Chairman)
  - terranets bw GmbH (Chairman)
  - TransnetBW GmbH (Chairman)
  - Vorarlberger Illwerke AG

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## Key

- > 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

Further information is available at:

 [www.enbw.com/board-of-management](http://www.enbw.com/board-of-management)

As of 1 March 2018

# Other offices held by members of the Supervisory Board

- > **Lutz Feldmann**  
Chairman
  - Villa Claudius gGmbH
  - Thyssen'sche Handelsgesellschaft mbH
  
- > **Dietrich Herd**  
Deputy Chairman
  - EnBW Kernkraft GmbH
  
- > **Dr. Dietrich Birk**
  - SRH Holding (SdbR)
  
- > **Stefanie Bürkle**
  - Hohenzollerische Landesbahn AG
  - SV SparkassenVersicherung Lebensversicherung AG (until 13 July 2017)
  - Hohenzollerische Landesbank Kreissparkasse Sigmaringen, Anstalt des öffentlichen Rechts (Chairwoman)
  - Flugplatz Mengen Hohentengen GmbH (Chairwoman)
  - Regionalverband Bodensee-Oberschwaben, Anstalt des öffentlichen Rechts
  - 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
  
- > **Michaela Krütter**
  - NetCom BW GmbH
  
- > **Silke Krebs**
  
- > **Marianne Kugler-Wendt**
  - Bausparkasse Schwäbisch-Hall AG
  - EnBW Kernkraft GmbH
  - SLK-Kliniken Heilbronn GmbH
  - Heilbronner Versorgungs GmbH
  - Stadtwerke Heilbronn GmbH
  
- > **Thomas Landsbek**
  - Gemeindewerke Bodanrück GmbH & Co. KG
  - BürgerEnergiegenossenschaft Region Wangen im Allgäu eG (since 20 June 2017)
  
- > **Dr. Hubert Lienhard**
  - Heraeus Holding GmbH
  - SGL Carbon SE
  - SMS Group GmbH
  - Voith Turbo Beteiligungen GmbH (Chairman)
  - Kuka Aktiengesellschaft (until 31 January 2017)
  - Voith Hydro Holding GmbH & Co. KG (Chairman)
  - Voith Turbo GmbH & Co. KG (Chairman)
  - Voith Digital Solutions Holding GmbH (Chairman)
  
- > **Sebastian Maier**
  - EnBW Ostwürttemberg DonauRies AG
  - NetCom BW GmbH
  - Netzgesellschaft Ostwürttemberg GmbH
  
- > **Arnold Messner**
  - Netze BW GmbH
  
- > **Dr. Wolf-Rüdiger Michel**
  - Kreisbaugenossenschaft Rottweil e. G. (Chairman)
  - 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 Kommunale Informationsverarbeitung Reutlingen-Ulm
  - Zweckverband Oberschwäbische Elektrizitätswerke (Deputy Chairman)
  - Zweckverband Protec
  - Zweckverband Ringzug Schwarzwald-Baar-Heuberg
  
- > **Gunda Röstel**
  - Universitätsklinikum Carl Gustav Carus Dresden an der Technischen Universität Dresden, Anstalt des öffentlichen Rechts (Deputy Chairwoman)
  - VNG-Verbundnetz Gas Aktiengesellschaft
  - Netze BW GmbH
  - University council of Technische Universität Dresden, Körperschaft des öffentlichen Rechts (Chairwoman)
  - Stadtwerke Burg GmbH

- > **Klaus Schörnich**
  - AWISTA GmbH
  - Stadtwerke Düsseldorf AG (until 12 July 2017)
  - Netzgesellschaft Düsseldorf mbH
- > **Heinz Seiffert**
- > **Edith Sitzmann**
  - Landesbank Baden-Württemberg, Anstalt des öffentlichen Rechts (active member since special approval granted by the state parliament on 21 July 2016) (Deputy Chairwoman)
  - Landeskreditbank Baden-Württemberg, Förderbank, Anstalt des öffentlichen Rechts (Chairwoman of the Administrative Board) (Chairwoman of the Advisory Board since 1 May 2017)
  - Kreditanstalt für Wiederaufbau, Anstalt des öffentlichen Rechts (since 1 January 2017)
  - Baden-Württemberg Stiftung gGmbH
- > **Ulrike Weindel**
- > **Lothar Wölfle**
  - Abfallwirtschaftsgesellschaft of the Lake Constance and Konstanz districts (Chairman since 1 January 2017)
  - Verkehrsverbund Bodensee-Oberschwaben of the Ravensburg and Lake Constance districts (Chairman)
  - Bodensee-Oberschwaben-Bahn Verkehrsgesellschaft mbH
  - Sparkasse Bodensee (Chairman since 1 January 2018)
  - Zweckverband Oberschwäbische Elektrizitätswerke (Chairman)
  - Zweckverband Tierkörperbeseitigung Protec (Deputy Chairman)
  - Wirtschaftsförderungsgesellschaft Bodenseekreis GmbH (Chairman)
  - Regionales Innovations- und Technologietransfer Zentrum GmbH (RITZ) (Chairman)
- > **Dr. Bernd-Michael Zinow**
  - TransnetBW GmbH
  - VNG-Verbundnetz Gas Aktiengesellschaft

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**Key**

- > 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

Further information is available at:

 [www.enbw.com/supervisory-board](http://www.enbw.com/supervisory-board)

As of 1 March 2018

# Service

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# Multi-year overview

## Financial and strategic performance indicators

EnBW Group		2017	2016	2015	2014	2013
<b>Earnings</b>						
Revenue	in € million	21,974	19,368	21,167	21,003	20,545
<b>TOP</b> Adjusted EBITDA	in € million	2,113	1,939	2,110	2,167	2,225
EBITDA	in € million	3,752	731	1,918	2,137	2,000
Adjusted EBIT	in € million	999	1,025	1,182	1,291	1,340
EBIT	in € million	2,504	-1,663	277	0	1,024
Group net profit/loss <sup>1</sup>	in € million	2,054	-1,797	158	-466	51
Earnings per share from Group net profit/loss <sup>1</sup>	in €	7.58	-6.64	0.58	-1.72	0.19
<b>Balance sheet</b>						
Non-current assets	in € million	24,878	23,382	24,388	25,995	24,318
Total assets	in € million	38,785	38,535	38,158	38,312	35,758
Equity	in € million	5,863	3,216	5,123	4,546	6,083
Equity ratio	in %	15.1	8.3	13.4	11.9	17.0
Net financial debt <sup>2</sup>	in € million	2,918	3,654	3,329	4,403	2,975
Coverage ratio ALM <sup>2</sup>	in %	52.9	60.8	74.2	- <sup>3</sup>	- <sup>3</sup>
<b>Cash flow</b>						
Retained cash flow	in € million	3,050	950	1,718	- <sup>3</sup>	- <sup>3</sup>
Retained cash flow II	in € million	1,530	950	1,718	- <sup>3</sup>	- <sup>3</sup>
Net (cash) investment	in € million	1,367	1,317	494	1,427	816
<b>TOP</b> Internal financing capability	in %	111.9	72.1	347.8	- <sup>3</sup>	- <sup>3</sup>
<b>Profitability</b>						
<b>TOP</b> Return on capital employed (ROCE) <sup>2</sup>	in %	7.3	7.8	9.5	10.0	9.7
Weighted average cost of capital before tax	in %	6.3	6.9	6.9	7.2	8.5
Average capital employed <sup>2</sup>	in € million	15,146	13,761	13,627	13,424	14,973
Value added <sup>2</sup>	in € million	152	124	354	376	180
<b>Sales</b>						
Electricity <sup>4</sup>	in billions of kWh	122	115	115	126	128
Gas	in billions of kWh	250	139	135	117	100

## Financial and strategic performance indicators

EnBW Group		2017	2016	2015	2014	2013
<b>Sales</b>						
Electricity sales	in billions of kWh	40	44	48	48	52
Gas sales	in billions of kWh	57	54	82	72	69
Revenue	in € million	7,354	7,771	9,061	9,067	9,568
<b>TOP</b> Adjusted EBITDA	in € million	330	250	255	231	227
<b>Grids</b>						
Electricity sales	in billions of kWh	- <sup>4</sup>	- <sup>4</sup>	- <sup>4</sup>	- <sup>4</sup>	13
Revenue	in € million	7,472	6,644	6,351	6,231	5,708
<b>TOP</b> Adjusted EBITDA	in € million	1,046	1,004	747	886	962
<b>Renewable Energies</b>						
Electricity sales	in billions of kWh	2	3	3	4	4
Revenue	in € million	508	511	447	407	372
<b>TOP</b> Adjusted EBITDA	in € million	332	295	287	191	220
<b>Generation and Trading</b>						
Electricity sales	in billions of kWh	80	68	65	75	60
Gas sales	in billions of kWh	193	85	53	45	31
Revenue	in € million	6,631	4,434	5,300	5,290	4,888
<b>TOP</b> Adjusted EBITDA	in € million	377	337	777	900	839

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

2 The figures for the 2016 financial year have been restated.

3 No figures for the comparative periods 2014 and 2013 are available for the new performance indicators.

4 Since the beginning of 2015, electricity sales from the Grids segment are no longer disclosed because the Independent Transmission Operators (ITO) no longer report their data. The figures for the 2014 financial year have been restated.

## Non-financial performance indicators

EnBW Group		2017	2016	2015	2014	2013
<b>Customers and society goal dimension</b>						
<b>TOP</b> Reputation Index		52.1	50.0	48.5	- <sup>1</sup>	- <sup>1</sup>
<b>TOP</b> EnBW/Yello Customer Satisfaction Index <sup>2</sup>		143/161	132/150	136/152	114/145	111/148
<b>TOP</b> SAIDI (electricity) in min./year		19	16	15	15	21
<b>Employees goal dimension</b>						
<b>TOP</b> Employee Commitment Index (ECI) <sup>3</sup>		60	59	60	56	58
<b>TOP</b> LTIF <sup>3</sup>		3.0	3.9	3.8	4.3	3.7
<b>Environment goal dimension</b>						
<b>TOP</b> Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE in %		3.4/25.9	3.1/23.1	3.1/23.6	2.6/19.1	2.6/19.1
<b>TOP</b> CO <sub>2</sub> intensity in g/kWh		556	577	606	- <sup>1</sup>	- <sup>1</sup>

1 No figures for the comparative periods 2014 and 2013 are available for the new performance indicators.

2 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.

3 Variations in the group of consolidated companies; see also the definition of key performance indicators on page 30.

# Glossary

## A

### Adjusted earnings figures

Adjusted earnings figures are operational earnings figures that are adjusted for non-operating effects. They include, amongst others, adjusted EBIT.

### Adjusted EBITDA

The operating earnings of companies are 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.

### Asset liability management model (ALM)

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 infrastructure

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 a suitable add-on in addition to their purchase.

## C

### 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.

### Cash pooling

Daily pooling of the cash or cash equivalents of one or multiple companies within a Group with the goal 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 tCO<sub>2</sub>. CERs can be used by companies to meet the obligation to return allowances under the European emissions trading system.

### Charging Infrastructure

> Electromobility charging infrastructure)

### 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, CO<sub>2</sub> allowance price and the degree of efficiency of the power station.

### CO<sub>2</sub> allowances

CO<sub>2</sub> allowances have been traded on the Leipzig electricity exchange since 2005. If a company purchases a CO<sub>2</sub> allowance, it is entitled to emit 1 tCO<sub>2</sub>.

### CO<sub>2</sub> intensity

In the energy sector, CO<sub>2</sub> intensity refers to CO<sub>2</sub> emissions connected with electricity generation. It is measured in terms of g/kWh or t/MWh. CO<sub>2</sub> intensity as referred to here in the energy sector should not be confused with the meaning used in the wider economy.

### 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.

### Community energy cooperatives

Community energy cooperatives are players in the energy industry with the legal form of a cooperative, mostly with the aim of decentralised, independent and ecological energy generation. They are a form of citizen participation, primarily at a local authority or regional level. Community energy cooperatives offer citizens the opportunity to contribute to the Energiewende and climate protection through investment in local and regional energy projects.

### Cost of capital

> WACC)

### 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. District development comprises urban infrastructure themes such as energy, grids, e-mobility, communication and digital networking, safety and smart services.

**E****EBIT**

EBIT stands for earnings before interest and taxes.

**EBITDA**

EBITDA stands for earnings before interest, taxes, depreciation and amortisation.

**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 EEG plants and the expenses incurred by the transmission system operators for the fixed feed-in remuneration and market premium payments to direct marketers of EEG 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 of 6.88 ct/kWh in 2017 (+8.3% in comparison with 2016) 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. The quick-charging stations provided by EnBW are generally equipped so that the charging infrastructure can be scaled up, both in terms of the number of charging points and especially the charging output. There are plans in 2018 to upgrade the quick-charging stations on or near to motorways to a charging capacity of 150 kW per CCS quick-charging point.

**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 CO<sub>2</sub>. Each EU state allocates its supply of EUAs (1 EUA = 1 t CO<sub>2</sub>) to its national companies either free of charge or via auctions.

**F****Forward market**

Market on which the supply and procurement of electricity, fuel and CO<sub>2</sub> 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.

**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)**

Funds from operations (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.

**G****GASPOOL**

GASPOOL Balancing Services GmbH, based in Berlin, is one of two market area managers on the German natural gas market. Market area managers are joint ventures formed by multiple independent transmission system operators. The gas grid operator GASCADE Gastransport GmbH (formerly Wingas Transport GmbH), Gasunie Deutschland GmbH & Co. KG, ONTRAS Gastransport GmbH (formerly VNG Gastransport GmbH) and Dong Energy Pipelines GmbH combined their respective market areas in 2009 and thus created a cross-regional market area cooperation; the company GASPOOL Balancing Services GmbH was founded for this purpose.

**Greenhouse gas emissions**

The increase in the concentration of various greenhouse gases, especially carbon dioxide (CO<sub>2</sub>), 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.

**Grid topology**

Grid topology describes the structure of the supply network and is developed primarily based on the criteria of security of supply, investment and operating costs, load density, spatial conditions and the function of the grids (transmission grid, distribution grid). Common grid topologies are star, ring and mesh networks, as well as mixed forms of these basic structures.

**H****H-gas**

H-gas is natural gas that has a higher methane and thus energy content than > L-gas, yet the chemical composition can also differ. H-gas is usually sourced from the North Sea or from the CIS countries in the south of Germany. The higher the methane content of natural gas, the higher its energy content and calorific value. The methane content of H-gas is generally between 87% and 98.9%.

**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.

**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), that 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.

**Internal financing capability**

The key performance indicator internal financing capability describes the retained cash flow in relation to the cash-relevant > net investment and is the most significant performance indicator for the Group's ability to finance its activities internally.

**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 from a credit rating of at least Baa3 (Moody's) or BBB- (Standard & Poor's).

**L****L-gas**

L-gas has a lower methane content than > H-gas. The methane content is usually between 80.1% and 87%. L-gas has a lower energy content but generally fulfils the same functions – although more L-gas than H-gas needs to be used for the same heating effect.

**N****NCG**

NetConnect Germany, a market area operator on the German natural gas market; NetConnect Germany GmbH & Co. KG (NCG), based in Ratingen, is one of two market area managers on the German natural gas market. Market area managers are joint ventures formed by multiple independent transmission system operators.

**Net debt**

Net debt comprises net financial debt and the net debt relating to pension and dismantling provisions.

**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.

**Net financial debt**

Net financial debt comprise the financial liabilities (including financial leasing) 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**

Cash-relevant net investment describes the overall cash-relevant investment less the overall cash-relevant divestitures in the relevant financial year.

**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.

**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. This includes, amongst others, non-operating EBIT.

**Non-operating result**

The non-operating result includes 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.

**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.

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**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.

**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.

**Retained cash flow II**

The retained cash flow II is the adjusted retained cash flow from the extraordinary effect of the reimbursement of the nuclear fuel rod tax. In the 2018 financial year, the reimbursed funds will be used for the repayment of debt and for strategic investments. The remaining amount will be distributed 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 retained cash flow II 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.

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**S****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 city**

New technologies in the areas of energy, infrastructure, buildings and mobility are intelligently networked across various

systems to enable the highly efficient utilisation of resources such as energy and water, and reduce their consumption. Integrated (urban) planning processes such as integrated energy or mobility concepts are interlinked with the opportunities and demands of new technologies.

**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.

**Smart meters**

A combination of a modern measurement system and a data communication module (smart meter gateway). The smart meter can be safely integrated into a communication network.

**Spot market**

Market on which electricity supply and procurement quantities are offered and requested for the following day.

**Spread**

This term describes here the difference in the electricity price and the costs for coal, gas or brown coal and emissions allowances used for the generation of electricity.

**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.

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**T****TCFD (Task Force on Climate-related Financial Disclosures)**

The Task Force on Climate-related Financial Disclosures (TCFD) examines the opportunities and risks associated with climate change and derives recommendations for transparent and understandable climate-related risk reporting by companies. EnBW is represented on the international task force appointed by the G20 through its Chief Financial Officer Thomas Kusterer ([www.fsb-tcfd.org](https://www.fsb-tcfd.org)).

**Treasury**

Department of the company that deals with liquidity management (disposition, liquidity planning, money markets), currency management (hedging against foreign exchange risks, obtaining foreign currencies) and interest management (hedging against risks due to changes in interest rates, managing the interest rate position).

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**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 system, load-based plants – by bundling, marketing and optimising them together.

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**W****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.

# Highlights 2017

## Yello Strom becomes Yello

Since January, the Group's yellow brand has been using a new tagline "More than you think" and operating only under the name Yello. The relaunch takes into account the brand's product portfolio that has been steadily growing over the years and which now extends far beyond electricity.



## EnBW has bids accepted for three further solar parks

As part of the auction process, EnBW had its bids for three solar parks with a total capacity of 16 MW accepted in February by the Federal Network Agency. They include a project in Mecklenburg-West Pomerania and two projects in Baden-Württemberg. The company is aiming to complete the solar parks by the middle of 2018.



## EnBW further expands its contracting business

In parallel to the conclusion of important energy supply contracts with two large industrial companies, EnBW started operating an Energy Networking Centre in Waldbronn in February. Alongside the buildings of the technology group Agilent Technologies Inc. and of the company Taller GmbH, the centre will also supply the outdoor pool and ice rink in the municipality with heating, cooling and electricity using smart networking. EnBW currently operates around 200 plants across Germany and is one of the leading suppliers of contracting services.

## E-world 2017: EnBW presents itself as a certified provider for the entire smart meter gateway business

EnBW presented itself as one of the first certified suppliers of administration services for smart meter gateways at E-world in February. The ISO-27001 certification covers the provision of IT services and also the realisation of business processes for the installation, commissioning, configuration, administration and monitoring of smart meter gateways. The certificate was awarded by TÜV Austria Deutschland GmbH.

## EnBW has bid accepted for 900 MW wind farm He Dreiht

EnBW was successful in the first German offshore wind auction and had its bid accepted in April for one of the largest offshore projects in Europe – He Dreiht in the North Sea. EnBW He Dreiht is one of the world's first offshore wind farms that will not receive any state funding and thus represents a milestone in the expansion of wind power. It is due to be connected to the grid in 2025.



## Important steps in the expansion of the gas business

Following the full consolidation of VNG-Verbundnetz Gas, EnBW became the third largest gas supplier in Germany in May and thus achieved a further milestone in its gas strategy. VNG started work on the natural gas storage facility "Katharina" in Saxony-Anhalt in May. In order to strengthen the security of supply for Germany and the entire European market, the underground gas storage facility will have a storage volume of 614 million m<sup>3</sup> when it is finally finished in 2024.



### Onshore wind power: EnBW achieves commissioning record in September

In September, EnBW placed seven onshore wind farms into operation – more than ever before in just one month. The total of 21 onshore turbines with a hub height of between 134 and 164 metres have a total capacity of 70 MW. After total onshore expansion of more than 200 MW in 2017, EnBW is now one of the top 3 developers and operators of onshore wind farms in Germany.

### The dismantling of nuclear power plants enters the next phase

The decommissioning and dismantling of the nuclear power plant blocks Philippsburg 1 (KKP1) and Neckarwestheim I (GKN I) began in the first half of the year. In parallel, five castor transports will be safely completed during the year. The transports – which involve moving spent fuel rods from Obrigheim via the Neckar river to the intermediate storage site in Neckarwestheim for secure storage – are completed in close consultation with the public.

### Investment decision made: the offshore wind farm EnBW Albatros will be constructed

In cooperation with the Canadian energy infrastructure company Enbridge Inc. (Enbridge), EnBW will construct the North Sea wind farm EnBW Albatros with a capacity of 112 MW. The investment volume of €1.8 billion means that this is one of the largest investment decisions made in the history of EnBW. As with the EnBW Hohe See (497 MW) offshore wind farm project agreed with Enbridge in December 2016, EnBW will be the majority shareholder. Both wind farms are due to be connected to the grid in 2019.

### NE+ on the road to becoming a digital energy supplier

EnPower – the first digital billing and customer interaction platform – has been launched online for NaturEnergiePlus customers. The focus has been placed on simplification, improving efficiency, digitalisation and customisation. The aim is to launch EnPower for Yello in 2018 and for EnBW in 2019.

### TransnetBW submits application for direct current converter

In October, the transmission system operator TransnetBW submitted its approval application for the construction of the SuedLink converter at the site in Leingarten. The converter has been designed to convert direct current transported from Schleswig-Holstein to Baden-Württemberg via an around 700 kilometre-long underground cable into alternating current. This will be fed into the existing transport grid at the Großgartach substation (municipality of Leingarten). SuedLink is (alongside ULTRANET) one of the planned direct current power lines designed to transport electricity generated from renewable energies in northern Germany to the south.



### All signs point to e-mobility

At the international Electric Vehicle Symposium & Exhibition (EVS 30) in October, one of the most important sector meeting places for the entire electromobility industry, EnBW presented its EnBW mobility+ app and other new products in the area of e-mobility. For example, the EnBW mobility+ charging card makes it possible to recharge electric vehicles at more than 8,000 charging points throughout Germany, Austria and Switzerland. The continuous expansion of quick-charging stations was also pushed forward in 2017. A total of 120 service stations operated by Autobahn Tank & Rast GmbH were equipped with quick-charging stations by the end of the year.

# Important notes

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## Publication in the German Federal Gazette

The complete consolidated financial statements prepared by EnBW Energie Baden-Württemberg AG and audited by KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, 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 2018 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.

 [www.twitter.com/enbw](https://www.twitter.com/enbw)



# Financial calendar 2018

- 
- 22 March • Publication of the Integrated Annual Report 2017
  - 8 May • Annual General Meeting 2018
  - 15 May • Publication of the Quarterly Statement January to March 2018
  - 26 July • Publication of the Six-Monthly Financial Report January to June 2018
  - 12 November • Publication of the Quarterly Statement January to September 2018

# On track: Dates, facts and figures

2012

€ **€2.4 billion**  
adjusted EBITDA

**48 MW**

installed output from offshore wind



**0**

quick-charging stations

**18.9%**

share of the generation capacity  
accounted for by renewable energies



2017

**540 MW**

installed output from onshore wind  
(portfolio tripled since 2012)



**1.3 million t**

CO<sub>2</sub> savings due to wind power

**128**

quick-charging stations



**75,000**

users of the EnBW mobility+ app  
(most downloaded e-mobility app  
in Germany)

**€787.5 million**

investment in the grids sector  
(more than doubled since 2012)



**11,400 km**

backbone network of NetCom BW  
(one of the largest broadband  
networks in Baden-Württemberg)

**Number 3**

on the German gas market



**9**

new projects on the Innovation Campus

2020



**1,000**

quick-charging stations

**945 MW**

installed output from offshore wind



**40%**

share of the generation  
capacity accounted for by  
renewable energies

€ **€2.4 billion**

adjusted EBITDA





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## On track: 2020 strategy

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 Further information is available in another section of the report.

 This term is explained in our glossary on page 132 ff.

 Further information is available on the Internet.

The integrated management report of EnBW comprises financial and non-financial goals in the dimensions of finance, strategy, customers and society, employees and the environment.

 Our key performance indicators are labelled with this symbol.

We have also published an online version of the Integrated Annual Report 2017 at:

 [www.enbw.com/report2017](http://www.enbw.com/report2017)



# Financial statements of the EnBW Group 2017

Without management report



**On track**  
2020 strategy



# Financial statements

of the EnBW Group

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# Income statement

in € million	Notes	2017	2016	Change in %
Revenue including electricity and energy taxes		22,622.7	20,080.2	12.7
Electricity and energy taxes		-648.7	-711.8	-8.9
<b>Revenue</b>	(1)	<b>21,974.0</b>	<b>19,368.4</b>	<b>13.5</b>
Changes in inventories		22.7	15.9	42.8
Other own work capitalised		134.9	118.5	13.8
Other operating income	(2)	2,750.3	807.5	-
Cost of materials	(3)	-18,189.3	-16,681.3	9.0
Personnel expenses	(4)	-1,777.1	-1,673.4	6.2
Other operating expenses	(5)	-1,163.1	-1,224.9	-5.0
<b>EBITDA</b>		<b>3,752.4</b>	<b>730.7</b>	<b>-</b>
Amortisation and depreciation	(6)	-1,248.4	-2,393.6	-47.8
<b>Earnings before interest and taxes (EBIT)</b>		<b>2,504.0</b>	<b>-1,662.9</b>	<b>-</b>
Investment result	(7)	159.3	117.6	35.5
of which net profit/loss from entities accounted for using the equity method		(43.3)	(-10.0)	-
of which other profit/loss from investments		(116.0)	(127.6)	-9.1
Financial result	(8)	194.6	-1,176.6	-
of which finance income		(704.1)	(431.9)	63.0
of which finance costs		(-509.5)	(-1,608.5)	-68.3
<b>Earnings before tax (EBT)</b>		<b>2,857.9</b>	<b>-2,721.9</b>	<b>-</b>
Income tax	(9)	-681.6	1,049.4	-
<b>Group net profit/loss</b>		<b>2,176.3</b>	<b>-1,672.5</b>	<b>-</b>
of which profit/loss shares attributable to non-controlling interests		(122.2)	(124.7)	-2.0
of which profit/loss shares attributable to the shareholders of EnBW AG		(2,054.1)	(-1,797.2)	-
<b>EnBW AG shares outstanding (million), weighted average</b>		<b>270.855</b>	<b>270.855</b>	<b>0.0</b>
<b>Earnings per share from Group net profit/loss (€)<sup>1</sup></b>	(23)	<b>7.58</b>	<b>-6.64</b>	<b>-</b>

1 Diluted and basic; in relation to profit/loss attributable to the shareholders of EnBW AG.

## Statement of comprehensive income

in € million <sup>1</sup>	2017	2016	Change in %
<b>Group net profit/loss</b>	<b>2,176.3</b>	<b>-1,672.5</b>	-
Revaluation of pensions and similar obligations	86.6	-427.4	-
Entities accounted for using the equity method	0.0	1.4	-100.0
Income taxes on other comprehensive income	-14.7	124.1	-
<b>Total of other comprehensive income and expenses without future reclassifications impacting earnings</b>	<b>71.9</b>	<b>-301.9</b>	-
Currency translation differences	46.0	7.0	-
Cash flow hedge	4.5	247.8	-98.2
Available-for-sale financial assets	103.8	192.8	-46.2
Entities accounted for using the equity method	-4.1	-39.8	89.7
Income taxes on other comprehensive income	-33.1	-105.2	68.5
<b>Total of other comprehensive income and expenses with future reclassifications impacting earnings</b>	<b>117.1</b>	<b>302.6</b>	<b>-61.3</b>
<b>Total other comprehensive income</b>	<b>189.0</b>	<b>0.7</b>	-
<b>Total comprehensive income</b>	<b>2,365.3</b>	<b>-1,671.8</b>	-
of which profit/loss shares attributable to non-controlling interests	(135.6)	(130.3)	4.1
of which profit/loss shares attributable to the shareholders of EnBW AG	(2,229.7)	(-1,802.1)	-

<sup>1</sup> Further information is available in the notes under (18) "Equity".

