Notes to the 2018 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 changes to the discount rate and rate of increase in prices for nuclear provisions, are described and detailed descriptions of the segments are given in the section "The EnBW Group" of the management report.

Due to the first-time application of IFRS 15 and IFRS 9 in the 2018 financial year utilising the modified retrospective approach and due to the reimbursement of the nuclear fuel rod tax including the interest relating to the associated legal proceedings in the 2017 financial year, the reports for the 2018 and 2017 financial years are only comparable to a limited extent.

The consolidated financial statements are prepared as of the reporting date of the parent company's financial statements. The parent company's financial year is the calendar year.

The registered office of the company is in Karlsruhe, Germany. The address is EnBW Energie Baden-Württemberg AG, Durlacher Allee 93, 76131 Karlsruhe. It is entered at the District Court of Mannheim under HRB no. 107956.

EnBW's principal activities are described in the segment reporting.

EnBW's Board of Management prepared and released the consolidated financial statements for issue on 7 March 2019.

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 recognised at amortised cost. Indicators for determining the materiality of subsidiaries are the revenue, earnings and equity of these companies.

There are no reciprocal shareholdings in the EnBW Group as defined by section 19 (1) German Stock Corporation Act (AktG).

The consolidated companies are as follows:

Type of consolidation

Number of companies	31/12/2018	31/12/2017
Fully consolidated companies	171	146
Entities accounted for using the equity method	23	22
Joint operations	3	3

Changes in the consolidated companies

Of the companies included in the consolidated financial statements by way of full consolidation, 15 (previous year: 18) domestic companies and 17 (previous year: 14) foreign companies were consolidated for the first time in the reporting year. No (previous year: 2) domestic companies and 2 (previous year: 0) foreign companies were deconsolidated. In addition, 5 domestic companies (previous year: 6) were merged.

First-time full consolidation of affiliated entities 2018

First-time full consolidation of Power Wind Partners AB

In order to strengthen the onshore wind business, EnBW acquired 100% of Power Wind Partners AB, Rabbalshede, Sweden, from the Swedish financial investors Proventus Invest AB, FAM AB, companies in the Folksam Group and KPA Pensionsförsäkring AB on 19 December 2018. Power Wind Partners AB was fully consolidated in the EnBW consolidated financial statements from this point in time. Power Wind Partners AB has shares in six wind farm companies with 47 wind turbines in central and northern Sweden and a total output of 95.5 MW. In addition, the company holds shares in two grid companies and three holding companies. The wind power plants were commissioned between 2007 and 2011.

The fair value of the Power Wind Partners AB shares at the time of full consolidation was €63.2 million. There were no significant incidental acquisition costs incurred as part of the transaction. The purchase price was paid in the form of cash and cash equivalents.

If Power Wind Partners AB had been fully consolidated since the beginning of the year, Group revenue would have increased by €9.9 million to €20,627.4 million, and earnings after income taxes would have decreased by €1.0 million to €466.6 million.

The following assets and liabilities were taken over as part of the acquisition:

in € million	Fair value
Property, plant and equipment	61.2
Other non-current assets	5.8
Cash and cash equivalents	0.4
Other current assets	3.8
Total assets	**71.2**
Non-current liabilities	4.9
Current liabilities	3.1
Total liabilities	**8.0**
Net assets [1]	63.2
Fair value of the shares	63.2
Goodwill	0.0

1 The calculation of the fair value of these assets and liabilities has not yet been concluded because analyses relating to the assets and liabilities are still outstanding. Therefore, provisional values have been stated in accordance with IFRS 3.45.

Changes in the shareholdings of fully consolidated companies with loss of control in 2018

Sale of shares in VNG Norge AS

The EnBW Group sold 100% of the shares in VNG Norge AS, Stavanger, Norway, and its subsidiary VNG Danmark ApS, Copenhagen, Denmark, to Neptune Energy Norge AS, Sandnes, Norway, on 28 September 2018. VNG Norge AS and VNG Danmark ApS are responsible for oil and gas exploration and production. Income of €81.6 million including a contingent payment of €29.6 million was generated as a result of the sale and is reported under other operating income. The contingent payment is still outstanding. EnBW was paid in the form of cash and cash equivalents for the other proceeds of the sale.