# Balance sheet

in € million	Notes	31/12/2017	31/12/2016
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	(10)	1,905.9	1,636.5
Property, plant and equipment	(11)	15,597.4	13,481.9
Entities accounted for using the equity method	(12)	1,388.6	1,835.6
Other financial assets	(13)	5,985.7	6,428.0
Trade receivables	(14)	320.9	357.4
Other non-current assets	(15)	611.7	410.1
Deferred taxes	(20)	956.4	1,268.9
		<b>26,766.6</b>	<b>25,418.4</b>
<b>Current assets</b>			
Inventories		958.1	806.8
Financial assets	(16)	588.1	2,389.5
Trade receivables	(14)	4,408.7	3,129.1
Other current assets	(15)	2,847.1	2,626.9
Cash and cash equivalents	(17)	3,213.3	3,991.6
		<b>12,015.3</b>	<b>12,943.9</b>
<b>Assets held for sale</b>	(22)	3.0	173.0
		<b>12,018.3</b>	<b>13,116.9</b>
		<b>38,784.9</b>	<b>38,535.3</b>
<b>Equity and liabilities</b>			
<b>Equity</b>	(18)		
<b>Shares of the shareholders of EnBW AG</b>			
Subscribed capital		708.1	708.1
Capital reserve		774.2	774.2
Revenue reserves		3,636.6	1,582.5
Treasury shares		-204.1	-204.1
Other comprehensive income		-1,367.4	-1,543.0
		<b>3,547.4</b>	<b>1,317.7</b>
Non-controlling interests		2,315.5	1,898.5
		<b>5,862.9</b>	<b>3,216.2</b>
<b>Non-current liabilities</b>			
Provisions	(19)	13,124.5	13,011.9
Deferred taxes	(20)	799.4	652.8
Financial liabilities	(21)	5,952.0	6,720.2
Other liabilities and subsidies	(21)	2,043.8	1,787.1
		<b>21,919.7</b>	<b>22,172.0</b>
<b>Current liabilities</b>			
Provisions	(19)	1,598.7	6,060.2
Financial liabilities	(21)	1,306.8	1,208.7
Trade payables	(21)	4,838.1	3,193.0
Other liabilities and subsidies	(21)	3,258.7	2,661.2
		<b>11,002.3</b>	<b>13,123.1</b>
<b>Liabilities directly associated with assets classified as held for sale</b>	(22)	0.0	24.0
		<b>11,002.3</b>	<b>13,147.1</b>
		<b>38,784.9</b>	<b>38,535.3</b>



# Cash flow statement

in € million <sup>1</sup>	2017	2016
<b>1. Operating activities</b>		
EBITDA	3,752.4	730.7
Changes in provisions	-472.3	721.9
Result from disposals	-317.8	-28.4
Other non-cash expenses/income	-68.1	-49.7
Change in assets and liabilities from operating activities	-4,671.4	-657.5
Inventories	[-27.3]	[67.9]
Net balance of trade receivables and payables	[277.6]	[-302.6]
Net balance of other assets and liabilities	[-4,921.7]	[-422.8]
Income tax received/paid	81.1	-243.4
<b>Cash flow from operating activities</b>	<b>-1,696.1</b>	<b>473.6</b>
<b>2. Investing activities</b>		
Capital expenditure on intangible assets and property, plant and equipment	-1,419.2	-1,189.4
Disposals of intangible assets and property, plant and equipment	52.8	115.5
Cash received from subsidies for construction costs and investments, and tax refunds from recognised exploration expenditure	113.8	61.1
Acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations	-227.9	-961.3
Sale of subsidiaries, entities accounted for using the equity method and interests in joint operations	235.4	189.9
Cash paid for investments in other financial assets	-721.2	-331.6
Sale of other financial assets	3,491.0	2,065.2
Cash received/paid for investments in connection with short-term finance planning	44.3	39.4
Interest received	452.1	203.0
Dividends received	139.6	142.1
<b>Cash flow from investing activities</b>	<b>2,160.7</b>	<b>333.9</b>
<b>3. Financing activities</b>		
Interest paid for financing activities	-425.6	-351.3
Dividends paid	-84.7	-226.1
Cash received for changes in ownership interest without loss of control	1.5	0.0
Cash paid for changes in ownership interest without loss of control	0.0	-8.0
Increase in financial liabilities	302.3	999.2
Repayment of financial liabilities	-1,279.8	-704.8
Payments from alterations of capital in non-controlling interests	-55.0	-25.6
<b>Cash flow from financing activities</b>	<b>-1,541.3</b>	<b>-316.6</b>
<b>Net change in cash and cash equivalents</b>	<b>-1,076.7</b>	<b>490.9</b>
Change in cash and cash equivalents due to changes in the consolidated companies	300.3	0.0
Net foreign exchange difference	-1.9	-0.4
<b>Change in cash and cash equivalents</b>	<b>-778.3</b>	<b>490.5</b>
Cash and cash equivalents at the beginning of the period	3,991.6	3,501.1
<b>Cash and cash equivalents at the end of the period</b>	<b>3,213.3</b>	<b>3,991.6</b>

1 Further information is available in the notes under (31) "Notes to the cash flow statement".

# Statement of changes in equity

in € million <sup>1</sup>	Other comprehensive income <sup>3</sup>										Total
	Subscribed capital and capital reserve <sup>2</sup>	Revenue reserves	Treasury shares	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Available-for-sale financial assets	Entities accounted for using the equity method	Shares of the shareholders of EnBW AG	Non-controlling interests <sup>3</sup>	
<b>As of 01/01/2016</b>	<b>1,482.3</b>	<b>3,634.8</b>	<b>-204.1</b>	<b>-1,482.7</b>	<b>-54.4</b>	<b>-256.9</b>	<b>213.1</b>	<b>-63.3</b>	<b>3,268.8</b>	<b>1,854.4</b>	<b>5,123.2</b>
Other comprehensive income				-301.9	6.2	159.2	170.0	-38.4	-4.9	5.6	0.7
Group net profit/loss		-1,797.2							-1,797.2	124.7	-1,672.5
<b>Total comprehensive income</b>	<b>0.0</b>	<b>-1,797.2</b>	<b>0.0</b>	<b>-301.9</b>	<b>6.2</b>	<b>159.2</b>	<b>170.0</b>	<b>-38.4</b>	<b>-1,802.1</b>	<b>130.3</b>	<b>-1,671.8</b>
Dividends paid		-149.0							-149.0	-59.1	-208.1
Other changes		-106.1						106.1	0.0	-27.1	-27.1
<b>As of 31/12/2016</b>	<b>1,482.3</b>	<b>1,582.5</b>	<b>-204.1</b>	<b>-1,784.6</b>	<b>-48.2</b>	<b>-97.7</b>	<b>383.1</b>	<b>4.4</b>	<b>1,317.7</b>	<b>1,898.5</b>	<b>3,216.2</b>
Other comprehensive income				67.7	36.2	-11.5	87.3	-4.1	175.6	13.4	189.0
Group net profit/loss		2,054.1							2,054.1	122.2	2,176.3
<b>Total comprehensive income</b>	<b>0.0</b>	<b>2,054.1</b>	<b>0.0</b>	<b>67.7</b>	<b>36.2</b>	<b>-11.5</b>	<b>87.3</b>	<b>-4.1</b>	<b>2,229.7</b>	<b>135.6</b>	<b>2,365.3</b>
Dividends paid									0.0	-84.7	-84.7
Other changes									0.0	366.1	366.1
<b>As of 31/12/2017</b>	<b>1,482.3</b>	<b>3,636.6</b>	<b>-204.1</b>	<b>-1,716.9</b>	<b>-12.0</b>	<b>-109.2</b>	<b>470.4</b>	<b>0.3</b>	<b>3,547.4</b>	<b>2,315.5</b>	<b>5,862.9</b>

1 Further information is available in the notes under [18] "Equity".

2 Of which subscribed capital €708.1 million (31/12/2016: €708.1 million, 01/01/2016: €708.1 million) and capital reserve €774.2 million (31/12/2016: €774.2 million, 01/01/2016: €774.2 million).

3 Of which other comprehensive income directly associated with the assets held for sale as of 31/12/2017 to the amount of €0.0 million (31/12/2016: €0.0 million, 01/01/2016: €-45.4 million). Of which attributable to the shareholders of EnBW AG: €0.0 million (31/12/2016: €0.0 million, 01/01/2016: €-45.4 million). Of which attributable to non-controlling interests: €0.0 million (31/12/2016: €0.0 million, 01/01/2016: €0.0 million).

# Notes to the 2017 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 IFRS Interpretations Committee (IFRS IC) 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.

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.

The income statement has been prepared using the nature of expense method.

Significant events in the reporting period such as the change to the discount rate for pension and nuclear provisions are described and detailed descriptions of the segments are given in the EnBW Group section of the management report.

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 1 March 2018.

## 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 recognised 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 reported in accordance with IAS 39. 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	31/12/2017	31/12/2016
Number of companies		
Fully consolidated companies	146	122
Entities accounted for using the equity method	22	17
Joint operations	3	3

## Changes in the consolidated companies

Of the companies included in the consolidated financial statements by way of full consolidation, 18 (previous year: 12) domestic companies and 14 (previous year: 3) foreign companies were consolidated for the first time in the reporting year, 2 (previous year: 4) domestic companies and zero (previous year: 3) foreign companies were deconsolidated. In addition, 6 domestic companies (previous year: 4) were merged. The increase in fully consolidated companies and entities accounted for using the equity method was primarily due to the full consolidation of VNG-Verbundnetz Gas Aktiengesellschaft (VNG). In addition, the two wind farms EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG are no longer fully consolidated after a loss of control but are accounted for as a joint venture using the equity method in the consolidated financial statements.

## First-time full consolidation of affiliated entities 2017

### First-time full consolidation of VNG-Verbundnetz Gas Aktiengesellschaft

In order to strengthen the gas business, EnBW acquired 74.21% of VNG-Verbundnetz Gas Aktiengesellschaft, Leipzig, from EWE Aktiengesellschaft, Oldenburg, in the second quarter of 2016. After obtaining control by gaining a majority on the Supervisory Board, VNG and its subsidiaries, which were previously accounted for as a joint venture using the equity method, are now fully consolidated in the EnBW consolidated financial

statements as of 18 May 2017. VNG is a horizontally and vertically integrated group of companies in the European gas industry that is particularly active in the areas of exploration and production, gas transport and gas storage, as well as trading and services.

The fair value of the VNG shares at the time of full consolidation was €1,314.1 million. As the disposal of the VNG shares accounted for using the equity method was worth €1,298.6 million, there was investment income of €15.5 million. The value of the non-controlling interest was calculated pro rata at fair value based on the identifiable net assets of VNG and stands at €412.5 million. The goodwill represents, in particular, synergies in the grids sector and is not deductible for tax purposes.

Following its full consolidation, VNG contributed €2,308.7 million to revenues and €-32.7 million to earnings after income taxes in the 2017 financial year. If VNG had been fully consolidated since the beginning of the year, Group revenue would have increased by €1,416.3 million to €23,390.3 million and earnings after income taxes would have increased by €36.1 million to €2,212.4 million.

The following assets and liabilities were taken over as part of the acquisition:

in € million	Carrying amount according to IFRS	Recognised at acquisition
Intangible assets	44.4	290.5
Property, plant and equipment	1,436.2	1,881.0
Other non-current assets	456.8	659.1
Cash and cash equivalents	296.7	296.7
Other current assets	1,351.2	1,351.2
<b>Total assets</b>	<b>3,585.3</b>	<b>4,478.5</b>
Non-current liabilities	961.6	1,318.0
Current liabilities	1,558.1	1,561.1
<b>Total liabilities</b>	<b>2,519.7</b>	<b>2,879.1</b>
Net assets	1,065.6	1,599.4
Non-controlling interests		412.5
Net assets attributable to the shareholders of EnBW AG		1,186.9
Fair value of the VNG shares		1,314.1
Goodwill		127.2

The fair value of the trade receivables acquired as part of the business combination stood at €1,029.9 million. 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.

## Changes in the shareholdings of fully consolidated companies with loss of control in 2017

### Sale of interest in EnBW Hohe See GmbH & Co. KG

EnBW Energie Baden-Württemberg AG sold 49.89% of the shares in EnBW Hohe See GmbH & Co. KG, Hamburg, to a subsidiary of the Canadian company Enbridge Inc., Calgary, on 8 February 2017. EnBW Hohe See GmbH & Co. KG is an offshore wind farm in the North Sea that is currently under construction. EnBW is reporting the remaining shares in EnBW Hohe See GmbH & Co. KG in the consolidated financial statements temporarily as a joint venture using the equity method due to the lack of control during the construction phase as a result of a requirement for unanimity in the General Meeting of Shareholders during the construction phase. Income of €256.3 million was generated as a result of the transaction and has been reported under other operating income.

It includes an amount of €116.3 million that is due to the measurement of the remaining shareholding at fair value.

#### **Sale of interest in EnBW Albatros GmbH & Co. KG**

EnBW Energie Baden-Württemberg AG sold 49.89% of the shares in EnBW Albatros GmbH & Co. KG, Hamburg, to a subsidiary of the Canadian company Enbridge Inc., Calgary, on 6 December 2017. EnBW Albatros GmbH & Co. KG is an offshore wind farm in the North Sea that is currently under construction. EnBW is reporting the remaining shares in EnBW Albatros GmbH & Co. KG in the consolidated financial statements temporarily as a joint venture using the equity method due to the lack of control during the construction phase as a result of a requirement for unanimity in the General Meeting of Shareholders during the construction phase. Income of €48.9 million was generated as a result of the transaction and has been reported under other operating income. It includes an amount of €22.6 million that is due to the measurement of the remaining shareholding at fair value.

### **Acquisition and disposal of entities accounted for using the equity method in 2016**

#### **Acquisition of shares in VNG-Verbundnetz Gas Aktiengesellschaft and disposal of shares in EWE Aktiengesellschaft**

In return for the acquisition of 74.21% of the shares in VNG-Verbundnetz Gas Aktiengesellschaft from EWE Aktiengesellschaft, EnBW divested itself of a 20% share in EWE on 20 April 2016. In addition, a cash settlement was paid by EnBW to EWE and the Ems-Weser-Elbe Versorgungs- und Entsorgungsverband (EWE-Verband). VNG was initially accounted for by EnBW in the consolidated financial statements using the equity method due to a lack of control as a result of the majority held on the Supervisory Board. The remaining 6% shareholding in EWE has been recognised under other financial assets since this time. VNG was allocated in the segment reporting to Other/Consolidation as a company accounted for using the equity method.

### **Changes in accounting policies**

#### **First-time adoption of amended accounting standards**

The International Accounting Standards Board (IASB) and the IFRS IC have adopted the following new standards, amendments to existing standards, and interpretations whose application is mandatory as from the 2017 financial year:

- **Amendments to IAS 7 (2016) “Disclosure Initiative”**: The amendments require additional disclosures in the notes to present changes to liabilities from the company's financing activities. EnBW has included a reconciliation account in note “(21) Liabilities and subsidies”.
- **Collective standard for the amendment of various IFRS (2016) “Improvements to the IFRS Cycle 2014-2016”** with regard to the amendments to IFRS 12
- **Amendments to IAS 12 (2016) “Recognition of deferred tax assets for unrealised losses”**

These new rules have no material impact on the EnBW consolidated financial statements.

## Effects of new accounting standards that are not yet mandatory

The IASB and IFRS IC have already published the following standards and interpretations whose adoption is not yet mandatory for the 2017 financial year. The most important changes are presented below:

- **IFRS 9 “Financial Instruments”**: The publication of IFRS 9 (2014) completed IASB’s three-phase revision of the rules on the accounting of financial instruments. The standard must be applied for financial years beginning on or after 1 January 2018. Due to the change in requirements for the classification of financial instruments, differences compared to the classification and measurement of financial assets previously required under IAS 39 will arise. In the IFRS 9 implementation project of the EnBW Group, it is apparent that the “at fair value through profit or loss” measurement category will, in future, increase in significance. At the transition date, EnBW will not utilise the option for equity instruments (€2,803.9 million) and will thus measure them at fair value through profit or loss. As of 31 December 2017, equity instruments are already primarily measured at their fair value. A significant transition effect as of 1 January 2018 is not anticipated. The financial assets that were previously classified as “available for sale” and are used as debt instruments will be allocated under the “hold to collect and sell” business model. If the interest test is satisfied, these will be recognised at fair value through profit or loss. Around 70% of the financial assets will thus be measured at fair value through profit or loss in future. Furthermore, transition to the expected credit loss model will tend to increase the required risk provisions. At EnBW, this will mainly affect trade receivables and securities recognised at fair value through other comprehensive income. The determination of risk provisions for trade receivables will be carried out using the simplified impairment model of IFRS 9 based on historical default rates within the portfolio. Instrument-specific loss probabilities and rates will be used to determine the expected losses on securities. Due to the complexity of the calculations, the quantification of the effect of the transition to the expected credit loss model has not yet been fully completed. However, EnBW anticipates a not insignificant effect on equity as a result. An improvement is also expected as a result of the new rules on hedge accounting because certain restrictions in the current rules of IAS 39 have been removed with the new IFRS 9 and so a larger range of hedging instruments and hedged items has become available. EnBW will utilise the hedge accounting rules in IFRS 9 for existing hedges at the transition date. A decision on whether to expand it to other hedges will be made during the 2018 financial year on a case-by-case basis. EnBW will utilise the option of not stating any comparative figures for previous years.

- **IFRS 15 “Revenue from Contracts with Customers” and amendments (2016) “Clarifications to IFRS 15 Revenue from Contracts with Customers”**: In contrast to the current rules, the new standard includes a principles-based five-step model for recognising revenue from contracts with customers. The standard replaces the current rules on revenue recognition in IAS 11 and IAS 18 and the associated interpretations. The standard must be applied for the first time for financial years beginning on or after 1 January 2018. In terms of transition relief, the Group will utilise the modified retrospective approach, where the standard only needs to be used for the latest reporting period presented in the financial statements (2018 financial year). The 2017 comparative period will still be presented using the old regulations.

In order to examine the impact of IFRS 15 on the consolidated financial statements, EnBW started a project to systematically document and analyse the contract types at the different value-added stages. The business areas in the core Group and the companies where there is a majority shareholding were examined for this purpose. The results of the project showed that there will be no material impact due to the introduction of IFRS 15. As of 1 January 2018, the revenue reserves will increase in total by between €515 million and €625 million. The accounting changes identified in the analysis mainly affect the areas described below.

Especially in the Sales segment, the costs for acquiring contracts, which were directly recognised as an expense up to now, will be capitalised under other assets and released over the expected term of the contract as other operational expenses. This will also result in an increase in the revenue reserves of between €15 million and €25 million at the time of transition. There will be no effect on revenue due to the capitalisation of the costs for acquiring contracts in the future, it will only have an earnings effect.

In the case of regulatory levies and duties, especially for EEG and KWK, the application of IFRS 15 will result in lower revenue and correspondingly a lower cost of materials being reported. The cause of this reporting change are the revised and supplemented criteria for checking the “principal” or “agent” relationships. We expect that this will result in the revenue reported being between 0% and 5% lower in 2018.

Furthermore, as part of the introduction of IFRS 15, the period of release for construction cost subsidies in the regulated sector for electricity and gas will also be changed to 20 years because the period of release will in future no longer be based on useful life but rather on the Electricity Grid Charges Ordinance (StromNEV) and the Gas Grid Charges Ordinance (GasNEV). The revenue reserves will increase as a result by €500 million and €600 million. Due to this transition, we anticipate lower revenue of between €3 million and €4 million from this effect in 2018. Construction cost subsidies will also be reported as contract liabilities in the notes to the consolidated financial statements in the future.

- > **IFRS 16 “Leases”:** The standard replaces the current standard for accounting for leases IAS 17 and the associated interpretations. The new standard introduces a uniform accounting model, whereby leases are recognised on the balance sheet of the lessee. The lessee recognises a right-of-use to the underlying asset and a lease liability that represents its obligation to make lease payments. There are exemptions for short-term leases and leases where the asset has a low value. EnBW has started its first assessment of the possible effects on the consolidated financial statements. 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. EnBW will probably utilise the exemptions for short-term leases and leases where the underlying asset has a low value. In terms of transition relief, the Group will utilise the modified retrospective approach as a lessee. It is not possible to estimate the effects on the assets and liabilities at this point in time because, amongst other things, there is uncertainty about potential further leases. The standard must be applied for financial years beginning on or after 1 January 2019. The option of early application will not be utilised and the standard will be applied for the first time in the EnBW Group in the 2019 financial year.

The IASB and the IFRS IC have also published the following standards and interpretations whose use 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.

- > Collective standard for the amendment of various IFRS (2016) “Improvements to the IFRS Cycle 2014-2016” with regard to the amendments to IFRS 1 and IAS 28
- > Collective standard for the amendment of various IFRS (2017) “Improvements to the IFRS Cycle 2015-2017”
- > IAS 28 amendments (2017) “Long-term interests in Associates and Joint Ventures”
- > Amendments to IAS 40 (2016) “Transfer of investment property”
- > Amendments to IFRS 2 (2016) “Classification and Measurement of Share-based Payment Transactions”
- > Amendments to IFRS 4 (2016) “Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts”
- > IFRS 9 Amendments (2017) “Prepayment features with negative compensation”
- > Amendments to IFRS 10 and IAS 28 (2014) “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”
- > IFRS 17 “Insurance Contracts”
- > IFRIC 22 “Foreign Currency Transactions and Advance Consideration”
- > IFRIC 23 “Uncertainty over Income Tax Treatments”

### **Adjustment to capital employed and net debt**

In order to improve the presentation of the net assets, we have adjusted the definition of non-current and current loans in 2017. The change to the definition has an effect on our performance indicators capital employed and net debt. Loans to affiliated entities, entities accounted for using the equity method and other investments allocated to capital employed will be reported in the same way as shares under capital employed. Other loans will also be reported under capital employed. As of 31 December 2016, the current financial assets allocated to net debt fell by €8.8 million and the non-current loans fell by €34.3 million due to this effect. The capital employed increased accordingly by €43.1 million as of 31 December 2016.



## 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 franchises 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 franchises are amortised over 20 years. The amortisation period for exploration licences is dependent on production and is anticipated to be between 12 and 18 years.

Petroleum/natural gas production licences and exploration costs are reported using the successful efforts accounting method according to IFRS 6. The costs will be amalgamated in so-called cost centres. The assets are measured at their acquisition or production costs; the subsequent measurement is carried out based on the acquisition cost method. Assets related to secure and economically recoverable deposits will be 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 investment grants or subsidies are not deducted from the cost of the asset concerned, but recognised on the liabilities side of the balance sheet.

The nuclear power plants also contain the present value, net of depreciation, of the estimated 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 – 100
Power plants	10 – 50
Electricity distribution plants	25 – 45
Gas distribution plants	10 – 55
Water distribution plants	15 – 40
District heat distribution plants	15 – 40
Telecommunications distribution facilities	4 – 20
Other equipment, factory and office equipment	4 – 14

The useful lives and depreciation 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 3.2% (previous year: 3.5%). Borrowing costs totalling €5.7 million were capitalised in the financial year (previous year: €5.8 million).

### Leases

A lease is an agreement whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. This also applies for agreements that do not explicitly describe the conveyance of such a right. Leases are classified either as finance leases or as operating leases.

Leases where the EnBW Group as lessee retains substantially all the risks and rewards of ownership of the leased asset are classified as finance leases. The leased asset is recognised at the lower of fair value and the present value of the minimum lease payments. A liability of the same amount is recognised.

The recognised leased asset is depreciated over the shorter of its useful life and the lease term. The liability is repaid and carried forward in subsequent periods using the effective interest method. All other leases where the EnBW Group is the lessee are classified as operating leases. Lease payments and instalments from operating leases are recognised directly as an expense in the income statement.

Leases where the EnBW Group as lessor transfers substantially all the risks and rewards of ownership of the leased asset to the lessee are recognised as finance leases at the lessor. A receivable is recognised for the amount of the net investment in the lease. The payments made by the lessee are recognised as repayments on the principal or interest income using the effective interest method. All other leases where the EnBW Group is the lessor are classified as operating leases. The leased asset remains in the consolidated balance sheet and is depreciated. The payments made by the lessee are recognised as income on a straight-line basis over the term of the lease.

### **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 in 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.

### **Financial assets**

Investments in non-consolidated affiliated entities, in associates not accounted for using the equity method and in other investments, as well as some of the securities, are allocated to the "available for sale" measurement category. This measurement category includes all financial assets that are not "held for trading", "held to maturity" or "loans and receivables". They are measured at fair value if it can be determined reliably; unrealised gains and losses are recognised directly in equity. If the fair value cannot be determined reliably, these financial assets are measured at amortised cost. Most of these assets are other investments, which are not traded on an active market.

If there is any permanent or significant impairment as of the reporting date, the adjustments to the lower market value are recognised in profit or loss. The unrealised gains or losses previously recognised directly in equity are recognised in profit or loss upon sale. Impairment losses are reflected in an allowance account.

Loans are accounted for at amortised cost. Loans subject to market interest rates are recognised at nominal value, and low-interest or interest-free loans at present value. Some bad debt allowances are recognised via an allowance account. The decision whether the bad debt allowance reduces the carrying amount directly, or does so indirectly via an allowance account, depends on the probability of the anticipated default.

The securities recognised as current financial assets and allocated to the “held for trading” category are measured at fair value through profit or loss. The fair value equals the quoted price or repurchase price as of the reporting date. Changes in fair value are recognised immediately in profit or loss.

### **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 slow-moving goods. 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. Amortisation is determined in accordance with 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 CO<sub>2</sub> 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.

### **Trade receivables and other assets**

Trade receivables and other assets are accounted for at cost less any bad debt allowances required based on the actual bad debt risk. 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 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 that the fair value approximates the carrying amount. For other non-current assets, the market value is determined by discounting the expected future cash flows. Some bad debt allowances are recognised by means of an allowance account. The decision whether the bad debt allowance reduces the carrying amount directly, or does so indirectly via an allowance account, depends on the probability of the anticipated default.

### **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

Up until 31 December 2016, provisions relating to nuclear power included obligations for the decommissioning and disposal of nuclear power plants, as well as the disposal of fuel rods and operating waste. 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 will, in future, be the responsibility of the German government, who have 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 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.

### 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% (previous year: 29.0%) was applied for German Group companies. 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. Liabilities from finance leases are measured at the lower of fair value and present value of the minimum lease payments at the date when the leased asset is recognised.

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 other current liabilities, it is assumed that the fair value corresponds to the carrying amount. For other non-current liabilities, the market value is determined by discounting the expected future cash outflows. The construction cost subsidies carried as liabilities are released to revenue in accordance with the use of the subsidised item of property, plant and equipment. As a rule, the period of release for construction cost subsidies is between 38 and 45 years. Investment cost subsidies are released over the depreciation period of the subsidised assets. The release is offset openly against the amortisations.

### 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 that meet the criteria to be 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 measured at fair value in accordance with IAS 39. 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 IAS 39, but as executory contracts in accordance with IAS 37.

Derivatives are classified as "held for trading" unless hedge accounting is used. Changes in fair value are recognised in profit or loss.

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 differences are initially recognised in equity and reclassified to profit or loss when the foreign operation is sold.

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**

Revenue is generally recognised when the risk has been transferred to the customer. Substantially all the risks and rewards are transferred to the customer upon the transfer of title or ownership. Revenue is measured at the fair value of the consideration received or receivable for goods or services. Revenue is recognised net of any sales deductions such as price discounts and rebates and of VAT, as well as after elimination of intercompany sales. Most of the revenue is generated from the sale of electricity and gas, the distribution of electricity and gas, as well as waste disposal, energy-related services and water supply.

Interest income is recognised using the effective interest method. Dividend income is recognised when the right to receive payment is established.

### **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 IAS 39 or executory contracts in accordance with the provisions of IAS 37.
- › Financial assets are allocated to the IAS 39 measurement categories: “held for trading”, “available for sale”, “held to maturity” and “loans and receivables”.

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 inflows. 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 inflows or the discount rate, and thus potentially lead to an impairment of goodwill.

**Exploration costs:** Exploration costs are reported using the successful efforts accounting method. The costs for exploration drilling and licence-specific seismic data and analyses are capitalised. All capitalised exploration costs must be examined from an economic, technical and strategic perspective at least once a year to see whether any development is 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, expectations that have changed 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 available-for-sale financial assets:** Changes in the value of financial assets in the “available for sale” measurement category are recognised directly in equity. Permanent impairment is recognised in the profit or loss for the period. A significant (20% or more) or prolonged (over the last nine months) decline in the fair value of an investment in an equity instrument below its amortised cost is objective evidence of permanent impairment.

**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.

**Trade receivables and other assets:** To take account of the credit risk, allowances for doubtful accounts are set up. The amount of the allowance includes estimates and judgements concerning individual receivables, based on the age structure of the receivables, the customers’ credit rating, past experience relating to the derecognition of receivables and changes in payment terms.

**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 2005 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 consideration, 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 are, in principle, only recognised when the future tax advantages will probably be realised. Deferred tax assets or liabilities are recognised on temporary differences. 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. An impairment test is performed on investments accounted for using the equity method, which also requires the use of estimates.

Potential effects due to changes in estimates in other areas are explained in the respective sections. For more information, please refer to note (19) "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 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	
	31/12/2017	31/12/2016	2017	2016
Swiss franc	1.17	1.07	1.11	1.09
Pound sterling	0.89	0.86	0.88	0.82
US dollar	1.20	1.05	1.13	1.11
Czech koruna	25.54	27.02	26.33	27.03
Japanese yen	135.01	123.40	126.63	120.33
Norwegian krone	9.84	9.09	9.33	9.29
Danish krone	7.44	7.43	7.44	7.45
Polish zloty	4.18	4.41	4.26	4.36

## Notes to the income statement and the balance sheet

### (1) Revenue

Revenue is recorded when goods or services have been delivered and the risk has been transferred to the customer. The electricity and energy tax paid by the entities is deducted from revenue in the income statement.

For the sale of electricity and gas to customer groups (especially private customers) for which the units supplied are measured and billed during the reporting period, revenue between billing and the end of the reporting period is based on a projection using past consumption values while taking into account the impact of current temperatures and calendar-related effects.

Most of the revenue is generated from the sale of electricity and gas to wholesale markets and consumers. In addition, this item includes revenue from the distribution of electricity and gas, deliveries of heat, water and services, as well as own-account trading and disposal.

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 2017 financial year, the net energy trading revenue amounted to €13,427.6 million (previous year: €8,089.6 million).

The segment reporting contains a breakdown of revenue by business segment, geographical segment and product.

### (2) Other operating income

in € million	2017	2016
Income from reimbursement of nuclear fuel rod tax	1,444.9	0.0
Income from disposals	327.6	41.6
Income from the reversals of provisions	274.7	154.9
Income from derivatives	152.2	280.5
Income from the reversals of impairment losses	93.1	5.9
Rent and lease income	26.6	25.7
Income from the reversal and reduction of specific bad debt allowances	10.7	8.4
Miscellaneous	420.5	290.5
<b>Total</b>	<b>2,750.3</b>	<b>807.5</b>

Income from disposals in the 2017 financial year includes mainly income from the sale of 49.89% of the shares in each of EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG.

The increase in income from the reversals of provisions was attributable primarily to the reversal of nuclear provisions, mainly due to an update of the cost estimate for the decommissioning of nuclear power plants. In addition, provisions for onerous contracts for long-term electricity procurement agreements were reversed due to increased electricity prices in the medium term.

The reversals of impairment losses in the 2017 financial year mainly consist of reversals of impairment losses on power plants. They are allocated to the Generation and Trading segment for segment reporting purposes. The recoverable amount was calculated on the basis of the fair value less selling costs and corresponds to Level 3 of the IFRS 13 fair value hierarchy. Using a business valuation model, the fair value was derived from 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. The plans were based on past experience and on long-term market expectations beyond the detailed planning horizon. The discount rate used in the valuation was 5.5% (previous year: 5.4%). The reasons for the reversals of impairment losses were positive expectations of how electricity prices will develop in the short and medium term, and the effect of the improvements in efficiency and optimisation of costs introduced by the company. The fair value calculated for the power plants of €2.3 billion is therefore slightly above the carrying amount.

In the reporting year, income from currency exchange rate gains amounted to €26.5 million (previous year: €20.5 million).

Miscellaneous other operating income includes income from the reversal of accruals and income from insurance claims.

### (3) Cost of materials

in € million	2017	2016
Cost of materials and supplies and of purchased merchandise	15,310.7	13,910.7
Cost of purchased services	2,877.0	2,770.6
Exploration costs	1.6	0.0
<b>Total</b>	<b>18,189.3</b>	<b>16,681.3</b>

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 – other than due to accretion – in provisions for the decommissioning of nuclear power plants, unless these are required to be recognised as part of the cost of the asset. 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. In the previous year, these also included expenses for the nuclear fuel rod tax which had to be paid up until 2016 for any new fuel rods used. Fuel costs for conventional power plants, as well as costs for the procurement of CO<sub>2</sub> 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 franchise fees. In addition, other expenses directly attributable to services rendered are disclosed under cost of purchased services.

### (4) Personnel expenses

in € million	2017	2016
Wages and salaries	1,334.3	1,262.5
Social security, pension and other benefit costs	442.8	410.9
of which for post-employment benefits	(210.5)	(192.7)
<b>Total</b>	<b>1,777.1</b>	<b>1,673.4</b>

#### Employees

annual average	2017	2016
Sales	3,258	3,267
Grids	8,729	8,273
Renewable Energies	1,049	873
Generation and Trading	5,393	5,112
Other	2,648	2,780
<b>Employees</b>	<b>21,077</b>	<b>20,305</b>
Apprentices and trainees including DH students in the Group	869	811

The total number includes employees of joint operations of 6 employees (previous year: 7) based on the proportion attributable to EnBW.

**(5) Other operating expenses**

in € million	2017	2016
Administrative and selling costs and other overheads	335.9	292.1
Expenses from derivatives	182.4	330.8
Other personnel expenses	101.1	126.4
Audit, legal and consulting fees	85.7	73.9
Advertising expenses	75.3	66.1
Expense from specific bad debt allowances	60.9	64.8
Rent and lease expenses	59.5	53.0
Insurance	52.3	51.9
Other taxes	36.7	19.1
Dues and levies	17.4	13.8
Costs from disposals	9.8	13.2
Miscellaneous	146.1	119.8
<b>Total</b>	<b>1,163.1</b>	<b>1,224.9</b>

Miscellaneous other operating expenses contain non-operating expenses of €16.1 million (previous year: €15.0 million) and expenses from currency exchange rate losses amounting to €39.9 million (previous year: €20.8 million). In addition, this item comprises commissions and research and development expenses.

**(6) Amortisation and depreciation**

in € million	2017	2016
Amortisation of intangible assets	156.8	171.1
Depreciation of property, plant and equipment	1,094.0	2,221.7
Depreciation of investment properties	1.4	2.4
Reversals of investment cost subsidies	-3.8	-1.6
<b>Total</b>	<b>1,248.4</b>	<b>2,393.6</b>

In the reporting year, there were no impairment losses to goodwill (previous year: €20.5 million).

The impairment losses on other intangible assets, property, plant and equipment and investment property amounted to €134.2 million (previous year: €1,458.7 million). In the current reporting year, the impairments mainly comprised impairment losses on gas storage facilities and exploration licences 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 selling costs and corresponds to Level 3 of the IFRS 13 fair value hierarchy. Using a business valuation model, the fair value was derived from cash flow planning, based on 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. The plans were based on past experience and on estimates concerning future market development. The discount rates used in the valuations were between 3.7% and 9.0%. The impairment losses on the exploration licences were mainly due to significantly higher exploration costs. The fair value calculated for these licences of €53.8 million was thus below the carrying amount. In the case of the gas storage facilities, amended revenue and cost estimates led to a reduction in the fair values calculated for these facilities, which came to €37.6 million and was thus below the carrying amount.

In the previous year, the impairments mainly comprised impairment losses on power plants and were primarily allocated to the Generation and Trading segment in the segment reporting. The discount rate used in the valuation was 5.4%. In particular, the impairment losses were due to two main factors: On the one hand, the increase in nuclear provisions due to the Act for the Reorganisation of Responsibility in Nuclear Waste Management on the liabilities side led to an increase in the tested carrying amount of our power plants on the assets side of the balance sheet, while on the other hand, the evaluation of the service life of our conventional power plants was adjusted as part of discussions about future decarbonisation. The fair value calculated for the power plants of around €2.4 billion was therefore significantly below the carrying amount. 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	2017	2016
Share of profit/loss of entities accounted for using the equity method	45.4	-5.4
Write-downs on entities accounted for using the equity method	-2.1	-4.6
<b>Net profit/loss from entities accounted for using the equity method</b>	<b>43.3</b>	<b>-10.0</b>
Investment income	110.1	92.9
Write-downs on investments	-9.8	-4.1
Result from the sale of equity investments	15.7	38.8
<b>Other profit/loss from investments<sup>1</sup></b>	<b>116.0</b>	<b>127.6</b>
<b>Investment result (+income/-expense)</b>	<b>159.3</b>	<b>117.6</b>

1 Of which €73.7 million (previous year: €53.6 million) was income from investments held as financial assets.

In the 2017 financial year, the result from the sale of equity investments mainly relates to the recognition of the shares in VNG, which had previously been accounted for using the equity method, at fair value at the time of its first-time full consolidation. In the previous year, this mainly related to the sale of the EWE shares.

The write-downs on investments in the 2017 financial year mainly relate to other investments and also investments held as financial assets. In the previous year, the write-downs mainly related to investments held as financial assets.

## (8) Financial result

in € million	2017	2016
Interest and similar income	404.6	290.7
Other finance income	299.5	141.2
<b>Finance income</b>	<b>704.1</b>	<b>431.9</b>
Borrowing costs	-264.5	-308.1
Other interest and similar expenses	-20.8	-578.2
Interest portion of increases in liabilities	-159.6	-523.6
Personnel provisions	(-116.3)	(-129.5)
Provisions relating to nuclear power	(-28.3)	(-378.6)
Other non-current provisions	(-7.8)	(-6.7)
Other liabilities	(-7.2)	(-8.8)
Other finance costs	-64.6	-198.6
<b>Finance costs</b>	<b>-509.5</b>	<b>-1,608.5</b>
<b>Financial result (+ income/- costs)</b>	<b>194.6</b>	<b>-1,176.6</b>

Interest and similar income contains interest income from interest-bearing securities and loans, dividends, other profit shares and interest income on back taxes. In the 2017 financial year, this item included the interest income resulting from the interest received due to the legal proceedings for the reimbursement of the nuclear fuel rod tax. In addition, there was interest income in the 2017 financial year as a result of adjusting the discount rate for the remaining nuclear provisions held by EnBW from 0.5% to 0.72%. In the 2017 financial year, interest income of €19.2 million (previous year: €22.8 million) was offset against economically related interest expenses. Other finance income primarily contains realised market price gains on the sale of securities amounting to €222.0 million (previous year: €128.4 million).

Borrowing costs are composed as follows:

in € million	2017	2016
Expenses incurred for bank interest and bonds	247.5	287.7
Interest portion of the costs of finance lease agreements	2.8	1.7
Other borrowing costs	14.2	18.7
<b>Borrowing costs</b>	<b>264.5</b>	<b>308.1</b>

The interest portion of increases in liabilities relates mainly to the annual accretion of the non-current provisions. In the previous year, there were interest expenses as a result of reducing the discount rate for the remaining nuclear provisions held by EnBW from 4.7% to 0.5%. This was due to the reassessment of the remaining nuclear provisions as a result of the Act for the Reorganisation of Responsibility in Nuclear Waste Management.

In the reporting period, other finance costs primarily comprises expenses from impairment losses on our financial investments of €3.8 million (previous year: €133.3 million), which were mainly allocated to the “available for sale” measurement category, as well as market price losses on sales of securities amounting to €21.3 million (previous year: €53.9 million). In the reporting period, impairment losses on loans of €0.6 million (previous year: €3.1 million) were recognised.

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	2017	2016
Total interest income	216.1	240.3
Total interest expenses	-263.7	-350.5

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 as well as interest and dividends received from financial assets classified as “available for sale”. The interest expenses were incurred in particular on bonds, bank liabilities and finance lease liabilities.

As in the previous year, total interest income does not include any material interest income from impaired financial assets.

**(9) Income tax**

in € million	2017	2016
<b>Actual income tax</b>		
Domestic corporate income tax	195.3	48.8
Domestic trade tax	130.2	37.4
Foreign income taxes	44.7	44.9
<b>Total (-income/+expense)</b>	<b>370.2</b>	<b>131.1</b>
<b>Deferred taxes</b>		
Germany	356.4	-1,175.4
Abroad	-45.0	-5.1
<b>Total (-income/+expense)</b>	<b>311.4</b>	<b>-1,180.5</b>
<b>Income tax (-income/+expense)</b>	<b>681.6</b>	<b>-1,049.4</b>

The actual income taxes amounting to €370.2 million (previous year: €131.1 million) concern income tax expenses from the current financial year amounting to €313.7 million (previous year: €135.9 million expenses) and income tax expenses for past periods amounting to €56.5 million (previous year: €4.8 million income).

The deferred tax expenses amounting to €311.4 million (previous year: €1,180.5 million income) concern deferred tax income from the current financial year amounting to €394.6 million (previous year: €1,087.3 million income) and deferred tax expenses for past periods amounting to €83.2 million (previous year: €93.2 million income). The balance of the deferred taxes contains income totalling €6.3 million (previous year: €1.4 million income) from the change in tax rates.

The corporate income tax rate was 15.0% (previous year: 15.0%) plus a solidarity surcharge of 5.5% (previous year: 5.5%) of the corporate income tax. The trade tax rate was 13.6% (previous year: 13.2%). This represents a tax rate on income of 29.4% (previous year: 29.0%). The adjustment to the Group tax rate was due to an increase in the weighted trade tax assessment rates of the local authorities in the EnBW AG trade tax group. For the foreign entities, the tax rate applicable in the country in which they are based of between 19.0% and 25.2% is used to calculate income taxes. The influence of deviating tax rates has increased due to the consolidation of companies in countries with higher tax rates, especially Norway. This has also resulted in deferred tax assets due to tax credits. 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	2017	2016
Origination or reversal of temporary differences	238.3	-1,109.0
Origination of carryforwards of unused tax losses	-19.9	-1.8
Utilisation of carryforwards of unused tax losses	96.3	2.9
Correction in previous year for carryforwards of unused tax losses	-3.3	-74.8
Write-down of carryforwards of unused tax losses	0.0	2.2
<b>Deferred taxes (-income/+expense)</b>	<b>311.4</b>	<b>-1,180.5</b>



The reconciliation from the expected income tax expense to the current income tax expense is presented below:

in € million	2017	in %	2016	in %
<b>Earnings before tax</b>	<b>2,857.9</b>		<b>-2,721.9</b>	
Expected tax rate		29.4		29.0
<b>Expected income tax (-income/+expense)</b>	<b>840.2</b>		<b>-789.4</b>	
Tax effects				
Differences in foreign tax rates and tax rate differences	-45.4	-1.6	-18.1	0.7
Tax-free income	-73.7	-2.6	-41.2	1.5
Non-deductible expenses	13.9	0.5	73.0	-2.7
Impairment losses on goodwill	0.0	0.0	5.9	-0.2
Add-backs and reductions for trade tax purposes	11.9	0.4	12.2	-0.4
Accounting for joint ventures and associates using the equity method	-12.3	-0.4	4.9	-0.2
Adjustment/valuation/non-recognition of losses carried forward and temporary differences	0.0	0.0	-183.2	6.7
Zero-rated disposals of investments	-4.4	-0.2	-12.0	0.4
Taxes relating to other periods	-26.7	-0.9	-98.0	3.6
Tax credit	-11.0	-0.4	0.0	0.0
Other	-10.9	-0.4	-3.5	0.2
<b>Current income tax (-income/+expense)</b>	<b>681.6</b>		<b>-1,049.4</b>	
<b>Current tax rate</b>		<b>23.8</b>		<b>38.6</b>

**(10) Intangible assets**

in € million	Franchises, industrial property rights and similar rights and assets	Exploration costs	Internally generated intangible assets	Goodwill	Other	Total
<b>Cost</b>						
As of 01/01/2017	1,809.3	0.0	99.6	817.4	7.8	2,734.1
Increase/decrease due to changes in the consolidated companies	271.7	20.7	-0.2	141.5	2.6	436.3
Additions	35.7	7.4	4.8	0.0	12.4	60.3
Reclassifications	7.7	0.0	0.0	0.0	-6.0	1.7
Reclassification to assets held for sale	-25.9	0.0	0.0	0.0	0.0	-25.9
Currency adjustments	-18.9	-0.2	0.0	14.6	0.0	-4.5
Disposals	-61.9	0.0	-2.0	0.0	-0.2	-64.1
As of 31/12/2017	2,017.7	27.9	102.2	973.5	16.6	3,137.9
<b>Accumulated amortisation</b>						
As of 01/01/2017	958.8	0.0	90.8	48.0	0.0	1,097.6
Additions	98.6	0.0	2.8	0.0	0.0	101.4
Currency adjustments	-3.5	0.0	0.0	0.0	0.0	-3.5
Disposals	-13.4	0.0	-2.0	0.0	0.0	-15.4
Impairment	54.9	0.5	0.0	0.0	0.0	55.4
Reversal of impairment losses	-3.5	0.0	0.0	0.0	0.0	-3.5
As of 31/12/2017	1,091.9	0.5	91.6	48.0	0.0	1,232.0
<b>Carrying amounts</b>						
As of 31/12/2017	925.8	27.4	10.6	925.5	16.6	1,905.9

in € million	Franchises, industrial property rights and similar rights and assets	Internally generated intangible assets	Goodwill	Other	Total
<b>Cost</b>					
As of 01/01/2016	2,239.7	93.4	785.0	10.3	3,128.4
Increase/decrease due to changes in the consolidated companies	4.8	0.0	32.4	0.0	37.2
Additions	47.2	4.7	0.0	5.0	56.9
Reclassifications	3.3	1.5	0.0	-4.6	0.2
Reclassification to assets held for sale	-30.0	0.0	0.0	0.0	-30.0
Currency adjustments	2.6	0.0	0.0	0.0	2.6
Disposals	-458.3	0.0	0.0	-2.9	-461.2
As of 31/12/2016	1,809.3	99.6	817.4	7.8	2,734.1
<b>Accumulated amortisation</b>					
As of 01/01/2016	1,270.4	85.6	27.5	0.0	1,383.5
Decrease due to changes in the consolidated companies	-0.1	0.0	0.0	0.0	-0.1
Additions	73.6	5.2	0.0	0.0	78.8
Reclassification to assets held for sale	-0.1	0.0	0.0	0.0	-0.1
Currency adjustments	0.9	0.0	0.0	0.0	0.9
Disposals	-457.7	0.0	0.0	0.0	-457.7
Impairment	71.8	0.0	20.5	0.0	92.3
As of 31/12/2016	958.8	90.8	48.0	0.0	1,097.6
<b>Carrying amounts</b>					
As of 31/12/2016	850.5	8.8	769.4	7.8	1,636.5

The carrying amount of the intangible assets includes franchises to operate power plants amounting to €521.1 million (previous year: €568.4 million) and customer relationships amounting to €147.1 million (previous year: €130.7 million). The remaining terms of power plant franchises are between 15 and 65 years. For customer relationships, the remaining terms are between 4 and 30 years. The amortisation period for exploration licences is dependent on production and is anticipated to be between 12 and 18 years.

In 2017, a total of €39.8 million (previous year: €37.3 million) was spent on research and development. This sum contains public subsidies totalling €2.9 million (previous year: €3.8 million). The criteria for their recognition required under IFRS were not satisfied.

The following table provides information on the exploration costs contained within various items of the consolidated financial statements. In the segment reporting, the exploration business is allocated to the Generation and Trading segment.

in € million	2017	2016
Impairment losses on exploration	-0.5	0.0
Other exploration costs	-1.6	0.0
<b>Costs from exploration activities</b>	<b>-2.1</b>	<b>0.0</b>
Assets from exploration	27.4	0.0
Net payments for operative exploration activities	-1.6	0.0
Net payments for investing activities for exploration	-7.4	0.0

For the purpose of impairment testing, goodwill was allocated to the respective cash-generating units or groups of cash-generating units. The recoverable amount of the cash-generating units is calculated on the basis of the fair value less selling costs and corresponds to Level 3 of the IFRS 13 valuation hierarchy. 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, materials prices, company-specific investing activities, the regulatory framework as well as growth and discount rates.

The interest rates used for discounting the cash flows are calculated on the basis of market data and are between 3.5% and 6.7% after tax, or between 4.9% and 8.3% before tax (previous year: 3.4% to 6.8% after tax, and 4.8% to 8.4% before tax).

Constant growth rates of 0.0% and 1.5% 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 (previous year: 0.0% and 1.5%).

In 2017, there will be no impairments to goodwill (previous year: €20.5 million). Impairment losses in the previous year related to one of our cash-generating units in gas distribution/gas sales. The impairment losses were due mainly to the deterioration in the earnings forecast for sales.

In all other cash-generating units, the recoverable amounts were above the relevant 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 2017, goodwill totalled €925.5 million (previous year: €769.4 million). Of this figure, 86.5% (previous year: 84.6%) 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	
	2017	2016	2017	2016
PRE subgroup	4.7–6.7	4.6–6.8	267.1	250.1
Electricity sales and distribution	3.5–5.5	3.4–5.6	131.7	131.7
Stadtwerke Düsseldorf AG subgroup	3.5–5.5	3.4–5.9	127.4	127.4
Energiedienst Holding AG subgroup	3.5–5.5	3.4–5.6	147.1	142.0
ONTRAS Gastransport GmbH	3.5	–	127.2	0.0

The goodwill allocated to the other cash-generating units or groups of cash-generating units accounted for less than 13.5% (previous year: 15.4%) of total goodwill in each case. Its aggregate total amounted to €125.0 million (previous year: €118.2 million).

**(11) Property, plant and equipment**

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
<b>Cost</b>						
As of 01/01/2017	4,020.7	18,887.5	14,431.5	1,614.4	656.7	39,610.8
Increase/decrease due to changes in the consolidated companies	49.1	369.8	1,078.9	238.5	177.1	1,913.4
Additions	29.7	110.7	421.5	65.4	725.9	1,353.2
Reclassifications	6.3	73.6	167.0	16.6	-276.4	-12.9
Reclassification to assets held for sale	-3.0	0.0	-2.8	-0.1	-60.1	-66.0
Currency adjustments	6.2	-22.7	77.8	-1.8	0.1	59.6
Disposals	-88.4	-896.0	-56.2	-55.5	-3.9	-1,100.0
As of 31/12/2017	4,020.6	18,522.9	16,117.7	1,877.5	1,219.4	41,758.1
<b>Accumulated amortisation</b>						
As of 01/01/2017	2,209.6	14,065.2	8,626.2	1,226.0	1.9	26,128.9
Additions	67.6	475.3	366.3	106.6	0.0	1,015.8
Reclassifications	-2.3	1.2	-1.2	1.0	-1.1	-2.4
Reclassification to assets held for sale	0.0	0.0	-0.5	0.0	0.0	-0.5
Currency adjustments	2.8	-15.2	35.0	-1.9	0.0	20.7
Disposals	-84.8	-809.1	-44.5	-52.3	0.0	-990.7
Impairment	3.3	46.0	5.3	0.4	23.2	78.2
Reversal of impairment losses	-12.2	-75.6	-0.2	-1.3	0.0	-89.3
As of 31/12/2017	2,184.0	13,687.8	8,986.4	1,278.5	24.0	26,160.7
<b>Carrying amounts</b>						
As of 31/12/2017	1,836.6	4,835.1	7,131.3	599.0	1,195.4	15,597.4

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
<b>Cost</b>						
As of 01/01/2016	3,894.6	17,161.0	13,955.5	1,564.3	1,044.2	37,619.6
Increase/decrease due to changes in the consolidated companies	2.1	22.3	1.3	1.5	0.8	28.0
Additions	59.3	1,291.4	459.6	61.3	442.8	2,314.4
Reclassifications	85.3	477.5	174.0	21.0	-768.8	-11.0
Reclassification to assets held for sale	-0.1	-3.4	-67.5	-0.2	-55.8	-127.0
Currency adjustments	0.1	2.6	0.2	0.1	0.1	3.1
Disposals	-20.6	-63.9	-91.6	-33.6	-6.6	-216.3
As of 31/12/2016	4,020.7	18,887.5	14,431.5	1,614.4	656.7	39,610.8
<b>Accumulated amortisation</b>						
As of 01/01/2016	1,993.7	12,499.3	8,450.1	1,165.0	3.4	24,111.5
Decrease due to changes in the consolidated companies	0.0	-0.2	0.0	-0.2	0.0	-0.4
Additions	63.8	381.1	309.8	81.2	0.0	835.9
Reclassifications	-3.7	22.6	-22.5	0.8	0.0	-2.8
Reclassification to assets held for sale	0.2	-1.2	-46.9	0.0	0.0	-47.9
Currency adjustments	0.0	1.8	0.1	0.1	0.0	2.0
Disposals	-15.0	-36.9	-66.8	-32.7	-2.1	-153.5
Impairment	171.3	1,199.1	2.4	12.4	0.6	1,385.8
Reversal of impairment losses	-0.7	-0.4	0.0	-0.6	0.0	-1.7
As of 31/12/2016	2,209.6	14,065.2	8,626.2	1,226.0	1.9	26,128.9
<b>Carrying amounts</b>						
As of 31/12/2016	1,811.1	4,822.3	5,805.3	388.4	654.8	13,481.9

Items of property, plant and equipment amounting to €71.9 million (previous year: €83.5 million) serve as collateral for liabilities to banks.

The land and buildings also include, amongst other things, similar rights and buildings on leasehold land. Other plant and equipment includes waste disposal plants, other technical plants as well as factory and office equipment.

The carrying amounts of property, plant and equipment include €15.3 million (previous year: €16.7 million) accounted for by finance lease agreements. These relate mainly to hydropower plants and natural gas caverns whose contractual term covers most of their useful life.

The Group's capital expenditures on intangible assets and property, plant and equipment totalling €1,419.2 million (previous year: €1,189.4 million) can be derived from the statement of changes in non-current assets as follows:

in € million	2017	2016
Additions to intangible assets and property, plant and equipment according to the statement of changes in non-current assets	1,413.5	2,371.3
Less additions to assets recognised under finance leases	-3.7	-1.6
Less additions to the provision recognised for the decommissioning and dismantling of property, plant and equipment	-23.7	-1,211.0
Plus additions to intangible assets and property, plant and equipment of assets held for sale	33.1	30.7
<b>Capital expenditure on intangible assets and property, plant and equipment</b>	<b>1,419.2</b>	<b>1,189.4</b>

## (12) Entities accounted for using the equity method

Both joint ventures and associates are accounted for using the equity method.

VNG-Verbundnetz Gas Aktiengesellschaft (VNG), with headquarters in Leipzig, was a joint venture of material significance to the EnBW consolidated financial statements due to the carrying amount of the investment. In the second quarter of 2016, EnBW acquired 74.21% of this company, which was fully consolidated in the EnBW Group due to gaining a majority on the Supervisory Board and obtaining control of the company from 18 May 2017.

The following tables show a summary of the financial information for VNG:

Earnings data	
in € million	2016
Revenue <sup>1</sup>	7,213.9
Scheduled amortisation and depreciation	-135.7
Interest and similar income	4.8
Interest and similar expenses	-21.8
Income taxes	39.4
Net loss for the year from continuing operations	-8.2
Other income	7.5
Total comprehensive income	-0.7
Dividends received	0.0

<sup>1</sup> Before netting of revenue and cost of materials.

**Balance sheet data**

in € million	31/12/2016
Non-current assets	3,014.8
Current assets	1,241.7
of which cash and cash equivalents	(51.8)
Non-current liabilities	1,414.7
of which financial liabilities	(330.5)
Current liabilities	1,195.3
of which financial liabilities	(147.4)
Net assets	1,646.5
Adjustment to EnBW's interest	-358.0
Carrying amount of entities accounted for using the equity method	1,288.5

The following table shows a summary of the financial information for the remaining entities accounted for using the equity method:

**Financial data (EnBW's interest)**

in € million	2017		2016	
	Associates	Joint ventures	Associates	Joint ventures
Carrying amount of entities accounted for using the equity method	621.2	767.4	319.1	228.0
Net profit/loss for the year from continuing operations	38.8	6.6	22.5	-12.1
Other income	-1.8	-15.7	-4.6	4.9
Total comprehensive income	37.0	-9.1	18.0	-7.1

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 2017.



**(13) Other financial assets**

in € million	Shares in affiliated entities	Other investments <sup>1,2</sup>	Non-current securities <sup>3</sup>	Investment properties	Loans	Total
<b>Cost</b>						
As of 01/01/2017	110.7	1,472.6	5,030.1	102.5	58.2	6,774.1
Increase/decrease due to changes in the consolidated companies	14.3	57.3	0.0	0.0	106.1	177.7
Additions	9.4	425.0	2,088.3	0.0	22.2	2,544.9
Reclassifications	0.0	0.3	-271.7	8.0	-12.9	-276.3
Reclassification to assets held for sale	6.6	0.0	0.0	0.0	0.0	6.6
Currency adjustments	0.0	-3.9	0.0	0.0	-1.1	-5.0
Disposals	-2.3	-186.3	-2,749.5	-3.0	-21.1	-2,962.2
As of 31/12/2017	138.7	1,765.0	4,097.2	107.5	151.4	6,259.8
<b>Accumulated amortisation</b>						
As of 01/01/2017	32.4	107.4	146.8	55.0	4.5	346.1
Additions	0.0	0.0	0.0	0.8	0.0	0.8
Impairment	1.8	8.0	3.8	0.6	0.6	14.8
Reclassifications	0.0	0.0	0.0	2.7	0.0	2.7
Currency adjustments	0.0	-0.8	0.0	0.0	0.0	-0.8
Disposals	0.0	-3.4	-83.4	-1.6	-0.8	-89.2
Reversal of impairment losses	0.0	0.0	0.0	-0.3	0.0	-0.3
As of 31/12/2017	34.2	111.2	67.2	57.2	4.3	274.1
<b>Carrying amounts</b>						
As of 31/12/2017	104.5	1,653.8	4,030.0	50.3	147.1	5,985.7

1 €122.1 million of the additions to acquisition costs and €10.9 million of the derecognition of acquisition costs originate from the market valuation.

2 The carrying amounts include €1,451.3 million accounted for by investments held as financial assets.

3 €246.6 million of the additions to acquisition costs and €43.6 million of the derecognition of acquisition costs originate from the market valuation.

in € million	Shares in affiliated entities	Other investments <sup>1,2</sup>	Non-current securities <sup>3</sup>	Investment properties	Loans	Total
<b>Cost</b>						
As of 01/01/2016	107.5	1,292.9	7,037.6	143.5	56.2	8,637.7
Decrease due to changes in the consolidated companies	-2.7	-0.6	0.0	0.0	0.0	-3.3
Additions	11.5	254.7	2,407.9	0.2	8.5	2,682.8
Reclassifications	-1.1	2.0	-999.3	8.7	-2.3	-992.0
Reclassification to assets held for sale	-1.7	0.0	0.0	-44.3	0.0	-46.0
Currency adjustments	0.0	0.4	0.0	0.0	0.1	0.5
Disposals	-2.8	-76.8	-3,416.1	-5.6	-4.3	-3,505.6
As of 31/12/2016	110.7	1,472.6	5,030.1	102.5	58.2	6,774.1
<b>Accumulated amortisation</b>						
As of 01/01/2016	32.4	103.8	116.2	74.6	1.4	328.4
Decrease due to changes in the consolidated companies	0.0	-0.6	0.0	0.0	0.0	-0.6
Additions	0.0	0.0	0.0	1.3	0.0	1.3
Impairment	0.0	4.1	133.3	1.1	3.1	141.6
Reclassifications	0.0	0.0	0.0	3.7	0.0	3.7
Reclassification to assets held for sale	0.0	0.0	0.0	-17.5	0.0	-17.5
Currency adjustments	0.0	0.1	0.0	0.0	0.0	0.1
Disposals	0.0	0.0	-102.7	-4.0	0.0	-106.7
Reversal of impairment losses	0.0	0.0	0.0	-4.2	0.0	-4.2
As of 31/12/2016	32.4	107.4	146.8	55.0	4.5	346.1
<b>Carrying amounts</b>						
As of 31/12/2016	78.3	1,365.2	4,883.3	47.5	53.7	6,428.0

1 €30.5 million of the additions to acquisition costs and €13.6 million of the derecognition of acquisition costs originate from the market valuation.

2 The carrying amounts include €1,236.2 million accounted for by investments held as financial assets.

3 €281.6 million of the additions to acquisition costs and €221.0 million of the derecognition of acquisition costs originate from the market valuation.

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 the operating business in the amount of €4.3 million (previous year: €42.5 million) and to cover the pension and nuclear provisions in the amount of €5,487.6 million (previous year restated: €6,096.4 million). From the loans, €136.5 million (previous year: €34.3 million) were allocated to capital employed.

The receivables from irredeemable operating leases of the EnBW Group amounting to €139.0 million (previous year: €134.1 million) are essentially the result of leasing commercial and residential property. As in the previous year, no contingent rent was recognised in the reporting period.

The minimum lease payments receivable are due as follows:

in € million	2017	2016
Due within 1 year	27.2	42.5
Due in 1 to 5 years	32.0	26.2
Due in more than 5 years	79.8	65.4
<b>Total</b>	<b>139.0</b>	<b>134.1</b>

The loans consist of loans to affiliated entities amounting to €13.9 million (previous year: €2.5 million), loans to entities accounted for using the equity method of €109.0 million (previous year: €18.3 million), loans to investments held as financial assets of €10.6 million (previous year: €19.4 million) and to operative investments allocated to capital employed of €6.5 million (previous year: €0.0 million) and other loans allocated to capital employed of €7.1 million (previous year: €13.5 million).