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, have been 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	Fair value
Intangible assets	290.5
Property, plant and equipment	1,881.0
Other non-current assets	659.1
Cash and cash equivalents	296.7
Other current assets	1,351.2
Total assets	**4,478.5**
Non-current liabilities	1,318.0
Current liabilities	1,561.1
Total liabilities	**2,879.1**
Net assets	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. The total amount of the trade receivables was largely collected so that the gross value corresponded 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 energy infrastructure 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 was 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 energy infrastructure 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 was due to the measurement of the remaining shareholding at fair value.

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 of the 2018 financial year:

- Amendments to IAS 40 (2016) “Transfers 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”
- IFRIC 22 (2016) “Foreign Currency Transactions and Advance Consideration”
- Collective standard for the amendment of various IFRS (2016) “Improvements to the IFRS Cycle 2014-2016”

These new rules have no material impact on the EnBW consolidated financial statements.

- **IFRS 15 (2015) “Revenue from Contracts with Customers” and (2016) “Clarifications to IFRS 15 Revenue from Contracts with Customers”:** IFRS 15 replaces the previous rules in IAS 18 “Revenue”, IAS 11 “Construction contracts” and their associated interpretations and contains a five-step model for recognising revenue from contracts with customers. In terms of the transition method, EnBW is utilising 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 thus still be presented using the old regulations. Detailed information on the effects in the EnBW Group is given below. Further information is presented in note (1) “Revenue”. The following table presents the effects of the transition on equity while taking into account deferred tax of €163.3 million at the first-time application of IFRS 15:

in € million	01/01/2018
Revenue reserves	364.0
Non-controlling interests	1.4

The following table summarises the effects of the application of IFRS 15 on the consolidated balance sheet and the consolidated income statement. There are no corresponding effects on the consolidated cash flow statement.

in € million	2018 Application of IFRS 15	Adjustment	2018 Without application of IFRS 15
Revenue	20,617.5	4,765.5	25,383.0
Changes in inventories/other own work capitalised	116.0	0.0	116.0
Other operating income	1,116.7	0.0	1,116.7
Cost of materials	-16,657.6	-4,758.2	-21,415.8
Personnel expenses	-1,871.8	0.0	-1,871.8
Impairment losses	-36.7	0.0	-36.7
Other operating expenses	-1,194.5	-2.6	-1,197.1
EBITDA	**2,089.6**	**4.7**	**2,094.3**
Amortisation and depreciation	-1,213.8	-3.3	-1,217.1
EBIT	**875.8**	**1.4**	**877.2**
Investment and financial result	-279.5	0.0	-279.5
EBT	**596.3**	**1.4**	**597.7**
Income tax	-128.7	-0.4	-129.1
Group net profit	**467.6**	**1.0**	**468.6**
of which profit/loss shares attributable to non-controlling interests	(133.4)	(0.1)	(133.5)
of which profit/loss shares attributable to the shareholders of EnBW AG	(334.2)	(0.9)	(335.1)

in € million	31/12/2018 Application of IFRS 15	Adjustment	31/12/2018 Without application of IFRS 15
Non-current assets	26,746.0	-13.0	26,733.0
Current assets	12,520.7	-13.3	12,507.4
Assets held for sale	342.3	0.0	342.3
Assets	**39,609.0**	**-26.3**	**39,582.7**
Equity	6,273.3	-364.4	5,908.9
of which revenue reserves	(4,676.4)	(-363.1)	(4,313.3)
of which non-controlling interests	(2,295.4)	(-1.3)	(2,294.1)
Non-current liabilities	22,036.9	338.1	22,375.0
Current liabilities	11,277.6	0.0	11,277.6
Liabilities directly associated with assets classified as held for sale	21.2	0.0	21.2
Equity and liabilities	**39,609.0**	**-26.3**	**39,582.7**

The adjustments are primarily due to the following changes: 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 reversed over the expected term of the contract as other operational expenses. In the case of regulatory levies and duties, the application of IFRS 15 will result in lower revenue and correspondingly a lower cost of materials being reported. The causes of this reporting change are the revised and supplemented criteria for checking the "principal or agent" relationship. In comparison to the interim reporting in 2018, the application of these principal-agent criteria at the end of year resulted in further aspects being reported net. In addition, the period for the reversal of construction cost subsidies in the regulated sector for electricity and gas was reduced to 20 years.