Impairment losses on financial assets are recorded on a separate allowance account and presented in the statement of changes in non-current assets.

#### (14) Trade receivables

in € million	31/12/2017			31/12/2016		
	Current	Non-current	Total	Current	Non-current	Total
Trade receivables	4,408.7	320.9	4,729.6	3,129.1	357.4	3,486.5
of which receivables from affiliated entities	(16.5)	(0.0)	(16.5)	(25.5)	(0.0)	(25.5)
of which receivables from other investees and investors	(65.6)	(0.0)	(65.6)	(45.2)	(0.0)	(45.2)
of which receivables from entities accounted for using the equity method	(28.2)	(0.0)	(28.2)	(26.5)	(0.0)	(26.5)

Non-current trade receivables principally include receivables relating to electricity supplies, whose term to maturity does not match the customary business cycle.

The movements in the provision for impairment of trade receivables break down as follows:

in € million	2017	2016
As of 01/01	105.8	83.4
Utilisation	-16.8	-25.8
Net additions	35.2	48.2
<b>As of 31/12</b>	<b>124.2</b>	<b>105.8</b>

The credit risks inherent in trade receivables are presented below:

in € million	31/12/2017	31/12/2016
Not past due and not impaired	4,333.9	3,434.3
Past due, but not impaired		
Due within 3 months	150.9	6.8
Due in between 3 and 6 months	4.7	5.1
Due in between 6 months and 1 year	24.9	5.3
Due in more than 1 year	11.9	10.8
Impaired	203.3	24.2
<b>Total</b>	<b>4,729.6</b>	<b>3,486.5</b>

There was no indication as of the reporting date that any impairment losses needed to be recognised on the trade receivables recorded as not impaired.

### (15) Other assets

in € million	31/12/2017			31/12/2016		
	Current	Non-current	Total	Current	Non-current	Total
Income tax refund claims	101.7	0.5	102.2	420.9	1.4	422.3
Other tax refund claims	122.8	0.0	122.8	81.7	0.0	81.7
Interest from tax refunds	4.6	0.0	4.6	98.5	0.0	98.5
Derivatives	1,936.8	292.2	2,229.0	1,456.1	242.4	1,698.5
of which without hedges	(1,917.2)	(188.3)	(2,105.5)	(1,377.5)	(129.2)	(1,506.7)
of which cash flow hedge	(17.4)	(12.2)	(29.6)	(78.6)	(4.7)	(83.3)
of which fair value hedge	(2.2)	(91.7)	(93.9)	(0.0)	(108.5)	(108.5)
Finance lease receivables	4.8	21.0	25.8	5.2	26.4	31.6
Payments on account	65.0	49.2	114.2	57.2	49.6	106.8
Active prepaid expenses	27.8	44.3	72.1	17.9	34.9	52.8
Miscellaneous assets	583.6	204.5	788.1	489.4	55.4	544.8
<b>Total</b>	<b>2,847.1</b>	<b>611.7</b>	<b>3,458.8</b>	<b>2,626.9</b>	<b>410.1</b>	<b>3,037.0</b>

Current and non-current income tax refund claims mainly include deductible tax on investment income from previous years.

The finance lease receivables arose from supply contracts for various forms of energy such as electricity, heat, cooling and compressed air, under which the economic ownership of the leased technical equipment and machinery is allocable to the lessee. The leases contain escalation clauses, as well as renewal and purchase price options.

The agreements are based on the following parameters and terms to maturity:

in € million	31/12/2017	31/12/2016
Total lease instalments	32.1	41.3
Interest portion of outstanding lease instalments	6.3	9.7
<b>Present value of outstanding lease instalments</b>	<b>25.8</b>	<b>31.6</b>

The outstanding lease instalments are due as follows:

in € million	31/12/2017		31/12/2016	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	6.0	5.1	7.2	5.6
Due in 1 to 5 years	14.0	10.6	18.5	13.4
Due in more than 5 years	12.1	10.1	15.6	12.6
<b>Total</b>	<b>32.1</b>	<b>25.8</b>	<b>41.3</b>	<b>31.6</b>

As in the previous year, no impairment losses or reversals of impairment losses had to be recognised on outstanding finance lease receivables.

Payments on account contain prepayments for electricity procurement agreements amounting to €49.9 million (previous year: €50.3 million).

Miscellaneous assets contain collateral for exchange-based and over-the-counter trading businesses amounting to €380.0 million (previous year: €287.2 million), as well as variation margins of €4.0 million (previous year: €38.3 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 €179.3 million (previous year: €33.4 million).

Bad debt allowances on other assets measured at amortised cost developed as follows:

in € million	2017	2016
As of 01/01	33.1	32.8
Utilisation	0.0	-0.8
Net additions	3.6	1.1
<b>As of 31/12</b>	<b>36.7</b>	<b>33.1</b>

The credit risks of financial instruments disclosed under other assets break down as follows:

in € million	31/12/2017	31/12/2016
Not past due and not impaired	2,860.8	2,238.8
Past due, but not impaired		
Due within 3 months	0.3	0.2
Due in between 3 and 6 months	0.1	0.1
Due in between 6 months and 1 year	0.1	0.0
Due in more than 1 year	0.2	0.2
Impaired	0.1	0.8
<b>Total</b>	<b>2,861.6</b>	<b>2,240.1</b>

There was no indication as of the reporting date that any impairment losses needed to be recognised on the other assets recorded as not impaired.

## (16) Financial assets

The profit participation rights, funds and shares mainly consist of fixed-income securities, while other current financial assets essentially include loans. The current financial assets are available to the operating business in the amount of €277.0 million (previous year restated: €320.7 million) and to cover the pension and nuclear provisions in the amount of €307.2 million (previous year: €2,060.0 million). From the loans allocated to the current financial assets, €3.9 million (previous year: €8.8 million) was assigned to capital employed.

in € million	31/12/2017	31/12/2016
Profit participation rights, funds and shares	377.0	2,295.6
Other current financial assets	211.1	93.9
<b>Total</b>	<b>588.1</b>	<b>2,389.5</b>

## (17) Cash and cash equivalents

Cash and cash equivalents relate primarily to bank deposits, largely in the form of time and day-to-day deposits. Cash and cash equivalents of €21.5 million (previous year: €0.1 million) are subject to restrictions on disposal.

Cash and cash equivalents are available to the operating business in the amount of €2,954.7 million (previous year: €2,264.3 million) and to cover pension and nuclear provisions in the amount of €258.6 million (previous year: €1,727.3 million).

## (18) 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 2017 (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 accounting.

### Retained earnings/loss of EnBW AG

Taking account of the loss carried forward amounting to €63.5 million (previous year: profit carried forward of €168.4 million) and the transfer to other revenue reserves amounting to €963.0 million (previous year: €0.0 million), retained earnings amounted to €963.2 million (previous year: retained loss of €63.5 million). We will propose to the Annual General Meeting that a dividend of €0.50 per share be distributed from the retained earnings of EnBW AG. Due to the retained loss of EnBW AG in the previous year, no dividends were distributed. As of 31 December 2017, a total of 270,855,027 shares (previous year: 270,855,027 shares) were entitled to dividends. If the Annual General Meeting approves this proposal, the total amount distributed by EnBW AG for the 2017 financial year will be €135.4 million.

The retained earnings (previous year: retained loss) of EnBW AG are disclosed under revenue reserves.

### Treasury shares

As of 31 December 2017, EnBW AG holds 5,749,677 (previous year: 5,749,677) 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 available-for-sale financial assets, 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 available-for-sale financial assets and of cash flow hedges, please refer to note (24) "Accounting for financial instruments".

Presentation of the components of other comprehensive income:

2017 in € million	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Available- for-sale financial assets	Entities accounted for using the equity method	Share- holders of EnBW AG	Non- controlling interests	Total
Unrealised changes in market value in the current period	81.2	39.5	-42.6	298.5	1.9	378.5	15.0	393.5
Reclassification adjustments included in the income statement	0.0	0.0	123.0	-196.9	-6.0	-79.9	-0.2	-80.1
Reclassification to cost of hedged items	0.0	0.0	-76.6	0.0	0.0	-76.6	0.0	-76.6
<b>Other comprehensive income before tax</b>	<b>81.2</b>	<b>39.5</b>	<b>3.8</b>	<b>101.6</b>	<b>-4.1</b>	<b>222.0</b>	<b>14.8</b>	<b>236.8</b>
Income tax	-13.5	-3.3	-15.3	-14.3	0.0	-46.4	-1.4	-47.8
<b>Other comprehensive income</b>	<b>67.7</b>	<b>36.2</b>	<b>-11.5</b>	<b>87.3</b>	<b>-4.1</b>	<b>175.6</b>	<b>13.4</b>	<b>189.0</b>

2016 in € million	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Available- for-sale financial assets	Entities accounted for using the equity method	Share- holders of EnBW AG	Non- controlling interests	Total
Unrealised changes in market value in the current period	-425.4	5.0	195.7	134.0	0.4	-90.3	6.3	-84.0
Reclassification adjustments included in the income statement	0.0	0.8	-11.2	58.8	-38.8	9.6	0.7	10.3
Reclassification to cost of hedged items	0.0	0.0	55.5	0.0	0.0	55.5	0.0	55.5
<b>Other comprehensive income before tax</b>	<b>-425.4</b>	<b>5.8</b>	<b>240.0</b>	<b>192.8</b>	<b>-38.4</b>	<b>-25.2</b>	<b>7.0</b>	<b>-18.2</b>
Income tax	123.5	0.4	-80.8	-22.8	0.0	20.3	-1.4	18.9
<b>Other comprehensive income</b>	<b>-301.9</b>	<b>6.2</b>	<b>159.2</b>	<b>170.0</b>	<b>-38.4</b>	<b>-4.9</b>	<b>5.6</b>	<b>0.7</b>

Presentation of the tax effects relating to unrealised gains and losses in equity:

in € million	2017			2016		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Revaluation of pensions and similar obligations	86.6	-14.7	71.9	-427.4	124.5	-302.9
Currency translation differences	46.0	-3.3	42.7	5.9	0.3	6.2
Cash flow hedge	-41.7	-24.7	-66.4	202.9	-76.6	126.3
Available-for-sale financial assets	300.7	-20.3	280.4	134.2	-43.1	91.1
Entities accounted for using the equity method	1.9	0.0	1.9	0.4	0.0	0.4
<b>Other comprehensive income</b>	<b>393.5</b>	<b>-63.0</b>	<b>330.5</b>	<b>-84.0</b>	<b>5.1</b>	<b>-78.9</b>



Presentation of the tax effects of reclassification adjustments included in the income statement and the cost of hedged items:

in € million	2017			2016		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Currency translation differences	0.0	0.0	0.0	1.1	0.1	1.2
Cash flow hedge	46.2	9.6	55.8	44.9	-6.6	38.3
Available-for-sale financial assets	-196.9	5.6	-191.3	58.6	20.3	78.9
Entities accounted for using the equity method	-6.0	0.0	-6.0	-38.8	0.0	-38.8
<b>Other comprehensive income</b>	<b>-156.7</b>	<b>15.2</b>	<b>-141.5</b>	<b>65.8</b>	<b>13.8</b>	<b>79.6</b>

### Non-controlling interests

Non-controlling interests are shares in Group companies held by third parties. They relate, in particular, to the Energiedienst group, VNG-Verbundnetz Gas Aktiengesellschaft, Stadtwerke Düsseldorf AG and Pražská energetika a.s., with their relevant subsidiaries and EnBW Baltic 2 S.C.S.

#### Financial information for subsidiaries where there is a significant influence without a controlling interest

in € million	2017				
	Energiedienst Holding AG	VNG-Verbundnetz Gas Aktiengesellschaft	Stadtwerke Düsseldorf AG	Pražská energetika a.s.	EnBW Baltic 2 S.C.S.
Capital share in %	33.33	25.79	45.05	30.16	49.89
Annual net profit from non-controlling interests	4.6	-7.5	41.2	28.2	47.8
Dividends paid	10.2	5.2	30.0	0.0	35.4
Carrying amount of non-controlling interests	386.8	406.8	377.1	280.6	733.2
<b>Balance sheet data</b>					
Non-current assets	1,496.2	2,760.7	1,388.2	1,136.3	1,428.1
Current assets	363.3	2,112.1	638.3	250.2	265.3
Non-current liabilities	490.9	1,215.8	770.9	256.6	120.4
Current liabilities	191.5	2,075.2	461.4	195.3	28.6
Funds from operations (FFO)	156.0	209.1	148.5	67.5	190.4
<b>Earnings data</b>					
Adjusted EBITDA	81.2	172.4	189.1	180.1	196.1

## Financial information for subsidiaries where there is a significant influence without a controlling interest

in € million	2016			
	Energiedienst Holding AG	Stadtwerke Düsseldorf AG	Pražská energetika a.s.	EnBW Baltic 2 S.C.S.
Capital share in %	33.33	45.05	30.16	49.89
Annual net profit from non-controlling interests	6.7	49.1	24.5	38.4
Dividends paid	10.6	21.6	19.2	2.4
Carrying amount of non-controlling interests	395.4	363.1	237.2	772.7
<b>Balance sheet data</b>				
Non-current assets	1,535.9	1,420.5	1,057.5	1,517.4
Current assets	378.2	554.4	96.5	259.2
Non-current liabilities	540.1	812.2	247.2	130.1
Current liabilities	177.3	399.7	116.2	23.2
Funds from operations (FFO)	161.3	167.1	80.7	167.8
<b>Earnings data</b>				
Adjusted EBITDA	92.8	213.5	167.7	174.3

## (19) Provisions

The provisions disclosed separately according to maturity in the balance sheet are combined for the purposes of disclosures in the notes to the financial statements.

in € million	31/12/2017			31/12/2016		
	Current	Non-current	Total	Current	Non-current	Total
Provisions for pensions and similar obligations	156.1	6,185.1	6,341.2	146.7	5,970.0	6,116.7
Provisions relating to nuclear power	614.8	5,187.9	5,802.7	5,277.2	5,694.8	10,972.0
Provisions for non-contractual nuclear obligations	(409.5)	(2,403.7)	(2,813.2)	(323.1)	(2,683.0)	(3,006.1)
Provisions for contractual nuclear obligations	(205.3)	(2,784.2)	(2,989.5)	(4,954.1)	(3,011.8)	(7,965.9)
Other provisions	827.8	1,751.5	2,579.3	636.3	1,347.1	1,983.4
Other dismantling obligations	(9.3)	(720.4)	(729.7)	(0.0)	(154.9)	(154.9)
Provisions for onerous contracts	(163.2)	(619.1)	(782.3)	(141.2)	(798.3)	(939.5)
Other electricity provisions	(269.7)	(0.0)	(269.7)	(186.8)	(10.8)	(197.6)
Personnel provisions	(119.4)	(151.2)	(270.6)	(122.5)	(135.2)	(257.7)
Miscellaneous provisions	(266.2)	(260.8)	(527.0)	(185.8)	(247.9)	(433.7)
<b>Total</b>	<b>1,598.7</b>	<b>13,124.5</b>	<b>14,723.2</b>	<b>6,060.2</b>	<b>13,011.9</b>	<b>19,072.1</b>

### 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 provisions for pensions and similar obligations as of 31 December 2017 was €5,612.9 million (previous year: €5,586.7 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. The related provisions amounted to €549.0 million (previous year: €496.6 million). For employees who joined the company from 1998 onwards, the pension commitment is based solely on a pension component system. In addition, the employees are granted energy-price reductions during the period in which they receive their pensions.

The pensioners and those with prospective pension entitlements are distributed as follows amongst the different post-employment provision schemes:

Number of employees	31/12/2017		31/12/2016	
	Staff with prospective pension entitlements	Pensioners	Staff with prospective pension entitlements	Pensioners
Closed systems dependent on final salary	8,143	13,599	8,507	13,450
Pension component systems	8,532	335	8,308	296

The commitments 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. These 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 commitments 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 shall be achieved with a minimum of risk. As of 31 December 2017, the dedicated financial assets for pension and nuclear provisions totalled approximately €6.2 billion (previous year restated: €9.9 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 flow of the post-employment provision scheme is as follows:

in € million	2017	2018 – 2022 <sup>1</sup>	2023 – 2027 <sup>1</sup>	2028 – 2032 <sup>1</sup>	2033 – 2037 <sup>1</sup>	2038 – 2042 <sup>1</sup>	2043 – 2047 <sup>1</sup>	2048 – 2052 <sup>1</sup>
Closed systems dependent on final salary	154.0	167.0	198.6	232.0	244.0	232.4	207.2	170.1
Pension component systems	1.8	1.9	4.6	10.6	20.6	30.9	42.4	54.7
<b>Total</b>	<b>155.8</b>	<b>168.9</b>	<b>203.2</b>	<b>242.6</b>	<b>264.6</b>	<b>263.3</b>	<b>249.6</b>	<b>224.8</b>

<sup>1</sup> Average values for five 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	31/12/2017		31/12/2016	
	Pension component systems	Closed post-retirement systems dependent on final salary	Pension component systems	Closed post-retirement systems dependent on final salary
Discount rate +/-0.5%	-89.5 / 107.2	-509.3 / 579.7	-80.9 / 97.1	-501.4 / 571.4
Salary trend +/-0.5%	19.1 / -17.6	146.4 / -128.8	14.8 / -13.8	130.5 / -114.7
Pension trend +/-0.5%	5.8 / -6.6	413.4 / -375.4	4.6 / -4.3	408.6 / -371.7
Life expectancy +/- 1 year	7.8 / -18.1	243.2 / -236.3	16.6 / -16.6	234.6 / -230.1

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 pension commitments at the Group's domestic companies are shown below:

in %	31/12/2017	31/12/2016
Actuarial interest rate	1.80	1.90
Future expected wage and salary increases	2.75	2.70
Future expected pension increase	1.90	1.90
Employee turnover	2.00	2.00

The calculations are based on the 2005 G mortality tables devised by Prof. Dr. Klaus Heubeck.

The expenses for pensions and similar obligations is comprised as follows:

in € million	2017	2016
Current service cost	122.6	110.8
Past service cost	0.0	-2.5
Interest income from plan assets	-19.2	-22.8
Interest costs	134.1	150.0
<b>Recording in the income statement</b>	<b>237.5</b>	<b>235.5</b>
Income from plan assets excluding interest income	-219.2	-53.1
Actuarial gains (-)/losses (+) from changes in demographic assumptions	0.0	-1.6
Actuarial gains (-)/losses (+) from changes in financial assumptions	117.8	463.3
Actuarial gains (-)/losses (+) from experience-based restatements	14.8	18.8
<b>Recording in the statement of comprehensive income</b>	<b>-86.6</b>	<b>427.4</b>
<b>Total</b>	<b>150.9</b>	<b>662.9</b>

The development of the pension provisions, categorised by the present value of the defined benefit commitment and the market value of the plan assets, is as follows:

in € million	31/12/2017	31/12/2016
Defined benefit obligation at the beginning of the financial year	7,221.8	6,738.8
Current service cost	122.6	110.8
Interest costs	134.1	150.0
Benefits paid	-259.1	-264.8
Actuarial gains (-)/losses (+)	132.6	480.5
Actuarial gains (-)/losses (+) from changes in demographic assumptions	(0.0)	(-1.6)
Actuarial gains (-)/losses (+) from changes in financial assumptions	(117.8)	(463.3)
Actuarial gains (-)/losses (+) from experience-based restatements	(14.8)	(18.8)
Past service cost	0.0	-2.5
Changes in the consolidated companies and currency adjustments	26.2	-1.5
Reclassifications	10.3	10.5
<b>Present value of the defined benefit obligation at the end of the financial year</b>	<b>7,388.5</b>	<b>7,221.8</b>
Fair market value of plan assets at the beginning of the financial year	1,138.5	1,113.8
Interest income	19.2	22.8
Appropriations to (+)/transfers from (-) plan assets <sup>1</sup>	-38.2	60.2
Benefits paid	-103.3	-112.4
Income from plan assets excluding interest income	219.2	53.1
Change in consolidated companies, currency adjustments and reclassifications	-8.8	1.0
<b>Fair market value of plan assets at the end of the financial year</b>	<b>1,226.6</b>	<b>1,138.5</b>
Surplus cover from benefit entitlements	179.3	33.4
<b>Provisions for pensions and similar obligations</b>	<b>6,341.2</b>	<b>6,116.7</b>

1 Applies almost exclusively to the employer's contributions.

Payments into the plan assets in the amount of €9.1 million (previous year: €8.6 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	31/12/2017	31/12/2016
Funded benefits	1,435.4	1,219.5
Full funding	(1,408.9)	(1,191.6)
Partial funding	(26.5)	(27.9)
Pension entitlements without asset funding	5,953.1	6,002.3

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	31/12/2017	31/12/2016
Present value of benefit obligations	7,388.5	7,221.8
Fair market value of plan assets	1,226.6	1,138.5
Plan surplus or deficit	6,161.9	6,083.3

The plan assets consist of the following asset classes:

in %	31/12/2017	31/12/2016
Shares	91.8	86.1
Share-based investment funds	0.4	0.0
Fixed-income funds	1.7	0.9
Fixed-income securities	6.1	7.7
Land and buildings	1.7	1.9
Current financial assets	1.0	0.9
Other	-2.7	2.5
	<b>100.0</b>	<b>100.0</b>

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 €262.7 million (previous year: €285.7 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 €15.0 million (previous year: €14.8 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 2017 amounted to €98.4 million (previous year: €93.0 million).

### Provisions relating to nuclear power

The provisions relating to nuclear power as of 31 December 2017 were formed for the conditioning and packaging of radioactive waste, as well as for the decommissioning and dismantling of the nuclear power plants. Before the Act for the Reorganisation of Responsibility in Nuclear Waste Management 2017, the provisions as of 31 December 2016 also covered the transport, intermediate storage and final storage of the waste.

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	31/12/2017	31/12/2016
<b>Remaining with EnBW</b>		
Remaining operation and post-operation	725.6	1,061.7
Dismantling including preparation	3,691.3	3,668.8
Treatment of residual material, packaging of radioactive waste	969.1	1,162.9
Other	416.7	320.7
	<b>5,802.7</b>	<b>6,214.1</b>
<b>Passing to disposal fund</b>		
Containers, transportation, waste, other	0.0	1,274.3
Intermediate storage	0.0	1,000.7
Konrad mine final storage facility	0.0	727.7
Final storage facility for highly radioactive waste	0.0	1,755.2
	<b>0.0</b>	<b>4,757.9</b>
<b>Total</b>	<b>5,802.7</b>	<b>10,972.0</b>

The remaining provisions relating to nuclear power are discounted at a risk-free interest rate of on average around 0.7% (previous year: 0.5%). A corresponding rate of increase of costs of around 1.7% (previous year: 1.4%) is applied. This results in a net interest (spread) of around -1.0% (previous year: -0.9%), which generally corresponds to the real interest rate. The change in the discount rate and the rate of increase of costs led overall to an increase in the remaining nuclear power provisions of €49.8 million (previous year: €1,081.5 million).

A reduction or increase of 0.1 percentage points in the real interest rate would increase the present value of the remaining provisions held by EnBW by €52.5 million (previous year: €41.3 million) or reduce them by €54.4 million (previous year: €55.5 million), respectively.

The nominal amount (without taking into account the effects of the discount rate and rate of increase of costs) of the remaining provisions held by EnBW was €5,295.0 million as of 31 December 2017 (previous year: €5,742.9 million).

The Act for the Reorganisation of Responsibility in Nuclear Waste Management reflects the recommendation made by the “Commission to examine the financing of the phase-out of nuclear power” (KFK) appointed by the German Federal Ministry for Economic Affairs and Energy in 2015. Accordingly, the responsibility for intermediate and final storage now lies in the hands of the government. The financial burden was borne by the companies through payment of the required cash funds into a “fund for the financing of nuclear waste management” (disposal fund). The operators of the nuclear power plants will continue to be responsible for the complete financing and management of the decommissioning, dismantling and specialist packaging of the radioactive waste. The government, which was already responsible for the implementation of the final storage, will now also be responsible for its financing as well as the implementation and financing of intermediate storage.

EnBW paid the basic amount including interest for the first half of 2017, and also the additional risk premium into the disposal fund on 3 July 2017. The immediate payment of the risk premium releases EnBW from the payment of any subsequent contributions. The due amount of €4,849.6 million was reclassified under other liabilities, of which €4,769.0 million was accounted for under operating cash flow and €80.6 million under interest paid for financing activities.

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 downwards by €18.1 million (previous year: adjusted upwards by €1,174.2 million). Changes in estimates relating to decommissioned power plants were recognised as 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 €369.5 million (previous year: €779.4 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, offshore production plants and wind and hydroelectric power plants.

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 CO<sub>2</sub> emission allowances.

Personnel provisions primarily concern obligations from phased retirement arrangements, long-service awards and restructuring measures.



The provisions developed as follows in the reporting year:

Provisions in € million	As of 01/01/2017	Increases	Reversals	Accretion	Changes recognised in equity	Changes in the consolidated companies, currency adjustments and reclassifications	Utilisation	As of 31/12/2017
Provisions for pensions and similar obligations	6,116.7	122.6	0.0	114.9	-86.6	229.4	155.8	6,341.2
Provisions relating to nuclear power <sup>1</sup>	10,972.0	195.3	174.2	28.3	-18.1	-4,856.3	344.3	5,802.7
Other provisions	1,983.4	537.3	151.7	9.2	-89.2	792.8	502.5	2,579.3
Other dismantling obligations	(154.9)	(0.2)	(0.8)	(6.9)	(-89.2)	(659.4)	(1.7)	(729.7)
Provisions for onerous contracts	(939.5)	(19.1)	(66.9)	(0.0)	(0.0)	(21.8)	(131.2)	(782.3)
Other electricity provisions	(197.6)	(254.3)	(7.1)	(0.3)	(0.0)	(-10.8)	(164.6)	(269.7)
Personnel provisions	(257.7)	(108.1)	(11.7)	(1.4)	(0.0)	(10.5)	(95.4)	(270.6)
Miscellaneous provisions	(433.7)	(155.6)	(65.2)	(0.6)	(0.0)	(111.9)	(109.6)	(527.0)
<b>Total</b>	<b>19,072.1</b>	<b>855.2</b>	<b>325.9</b>	<b>152.4</b>	<b>-193.9</b>	<b>-3,834.1</b>	<b>1,002.6</b>	<b>14,723.2</b>

<sup>1</sup> Utilisation breaks down into decommissioning and dismantling totalling €249.9 million, disposal of spent fuel rods totalling €90.5 million and waste totalling €3.9 million.

## (20) Deferred taxes

The deferred taxes on measurement differences compared to the tax accounts break down as follows:

in € million	31/12/2017		31/12/2016	
	Deferred tax assets <sup>1</sup>	Deferred tax liabilities <sup>1</sup>	Deferred tax assets <sup>1</sup>	Deferred tax liabilities <sup>1</sup>
Intangible assets	31.0	238.9	21.2	60.7
Property, plant and equipment	249.7	1,983.8	448.0	1,744.6
Financial assets	35.1	213.2	133.8	328.0
Other assets	78.3	22.8	8.6	33.1
Derivative financial instruments	0.7	68.3	0.0	53.3
<b>Non-current assets</b>	<b>394.8</b>	<b>2,527.0</b>	<b>611.6</b>	<b>2,219.7</b>
Inventories	55.9	18.8	49.9	9.0
Financial assets	0.0	12.9	0.0	56.8
Other assets	140.1	719.8	65.5	506.3
<b>Current assets</b>	<b>196.0</b>	<b>751.5</b>	<b>115.4</b>	<b>572.1</b>
Provisions	1,657.2	33.5	1,659.8	81.3
Liabilities and subsidies	312.2	66.9	230.2	89.6
<b>Non-current liabilities</b>	<b>1,969.4</b>	<b>100.4</b>	<b>1,890.0</b>	<b>170.9</b>
Provisions	300.4	78.6	368.5	6.0
Liabilities and subsidies	772.8	120.4	543.5	47.6
<b>Current liabilities</b>	<b>1,073.2</b>	<b>199.0</b>	<b>912.0</b>	<b>53.6</b>
Carryforwards of unused tax losses	101.5	0.0	103.4	0.0
<b>Deferred taxes before netting</b>	<b>3,734.9</b>	<b>3,577.9</b>	<b>3,632.4</b>	<b>3,016.3</b>
Netting	-2,778.5	-2,778.5	-2,363.5	-2,363.5
<b>Deferred taxes after netting</b>	<b>956.4</b>	<b>799.4</b>	<b>1,268.9</b>	<b>652.8</b>

1 Deferred tax assets and liabilities prior to netting.

In the 2017 financial year, €2,778.5 million (previous year: €2,363.5 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 €45.1 million (previous year: €54.0 million negative balance) is taken into account.

In addition, deferred tax assets on measurement differences compared to the tax accounts contain €2.3 million (previous year: €4.3 million) in non-current financial assets, €719.1 million (previous year: €734.1 million) in non-current provisions and €48.1 million (previous year: €43.7 million) in current liabilities and subsidies that were offset against equity.

The deferred tax liabilities on measurement differences compared to the tax accounts contain €84.0 million (previous year: €71.4 million) in non-current financial assets and €38.0 million (previous year: €15.4 million) in current financial assets that were offset against equity.

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	31/12/2017		31/12/2016	
	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	117.6	161.6	118.7	171.3
Deferred taxes on the non-valued carryforwards of unused tax losses that would theoretically have to be formed	18.6	21.9	18.8	22.6
Unlimited ability to carry forward the existing unused tax losses for which deferred tax assets were formed <sup>1</sup>	281.8	30.5	432.7	269.7

1 Almost exclusively concern German companies.

According to the Tax Privilege Reduction Act, from 2004 onwards only 60% of current taxable income exceeding €1 million can be offset against carryforwards of unused tax losses. Carryforwards of unused tax losses reduced the actual tax burden by €238.0 million (previous year: €28.2 million).

The deferred taxes on carryforwards of unused tax losses break down as follows:

in € million	31/12/2017	31/12/2016
Corporate income tax (or comparable foreign tax)	97.5	68.1
Trade tax	4.0	35.3
<b>Total</b>	<b>101.5</b>	<b>103.4</b>

Presentation of the development of deferred taxes on carryforwards of unused tax losses:

in € million	31/12/2017	31/12/2016
Opening balance	103.4	31.9
Utilisation of tax losses	-96.3	-2.9
Correction of unrecognised carryforwards of unused tax losses in previous years (addition)	3.3	74.8
Origination of tax losses (addition)	19.9	1.8
Additions to consolidated companies	71.2	0.0
Write-downs	0.0	-2.2
<b>Closing balance</b>	<b>101.5</b>	<b>103.4</b>

In the previous year, the earlier adjustments of and non-recognition of deferred tax assets on carryforwards of unused tax losses and deductible temporary differences of €183.2 million were reversed or withdrawn.

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 €10.7 million (previous year: €8.5 million) in connection with shares in subsidiaries because it is not likely that these temporary differences will reverse in the foreseeable future.

Deferred tax assets totalling €647.5 million (previous year: €695.3 million in deferred tax assets) were offset directly against equity under other comprehensive income as of 31 December 2017.

## (21) Liabilities and subsidies

### Financial liabilities

Breakdown of financial liabilities as of 31 December 2017 compared to the previous year:

in € million <sup>1</sup>	31/12/2017			31/12/2016		
	Current	Non-current	Total	Current	Non-current	Total
Hybrid bonds	0.0	1,959.5	1,959.5	999.9	1,989.9	2,989.8
Bonds	835.5	2,139.3	2,974.8	0.0	3,018.3	3,018.3
Liabilities to banks	381.3	1,324.3	1,705.6	121.4	1,334.1	1,455.5
Other financial liabilities	90.0	528.9	618.9	87.4	377.9	465.3
<b>Financial liabilities</b>	<b>1,306.8</b>	<b>5,952.0</b>	<b>7,258.8</b>	<b>1,208.7</b>	<b>6,720.2</b>	<b>7,928.9</b>

1 Please refer to note [24] "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

Of the non-current financial liabilities, €2,829.4 million (previous year: €2,568.5 million) have a term of between one year and five years, and €3,122.6 million (previous year: €4,151.7 million) have a term of more than five years.

### Overview of the hybrid bonds

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
EnBW AG <sup>1</sup>	€1,000 million	€992.9 million	3.625%	02/04/2076
EnBW AG <sup>2</sup>	€725 million	€717.9 million	3.375%	05/04/2077
EnBW AG <sup>2</sup>	US-\$ 300 million	€248.7 million	3.003% <sup>3</sup>	05/04/2077
		<b>€1,959.5 million</b>		

1 Repayment option for EnBW every five years after the first interest payment date; the earliest possible date is 02/04/2021.

2 Repayment option for EnBW every five years after the first interest payment date; the earliest possible date is 05/04/2022.

3 After the swap into euro.

In February 2017, EnBW exercised the call option on its hybrid bond issued in 2011 and increased in 2012 as of the first call date. The repayment of the security with a total volume of €1.0 billion was carried out on 3 April 2017.

All outstanding hybrid bonds include early repayment 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.

**An overview of our senior bonds**

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
Public bonds				
EnBW International Finance B.V.	CHF 100 million	€86.0 million <sup>1</sup>	1.250%	12/07/2018
EnBW International Finance B.V.	€750 million	€749.5 million	6.875%	20/11/2018
EnBW International Finance B.V.	CHF 100 million	€85.2 million	2.250%	12/07/2023
EnBW International Finance B.V.	€500 million	€571.0 million <sup>1</sup>	4.875%	16/01/2025
EnBW International Finance B.V.	€500 million	€498.5 million	2.500%	04/06/2026
EnBW International Finance B.V.	€600 million	€589.5 million	6.125%	07/07/2039
Private placements				
EnBW International Finance B.V.	€100 million	€98.3 million	2.875%	13/06/2034
EnBW International Finance B.V.	JPY 20 billion	€148.1 million	5.460% <sup>2</sup>	16/12/2038
EnBW International Finance B.V.	€100 million	€99.2 million	3.080%	16/06/2039
EnBW International Finance B.V.	€50 million	€49.5 million	2.900%	01/08/2044
		<b>€2,974.8 million</b>		

<sup>1</sup> Adjusted for valuation effects from interest-induced hedging transactions.

<sup>2</sup> After the swap into euro.

No senior bonds were due for repayment in 2017.

**Commercial paper programme**

As of the reporting date, no funds had been drawn under the commercial paper programme set up by EnBW and the EnBW International Finance B.V. for short-term financing purposes, as in the previous year.

**Liabilities to banks**

Liabilities to banks increased in the 2017 financial year, mainly due to the first-time consolidation of VNG. This was offset 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) was extended for the last time in the previous year and has a term until July 2021. The credit line remained unused as of 31 December 2017.

In addition, a further €1.4 billion (previous year: €348 million) in bilateral free credit lines was available within the Group. This increase was primarily due to the first-time consolidation of VNG. These credit lines are not subject to any restrictions as regards their utilisation.

The liabilities to banks are not collateralised with real estate liens as in the previous year. Liabilities to banks to the amount of €123.8 million are collateralised with other types of security (previous year: €128.5 million).

**Other financial liabilities**

The item "other financial liabilities" primarily includes long-term promissory notes from subsidiaries and long-term finance lease agreements. The increase in the 2017 financial year was primarily attributable to the first-time consolidation of VNG.

The minimum payments from finance leases included in other financial liabilities have the following maturities:

in € million	31/12/2017		31/12/2016	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	9.4	3.5	3.1	1.4
Due in 1 to 5 years	33.8	10.6	10.9	4.3
Due in more than 5 years	169.7	89.6	49.2	27.2
<b>Total</b>	<b>212.9</b>	<b>103.7</b>	<b>63.2</b>	<b>32.9</b>

#### Development of the financial liabilities included in the cash flow from financing activities

Financial liabilities included in the cash flow from financing activities item in the cash flow statement can be reconciled as follows:

in € million	01/01/2017	Cash-relevant changes	Non-cash-relevant changes					31/12/2017
			Changes in the group of consolidated companies	Currency effects	Fair value	Accrued interest	Other changes	
Hybrid bonds	2,989.8	-1,000.0	0.0	-34.2	0.0	0.0	3.9	1,959.5
Bonds	3,018.3	0.0	0.0	-29.2	-15.8	0.0	1.5	2,974.8
Liabilities to banks	1,455.5	36.4	201.3	5.6	-0.7	5.0	2.5	1,705.6
Other financial liabilities	465.3	-23.4	182.6	-6.2	0.4	0.8	-0.6	618.9
<b>Financial liabilities<sup>1</sup></b>	<b>7,928.9</b>	<b>-987.0</b>	<b>383.9</b>	<b>-64.0</b>	<b>-16.1</b>	<b>5.8</b>	<b>7.3</b>	<b>7,258.8</b>
Other liabilities (interest on bonds)	151.4	-271.8	0.0	0.0	0.0	235.1	0.0	114.7
<b>Total</b>	<b>8,080.3</b>	<b>-1,258.8</b>	<b>383.9</b>	<b>-64.0</b>	<b>-16.1</b>	<b>240.9</b>	<b>7.3</b>	<b>7,373.5</b>

1 The cash-relevant changes include €9.5 million from interest payments.

### 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	31/12/2017	31/12/2016
Non-current liabilities	704.4	508.5
Current liabilities	8,030.4	5,788.8
<b>Liabilities</b>	<b>8,734.8</b>	<b>6,297.3</b>
Non-current subsidies	1,339.4	1,278.6
Current subsidies	66.4	65.4
<b>Subsidies</b>	<b>1,405.8</b>	<b>1,344.0</b>
Non-current liabilities and subsidies	2,043.8	1,787.1
Current liabilities and subsidies	8,096.8	5,854.2
<b>Liabilities and subsidies</b>	<b>10,140.6</b>	<b>7,641.3</b>

Other liabilities as of 31 December 2017 break down as follows compared to the previous year:

in € million <sup>1</sup>	31/12/2017			31/12/2016		
	Current	Non-current	Total	Current	Non-current	Total
Payments received on account	61.3	29.3	90.6	106.6	33.0	139.6
Trade payables	4,838.1	0.5	4,838.6	3,193.0	0.4	3,193.4
of which liabilities to affiliated entities	(22.3)	(0.0)	(22.3)	(7.7)	(0.0)	(7.7)
of which liabilities to other investees and investors	(62.4)	(0.0)	(62.4)	(57.4)	(0.0)	(57.4)
of which liabilities to entities accounted for using the equity method	(58.0)	(0.0)	(58.0)	(43.9)	(0.0)	(43.9)
Other deferred income	27.2	176.9	204.1	25.0	214.5	239.5
Liabilities from derivatives	2,017.1	249.3	2,266.4	1,482.8	76.6	1,559.4
of which without hedges	(1,985.3)	(185.6)	(2,170.9)	(1,458.3)	(61.6)	(1,519.9)
of which cash flow hedge	(31.8)	(63.7)	(95.5)	(24.5)	(15.0)	(39.5)
Income tax liabilities	176.0	146.1	322.1	111.9	78.2	190.1
Miscellaneous liabilities	910.7	102.3	1,013.0	869.5	105.8	975.3
of which interest from back taxes	(0.8)	(0.0)	(0.8)	(3.0)	(0.0)	(3.0)
of which from other taxes	(154.2)	(0.0)	(154.2)	(117.5)	(0.0)	(117.5)
of which relating to social security	(15.5)	(0.1)	(15.6)	(15.2)	(5.9)	(21.1)
<b>Other liabilities</b>	<b>8,030.4</b>	<b>704.4</b>	<b>8,734.8</b>	<b>5,788.8</b>	<b>508.5</b>	<b>6,297.3</b>

<sup>1</sup> Please refer to note [24] "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

Of the other non-current liabilities, €577.5 million (previous year: €392.5 million) has a remaining term of between one year and five years, and €126.9 million (previous year: €116.0 million) has a remaining term of more than five years.

Trade payables include obligations for outstanding invoices amounting to €1,132.4 million (previous year: €1,065.4 million).

Miscellaneous liabilities mainly concern collateral for over-the-counter trading business (margin calls received) amounting to €172.9 million (previous year: €224.5 million), as well as exchange-based trading business (variation margins) of €60.1 million (previous year: €35.7 million), interest obligations from bonds amounting to €114.7 million (previous year: €151.4 million) and non-controlling interests in fully consolidated partnerships recorded as liabilities to the amount of €77.8 million (previous year: €78.9 million).

Subsidies mainly include construction and investment cost subsidies.

in € million	31/12/2017	31/12/2016
Investment cost subsidies	8.5	10.8
Other subsidies from public authorities	13.7	11.8
Construction cost subsidies	1,383.6	1,321.4
<b>Total</b>	<b>1,405.8</b>	<b>1,344.0</b>

The construction cost subsidies which have not yet been recognised in profit or loss were largely granted for investments in the electricity and gas sectors; the title to the subsidised assets is retained by the EnBW Group companies. The subsidies are released over the estimated useful life of the subsidised assets.

## (22) Assets held for sale and liabilities directly associated with assets classified as held for sale

### Assets held for sale

in € million	31/12/2017	31/12/2016
Intangible assets	0.0	29.9
Property, plant and equipment	3.0	109.2
Other financial assets	0.0	33.4
Other assets	0.0	0.5
<b>Total</b>	<b>3.0</b>	<b>173.0</b>

### Liabilities directly associated with assets classified as held for sale

in € million	31/12/2017	31/12/2016
Other liabilities and subsidies	0.0	24.0
<b>Total</b>	<b>0.0</b>	<b>24.0</b>

The property, plant and equipment held for sale in the reporting year refers mainly to pieces of land and buildings held for sale. This is allocated in the segment reporting under Other/Consolidation.

In the previous year, intangible assets and property, plant and equipment held for sale mainly comprised the EnBW Hohe See GmbH & Co. KG offshore wind farm, the sale of shares in which led to a loss of economic control at the beginning of 2017. In addition, property, plant and equipment held for sale included distribution facilities connected with franchise losses. This was allocated in the segment reporting under Renewable Energies and Grids. Other financial assets held for sale in the previous year referred particularly to a piece of land and building held for sale as part of our divestiture strategy. This was allocated in the segment reporting under Other/Consolidation.

Other liabilities and subsidies in connection with the assets held for sale in the previous year referred mainly to current trade payables and construction cost subsidies.



## Other disclosures

### (23) 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		2017	2016
Earnings from continuing operations	in € million	2,176.3	-1,672.5
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(2,054.1)	(-1,797.2)
Group net profit/loss	in € million	2,176.3	-1,672.5
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(2,054.1)	(-1,797.2)
Number of shares outstanding (weighted average)	thousands	270,855	270,855
Earnings per share from continuing operations <sup>1</sup>	in €	7.58	-6.64
Earnings per share from Group net profit/loss (€) <sup>1</sup>	in €	7.58	-6.64
Proposed dividend per share for the EnBW AG 2017 financial year	in €	0.50	-

<sup>1</sup> In relation to the profit/loss attributable to the shareholders of EnBW AG.

### (24) 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 it is not indicated separately, the fair value is measured recurrently.

31/12/2017	Hierarchy of input data				Measured at amortised cost	Not in IFRS 7's field of application	Carrying amount
in € million	Fair value	Level 1	Level 2	Level 3			
Financial assets	6,523.5	450.7	3,664.4	1,576.5	831.9	50.3	6,573.8
Held for trading	(57.3)	(57.3)					(57.3)
Available for sale	(6,108.0)	(393.4)	(3,664.4)	(1,576.5)	(473.7)		(6,108.0)
Loans and receivables	(358.2)				(358.2)		(358.2)
Trade receivables	4,729.6				4,729.6		4,729.6
Loans and receivables	(4,729.6)				(4,729.6)		(4,729.6)
Other assets	2,861.6	389.2	1,839.8		632.6	597.2	3,458.8
Held for trading <sup>1</sup>	(2,105.5)	(371.4)	(1,734.1)				(2,105.5)
Loans and receivables	(606.8)				(606.8)		(606.8)
Derivatives in hedge accounting	(123.5)	(17.8)	(105.7)				(123.5)
Carrying amount in accordance with IAS 17	(25.8)				(25.8)		(25.8)
Cash and cash equivalents	3,213.3				3,213.3		3,213.3
Loans and receivables	(3,213.3)				(3,213.3)		(3,213.3)
Assets held for sale <sup>2</sup>						3.0	3.0
<b>Total assets</b>	<b>17,328.0</b>	<b>839.9</b>	<b>5,504.2</b>	<b>1,576.5</b>	<b>9,407.4</b>	<b>650.5</b>	<b>17,978.5</b>
Financial liabilities	8,145.9				7,258.8		7,258.8
Measured at amortised cost <sup>3</sup>	(8,042.2)				(7,155.1)		(7,155.1)
Carrying amount in accordance with IAS 17	(103.7)				(103.7)		(103.7)
Trade payables	747.2				747.2	4,090.9	4,838.1
Measured at amortised cost	(747.2)				(747.2)		(747.2)
Other liabilities and subsidies	2,799.9	439.7	1,826.7		533.5	2,502.6	5,302.5
Held for trading	(2,170.9)	(439.7)	(1,731.2)				(2,170.9)
Measured at amortised cost	(533.5)				(533.5)		(533.5)
Derivatives in hedge accounting	(95.5)		(95.5)				(95.5)
<b>Total liabilities</b>	<b>11,693.0</b>	<b>439.7</b>	<b>1,826.7</b>	<b>0.0</b>	<b>8,539.5</b>	<b>6,593.5</b>	<b>17,399.4</b>

1 Of which €1.6 million measured at fair value through profit or loss when reported for the first time.

2 This refers to a non-recurring measurement of the fair value due to the application of IFRS 5.

3 Of the financial liabilities measured at amortised cost, an amount of €459.7 million is part of fair value hedges.

31/12/2016 <sup>1</sup>	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	8,770.0	4,901.7	1,985.3	891.1	991.9	47.5	8,817.5
Held for trading	(59.4)	(59.4)					(59.4)
Available for sale	(8,563.0)	(4,842.3)	(1,985.3)	(891.1)	(844.3)		(8,563.0)
Loans and receivables	(147.6)				(147.6)		(147.6)
Trade receivables	3,486.5				3,486.5		3,486.5
Loans and receivables	(3,486.5)				(3,486.5)		(3,486.5)
Other assets	2,240.1	2.4	1,696.1		541.6	796.9	3,037.0
Held for trading <sup>2</sup>	(1,506.7)	(0.2)	(1,506.5)				(1,506.7)
Loans and receivables	(510.0)				(510.0)		(510.0)
Derivatives in hedge accounting	(191.8)	(2.2)	(189.6)				(191.8)
Carrying amount in accordance with IAS 17	(31.6)				(31.6)		(31.6)
Cash and cash equivalents	3,991.6				3,991.6		3,991.6
Loans and receivables	(3,991.6)				(3,991.6)		(3,991.6)
Assets held for sale <sup>3</sup>	6.6				6.6	166.4	173.0
<b>Total assets</b>	<b>18,494.8</b>	<b>4,904.1</b>	<b>3,681.4</b>	<b>891.1</b>	<b>9,018.2</b>	<b>1,010.8</b>	<b>19,505.6</b>
Financial liabilities	8,708.0				7,928.9		7,928.9
Measured at amortised cost <sup>4</sup>	(8,675.1)				(7,896.0)		(7,896.0)
Carrying amount in accordance with IAS 17	(32.9)				(32.9)		(32.9)
Trade payables	516.5				516.5	2,676.5	3,193.0
Measured at amortised cost	(516.5)				(516.5)		(516.5)
Other liabilities and subsidiaries	2,150.6	0.2	1,559.2		591.2	2,297.7	4,448.3
Held for trading	(1,519.9)	(0.1)	(1,519.8)				(1,519.9)
Measured at amortised cost	(591.2)				(591.2)		(591.2)
Derivatives in hedge accounting	(39.5)	(0.1)	(39.4)				(39.5)
Liabilities directly associated with assets classified as held for sale	15.3				15.3	8.7	24.0
<b>Total liabilities</b>	<b>11,390.4</b>	<b>0.2</b>	<b>1,559.2</b>	<b>0.0</b>	<b>9,051.9</b>	<b>4,982.9</b>	<b>15,594.2</b>

1 The figures for the previous year have been restated.

2 Of which €8.1 million measured at fair value through profit or loss when reported for the first time.

3 This refers to a non-recurring measurement of the fair value due to the application of IFRS 5.

4 Of the financial liabilities measured at amortised cost, an amount of €483.1 million is part of fair value hedges.

Calculation of the 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 different allocations to the respective levels.

The fair value of the assets in the “held for trading” measurement category amounts to €2,162.8 million (previous year: €1,566.1 million), of which €428.7 million is allocated to the first hierarchical level (previous year: €59.6 million), and €1,734.1 million to the second hierarchical level (previous year: €1,506.5 million). This includes financial instruments of €1.6 million (previous year: €8.1 million) that were allocated to this category when reported for the first time. The assets of the “available for sale” measurement category have a fair value totalling €6,108.0 million (previous year restated: €8,569.6 million), of which €393.4 million is allocated to the first hierarchical level (previous year restated: €4,842.3 million), €3,664.4 million to the second hierarchical level (previous year: €1,985.3 million), €1,576.5 million to the third hierarchical level (previous year restated: €891.1 million) and €473.7 million to “measured at amortised cost” (previous year: €850.9 million). Assets classified as “loans and receivables” are measured at amortised cost and amount to €8,907.9 million (previous year: €8,135.7 million). Equity instruments measured at cost had a carrying amount of €473.7 million as of the reporting date (previous year: €850.9 million).

In the previous year, a total of €970.0 million was reclassified from the category “held to maturity” to the category “available for sale” due to the termination of the holding intent. The securities are allocated to hierarchical Level 1.

The financial instruments allocated to the “held for trading” measurement category when reported for the first time comprise securities containing embedded derivatives which cannot be separated. The maximum credit risk amounts to €1.6 million (previous year: €8.1 million). The evaluation is carried out at market rates.

As of 31 December 2017, equity instruments in the “available for sale” category previously measured at amortised cost of €537.6 million were reclassified to Level 3 and measured at fair value for the first time in the reporting year, because the measurement factors that previously precluded the fair value to be reliably determined no longer exist. In order to determine the fair value, a Level 3 measurement method is used as no prices listed in active markets are available. The measurement is made on the basis of the net asset value. The difference between the carrying amount and the fair value was recognised directly in other comprehensive income. The equity instruments allocated to Level 3 are investments in private equity companies.

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 <sup>1</sup>	As of 01/01/2017	Changes in consolidated companies, currency adjustments, other	Changes recognised in profit or loss	Changes recognised in equity	Additions	Disposals	As of 31/12/2017
Financial assets	1,316.9	42.1	-1.7	115.8	259.3	-155.9	1,576.5

<sup>1</sup> The figures for the previous year have been restated.

In the financial year, gains from Level 3 financial instruments were recognised in the investment result in the amount of €65.3 million (previous year restated: €39.9 million), of which €65.3 million (previous year restated: €22.3 million) is accounted for by financial instruments still held on the reporting date.

Financial liabilities as of 31 December 2017 include bonds with a fair value of €5,813.1 million (previous year: €6,768.6 million) and liabilities to banks with a fair value of €1,714.1 million (previous year: €1,474.2 million). The fair value of the bonds and of the liabilities to banks must be allocated to hierarchical Level 1 and 2, respectively.

#### 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 agreements (International Swaps and Derivatives Association). Transactions concluded as part of commodity transactions are generally subject to EFET agreements (European Federation of Energy Traders). 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.

31/12/2017				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Other assets	2,941.1	-229.5	2,711.6	-2,192.8	-171.1	347.7
Held for trading	(2,679.9)	(-56.4)	(2,623.5)	(-2,140.4)	(-171.1)	(312.0)
Loans and receivables	(73.2)	(0.0)	(73.2)	(-48.6)	(0.0)	(24.6)
Derivatives in hedge accounting	(188.0)	(-173.1)	(14.9)	(-3.8)	(0.0)	(11.1)
Other liabilities and subsidies	3,021.3	-217.6	2,803.7	-2,192.8	-325.6	285.3
Held for trading	(2,790.0)	(-74.8)	(2,715.2)	(-2,140.4)	(-312.4)	(262.4)
Measured at amortised cost	(66.6)	(0.0)	(66.6)	(-48.6)	(0.0)	(18.0)
Derivatives in hedge accounting	(164.7)	(-142.8)	(21.9)	(-3.8)	(-13.2)	(4.9)

31/12/2016				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Other assets	1,845.2	-95.0	1,750.2	-1,254.6	-223.9	271.7
Held for trading	(1,719.6)	(-40.9)	(1,678.7)	(-1,241.7)	(-223.9)	(213.1)
Derivatives in hedge accounting	(125.6)	(-54.1)	(71.5)	(-12.9)	(0.0)	(58.6)
Other liabilities and subsidies	1,676.5	-136.3	1,540.2	-1,254.6	-258.3	27.3
Held for trading	(1,543.5)	(-20.1)	(1,523.4)	(-1,241.7)	(-254.4)	(27.3)
Derivatives in hedge accounting	(133.0)	(-116.2)	(16.8)	(-12.9)	(-3.9)	(0.0)

The following net gains/losses were presented in the income statement:

#### Net gains or losses by measurement category

in € million	2017	2016
Financial assets and liabilities held for trading	53.1	-50.2
Available-for-sale financial assets	147.7	-25.4
Loans and receivables	-92.1	-64.6
Financial liabilities measured at amortised cost	-0.7	0.0

The presentation of net gains and losses does not include derivatives that are used as hedging instruments. Stand-alone derivatives are included in the “financial assets and liabilities held for trading” measurement category. Please refer to note (8) “Financial result” for information on the total interest income and expenses arising from assets available for sale, loans and receivables, as well as financial liabilities measured at amortised cost.

The net gain (previous year: net loss) posted in the “financial assets and liabilities held for trading” measurement category includes gains from marking to market and gains on sale, as well as interest and currency effects.

As in the previous year, the net gain (previous year: net loss) recorded in the “available-for-sale financial assets” measurement category includes gains on sale as well as valuation allowances.

As in the previous year, the net loss recorded in the “loans and receivables” measurement category arises from the valuation allowances and the negative currency effects, which are higher than the write-ups.

In the reporting year, the net loss on financial liabilities measured at amortised cost was attributable primarily to credit fees.

Earnings from changes in the market value of available-for-sale financial assets were recognised directly in equity in the amount of €300.7 million in the 2017 financial year (previous year: €134.2 million). Of the changes in market values posted with no impact on income, €196.9 million was transferred with a positive earnings impact (previous year: €58.6 million with a negative earnings impact) to the income statement.

The valuation allowances on financial assets in the “available for sale” and “loans and receivables” measurement categories amount to €13.6 million (previous year: €137.4 million) and €0.6 million (previous year: €3.1 million), respectively. In the 2017 financial year, impairment losses were recognised on trade receivables amounting to €42.7 million (previous year: €47.1 million) and on other assets, measured at amortised cost, totalling €4.6 million (previous year: €1.7 million). As of 31 December 2017, valuation allowances on financial assets, trade receivables and other assets totalled €165.2 million (previous year: €143.4 million).

### 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 IAS 39 is applied in the finance area mainly for currency hedges for investments with a foreign functional currency and for interest rate hedges for non-current liabilities. In the commodity area, fluctuations of future cash flows from forecast procurement and sales transactions are hedged.

**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 2017 income statement**

in € million	Fair value	2018	2019 – 2022	>2022
Currency-related cash flow hedges	-82.5	-8.4	-26.9	-47.2
Commodity cash flow hedges	40.7	81.5	-40.8	0.0
Interest-related cash flow hedges	2.5	0.0	0.0	2.5
Other derivative cash flow hedges	3.7	0.1	3.6	0.0

**Date of the reclassification of the result that was directly recognised in equity to the 2016 income statement**

in € million	Fair value	2017	2018 – 2021	>2021
Currency-related cash flow hedges	39.8	38.8	16.6	-15.6
Commodity cash flow hedges	-55.0	20.4	-75.4	0.0
Interest-related cash flow hedges	0.7	0.0	0.0	0.7
Other derivative cash flow hedges	-3.8	-6.4	2.6	0.0

As of 31 December 2017, unrealised losses from derivatives amounted to €106.7 million (previous year: €111.2 million). The effective portion of the cash flow hedges amounting to €41.6 million (previous year: €-203.4 million) was recognised directly in equity in the reporting period. From the ineffective portion of the cash flow hedges in 2017, there arose expenses of €1.1 million (previous year: income in the amount of €4.6 million) and expenses from reclassifications from other comprehensive income in the amount of €123.0 million (previous year: income in the amount of €11.2 million) to the income statement. The reclassifications were made to revenue (decrease of €58.3 million, previous year: increase of €66.4 million), cost of materials (increase of €20.6 million, previous year: €74.4 million) and the financial result (decrease of €44.1 million, previous year: increase of €25.7 million). Moreover, the amounts reclassified in the previous year also included expenses as a result of the de-designation of cash flow hedges amounting to €6.5 million. An amount of €76.6 million was reclassified from inventories (previous year: €55.5 million reclassified to inventories) to other comprehensive income. This led to a decrease (previous year: increase) in acquisition costs.

As of 31 December 2017, existing hedged transactions that are covered by cash flow hedges with terms of up to around 59 years (previous year: up to 60 years) are included in the foreign currencies section. In the commodity area, the terms of planned underlying transactions are generally up to four years (previous year: up to four years).

For optimisation purposes, hedging relationships are redesignated and de-designated 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 for an exposure are measured at fair value through profit or loss. The change of €15.9 million in the fair value of hedging instruments was recognised in the income statement with a negative impact on earnings in the reporting period (previous year: €0.8 million with a positive impact on earnings). For hedged liabilities, the fluctuation in market values arising from the hedged risk was also recognised in profit or loss. In the reporting year, the fluctuations in market values totalling €15.8 million that resulted from the underlying transactions were measured through profit or loss with a positive impact on earnings (previous year: €0.8 million with a negative impact on earnings).

**Hedges of net investments in foreign operations:** Primary foreign currency bonds are used to hedge against foreign exchange risks from investments with a foreign functional currency. As of 31 December 2017, €36.5 million (previous year: €46.5 million) arising from the hedges' exchange rate changes was reported within equity as unrealised losses under "currency translation". Hedges of net investments in foreign operations are 100% effective.

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 IAS 39.



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.

#### Counterparty risk Moody's, S&P and/or internal rating

in € million	31/12/2017		31/12/2016	
	< 1 year	1 – 5 years	< 1 year	1 – 5 years
up to A1	37.8	9.0	27.3	7.2
up to A3	25.2	16.1	50.1	13.3
Baa1	59.4	155.3	19.2	21.7
up to Baa3	21.4	27.9	11.3	13.7
below Baa3	2.6	3.9	18.1	3.2
<b>Total</b>	<b>146.4</b>	<b>212.2</b>	<b>126.0</b>	<b>59.1</b>

Derivatives used for hedging purposes can be reconciled to other comprehensive income (cash flow hedge) as follows:

in € million <sup>1</sup>	31/12/2017	31/12/2016	Change
Derivatives used in cash flow hedges with a positive fair value	202.7	136.9	65.8
Derivatives used in cash flow hedges with a negative fair value	238.3	155.2	83.1
	<b>-35.6</b>	<b>-18.3</b>	<b>-17.3</b>
Deferred tax on change recognised directly in equity in derivatives used in cash flow hedges	-0.5	13.9	-14.4
Hedge ineffectiveness	0.0	-1.1	1.1
Cascading effects	-118.9	-54.8	-64.1
Effects realised from hedged transactions <sup>2</sup>	47.8	-36.1	83.9
Non-controlling interests	-2.0	-1.3	-0.7
<b>Cash flow hedge (recognised in equity)</b>	<b>-109.2</b>	<b>-97.7</b>	<b>-11.5</b>

<sup>1</sup> Before offsetting financial assets and financial liabilities according to IAS 32.

<sup>2</sup> Of which €14.4 million (previous year: € -19.7 million) which will be reclassified to the income statement in the period 2018–2020 (previous year: 2017–2018).

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.

## 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 limit 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.

**Credit risk:** EnBW is exposed to credit risks that result from the counterparties not fulfilling contractual agreements. EnBW manages its credit risks by generally demanding a high credit rating of its counterparties and limiting the credit 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 risks.

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 maximum credit risk from financial assets (including derivatives with positive market value) is equivalent to the carrying amounts recognised in the balance sheet. As of 31 December 2017, the maximum credit risk amounts to €17,328.0 million (previous year: €18,494.8 million).

**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 liquidity management instruments. In addition to ensuring that liquidity is available on a daily basis, EnBW maintains further liquidity reserves of €2.9 billion (previous year: €1.8 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 (21) "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 2017 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 2017 were used.

Foreign currency financial instruments are translated at the respective spot price as of 31 December 2017.

Where derivatives are concerned, positive or negative market values are generally included, provided they give rise to a net outflow of resources. Undiscounted cash flows are based on the following terms and conditions:

- › Swap transactions are only included in the liquidity analysis provided they give rise to a net outflow of resources.
- › Forward exchange transactions are taken into account provided they give rise to an outflow of resources.
- › 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 31/12/2017

in € million	Total	2018	2019	2020	2021	Cash flows > 2021
Non-derivative financial liabilities						
Debt instruments issued	6,716.2	1,062.9	174.5	174.2	1,173.9	4,130.7
Liabilities to banks	1,767.5	389.0	113.4	161.6	103.5	1,000.0
Finance lease liabilities	212.9	9.4	8.2	8.2	8.1	179.0
Other financial liabilities	554.4	48.6	84.3	35.1	35.1	351.3
Trade payables	747.2	747.2				
Other financial obligations	478.9	451.2	7.0	5.2	8.7	6.8
Derivative financial assets <sup>1</sup>	9,540.1	6,958.4	1,793.9	722.5	64.8	0.5
Derivative financial liabilities <sup>1</sup>	1,787.5	1,421.4	158.6	137.8	22.6	47.1
Financial guarantees	258.3	258.3				
<b>Total</b>	<b>22,063.0</b>	<b>11,346.4</b>	<b>2,339.9</b>	<b>1,244.6</b>	<b>1,416.7</b>	<b>5,715.4</b>

1 Before netting according to IAS 32.

## Undiscounted cash flows as of 31/12/2016

in € million	Total	2017	2018	2019	2020	Cash flows > 2020
Non-derivative financial liabilities						
Debt instruments issued	8,064.6	1,277.9	1,072.7	176.5	176.1	5,361.4
Liabilities to banks	1,508.6	132.0	120.1	103.8	158.4	994.3
Finance lease liabilities	63.2	3.1	4.4	3.4	3.1	49.2
Other financial liabilities	467.6	65.0	15.9	61.8	11.8	313.1
Trade payables	516.5	516.5				
Other financial obligations	596.4	494.6	11.0	1.3	9.5	80.0
Derivative financial assets <sup>1</sup>	5,347.5	4,069.2	937.2	336.7	4.4	
Derivative financial liabilities <sup>1</sup>	1,820.4	1,370.4	399.4	35.5	3.5	11.6
Financial guarantees	250.8	250.8				
<b>Total</b>	<b>18,635.6</b>	<b>8,179.5</b>	<b>2,560.7</b>	<b>719.0</b>	<b>366.8</b>	<b>6,809.6</b>

1 Before netting according to IAS 32.

The increase in the liquidity risk for the derivative financial assets is mainly due to a higher volume of forward transactions. The sustained recovery of market prices on the commodity markets is the decisive factor for classifying these derivatives under financial assets. 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 left out here, the EnBW Group'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 and interest-bearing securities. The price risks are reduced through the implementation of a comprehensive hedging concept and the associated conclusion 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 and fixed-income securities 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 of €1,407.8 million (previous year: €1,424.8 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			31/12/2017	31/12/2016
Euros against all currencies	+7% (previous year: +10%)	Net profit/loss	-3.6	-19.0
	+7% (previous year: +10%)	Equity	42.7	65.8
of which euros/ US dollars	+7% (previous year: +10%)	Net profit/loss	(-7.8)	(-25.5)
	+7% (previous year: +10%)	Equity	(34.9)	(53.7)
of which euros/ Swiss francs	+7% (previous year: +10%)	Net profit/loss	(4.2)	(6.5)
	+7% (previous year: +10%)	Equity	(7.8)	(12.1)

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 “available for sale” measurement category are presented under other price risks for shares, share-based investment funds and interest-bearing securities.

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 €1,447.5 million (previous year: €1,935.0 million) and financial liabilities of €1,854.5 million (previous year: €1,736.0 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		31/12/2017	31/12/2016
Increase in interest rate +60 basis points (previous year: +65 basis points)	Net profit/loss	-3.4	1.3
of which interest rate derivatives	Net profit/loss	(-2.0)	(-2.3)
of which cash at banks with a floating interest rate	Net profit/loss	(7.6)	(11.3)
of which primary financial liabilities with a floating interest rate	Net profit/loss	(-9.0)	(-7.7)
Decrease in interest rate -60 basis points (previous year: -65 basis points)	Net profit/loss	2.7	-1.8
of which interest rate derivatives	Net profit/loss	(2.0)	(2.3)
of which cash at banks with a floating interest rate	Net profit/loss	(-7.6)	(-11.3)
of which primary financial liabilities with a floating interest rate	Net profit/loss	(8.3)	(7.2)

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 a non-financial item in accordance with the entity's expected purchase, sale or usage requirements (own use), and are not required to be accounted for in accordance with IAS 39. Our generation and distribution positions are not included in the analysis either.

The sensitivities presented below therefore do not represent the actual economic risks that the EnBW Group is exposed to and 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			31/12/2017	31/12/2016
Electricity	+20% (previous year: +25%)	Net profit/loss	-77.7	-55.7
	+20% (previous year: +25%)	Equity	-158.1	-185.3
Coal	+25% (previous year: +30%)	Net profit/loss	17.2	2.2
	+25% (previous year: +30%)	Equity	127.2	160.3
Oil	+20% (previous year: +35%)	Net profit/loss	5.5	7.6
	+20% (previous year: +35%)	Equity	0.0	5.6
Gas	+15% (previous year: +25%)	Net profit/loss	-34.0	-18.0
	+15% (previous year: +25%)	Equity	0.0	19.0
Emission allowances	+45% (previous year: +55%)	Net profit/loss	51.5	51.7
	+45% (previous year: +55%)	Equity	34.9	8.4

EnBW has investments in shares and share-based investment funds and fixed-income securities 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 2017, shares, share-based investment funds and fixed-income securities totalling €4,115.1 million (previous year: €7,178.8 million) were exposed to the market risk.

The effects of price risks from shares and share-based investment funds as well as interest-bearing securities 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 and share-based investment 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 15% for shares and share-based investment funds (previous year: 15%) and 2% for interest-bearing securities (previous year: 2%).

In the risk scenario in question, the net profit/loss for the year would improve by €1.1 million (previous year: €1.2 million). The hypothetical change in profit/loss for the year is due to fixed-income securities. In the risk scenario in question, the equity would increase by €332.3 million (previous year: €455.8 million). Of the hypothetical change in equity, €289.8 million (previous year: €361.7 million) is accounted for by shares and share-based investment funds and €42.5 million (previous year: €94.2 million) 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 and interest-bearing securities, a reduction of the same amount would have the opposite effect.

## (25) 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 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 its parent companies – to meet its payment obligations in the event of a claim for damages. According to the agreement, EnBW has to bear a 24.9% share of the liability coverage as of 31 December 2017, and 26.4% as of 1 January 2018, plus 5% for costs to settle any claims for damages. Sufficient provisions have been made to ensure this liquidity and are taken into account in the liquidity plan.

EnBW, Kernkraftwerk Obrigheim GmbH (KWO) and EnBW Kernkraft GmbH (EnKK) are members of the European Mutual Association for Nuclear Insurance (EMANI). Comprehensive property insurance has been taken out with EMANI for all nuclear power plant blocks operated by EnBW – the policyholder for the GKN nuclear power plant blocks is EnKK, for the KKP nuclear power plant blocks it is EnBW and for the KWO nuclear power plant block it is KWO. 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 €1.4 million, of which €0.7 million is for the KKP power plant blocks.

In addition, there are other contingent liabilities at the EnBW Group amounting to €2,261.0 million (previous year: €55.2 million). This amount includes guarantees of €2,242.3 million (previous year: €32.0 million), which increased due to the issuing of guarantees for EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG. The amount also includes €12.8 million (previous year: €16.0 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 €32.0 billion (previous year: €18.2 billion), of which €5.8 billion (previous year: €4.1 billion) is due within one year. This increase was primarily due to the first-time consolidation of VNG and long-term supply agreements in the gas sector.

Miscellaneous other financial commitments break down as follows:

in € million	31/12/2017	Of which due in			31/12/2016
		< 1 year	1 – 5 years	> 5 years	
Financial commitments from rent and lease agreements	584.3	119.8	295.7	168.8	469.0
Purchase commitments	1,048.6	654.7	322.6	71.3	932.5
Investment obligations for intangible assets and property, plant and equipment	829.1	380.0	444.1	5.0	478.5
Financial commitments from corporate acquisitions <sup>1</sup>	454.1	165.1	244.8	44.2	553.3
Other financial commitments	442.0	252.8	60.0	129.2	461.9
<b>Total</b>	<b>3,358.1</b>	<b>1,572.4</b>	<b>1,367.2</b>	<b>418.5</b>	<b>2,895.2</b>

<sup>1</sup> Financial commitments from corporate acquisitions < 1 year include investments held as financial assets amounting to €113.8 million (previous year: €210.4 million).



## (26) 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 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 2017, the EnBW Group held a total of €2,262.0 million (previous year: €1,026.9 million) in assets restricted due to these legal regulations.

## (27) Audit fees

The fees of the Group auditor KPMG AG Wirtschaftsprüfungsgesellschaft, which are recorded as an expense, break down as follows:

in € million	2017	2016
Statutory audit	3.7	2.8
Other attestation services	1.0	0.7
Tax advisory services	0.1	0.4
Other services	0.5	1.3
<b>Total</b>	<b>5.3</b>	<b>5.2</b>

KPMG AG Wirtschaftsprüfungsgesellschaft audited the annual and consolidated financial statements of EnBW AG and various annual financial statements of its subsidiaries. As part of the audit services, there were reviews of interim financial statements and a project-related review of IT applications, as well as the internal control system for those functions outsourced to service providers. In addition, there was a review of the compliance management system (Tax CMS). Furthermore, other legal or contractual audits were carried out, such as audits according to EEG or KWKG.

In connection with matters relating to value added tax and ongoing income taxes, we were also provided with tax advice by KPMG AG Wirtschaftsprüfungsgesellschaft. In addition, KPMG AG Wirtschaftsprüfungsgesellschaft provided advisory services in connection with the initial introduction of accounting standards, such as IFRS 15 and IFRS 9, and advised us on business transactions. Finally, KPMG AG Wirtschaftsprüfungsgesellschaft provided us with support in the introduction of a document management system.

## (28) 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) German Commercial Code (HGB) or section 264b HGB in the 2017 financial year:

### Exemptions pursuant to section 264 (3) HGB

- › 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 Rückbauservice GmbH, Stuttgart
- › EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe
- › MSE Mobile Schlammmentwässerungs GmbH, Karlsbad-Ittersbach
- › Netze BW Wasser GmbH, Stuttgart
- › NWS Finanzierung GmbH, Karlsruhe
- › NWS REG Beteiligungsgesellschaft mbH, Stuttgart
- › RBS wave GmbH, Stuttgart

- > TPLUS GmbH, Karlsruhe
- > u-plus Umweltservice GmbH, Karlsruhe
- > Watt Synergia GmbH, Frankfurt am Main

#### Exemptions pursuant to section 264b HGB

- > EnBW City GmbH & Co. KG, Obrigheim
- > EVGA Grundstücks- und Gebäudemanagement GmbH & Co. KG, Obrigheim
- > Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim
- > NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim

### (29) 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 German Stock Corporations Act (AktG) on 7 December 2017 and made it permanently available to shareholders on the Internet at [www.enbw.com/declarationofcompliance](http://www.enbw.com/declarationofcompliance).

### (30) Share deals and shareholdings of key management personnel

The company did not receive any notices in the 2017 financial year about transactions involving EnBW shares or related financial instruments concerning persons in managerial positions or those persons closely related to them in accordance with section 15a German Securities Trading Act (Wertpapierhandelsgesetz – WpHG). The EnBW shares held by all members of the Board of Management and the Supervisory Board total less than 1% of all shares issued by the company.

### (31) 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 2017 financial year amounting to €-1,076.7 million (previous year: €490.9 million).

Cash and cash equivalents relate almost exclusively to bank balances, largely in the form of time and call deposits. In the 2017 financial year, cash flow from operating activities amounted to €-1,696.1 million (previous year: €473.6 million).

Other non-cash expenses and income break down as follows:

in € million	2017	2016
Income from the reversal of construction cost subsidies	-66.9	-64.7
Income and expenses from changes in specific bad debt allowances	52.8	59.2
Reversal of impairment losses on property, plant and equipment and intangible assets	-93.1	-5.9
Write-ups/write-downs on inventories	27.6	-31.8
Other	11.5	-6.5
<b>Total</b>	<b>-68.1</b>	<b>-49.7</b>

In the 2017 financial year, €84.7 million (previous year: €77.1 million) was distributed to third-party shareholders of Group companies.

The purchase prices paid in cash for the acquisition of subsidiaries and entities accounted for using the equity method, as well as for shares in joint operations, totalled €227.9 million (previous year: €963.4 million). In the reporting year, no (previous year: €2.1 million) cash and cash equivalents were acquired in the course of share purchases. The cash payments in the reporting period primarily concerned capital increases at entities accounted for using the equity method. The cash payments in the comparative period related mainly to the acquisition of 74.21% of the shares in VNG. The consideration transferred included a non-cash proportion comprising 10% of the shares in EWE (€419.8 million). A cash settlement was also paid for the acquisition of VNG. Property, plant and equipment of €3.5 million, other assets of €14.5 million, provisions of €0.5 million, financial liabilities of €9.9 million and other liabilities of €6.1 million were acquired with the purchase of Connected Wind Services A/S. Property, plant and equipment of €23.2 million, other assets of €1.6 million, provisions of

€1.5 million, financial liabilities of €0.2 million and other liabilities of €1.8 million were acquired with the purchase of four onshore wind farms – SCE Wind Bremervörde GmbH & Co. KG, SCE Wind Ostercappeln GmbH & Co. KG, SCE Wind Rositz GmbH & Co. KG and SCE Wind Zernitz GmbH & Co. KG. In addition, the cash payments included capital increases at entities accounted for using the equity method.

The sale prices from the disposal of subsidiaries and entities fully consolidated and accounted for using the equity method as well as for shares in joint operations totalled €293.2 million (previous year: €191.3 million). Cash and cash equivalents of €57.8 million (previous year: €1.4 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 partial sale of EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG. Due to the partial sale of EnBW Hohe See GmbH & Co. KG and its associated allocation as an entity accounted for using the equity method at the beginning of 2017, assets held for sale of €133.0 million and the liabilities directly associated with assets classified as held for sale of €25.5 million were derecognised. Due to the partial sale of EnBW Albatros GmbH & Co. KG and its associated allocation as an entity accounted for using the equity method at the end of 2017, assets held for sale of €103.4 million and the liabilities directly associated with assets classified as held for sale of €9.6 million were derecognised. In addition, there was a purchase price adjustment and a capital reduction at entities accounted for using the equity method. In the comparative period, the cash receipts largely resulted from the receipt of the purchase price for EnBW Propower GmbH at the beginning of 2016. The sale itself was already completed at the end of 2015. As a result of the disposal of Thermogas Gas- und Gerätevertriebs-GmbH, property, plant and equipment of €2.5 million, other assets of €4.7 million and other liabilities and subsidies of €1.7 million were derecognised. The disposal of Energiedienstleistungen Rhein-Neckar GmbH resulted in the derecognition of property, plant and equipment of €0.5 million, other assets of €3.9 million, provisions of €2.7 million and other liabilities and subsidies of €1.5 million.

Cash-relevant net investment in the section “The EnBW Group” of the management report can be reconciled as follows:

in € million	2017	2016
Cash flow from investing activities	2,160.7	333.9
- Interest and dividends received	-591.7	-345.1
- Cash received/paid for investments in connection with short-term finance planning	-44.3	-39.4
- Net investments held as financial assets	110.6	162.9
- Net investments in property held as financial assets	-28.2	-4.0
- Net investments in other assets	-2,912.3	-1,392.5
- Acquired/relinquished cash <sup>1</sup>	0.0	-0.7
+ Payments for alterations of capital in non-controlling interests	-55.0	-25.6
+ Cash received/cash paid for changes in ownership interest without loss of control	1.5	-8.0
+ Cash received/paid from participation models	-8.4	1.6
<b>Cash payments for net investments</b>	<b>-1,367.1</b>	<b>-1,316.9</b>

<sup>1</sup> In the reporting period, this does not include cash and cash equivalents of €51.0 million relinquished with the sale of shares in EnBW Hohe See GmbH & Co. KG and €6.8 million relinquished with the sale of shares in EnBW Albatros GmbH & Co. KG because they will be used for future investment in the development of both offshore wind farms.

The dedicated financial assets contribution of €-6.4 million (previous year: €50.7 million) is reported separately for representing the retained cash flow in the liquidity analysis in the section “The EnBW Group” of the management report.

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. The reconciliation of the financial liabilities included in the cash flow from financing activities is contained in section (21) “Liabilities and subsidies”.

### (32) Additional disclosures on capital management

Capital management at EnBW covers the management of liabilities, as well as of 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 retained cash flow II, measured by the internal financing capability, EnBW controls the level of net financial debt irrespective of the interest rate-related volatility of the pension and nuclear provisions. 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 burden of the operating business to meet the pension and nuclear obligations is limited to €300 million annually (adjusted for inflation) due to an ongoing contribution of 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 2017, the creditworthiness of EnBW was rated by the rating agencies Moody's, Standard and Poor's and Fitch with Baa1 stable, A- stable and A- stable, respectively.

**(33) Segment reporting**

01/01 – 31/12/2017 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other / Consolidation	Total
<b>Revenue</b>						
External revenue	7,354.3	7,471.8	507.5	6,631.1	9.3	21,974.0
Internal revenue	921.1	2,558.6	281.3	2,739.2	-6,500.2	0.0
Total revenue	8,275.4	10,030.4	788.8	9,370.3	-6,490.9	21,974.0
<b>Earnings indicators</b>						
Adjusted EBITDA	330.0	1,045.9	331.7	377.1	28.3	2,113.0
EBITDA	317.8	1,025.3	622.5	1,703.1	83.7	3,752.4
Adjusted EBIT	261.8	610.5	171.3	-45.7	0.9	998.8
EBIT	241.0	589.1	448.6	1,169.0	56.3	2,504.0
Income from reversals of impairment losses	0.0	0.5	0.9	91.7	0.0	93.1
Scheduled amortisation and depreciation	-68.2	-435.4	-160.4	-422.8	-27.4	-1,114.2
Impairment losses	-8.6	-0.8	-13.5	-111.3	0.0	-134.2
Net profit/loss from entities accounted for using the equity method	3.7	29.8	-4.4	-0.2	14.4	43.3
Significant non-cash items	31.2	27.2	2.8	0.6	-14.1	47.7
<b>Assets and liabilities</b>						
Capital employed	1,004.6	6,534.8	3,501.9	2,293.0	2,062.2	15,396.5
of which carrying amount of entities accounted for using the equity method	(198.8)	(386.0)	(670.2)	(133.6)	(0.0)	(1,388.6)
Capital expenditures on intangible assets and property, plant and equipment	83.3	784.0	417.3	115.7	18.9	1,419.2

01/01 – 31/12/2016 in € million <sup>1</sup>	Sales	Grids	Renewable Energies	Generation and Trading	Other / Consolidation	Total
<b>Revenue</b>						
External revenue	7,771.1	6,643.7	510.6	4,433.9	9.1	19,368.4
Internal revenue	431.4	2,639.0	272.4	2,341.8	-5,684.6	0.0
Total revenue	8,202.5	9,282.7	783.0	6,775.7	-5,675.5	19,368.4
<b>Earnings indicators</b>						
Adjusted EBITDA	249.7	1,004.1	295.3	337.2	52.6	1,938.9
EBITDA	177.1	897.2	293.8	-739.3	101.9	730.7
Adjusted EBIT	193.2	636.9	142.1	26.8	25.5	1,024.5
EBIT	76.4	527.1	128.8	-2,467.5	72.3	-1,662.9
Income from reversals of impairment losses	0.2	2.9	0.0	1.4	1.4	5.9
Scheduled amortisation and depreciation	-56.5	-367.2	-153.2	-310.4	-27.1	-914.4
Impairment losses	-44.2	-2.9	-11.8	-1,417.8	-2.5	-1,479.2
Net profit/loss from entities accounted for using the equity method	0.0	12.9	-16.5	4.6	-11.0	-10.0
Significant non-cash items	22.0	16.8	8.6	11.2	-12.5	46.1
<b>Assets and liabilities</b>						
Capital employed	527.9	5,332.2	3,066.5	2,094.2	3,816.6	14,837.4
of which carrying amount of entities accounted for using the equity method	(0.0)	(282.7)	(207.7)	(56.7)	(1,288.5)	(1,835.6)
Capital expenditures on intangible assets and property, plant and equipment	51.9	795.6	208.1	111.1	22.7	1,189.4

<sup>1</sup> The figures for the previous year have been restated.

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	2017	2016
Adjusted EBITDA	2,113.0	1,938.9
Non-operating EBITDA	1,639.4	-1,208.2
of which income/expenses relating to nuclear power	(1,278.2)	(-860.6)
of which income from the reversals of other provisions	(25.7)	(18.9)
of which result from disposals	(317.8)	(28.4)
of which addition to the provisions for onerous contracts relating to electricity procurement agreements	(59.2)	(-198.1)
of which income from reversals of impairment losses	(93.1)	(5.9)
of which restructuring	(-70.0)	(-110.4)
of which other non-operating result	(-64.6)	(-92.3)
<b>EBITDA</b>	<b>3,752.4</b>	<b>730.7</b>
Amortisation and depreciation	-1,248.4	-2,393.6
<b>Earnings before interest and taxes (EBIT)</b>	<b>2,504.0</b>	<b>-1,662.9</b>
Investment result	159.3	117.6
Financial result	194.6	-1,176.6
<b>Earnings before tax (EBT)</b>	<b>2,857.9</b>	<b>-2,721.9</b>

The components of non-operating EBITDA can be found on the income statement, in particular, in income to the amount of €1,971.4 million (previous year: €167.8 million), as well as in expenses to the amount of €332.0 million (previous year: €1,376.0 million).

Segment reporting is based on internal reporting.

Sales of electricity and gas, as well as the provision of energy-related services, such as billing services or energy supply and energy-saving contracting or new energy solutions, 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 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. This includes the project development, construction and operation of power plants based on renewable energies. In addition to the generation and trading of electricity and gas, the Generation and Trading segment also comprises the provision of system services, gas midstream operations, district heating, environmental services and the area dealing with the dismantling of nuclear power plants, as well as the new area of the exploration and production of natural gas following the full consolidation of VNG. Our shareholding in VNG that was still accounted for using the equity method as of 31 December 2016 and other 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 items principally comprise expenses from allocations to provisions, income from the reversal of construction cost subsidies and 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 <sup>1</sup>	31/12/2017	31/12/2016
Intangible assets	1,905.9	1,636.5
Property, plant and equipment	15,597.4	13,481.9
Investment properties	50.3	47.5
Investments <sup>2</sup>	1,695.6	2,042.9
Loans	140.4	43.1
Inventories	958.1	806.8
Trade receivables <sup>3</sup>	4,343.6	2,681.6
Other assets <sup>4</sup>	3,162.8	3,036.6
of which income tax assets	(102.2)	(422.3)
of which other tax assets	(122.8)	(81.7)
of which derivatives	(2,229.0)	(1,698.5)
of which payments made on account	(114.2)	(106.8)
of which prepaid expenses	(72.1)	(52.8)
of which miscellaneous assets	(792.7)	(643.3)
of which assets held for sale	(3.0)	(173.0)
of which components attributable to net debt	(-273.2)	(-141.8)
Other provisions	-2,579.3	-1,983.4
Trade payables and other liabilities <sup>5</sup>	-8,629.5	-6,228.2
of which payments received on account	(-90.6)	(-139.6)
of which trade payables	(-4,816.3)	(-3,185.7)
of which other deferred income	(-204.1)	(-239.5)
of which derivatives	(-2,266.4)	(-1,559.4)
of which income tax liabilities	(-322.1)	(-190.1)
of which other liabilities	(-935.2)	(-896.4)
of which liabilities directly associated with the assets classified as held for sale	(0.0)	(-24.0)
of which components attributable to net debt	(5.2)	(6.5)
Subsidies	-1,405.8	-1,344.0
Deferred taxes <sup>6</sup>	157.0	616.1
<b>Capital employed</b>	<b>15,396.5</b>	<b>14,837.4</b>
<b>Average capital employed<sup>7</sup></b>	<b>15,146.1</b>	<b>13,760.9</b>

1 The figures for the previous year have been restated: The capital employed amounted to €12,985.6 million as of 01/01/2016. It includes retroactive restatements due to the inclusion of loans that are now allocated to capital-employed in the amount of €50.2 million. The restatement affects all segments.

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 based on the place supplied. The EnBW Group does not generate 10% or more of its external revenue with any one external customer.

#### External revenue by region

in € million	2017	2016
Germany	20,085.6	18,189.4
European currency zone excluding Germany	701.6	186.7
Rest of Europe	1,186.6	992.0
Rest of world	0.2	0.3
	<b>21,974.0</b>	<b>19,368.4</b>

#### External revenue by product

in € million	2017	2016
Electricity	15,400.0	15,025.5
Gas	5,527.4	3,293.5
Energy and environmental services/other	1,046.6	1,049.4
	<b>21,974.0</b>	<b>19,368.4</b>

#### Intangible assets and property, plant and equipment by region

in € million	31/12/2017	31/12/2016
Germany	15,433.5	13,472.0
Rest of Europe	2,069.8	1,646.4
	<b>17,503.3</b>	<b>15,118.4</b>

### (34) 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 2017, the Federal State of Baden-Württemberg and its wholly owned subsidiary NECKARPRI GmbH indirectly held 46.75% (unchanged) of the shares in EnBW AG, and NECKARPRI-Beteiligungsgesellschaft mbH held the same amount directly. NECKARPRI-Beteiligungsgesellschaft mbH is a wholly owned subsidiary of NECKARPRI GmbH. OEW indirectly held 46.75% (unchanged) of the shares in EnBW AG, and its wholly owned subsidiary OEW Energie-Beteiligungs GmbH (OEW GmbH) held the same amount directly. This means that related parties 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 2017. 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 in the previous year, 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	2017		2016	
	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	270.7	286.0	113.2	233.8
Expenses	-86.5	-258.9	-91.9	-314.9
Assets	110.5	38.7	3.7	53.9
Liabilities	6.2	392.9	5.6	436.4
Other obligations	2,371.7	112.4	262.3	143.3

In business relations with joint ventures accounted for using the equity method, receivables and liabilities are due within one year. Assets rose significantly due to an increase in loans as a result of changes in the consolidated companies. Due to the granting of sureties to wind farms, there was an exceptional increase in other obligations related to these companies. 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.

### (35) 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 2017 financial year amounted to €8.6 million (previous year: €8.0 million). Short-term benefits amount to €5.3 million (previous year: €5.0 million) and long-term benefits to €3.3 million (previous year: €3.0 million). As of the 1 January 2016, the defined benefit pension commitments for the serving members of the Board of Management were transferred to the new defined contribution system. The resulting pension commitments are €1.0 million (previous year: €1.0 million). For this group of people, there was an expense of €1.3 million in the 2017 financial year (previous year: €1.2 million income, including one-off income of €2.5 million due to the transfer of the pension commitments), which includes service and interest costs. There are defined benefit obligations in accordance with IFRS of €15.2 million for the current members of the Board of Management (previous year: €14.4 million).

Former members of the Board of Management and their surviving dependants received €4.7 million (previous year: €6.5 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €0.6 million (previous year: €1.1 million). There are defined benefit obligations to former members of the Board of Management and their surviving dependants in accordance with IFRS of €98.8 million (previous year: €97.2 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €27.6 million (previous year: €26.2 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 €1.3 million for the 2017 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 2017 financial year.

**(36) Additional disclosures****List of shareholdings pursuant to section 313 (2) HGB as of 31 December 2017**

	Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
<b>Sales segment</b>				
<b>Fully consolidated companies</b>				
1		100.00	5,697	1,743
2	6	100.00	496	1
3	3	100.00	3,759	-
4		100.00	13,711	-2
5	5	100.00	268	-3
6		100.00	2,059	1,804
7	5, 16	100.00	254	0
8		100.00	48,953	4,628
9	3	100.00	65,000	-
10		100.00	11,930	102
11		100.00	35	1,010
12		100.00	30,076	6,886
13		100.00	3,226	-1,854
14	13	100.00	-	-
15	3	100.00	75,618	-
16		100.00	167,059	0
17	3	100.00	250	-
18	3	100.00	1,100	-
19		100.00	3,153	1,269
20	5	60.00	409	111
21	6	60.00	-5,166	-2,665
22	6	51.00	625	-1,137
23	9	49.91	3,500	2,511
24	15	41.40	503,684	84,451
<b>Non-consolidated affiliated entities</b>				
25	5	100.00	161	18
26	5	100.00	-127	-139
27	13	100.00	-	-
28	5	100.00	25	-187
29	5	100.00	25	-
30	5	100.00	25	1
31	5	80.00	23	-1
32	13	74.99	-	-
33	8, 16	60.66	-	-
34	13	60.00	-	-
35	5	51.00	97	-15
36	5	51.00	25	0
37	5	50.00	49	2

	Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)	
<b>Entities accounted for using the equity method</b>					
38	EMB Energie Mark Brandenburg GmbH, Potsdam	5	25.10	114,863	20,108
39	MITGAS Mitteldeutsche Gasversorgung GmbH, Halle (Saale)	5	24.60	120,341	28,385
<b>Investments<sup>18</sup></b>					
40	AutenSys GmbH, Karlsruhe	5	65.00	91	-34
41	Stromvertrieb Backnang GmbH & Co. KG, Backnang	5	51.00	0	43
42	my-e-car GmbH, Lörrach	5	50.00	21	-13
43	NatürlichEnergie EMH GmbH, Monzelfeld	5	50.00	825	-8
44	Regionah Energie GmbH, Munderkingen	5	50.00	25	0
45	SMITE ITALIA S.r.l., Milan/Italy	13	50.00	-	-
46	Einhorn Energie GmbH & Co. KG, Giengen an der Brenz	5	49.90	726	618
47	Einhorn Energie Verwaltungsgesellschaft mbH, Giengen an der Brenz	5	49.90	31	1
48	Stadwerke Freiberg a.N. Vertriebs-GmbH, Freiberg am Neckar	5	49.90	128	-48
49	Gasversorgung Pforzheim Land GmbH, Pforzheim	5	49.00	15,371	1,730
50	Biomethangas Hahnennest GmbH, Ostrach	5	40.00	102	-60
51	caplog-x GmbH, Leipzig	5	37.34	621	421
52	apio AG, Wallisellen/Switzerland	13	33.33	-	-
53	energy app provider GmbH, Essen	5	29.24	-244	-134
54	Gemeinschaft für Energieeffizienz GmbH, Düsseldorf	5	26.40	964	-761
55	espot GmbH, Stuttgart	5	25.10	537	9
56	Energieagentur Heilbronn GmbH, Heilbronn	5	25.00	64	-21
57	Stadt- und Überlandwerke GmbH Luckau-Lübbenau, Luckau	5	23.38	27,100	2,504
58	EDSR Energiedienste Staldenried AG, Staldenried/Switzerland	5	20.00	208	12
<b>Grids segment</b>					
<b>Fully consolidated companies</b>					
59	ED Mobility Support GmbH, Rheinfelden	6	100.00	53	3
60	ED Netze GmbH, Rheinfelden	3,6	100.00	65,165	-
61	EnBW Kommunale Beteiligungen GmbH, Stuttgart	3	100.00	968,658	-
62	EnBW REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	405,623	-
63	EVGA Grundstücks- und Gebäudemanagement GmbH & Co. KG, Obrigheim		100.00	91,621	38,343
64	KORMAK nemovitosti s.r.o., Prague/Czech Republic	5	100.00	384	33
65	KORMAK Praha a.s., Prague/Czech Republic	5	100.00	1,066	985
66	Netze BW GmbH, Stuttgart	3	100.00	1,130,861	-
67	Netze BW Wasser GmbH, Stuttgart	3	100.00	32,894	-
68	Netze-Gesellschaft Südwest mbH, Karlsruhe	3	100.00	71,139	-
69	Netzgesellschaft Düsseldorf mbH, Düsseldorf	3,5	100.00	1,000	-
70	Netzgesellschaft Ostwürttemberg DonauRies GmbH, Ellwangen Jagst	3	100.00	135	-
71	NHF Netzgesellschaft Heilbronn-Franken mbH, Heilbronn	3	100.00	4,000	-
72	NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim		100.00	320,933	50,964
73	NWS REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	79,988	-
74	ONTRAS Gastransport GmbH, Leipzig		100.00	120,000	0
75	PREdistribuce a.s., Prague/Czech Republic	5	100.00	717,234	42,194
76	PREmereni a.s., Prague/Czech Republic	5	100.00	18,844	5,313
77	RBS wave GmbH, Stuttgart	3	100.00	503	-

		Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
78	terraneTS bw GmbH, Stuttgart	3	100.00	90,000	-
79	TransnetBW GmbH, Stuttgart	3	100.00	728,141	-
80	EnBW Ostwürttemberg DonauRies AG, Ellwangen	3	99.73	115,439	-
81	ZEAG Energie AG, Heilbronn		98.65	204,356	24,600
82	Erdgas Südwest GmbH, Karlsruhe		79.00	74,919	11,504
83	NetCom BW GmbH, Ellwangen		74.90	32,140	4,481
84	Stuttgart Netze Betrieb GmbH, Stuttgart	3	74.90	4,926	-
85	Stadtwerke Düsseldorf AG, Düsseldorf	5	54.95	473,931	32,262
86	Stromnetzgesellschaft Heilbronn GmbH & Co. KG, Heilbronn	9	49.90	37,430	2,239
87	Neckar Netze GmbH & Co. KG, Esslingen am Neckar	9	49.00	25,409	5,303
<b>Non-consolidated affiliated entities</b>					
88	Elektrizitätswerk Aach GmbH, Aach	5	100.00	2,698	832
89	Energieversorgung Gaildorf OHG der EnBW Kommunale Beteiligungen GmbH und der NWS REG Beteiligungsgesellschaft mbH, Gaildorf	5	100.00	2,567	940
90	Energieversorgung Raum Friedrichshafen GmbH & Co. KG, Stuttgart	5	100.00	1,286	-18
91	Energieversorgung Raum Friedrichshafen Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	1
92	GDMcom Gesellschaft für Dokumentation und Telekommunikation mbH, Leipzig	5	100.00	304	2,133
93	GEOMAGIC GmbH, Leipzig	5	100.00	3,179	1,123
94	HEV Hohenloher Energie Versorgung GmbH, Ilshofen-Obersteinach	3,5	100.00	10,219	-
95	Konverter UltraneT GmbH & Co. KG, Stuttgart	5	100.00	0	0
96	Konverter UltraneT Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	24	0
97	Neckar Netze Verwaltungsgesellschaft mbH, Esslingen am Neckar	5,6	100.00	112	4
98	NHL Netzgesellschaft Heilbronner Land GmbH & Co. KG, Heilbronn	13	100.00	-	-
99	NHL Verwaltungs-GmbH, Heilbronn (formerly EnBW Omega Achtundneunzigste Verwaltungsgesellschaft mbH, Stuttgart)	13	100.00	-	-
100	OSG ONTRAS Servicegesellschaft mbH, Leipzig	5	100.00	24	0
101	Seeallianz GmbH & Co. KG, Stuttgart	13	100.00	-	-
102	INFRACON Infrastruktur Service GmbH & Co. KG, Leipzig	5	99.50	3,623	1,669
103	Rieger GmbH & Co. KG, Lichtenstein, Reutlingen district	5	74.28	969	700
104	Rieger Beteiligungs-GmbH, Lichtenstein, Reutlingen district	5	74.24	47	1
105	Elektrizitätswerk Weißenhorn AG, Weißenhorn	5	63.24	3,724	473
106	Netze Pforzheim-Region GmbH & Co. KG, Pforzheim	5	60.00	19,194	1,245
107	Gasnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	3,590	171
108	Gasnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	25	3
109	Netzgesellschaft Elz-Neckar GmbH & Co. KG, Obrigheim	5	50.10	1,183	26
110	Netzgesellschaft Elz-Neckar Verwaltungs GmbH, Obrigheim	5	50.10	30	1
111	Stromnetzgesellschaft Albershausen GmbH & Co. KG, Albershausen	5	50.10	844	20
112	Stromnetzgesellschaft Albershausen Verwaltungs GmbH, Albershausen	5	50.10	28	1
113	Stromnetzgesellschaft Heilbronn Verwaltungs-GmbH, Heilbronn	5	50.10	25	1
114	Stromnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	2,306	132

	Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
115 Stromnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	25	0
<b>Entities accounted for using the equity method</b>				
116 Stadtwerke Esslingen am Neckar GmbH & Co. KG, Esslingen am Neckar	5	49.98	56,757	4,625
117 Pražská energetika Holding a.s., Prague/Czech Republic	5, 10	49.00	225,240	36,421
118 Zweckverband Landeswasserversorgung, Stuttgart	5	27.20	112,064	1,898
119 Heilbronner Versorgungs GmbH, Heilbronn	4, 5	25.10	38,850	-
120 Stuttgart Netze GmbH, Stuttgart	4, 5, 10	25.10	193,648	-
121 FairEnergie GmbH, Reutlingen	4, 5	24.90	111,466	-
122 Stadtwerke Hilden GmbH, Hilden	5	24.90	18,524	3,372
123 GasLINE Telekommunikationsnetzgesellschaft deutscher Gasversorgungsunternehmen mbH & Co. Kommanditgesellschaft, Straelen	5	23.39	36,213	36,213
124 Zweckverband Bodensee-Wasserversorgung, Stuttgart	5	22.13	151,119	1,200
125 Stadtwerke Karlsruhe GmbH, Karlsruhe	4, 5	20.00	165,710	-
<b>Investments<sup>18</sup></b>				
126 Netzgesellschaft Sontheim GmbH & Co. KG, Sontheim an der Brenz	5	74.90	1,532	288
127 Netzgesellschaft Sontheim Verwaltungsgesellschaft mbH, Sontheim an der Brenz	5	74.90	25	0
128 Netzgesellschaft Steinheim GmbH & Co. KG, Steinheim am Albuch	5	74.90	248	83
129 Netzgesellschaft Steinheim Verwaltungsgesellschaft mbH, Steinheim am Albuch	5	74.90	25	0
130 Stromnetz Herrenberg Verwaltungsgesellschaft mbH, Herrenberg	5	74.90	30	1
131 Stromnetzgesellschaft Herrenberg mbH & Co. KG, Herrenberg	5	74.90	4,345	480
132 Stadtwerke Sinsheim Versorgungs GmbH & Co. KG, Sinsheim	5	60.00	6,922	1,115
133 Stadtwerke Sinsheim Verwaltungs GmbH, Sinsheim	5	60.00	28	1
134 Stromnetz Langenau GmbH & Co. KG, Langenau	5	50.10	2,651	146
135 Stromnetz Langenau Verwaltungs-GmbH, Langenau	5	50.10	32	-13
136 CESOC AG, Laufenburg/Switzerland	5	50.00	218	0
137 e.wa riss GmbH & Co. KG, Biberach	5	50.00	26,408	3,918
138 e.wa riss Verwaltungsgesellschaft mbH, Biberach	5	50.00	66	1
139 Fränkische Wasser Service GmbH, Crailsheim	5	50.00	41	4
140 HDRRegioNet GmbH i.L., Düsseldorf		50.00	-	-
141 Niederrheinisch-Bergisches Gemeinschaftswasserwerk GmbH, Düsseldorf	5	50.00	2,982	102
142 Ostalbwasser Ost GmbH, Ellwangen	5	50.00	35	2
143 Ostalbwasser Service GmbH, Aalen	5	50.00	82	6
144 Ostalbwasser West GmbH, Schwäbisch Gmünd	5	50.00	55	3
145 regioaqua Gesellschaft für Wasser und Abwasser mbH, Rheinfelden	5	50.00	78	16
146 Stadtwerke Schramberg GmbH & Co. KG, Schramberg	5	50.00	14,120	2,111
147 Stadtwerke Schramberg Verwaltungsgesellschaft mbH, Schramberg	5	50.00	35	2
148 Stromnetzgesellschaft Hechingen GmbH & Co. KG, Hechingen	5	50.00	1,721	223
149 Stromnetzgesellschaft Hechingen Verwaltungs GmbH, Hechingen	5	50.00	25	0

		Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
150	Wasserübernahme Neuss-Wahlscheid GmbH, Neuss	5	50.00	387	17
151	Stadtwerke Emmendingen GmbH, Emmendingen	5	49.90	17,624	1,838
152	Stromnetz Blaubeuren GmbH, Blaubeuren	5	49.90	1,445	76
153	Stadtwerke Esslingen-Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	49.80	41	1
154	Energie Sachsenheim GmbH & Co. KG, Sachsenheim	5	49.00	4,721	217
155	Energie Sachsenheim Verwaltungs-GmbH, Sachsenheim	5	49.00	30	2
156	Energieversorgung Strohgäu GmbH & Co. KG, Gerlingen	5	49.00	9,102	611
157	Energieversorgung Strohgäu Verwaltungs GmbH, Gerlingen	5	49.00	24	1
158	Gemeindewerke Bodanrück GmbH & Co. KG, Allensbach	5	49.00	4,542	263
159	Gemeindewerke Bodanrück Verwaltungs-GmbH, Allensbach	5	49.00	22	-4
160	LEO Energie GmbH & Co. KG, Leonberg	5	49.00	8,538	632
161	Netzgesellschaft Marbach GmbH & Co. KG, Marbach am Neckar	5	49.00	1,791	94
162	Stadtwerke Backnang GmbH, Backnang	4,5	49.00	8,725	-
163	Stadtwerke Bad Wildbad GmbH & Co. KG, Bad Wildbad	5	49.00	6,865	929
164	Stadtwerke Bad Wildbad Verwaltungs-GmbH, Bad Wildbad	5	49.00	47	8
165	Stadtwerke Eppingen GmbH & Co. KG, Eppingen	5	48.96	7,981	264
166	Energie Calw GmbH, Calw	4,5	48.82	12,507	-
167	Stadtwerke Münsingen GmbH, Münsingen	5	45.00	6,249	812
168	Stadtwerke Böblingen GmbH & Co. KG, Böblingen	5	41.10	34,744	2,708
169	Stadtwerke Böblingen Verwaltungs GmbH, Böblingen	5	41.10	25	0
170	Energieversorgung Südbaar GmbH & Co. KG, Blumberg	5	40.00	6,898	1,075
171	SUEnergie GmbH & Co. KG, Süßen	5	40.00	2,200	68
172	SUEnergie Verwaltungs GmbH, Süßen	5	40.00	30	1
173	Stadtwerke Weinheim GmbH, Weinheim	5	39.32	29,810	4,061
174	Energieversorgung Rottenburg am Neckar GmbH, Rottenburg am Neckar	4,5	38.00	7,160	-
175	EVG Grächen AG, Grächen/Switzerland	5	35.00	4,851	102
176	EVN Energieversorgung Nikolai AG, St. Niklaus/Switzerland	5,7	35.00	1,140	70
177	EVR Energieversorgung Raron AG, Raron/Switzerland	5,7	35.00	836	82
178	EVWR Energiedienste Visp - Westlich Raron AG, Visp/Switzerland	5	35.00	2,198	242
179	Valgrid SA, Sion/Switzerland	5	35.00	20,202	1,299
180	VED Visp Energie Dienste AG, Visp/Switzerland	5,7	35.00	2,948	241
181	Taubernetze GmbH & Co. KG, Tauberbischofsheim	5	33.00	1,825	76
182	Taubernetze Verwaltungs-GmbH, Tauberbischofsheim	5	33.00	24	1
183	ErmstalEnergie Dettingen an der Erms GmbH & Co. KG, Dettingen an der Erms	5	32.60	3,190	222
184	Versorgungsbetriebe Dettingen an der Erms Verwaltungs-GmbH, Dettingen an der Erms	5	32.60	27	1
185	eneREGIO GmbH, Muggensturm	5	32.00	9,101	755
186	Regionalnetze Linzgau GmbH, Pfullendorf	4,5	31.64	6,462	-
187	Elektrizitätswerk Mittelbaden AG & Co. KG, Lahr	5	31.00	64,224	15,022
188	Elektrizitätswerk Mittelbaden Verwaltungsaktiengesellschaft, Lahr	5	31.00	123	7
189	Stadtwerke Bad Herrenalb GmbH, Bad Herrenalb	5	30.00	11,100	-500
190	Energie- und Wasserversorgung Bruchsal GmbH, Bruchsal	4,5	27.41	23,002	-
191	Stadtwerke Bad Säckingen GmbH, Bad Säckingen	3,5	26.30	8,673	-



	Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)	
192	tkf teleconsult Kommunikationstechnik GmbH, Backnang	7, 17	25.20	713	108
193	Albwerk GmbH & Co. KG, Geislingen an der Steige	5	25.10	19,999	5,254
194	Albwerk Verwaltungsgesellschaft mbH, Geislingen an der Steige	5	25.10	73	2
195	Energie Kirchheim unter Teck GmbH & Co. KG, Kirchheim unter Teck	5	25.10	9,446	705
196	Energie Kirchheim unter Teck Verwaltungs-GmbH, Kirchheim unter Teck	5	25.10	28	1
197	Energieversorgung Immenstaad GmbH & Co. KG, Immenstaad am Bodensee	5	25.10	864	18
198	Filderstadt Netze GmbH, Filderstadt (formerly EnBW Omega Einundsiebzigste Verwaltungsgesellschaft mbH, Stuttgart)	5, 17	25.10	24	-1
199	Gasnetzgesellschaft Schorndorf GmbH & Co. KG, Schorndorf	5	25.10	3,869	255
200	Gasnetzgesellschaft Winnenden mbH, Winnenden	4, 5	25.10	2,275	-
201	Gasnetzverwaltungsgesellschaft Schorndorf GmbH, Schorndorf	5	25.10	29	2
202	Gemeindewerke Brühl GmbH & Co. KG, Brühl	5	25.10	1,275	46
203	Gemeindewerke Brühl Verwaltungs-GmbH, Brühl	5	25.10	29	1
204	Gemeindewerke Plüderhausen GmbH, Plüderhausen	4, 5	25.10	1,598	-
205	Infrastrukturgesellschaft Plochingen GmbH & Co. KG, Plochingen	5	25.10	2,866	195
206	Netzgesellschaft Besigheim GmbH & Co. KG, Besigheim	5	25.10	4,810	328
207	Netzgesellschaft Besigheim Verwaltungs GmbH, Besigheim	5	25.10	29	1
208	Netzgesellschaft Leinfelden-Echterdingen GmbH, Leinfelden-Echterdingen	5	25.10	9,318	526
209	Netzgesellschaft Salach GmbH & Co. KG, Salach	5	25.10	1,325	69
210	Netzgesellschaft Salach Verwaltungs GmbH, Salach	5	25.10	28	0
211	Netzgesellschaft Schwetzingen GmbH & Co. KG, Schwetzingen	5	25.10	2,077	156
212	Netzgesellschaft Schwetzingen Verwaltungs GmbH, Schwetzingen	5	25.10	26	1
213	Netzgesellschaft Vaihingen GmbH & Co. KG, Vaihingen an der Enz	5	25.10	7,770	535
214	Netzgesellschaft Vaihingen Verwaltungs-GmbH, Vaihingen an der Enz	5	25.10	28	1
215	Stadtwerke Ellwangen GmbH, Ellwangen	4, 5	25.10	7,802	-
216	Stadtwerke Giengen GmbH, Giengen	5	25.10	12,487	866
217	Stadtwerke Schwäbisch Gmünd GmbH, Schwäbisch Gmünd	4, 5	25.10	29,251	-
218	Stadtwerke Stockach GmbH, Stockach	5	25.10	10,069	946
219	Stadtwerke Weinstadt Energieversorgung GmbH, Weinstadt	4, 5	25.10	6,153	-
220	Stadtwerke Wiesloch - Strom - GmbH & Co. KG, Wiesloch	5	25.10	25	151
221	Stromgesellschaft March GmbH & Co. KG, March	5	25.10	787	26
222	Stromnetzgesellschaft Ebersbach GmbH & Co. KG, Ebersbach an der Fils	5	25.10	3,439	178
223	Stromnetzgesellschaft Ebersbach Verwaltungs GmbH, Ebersbach an der Fils	5	25.10	29	1
224	Stromnetzgesellschaft Östlicher Schurwald GmbH & Co. KG, Rechberghausen	5	25.10	3,080	256
225	Stromnetzgesellschaft Östlicher Schurwald Verwaltungs GmbH, Rechberghausen	5	25.10	28	1
226	Technische Werke Schussental GmbH & Co. KG, Ravensburg	5	25.10	40,728	3,447
227	Technische Werke Schussental Verwaltungsgesellschaft mbH, Ravensburg	5	25.10	19	-2
228	Stadtwerke Nürtingen GmbH, Nürtingen	5	25.00	20,967	3,342

		Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
229	Stromversorgung Sulz am Neckar GmbH, Sulz am Neckar	5	24.90	3,993	420
230	Netzeigentumsgesellschaft Rheinstetten GmbH & Co. KG, Rheinstetten	5	24.50	4,365	153
231	Stadtwerke Wehr GmbH & Co. KG, Wehr	5	24.50	2,123	115
232	Stadtwerke Wehr Verwaltungs-GmbH, Wehr	5	24.50	20	0
233	Energieversorgung Oberes Wiesental GmbH, Todtnau	5	24.00	3,883	151
234	Netzgesellschaft Edingen-Neckarhausen GmbH & Co. KG, Edingen-Neckarhausen	5	24.00	854	68
235	ENRW Energieversorgung Rottweil GmbH & Co. KG, Rottweil	5	20.00	26,056	2,525
236	ENRW Verwaltungs-GmbH, Rottweil	5	20.00	14	0
237	Stadtwerke Sindelfingen GmbH, Sindelfingen	5	20.00	37,453	4,098
<b>Renewable Energies segment</b>					
<b>Fully consolidated companies</b>					
238	Aletsch AG, Mörel/Switzerland	6	100.00	20,869	0
239	Connected Wind Services A/S, Balle/Denmark	5	100.00	1,470	-6,243
240	Connected Wind Services Danmark A/S, Balle/Denmark	5	100.00	1,506	-3,220
241	Connected Wind Services Deutschland GmbH, Rantrum	5	100.00	708	-1,263
242	Connected Wind Services Refurbishment A/S, Balle/Denmark	5	100.00	2,923	-1,177
243	CWS-BD UG, Hamburg	5	100.00	1	0
244	EnAlpin AG, Visp/Switzerland	6	100.00	164,612	1,618
245	EnBW Biogas GmbH, Stuttgart	3	100.00	52	-
246	EnBW He Dreiht GmbH, Varel	3	100.00	1,016	-
247	EnBW Holding A.S., Gümüşsuyu-Istanbul/Turkey		100.00	213,814	-2,577
248	EnBW NAG-Beteiligungsgesellschaft mbH, Stuttgart		100.00	23	0
249	EnBW Offshore 1 GmbH, Stuttgart	3	100.00	28,737	-
250	EnBW Offshore 2 GmbH, Stuttgart	3	100.00	690,453	-
251	EnBW Offshore 3 GmbH, Stuttgart	3	100.00	252,310	-
252	EnBW Offshore Service GmbH, Klausdorf-Barhöft	3	100.00	25	-
253	EnBW Solar GmbH, Stuttgart	3	100.00	25	-
254	EnBW Solarpark Tuningen GmbH, Stuttgart (formerly EnBW Omega Fünfundachtzigste Verwaltungsgesellschaft mbH, Stuttgart)	3	100.00	3,680	-
255	EnBW Wind Onshore 1 GmbH, Stuttgart	3	100.00	25	-
256	EnBW Wind Onshore 2 GmbH, Stuttgart	3	100.00	2,556	-
257	EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe	3	100.00	25	-
258	EnBW Windkraftprojekte GmbH, Stuttgart		100.00	23,462	-9,140
259	EnBW Windpark Eisenach II GmbH, Stuttgart		100.00	30,868	-239
260	Energiedienst AG, Rheinfelden	6	100.00	191,127	25,557
261	PRE FVE Svetlik s.r.o., Litvínovice/Czech Republic	5	100.00	9,430	665
262	Grünwerke GmbH, Düsseldorf	3,5	100.00	34,070	-
263	SCE Wind Zernitz GmbH & Co. KG, Stuttgart		100.00	8,073	-16,301
264	Svenska Connected Wind Services AB, Falkenberg/Sweden	5	100.00	585	-530
265	Windpark "Auf der Weißen Trisch" GmbH, Zweibrücken	5	100.00	26	-75
266	Windpark Breitenbach GmbH, Düsseldorf	13	100.00	-	-
267	Windpark Niederlinxweiler GmbH & Co. KG, Leinfelden-Echterdingen		100.00	99	-40
268	Windpark Rot am See GmbH, Ellwangen Jagst	3	100.00	25	-
269	Windpark Webenheim GmbH & Co. KG, Stuttgart	5	100.00	149	142

		Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
270	EE Bürgerenergie Braunsbach GmbH & Co. KG, Braunsbach		99.99	7,600	341
271	EE BürgerEnergie Forchtenberg GmbH & Co. KG, Forchtenberg		99.99	1,485	13
272	EE BürgerEnergie Boxberg GmbH & Co. KG, Boxberg		99.98	5,600	547
273	BürgerEnergie Königheim GmbH & Co. KG, Königheim	5	99.00	100	91
274	EE Bürgerenergie Ilshofen GmbH & Co. KG, Ilshofen		98.75	1,600	116
275	EE BürgerEnergie Möckmühl GmbH & Co. KG, Möckmühl		96.15	1,559	29
276	EE BürgerEnergie Jagsthausen GmbH & Co. KG, Jagsthausen		96.11	4,479	5
277	Bürgerenergie Widdern GmbH & Co. KG, Widdern		96.07	7,500	172
278	Neckar Aktiengesellschaft, Stuttgart		82.20	10,179	0
279	EE Bürgerenergie Hardthausen GmbH & Co. KG, Hardthausen am Kocher		80.80	8,100	291
280	Geothermie-Gesellschaft Bruchsal GmbH, Bruchsal		74.90	2,918	-276
281	JatroSolutions GmbH, Stuttgart		70.49	1,060	-1,069
282	Energiedienst Holding AG, Laufenburg/Switzerland	6, 11	66.67	876,413	44,040
283	Rheinkraftwerk Neuhausen AG, Neuhausen/Switzerland	6	56.00	1,050	47
284	Solarpark Berghülen GmbH, Stuttgart (formerly EnBW Omega Einundachtzigste Verwaltungsgesellschaft mbH, Stuttgart)	5	51.00	3,161	62
285	EnBW Baltic 1 GmbH & Co. KG, Stuttgart		50.32	43,662	12,884
286	EnBW Baltic 2 S.C.S., Luxembourg/Luxembourg		50.09	1,418,380	99,367
287	EnBW Onshore Portfolio GmbH, Stuttgart		50.02	122,687	3,211
288	Kraftwerk Lötschen AG, Steg/Switzerland	6, 12	50.00	24,653	0
<b>Joint operations</b>					
289	Rheinkraftwerk Iffezheim GmbH, Iffezheim	10	50.00	52,547	1,803
290	Rhonewerke AG, Ernen/Switzerland	5, 10	30.00	26,818	0
<b>Non-consolidated affiliated entities</b>					
291	CarbonBW (Thailand) Ltd., Bangkok/Thailand	5	100.00	7,076	-277
292	EnBW Albatros Management GmbH, Hamburg (formerly EnBW Omega Siebenundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	24	-1
293	EnBW Baltic 1 Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	23	1
294	EnBW Baltic 2 Management S.a r.l., Luxembourg/Luxembourg	5	100.00	13	-12
295	EnBW Baltic 2 Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	28	0
296	EnBW Baltic Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	31	1
297	EnBW Danemark ApS, Balle/Denmark (formerly Kriegers Flak ApS, Copenhagen/Denmark)	5	100.00	-3,287	-3,294
298	EnBW Hohe See Management GmbH, Hamburg	5	100.00	25	0
299	EnBW Wind Onshore Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	11
300	EnBW Wind op Zee B.V., Amsterdam/Netherlands	13	100.00	-	-
301	EnBW Windpark Kleinliebringen GmbH, Stuttgart (formerly EnBW Omega Neunundneunzigste Verwaltungsgesellschaft mbH, Stuttgart)	13	100.00	-	-
302	EnBW Windpark Langenburg GmbH, Stuttgart (formerly EnBW Omega Neunzigste Verwaltungsgesellschaft mbH, Karlsruhe)	3, 5	100.00	25	-
303	Grünwerke Verwaltungs GmbH, Düsseldorf	5	100.00	33	3
304	Kemberg Windpark Management GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	100.00	1,431	57
305	Langenburg Infrastruktur GmbH, Stuttgart	5	100.00	24	-1
306	Solarpark Karpin GmbH & Co. KG, Bad Staffelstein	13, 17	100.00	-	-

	Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)	
307	Solarpark Riedlingen-Zwiefaltendorf GmbH, Stuttgart (formerly EnBW Omega Vierundachtzigste Verwaltungsgesellschaft mbH, Stuttgart)	5	100.00	24	-1
308	Windpark Freckenfeld GmbH, Stuttgart (formerly EnBW Omega Zweiundachtzigste Verwaltungsgesellschaft mbH, Stuttgart)	5	100.00	24	-1
309	Windpark Rot am See Infrastruktur GmbH, Stuttgart	5	100.00	29	-1
310	ZEAG Erneuerbare Energien GmbH, Heilbronn	5	100.00	43	18
311	JATROSELECT-Paraguay Sociedad de Responsabilidad Limitada, Volendam/Paraguay	5	99.98	333	-210
312	EE Bürgerenergie Bühlerzell GmbH & Co. KG, Bühlerzell	5	99.00	83	-6
313	EE Bürgerenergie Frankenhardt GmbH & Co. KG, Frankenhardt	5	99.00	84	-3
314	EE Bürgerenergie Hardheim GmbH & Co. KG, Hardheim	5	99.00	90	-7
315	EE Bürgerenergie Höpfingen GmbH & Co. KG, Höpfingen	5	99.00	90	-6
316	EE BürgerEnergie Krautheim GmbH & Co. KG, Krautheim	5	99.00	39	-10
317	EE BürgerEnergie Neudenuau GmbH & Co. KG, Neudenuau	5	99.00	79	-5
318	EE Bürgerenergie Sulzbach-Laufen GmbH & Co. KG, Sulzbach-Laufen	5	99.00	86	-3
319	Holzskraft Plus GmbH, Düsseldorf	5	90.00	167	-7
320	NatürlichSonne Trogen GmbH & Co. KG, Monzelfeld	5	90.00	291	17
321	EnPV GmbH, Karlsruhe (formerly EnBW Omega Einundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe)	13	75.10	-	-
322	JatroGreen S.A.R.L., Antananarivo/Madagascar	5	70.00	-89	-90
323	Erneuerbare Energien Neckarwestheim GmbH & Co. KG, Neckarwestheim	5	52.80	500	17
324	Alb-Windkraft Verwaltungs GmbH, Geislingen an der Steige	5	51.00	42	8
325	Solarpark Leutkirch GmbH & Co. KG, Leutkirch im Allgäu	5	51.00	10,185	655
326	Solarpark Leutkirch Verwaltungsgesellschaft mbH, Leutkirch im Allgäu	5	51.00	24	-1
327	Windenergie Tautschbuch GmbH, Riedlingen (formerly EnBW Omega Dreiundachtzigste Verwaltungsgesellschaft mbH, Stuttgart)	5	50.10	25	0
<b>Entities accounted for using the equity method</b>					
328	EnBW Albatros GmbH & Co. KG, Hamburg	5, 10	50.11	2,010	-2,826
329	EnBW Hohe See GmbH & Co. KG, Hamburg	5, 10	50.11	950	-75
330	Borusan EnBW Enerji yatırımları ve Üretim Anonim Şirketi, Istanbul/Turkey	5, 10	50.00	337,554	-18,634
331	Elektrizitätswerk Rheinau AG, Rheinau/Switzerland	5, 7	50.00	21,883	775
332	Bayerische-Schwäbische Wasserkraftwerke Beteiligungsgesellschaft mbH, Gundremmingen	5	37.80	54,665	266
333	KW Ackersand I AG, Stalden/Switzerland	5	25.00	1,951	0
<b>Investments<sup>18</sup></b>					
334	Netzanschlussgesellschaft Windparks Ostercappel/Bohmte mbH, Kirchdorf	5	66.66	25	10
335	biogasNRW GmbH i.L., Düsseldorf		50.00	-	-
336	Centrale Electrique Rhénane de Gamsheim SA, Gamsheim/France	5	50.00	9,971	0
337	Havelland-Fläming Wind GmbH, Berlin	5	50.00	126	-377
338	Kraftwerk Reckingen AG, Reckingen	5	50.00	3,204	72
339	Rheinkraftwerk Säckingen AG, Bad Säckingen	5	50.00	7,204	300
340	SwissAlpin SolarTech AG, Visp/Switzerland	5	50.00	55	0
341	Wasserkraftwerk Hausen GbR, Hausen im Wiesental	5, 16	50.00	668	-6

		Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
342	Windpark Schurwald GmbH, Esslingen am Neckar	5	50.00	18	-4
343	WKM Wasserkraftwerke Maulburg GmbH, Maulburg	5	50.00	459	13
344	KW Jungbach AG, St. Niklaus/Switzerland	5	49.00	3,933	193
345	Obere Donau Kraftwerke AG, Munich	5	40.00	3,180	0
346	TWKW Trinkwasserkraftwerke Niedergesteln AG, Niedergesteln/Switzerland	5	40.00	1,736	153
347	Kraftwerk Ryburg-Schwörstadt AG, Rheinfelden/Switzerland	5,7	38.00	36,261	1,679
348	GEIE Exploitation Miniere de la Chaleur, Kutzenhausen/France	5,16	33.33	-	-1,377
349	Windpark Prützke II GmbH & Co. KG, Düsseldorf	5	33.33	7,339	-125
350	KWT Kraftwerke Törbel-Moosalp AG, Törbel/Switzerland	5	30.00	936	45
351	Baltic Windpark Beteiligungen GmbH & Co. KG, Stuttgart	5	29.17	28,518	1,978
352	EE Bürgerenergie Heilbronn GmbH & Co. KG, Heilbronn	5	26.00	1,000	42
353	Windpark Lindtorf GmbH, Rheine	5	26.00	4,578	-406
354	Alb-Windkraft GmbH & Co. KG, Geislingen an der Steige	5	25.50	281	85
355	Biosphärenwindpark Schwäbische Alb GmbH, Münsingen	5	25.00	25	-29
356	ANOG Anergienetz Obergoms AG, Obergoms/Switzerland	5	24.50	453	13
357	KWOG Kraftwerke Obergoms AG, Obergoms/Switzerland	5	24.50	4,083	321
358	Erneuerbare Energien Zollern Alb GmbH, Balingen	5	20.00	77	-5
359	Kooperation Erneuerbare Energien im Landkreis Rottweil GmbH, Schramberg	5	20.00	77	0
360	Wasserkraftwerk Pfinztal GmbH & Co. KG, Pfinztal	5,6	20.00	261	0
<b>Generation and Trading segment</b>					
<b>Fully consolidated companies</b>					
361	AWISTA Logistik GmbH, Düsseldorf	3,5	100.00	3,025	-
362	EnBW Biomasse GmbH, Karlsruhe		100.00	1,449	274
363	EnBW Etzel Speicher GmbH, Karlsruhe	3	100.00	825	-
364	EnBW Grundstücksverwaltung Rheinhafen GmbH, Karlsruhe		100.00	2,219	30
365	EnBW Kraftwerk Lippendorf Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	297,640	-
366	EnBW Rückbauservice GmbH, Stuttgart	3	100.00	25	-
367	ENERGIEUNION GmbH, Schwerin		100.00	4,387	0
368	Gemeinschaftsheizkraftwerk Fortuna GmbH, Düsseldorf		100.00	25	628
369	Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim	3	100.00	72,377	-
370	HANDEN Sp. z o.o., Warschau/Republik Polen		100.00	70,788	6,638
371	Heizkraftwerk Stuttgart GmbH, Stuttgart		100.00	5,129	0
372	Kernkraftwerk Obrigheim GmbH, Obrigheim	3	100.00	51,130	-
373	MSE Mobile Schlammmentwässerungs GmbH, Karlsbad-Iltersbach	3	100.00	1,171	-
374	TAE Thermische Abfallentsorgung Ansbach GmbH, Ansbach		100.00	58,811	0
375	TPLUS GmbH, Karlsruhe	3	100.00	18,162	-
376	TWS Kernkraft GmbH, Gemmrigheim	3	100.00	149,297	-
377	u-plus Umweltservice GmbH, Karlsruhe	3	100.00	99,979	-
378	VNG Austria GmbH, Gleisdorf/Austria		100.00	320	2,616
379	VNG Danmark ApS, Copenhagen/Denmark		100.00	8,819	683
380	VNG Energie Czech s.r.o., Prague/Czech Republic		100.00	1,625	-286
381	VNG Gasspeicher GmbH, Leipzig		100.00	14,276	0

	Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
382	VNG Italia S.r.l., Bologna/Italy	100.00	100	1,909
383	VNG Norge AS, Stavanger/Norway	100.00	17,691	1,071
384	EnBW Kernkraft GmbH, Obrigheim	<sup>3</sup> 99.80	10,000	-
385	SPIGAS S.r.l., La Spezia/Italy	80.00	16,000	2,727
386	VNG-Verbundnetz Gas Aktiengesellschaft, Leipzig	74.21	708,615	82,983
387	AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, Düsseldorf	<sup>5</sup> 51.00	55,143	24,615
388	KNG Kraftwerks- und Netzgesellschaft mbH, Rostock	50.40	514	8
<b>Joint operations</b>				
389	Friedeburger Speicherbetriebsgesellschaft mbH "Crystal", Friedeburg	<sup>10</sup> 50.00	54,971	298
<b>Non-consolidated affiliated entities</b>				
390	EnergieFinanz GmbH, Schwerin	<sup>5</sup> 100.00	910	110
391	VNG Handel & Vertrieb GmbH, Leipzig (formerly VNG Erste Beteiligungsgesellschaft mbH, Leipzig)	<sup>5</sup> 100.00	35	-1
392	VNG Slovakia, spol. s r.o., Bratislava/Slovakia	<sup>5</sup> 100.00	8,812	342
393	Südwestdeutsche Nuklear-Entsorgungsgesellschaft mbH, Stuttgart	<sup>5</sup> 86.49	12,179	4,807
394	Zentraldeponie Hubbelrath GmbH, Düsseldorf	<sup>5</sup> 76.00	24,569	5,797
395	Nahwärme Düsseldorf GmbH, Düsseldorf	<sup>5</sup> 66.00	2,743	348
<b>Entities accounted for using the equity method</b>				
396	Erdgasspeicher Peissen GmbH, Halle (Saale)	<sup>5, 10</sup> 50.00	79,050	-9,424
397	Fernwärme Ulm GmbH, Ulm	<sup>5, 7, 10</sup> 50.00	32,165	1,236
398	Schluchseewerk Aktiengesellschaft, Laufenburg Baden	<sup>5</sup> 50.00	59,339	2,809
399	Grosskraftwerk Mannheim AG, Mannheim	<sup>5</sup> 32.00	114,142	6,647
<b>Investments<sup>18</sup></b>				
400	ANITA S.r.l., Sarzana/Italy	<sup>13</sup> 50.00	-	-
401	Fernwärme Rhein-Neckar GmbH, Mannheim	<sup>5</sup> 50.00	2,811	2,547
402	KDM Kompostierungs- und Vermarktungsgesellschaft für Stadt Düsseldorf/Kreis Mettmann mbH, Ratingen	<sup>5</sup> 50.00	3,378	421
403	Kraftwerksbatterie Heilbronn GmbH, Stuttgart	<sup>13</sup> 50.00	-	-
404	MIOGAS & LUCE S.r.l., Rozzano/Italy (formerly MIOGAS S.r.l., Rozzano/Italy)	<sup>5</sup> 50.00	2,271	318
405	Powerment GmbH & Co. KG, Ettlingen (formerly Powerment GmbH, Ettlingen)	<sup>5</sup> 50.00	7,933	3,509
406	RheinWerke GmbH, Düsseldorf	<sup>5</sup> 50.00	1,023	-137
407	MOWA Mobile Waschanlagen GmbH, Neunkirchen-Seelscheid	<sup>5</sup> 49.00	310	258
408	REMONDIS Rhein-Wupper GmbH & Co. KG, Düsseldorf	<sup>5</sup> 49.00	13,082	6,605
409	REMONDIS Rhein-Wupper Verwaltungs GmbH, Düsseldorf	<sup>5</sup> 49.00	38	1
410	HWM Holzwärme Müllheim GmbH, Müllheim	<sup>5</sup> 45.00	556	59
411	Fernwärme Zürich AG, Zurich/Switzerland	<sup>5</sup> 40.00	3,763	1,398
412	Untergrundspeicher- und Geotechnologie-Systeme Gesellschaft mit beschränkter Haftung, Mittenwalde	<sup>5</sup> 40.00	7,912	941
413	SPIGAS CLIENTI S.r.l., La Spezia/Italy	<sup>5, 7</sup> 35.00	1,230	1,110
414	Heizkraftwerk Pforzheim GmbH, Pforzheim	<sup>5</sup> 30.00	6,884	1,059
415	Contiplan AG, Vaduz/Liechtenstein	<sup>5</sup> 25.10	0	-2
416	Rheticus AG, Vaduz/Liechtenstein	<sup>5</sup> 25.10	14	-2
417	Beteiligungsgesellschaft der EVU an der Kerntechnischen Hilfsdienst GmbH - GbR, Karlsruhe	<sup>5, 16</sup> 21.59	0	0

		Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
418	Nuovenergie S.p.A., Milan/Italy	5	20.99	1,980	826
419	CANARBINO S.p.A., Sarzana/Italy	5,7	20.00	35,709	3,117
<b>Other</b>					
<b>Fully consolidated companies</b>					
420	ED Immobilien GmbH & Co. KG, Rheinfelden	6	100.00	0	191
421	ED Immobilien Verwaltungsgesellschaft mbH, Rheinfelden	6	100.00	31	0
422	EnBW City GmbH & Co. KG, Obrigheim		100.00	8,885	9,259
423	EnBW Immobilienbeteiligungen GmbH, Karlsruhe		100.00	476,371	13,615
424	EnBW International Finance B.V., Amsterdam/Netherlands		100.00	1,164,210	32,496
425	EnBW Perspektiven GmbH, Karlsruhe	3	100.00	1,500	-
426	Energiedienst Support GmbH, Rheinfelden	6	100.00	357	-33
427	Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim		100.00	199,595	8,481
428	Neckarwerke Stuttgart GmbH, Stuttgart		100.00	1,880,237	46,709
429	NWS Finanzierung GmbH, Karlsruhe	3	100.00	2,475,184	-
430	SBZ Beteiligungen GmbH, Karlsruhe		100.00	-25	0
431	symbiotic services GmbH, Karlsruhe	3	100.00	25	-
432	MURVA Grundstücks-Verwaltungsgesellschaft mbH & Co. KG, Grünwald	5	95.00	-10,124	434
433	EnBW Versicherungsvermittlung GmbH, Stuttgart		51.00	3,550	3,499
<b>Non-consolidated affiliated entities</b>					
434	BALANCE VNG Bioenergie GmbH, Leipzig	5	100.00	8,894	-357
435	E-City Immobilienverwaltungs GmbH, Karlsruhe (formerly EnBW Omega Achtundsechzigste Verwaltungsgesellschaft mbH, Karlsruhe)	3,5	100.00	25	-
436	EnBW CZ spol. s.r.o., Prague/Czech Republic	5	100.00	457	4
437	EnBW New Ventures GmbH, Karlsruhe	3,5	100.00	3,863	-
438	EnBW Omega Achtundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3,5	100.00	25	-
439	EnBW Omega Achtundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	-1
440	EnBW Omega Achtzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	-1
441	EnBW Omega Dreiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	13	100.00	-	-
442	EnBW Omega Dreiundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	-1
443	EnBW Omega Fünfundfünfzigste Verwaltungsgesellschaft mbH, Stuttgart	3,5	100.00	25	-
444	EnBW Omega Fünfundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	13	100.00	-	-
445	EnBW Omega Fünfundsechzigste Verwaltungsgesellschaft mbH, Markdorf	5	100.00	24	-1
446	EnBW Omega Hundertste Verwaltungsgesellschaft mbH, Stuttgart	13	100.00	-	-
447	EnBW Omega Neunundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3,5	100.00	25	-
448	EnBW Omega Sechsunachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3,5	100.00	25	-
449	EnBW Omega Sechsunneunzigste Verwaltungsgesellschaft mbH, Stuttgart	13	100.00	-	-

		Footnote	Capital share <sup>1</sup> (in %)	Equity <sup>2</sup> (in T€)	Earnings <sup>2</sup> (in T€)
450	EnBW Omega Siebenundneunzigste Verwaltungsgesellschaft mbH, Stuttgart	13	100.00	-	-
451	EnBW Omega Siebzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
452	EnBW Omega Vierundfünfzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
453	EnBW Omega Vierundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	13	100.00	-	-
454	EnBW Omega Zweiundfünfzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
455	EnBW Omega Zweiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	13	100.00	-	-
456	EnBW Omega Zweiundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	-
457	EnBW Real Estate GmbH, Obrigheim	5	100.00	91	6
458	EnBW Senergi Immobilien GmbH, Karlsruhe	5	100.00	75	-1
459	Interconnector GmbH, Karlsruhe	3, 5	100.00	25	-
460	KMS Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	45	0
461	MGMTree GmbH, Leipzig	5	100.00	46	-14
462	Rheintal PE GmbH & Co. KG, Bad Homburg v. d. Höhe	5	100.00	8,202	-236
463	SSG Verwaltungsgesellschaft mbH i.L., Kornwestheim		100.00	-	-
464	VNG Innovation GmbH, Leipzig	5	100.00	238	-1
<b>Investments<sup>18</sup></b>					
465	Wp Global Germany Private Equity L.P., Wilmington, Delaware/USA	5, 16	100.00	153,906	15,059
466	Impulse L.P., Edinburgh/UK	5, 16	99.87	127,271	7,743
467	Continuum Capital Limited Partnership, Edinburgh/UK	5, 16	98.00	98,224	0
468	Sirius EcoTech Fonds Düsseldorf GmbH & Co. KG., Düsseldorf	5	78.15	5,827	359
469	regiodata GmbH, Lörrach	5	35.00	811	258
470	RWE - EnBW Magyarország Kft., Budapest/Hungary	5	30.00	392	20
471	E & G Bridge Equity Fonds GmbH & Co. KG, Munich	5, 7	29.97	2,854	3,404
472	EFR Europäische Funk-Rundsteuerung GmbH, Munich	5	25.10	3,834	2,562
473	MWV Energie AG, Mannheim	7, 14	28.76	1,066,905	91,616
474	GasLINE Telekommunikationsnetz-Geschäftsführungsgesellschaft deutscher Gasversorgungsunternehmen mbH, Straelen	5	22.67	65	2
<b>Investments in large corporations &gt; 5%</b>					
475	EWE Aktiengesellschaft, Oldenburg	5	6.00	1,571,500	103,900

1 Shares of the respective parent company calculated in accordance with section 313 [2] HGB (as of 31 December 2017).

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. For financial statements in foreign currencies, the equity is translated at the mean rate on the reporting date, while earnings are translated at average annual rates.

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 Exemption clause section 313 [3] sentence 4 HGB.

9 Control due to contractual agreement.

10 Joint control pursuant to IFRS 11.

11 Before taking treasury shares of the company into account.

12 Majority of the voting rights.

13 New company, annual financial statements not yet available.

14 No significant influence exists.

15 Other shareholdings included due to contractual control arrangements.

16 Companies whose shareholders with unlimited liability are a company that is included in the consolidated financial statements.

17 Commercial change in company shares in 2017, entered into the commercial register in 2018.

18 Includes investments that are not accounted for using the equity method because of their minor importance. They are recognised instead at their acquisition costs.



### (37) Disclosures concerning franchises

Franchise 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 franchise agreements have a term of 20 years. There are obligations governed by law to connect to the supply networks. Under the franchise 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 franchise fee to the municipalities. Upon expiry of a franchise agreement, the facilities must be returned or transferred to the municipalities or the successor network operator, respectively, in return for reasonable compensation, unless the franchise agreement is extended.

### (38) Significant events after the reporting date

No events that are considered significant for assessing the results of operations, financial position and net assets of EnBW occurred after 31 December 2017.

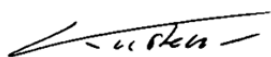
Karlsruhe, 1 March 2018  
EnBW Energie Baden-Württemberg AG



Dr. Mastiaux



Dr. Beck



Kusterer



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 balance sheet as of 31 December 2017, the income statement, the statement of comprehensive income, the statement of changes in equity and the cash flow statement for the financial year from 1 January to 31 December 2017 as well as the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of the EnBW Group and EnBW AG for the financial year from 1 January to 31 December 2017 (combined management report).

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 2017, and of its results of operations for the financial year from 1 January to 31 December 2017, 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.

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 Institut der Wirtschaftsprüfer (the 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 2017. 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.

### First-time consolidation of VNG-Verbundnetz Gas Aktiengesellschaft

Please refer to the section "Changes in the consolidated companies" in the notes to the consolidated financial statements for details on the accounting policies and methods applied, the amount of goodwill and other assets and liabilities.

### Financial statement risk

EnBW Energie Baden-Württemberg AG, Karlsruhe, acquired 74.21% of the shares in VNG-Verbundnetz Gas Aktiengesellschaft (VNG), Leipzig, as part of an exchange of shareholdings plus a cash payment via a contract dated 16 October 2015. This exchange was concluded on 20 April 2016. Due to changes on the Supervisory Board of VNG, EnBW gained a majority on 18 May 2017 and thus obtained control of VNG, which was previously accounted for as a joint venture using the equity method. VNG was fully consolidated in the EnBW consolidated financial statements from 18 May 2017.

The value for the goodwill acquired is determined from the fair value of the absorbed shareholding less the proportionate fair value of the identified assets acquired and the liabilities assumed. As part of the first-time full consolidation of this entity previously accounted for using the equity method, the initial fair value of this absorbed shareholding was thus determined. The acquired identifiable assets and assumed liabilities are generally recognised in accordance with IFRS 3 at fair value on the day control was obtained. For the valuation of the absorbed shares, as well as to determine and evaluate the acquired identifiable assets and assumed liabilities, EnBW Energie Baden-Württemberg AG appointed an independent assessor.

The fair value of the shares in VNG held by EnBW Energie Baden-Württemberg AG was €1,314.1 million. Taking into account the acquired proportionate net assets of €1,186.9 million, this resulted in goodwill of €127.2 million.

The valuation of the shareholding, as well as the identification and evaluation of the acquired assets and assumed liabilities, is complex and based on the discretionary assumptions made by the company. The key assumptions were the expected future cash inflows and the capital costs of the relevant business fields.

There is a financial statement risk that the acquired assets and assumed liabilities were incorrectly identified. In addition, there is a financial statement risk that these assets and liabilities, as well as the absorbed shareholding, were incorrectly evaluated and the resulting goodwill was incorrectly calculated. Furthermore, there is a risk that the information in the notes to the consolidated financial statements is not complete or proper.

### Our audit approach

Using our own valuation specialists, we evaluated, amongst other things, the appropriateness of the key assumptions, as well as the identification and evaluation processes used. For this purpose, we first interviewed employees from the financial and M&A departments, as well as employees from the independent assessor appointed by the company itself, to gain an initial understanding of the subgroup being consolidated for the first time. In addition, we took into account our findings from the previous year.

We evaluated the competence, abilities and objectivity of the independent assessor appointed by EnBW Energie Baden-Württemberg AG. Furthermore, we assessed the process for identifying the acquired assets and assumed liabilities based on our knowledge of the business model of VNG-Verbundnetz Gas Aktiengesellschaft to ensure it was compliant with the requirements according to IFRS 3. We also assessed the valuation process carried out by the independent assessor in terms of the appropriateness of the valuation method, its proper and mathematically correct implementation in the valuation models, as well as the appropriateness of the valuation assumptions and valuation parameters used.

We discussed the expected future cash inflows in the business fields, which result from company planning, with the independent assessor in the context of underlying premises and checked for consistency with the premises of EnBW and with external market assessments. For the transport business field, we compared the calculated values against the regulatory valuation rates to check for plausibility. 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 of the absorbed shareholding with respect to the valuation model used by the independent assessor. We checked the plausibility of the cash inflows to be included that were derived by the independent assessor using the planning forecasts of VNG. We also assessed the determination of goodwill from the value of the shareholding and the value of the identified and evaluated acquired assets and liabilities.

To judge the accuracy of the calculations, we selected several calculations made by the independent assessor and examined them from a risk-based standpoint. Finally, we evaluated whether the notes to the consolidated financial statements on the acquisition of VNG were complete and proper.

### **Our conclusions**

The process used for the identification of the acquired assets and assumed liabilities, as well as for the evaluation of these assets and liabilities and the absorbed shareholding, were proper and in accordance with the applicable accounting and valuation principles. The key assumptions and parameters were appropriate and their presentation in the notes to the consolidated financial statements was complete and factually correct. The goodwill was accurately determined.

### **Evaluation of the provisions relating to nuclear power**

Please refer to the section “Significant accounting policies/Provisions relating to nuclear power” in the notes to the consolidated financial statements for details on the accounting policies and methods applied. 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 (19) “Provisions” in the notes to the consolidated financial statements.

### **Financial statement risk**

The consolidated financial statements of EnBW Energie Baden-Württemberg AG recorded nuclear energy provisions of €5,802.7 million (previous year: €10,972.0) as of 31 December 2017. This decrease is primarily due to the effect of the Act for the Reorganisation of Responsibility in Nuclear Waste Management, which came into force in the middle of June 2017 and established new rules for the roles and financial responsibilities of the German government and operators. The transport, intermediate storage and final storage of the waste will now become the responsibility of the German government. EnBW Energie Baden-Württemberg AG paid €4,849.6 million into a fund under public law on 3 July 2017 for this purpose.

Determining the remaining obligations is complex and the calculations are dependent to a large degree on assumptions and estimations. These include, on the one hand, decommissioning and disposal costs, which include the rate of increase in costs and are primarily derived from sector-specific appraisals made by external experts, and on the other hand, estimates for the discount rate.

The risks for the consolidated financial statements relate to the fact that both the expected costs for fulfilling these obligations including the expected increase in costs and the payment dates cannot be estimated reliably. In addition, there is a risk that the fixed term discount rates were not properly determined so that overall the remaining obligations might not be valued correctly.

### **Our audit approach**

We evaluated whether the remaining obligations, after transferring significant components of the previous obligations by paying into the fund under public law, had been appropriately identified by assessing the relevant contracts and conducting additional interviews with employees in the generation business segment of EnBW Energie Baden-Württemberg AG.

We assessed the internal control system with regards to the identification of the company's obligations and in terms of its effectiveness. In this process, we assessed the adherence to the approval process for making changes to the valuation model employed by the company and tested the accuracy of the calculations in the model ourselves using selected mathematical operations.

We assessed the competence, abilities 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 including the rate of increase in costs with the cost estimates made by the external experts. To do this, we determined the chronological sequence of activities through interviews and assessed their technical feasibility. We assessed the correct processing of data within the valuation model by selecting individual items and also evaluated the mathematical accuracy. The cost increases expected and taken into account by the company were assessed based on external expectations, historical experiences of the company and existing contracts for relevant specific activities.

Using our own valuation specialists, we assessed the discount rates applied for the anticipated payment dates based on available market rates.

In addition, we investigated for selected costs whether withdrawals from the provisions during the year could be deduced and accurately determined from the available documentation such as incoming invoices from external suppliers.

### **Our conclusions**

The model used by the company to determine the obligations is proper. The assumptions made regarding the evaluation of the remaining obligations are appropriate.

### **Evaluation of the cash-generating unit “EnBW Generation and Trading”**

Please refer to the section “Significant accounting policies, Property, plant and equipment” in the notes to the consolidated financial statements for details on the accounting policies and methods applied. In addition, the section “Exercise of judgement and estimates when applying accounting policies/Property, plant and equipment” also explains the key judgements made when evaluating the power plants.

### **Financial statement risk**

In previous years, the company recorded significant impairment of the cash-generating unit “EnBW Generation and Trading”. The impairment recorded in the 2016 financial year amounted to €1,458.7 million and was mainly attributable to the cash-generating unit “EnBW Generation and Trading”.

If there are indications that any previously recorded impairment losses on property, plant and equipment should be removed or reduced, the company determines the recoverable amount on the reporting date and compares this to the respective carrying amount. The recoverable amount is the higher of the fair value less costs to sell and the value in use. If the carrying amount is less than the recoverable amount, there is a reversal of the impairment loss. The reversal of the impairment loss is limited by the amortised cost.

The impairment tests for the cash-generating unit “EnBW Generation and Trading” are complex and are based on a series of discretionary assumptions. These include, in particular, forecasts for cash inflows and outflows based on long-term price assumptions for electricity and fuel, the discount rates applied and estimates of the remaining service lives of the coal power plants, which are influenced by political decisions.

The company has pushed forward the identification and implementation of measures to improve efficiency and optimise costs in the operational areas. Therefore, the planned costs in the cash-generating unit “EnBW Generation and Trading” have once again been reduced. In addition, expectations of how electricity prices will develop in the short and medium term improved. In this respect, there was an indication that an impairment identified in a previous period no longer existed or had reduced. As a result, the company made reversals of impairment losses totalling €93.1 million, which were mainly attributable to the cash-generating unit “EnBW Generation and Trading”.

There is a financial statement risk that the reversals of impairment losses are not appropriate and the carrying amounts of the property, plant and equipment are not correctly valued.

### **Our audit approach**

Using our own valuation specialists, we not only assessed the accuracy of the calculations made using the company's valuation model and its conformity with the applicable valuation principles, but also the appropriateness of the key assumptions flowing into the model, as well as the accuracy of the cash inflows and outflows determined based on these assumptions.

For this purpose, we discussed, amongst other things, the key assumptions and the anticipated cash flows with those responsible for planning. These assumptions also cover the effect of the improvements in efficiency and optimisation of costs introduced by the company. By reconciling them with the budget created by the Board of Management and approved by the Supervisory Board, and also the plans created by the Board of Management and approved by the Supervisory Board, we made sure they were consistent. In relation to the short and medium-term price assumptions, we evaluated whether these were appropriately derived from contracts for forward transactions and current market data. With regards to the long-term price assumptions for electricity and fuel, the company has developed various different scenarios. The fair value of each of the power plants is determined by the company using the weighted average of the relevant valuation results from these scenarios. We assessed the appropriateness of the assumptions and scenarios by comparing them with external market assessments and studies. In addition, we evaluated the extent to which the current public discourse on decarbonisation of electricity generation had been appropriately taken into account in the valuations. Furthermore, we evaluated previous forecasts made by the company by comparing plans made in earlier financial years with the actual results realised and analysed any deviations.

We compared the underlying assumptions and parameters used for the discount rate, especially the risk-free interest rate, market risk premium, specific risk premiums and beta factor, against our own assumptions and publicly available data.

We also checked that the carrying amount after the reversal of the impairment loss did not exceed the amortised cost of the property, plant and equipment.

#### **Our conclusions**

The processes and valuation model used as the basis for the impairment tests for property, plant and equipment for the cash-generating unit “EnBW Generation and Trading” are consistent with the applicable valuation principles. The assumptions and parameters used by the company are appropriate.

#### **Other information**

Management is responsible for other information. Other information comprises the components of the annual report, excluding the audited consolidated financial statements, combined management report and our auditor’s report.

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 determines is 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 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 determines are 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 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 Institut der Wirtschaftsprüfer (the 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 the 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 section 10 EU-APrVO

We were elected as Group auditor by the Annual General Meeting on 9 May 2017. We were commissioned by the audit committee of the Supervisory Board on 23 January 2018. We have been the Group auditor of EnBW Energie Baden-Württemberg AG, Karlsruhe, continuously since the 2010 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 section 11 EU-APrVO (audit report).

## Responsible auditor

The auditor responsible for the audit is Dirk Janz.

Frankfurt am Main, 1 March 2018  
KPMG AG  
Wirtschaftsprüfungsgesellschaft

Janz  
German Public Auditor

Stratmann  
German Public Auditor



## Declaration of the legal representatives

We assure to the best of our knowledge that, in accordance with the applicable accounting principles, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group and that the combined management report, which has been combined with the management report of the company, gives a true and fair view of the business development including the result and situation of the Group and also describes the significant opportunities and risks relating to the anticipated development of the Group.

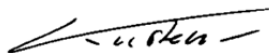
Karlsruhe, 1 March 2018  
EnBW Energie Baden-Württemberg AG



Dr. Mastiaux



Dr. Beck



Kusterer



Dr. Zimmer

# Important notes

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