Please refer to note (1) "Revenue" for more details on the revenue from contracts with customers.

- **IFRS 9 (2014) "Financial Instruments":** The rules for the accounting of financial instruments in the accounting standard IFRS 9 "Financial Instruments" have been applied within the EnBW Group since 1 January 2018. The previous-year figures have not been retroactively restated. IFRS 9 results in changes to hedge accounting, the classification and valuation of financial instruments and the impairment of financial assets. Detailed information on the effects of these changes on the EnBW Group are described below. All effects on the consolidated financial statements for 2018 in comparison to the consolidated financial statements for the previous year are presented in the relevant sections of these consolidated financial statements.

The following table presents the effects of the transition to IFRS 9 on the opening balance sheet items:

in € million	01/01/2018
Revenue reserves	478.7
Non-controlling interests	10.3
Deferred taxes	1.8

Classification and valuation of financial instruments

Due to the adoption of IFRS 9, financial assets will be allocated to the following measurement categories at initial recognition: "measured at amortised cost", "measured at fair value in equity" and "measured at fair value through profit or loss". It is also possible to measure equity instruments at fair value in equity without recycling, although the EnBW Group does not make use of this option at this point in time. There is no change to the classification and measurement of financial liabilities due to the first-time application of IFRS 9.

The following table and the descriptions below explain the original measurement categories according to IAS 39 as of 31 December 2017 and the new measurement categories according to IFRS 9 as of 1 January 2018 for each category of financial assets in the EnBW Group. The effects of the application of IFRS 9 on the carrying amounts of the financial assets as of 1 January 2018 relate to the new impairment rules and the fair value measurements of other investments < 20%.

Carrying amounts and fair value of financial instruments

in € million	31/12/2017						01/01/2018
	Carrying amount IAS 39	Measured through profit or loss	Debt instruments measured in equity	Measured at amortised cost	Not within the scope of application	Measurement adjustments IFRS 9	Carrying amount IFRS 9
Financial assets	6,573.8	4,104.4	1,538.7	358.2	572.5	36.6	6,610.4
Held for trading	(57.3)	(57.3)					
Available for sale	(6,108.0)	(4,047.1)	(1,538.7)		(522.2)		
Loans and receivables	(358.2)			(358.2)			
Not within the scope of application	(50.3)				(50.3)		
Trade receivables	4,729.6			4,729.6		-7.1	4,722.5
Other assets	3,458.8	2,229.0		632.6	597.2	-0.2	3,458.6
Held for trading	(2,105.5)	(2,105.5)					
Loans and receivables	(606.8)			(606.8)			
Derivatives designated as hedging instruments	(123.5)	(123.5)					
Carrying amount in accordance with IAS 17	(25.8)			(25.8)			
Not within the scope of application	(597.2)				(597.2)		
Cash and cash equivalents	3,213.3			3,213.3		-0.5	3,212.8
Assets held for sale	3.0				3.0	0.0	3.0
Not within the scope of application	(3.0)				(3.0)		
Total	**17,978.5**	**6,333.4**	**1,538.7**	**8,933.7**	**1,172.7**	**28.8**	**18,007.3**

Please refer to the section "Financial assets" in the "Significant accounting policies" for more details.

Impairment of financial assets

The impairment model according to IFRS 9 is applied to debt instruments measured at amortised cost or at fair value in equity, lease receivables, trade receivables, contractual assets, as well as loan commitments and financial guarantees that are not measured at fair value through profit or loss.

For the initial recognition of financial instruments and for financial instruments whose default risk has not increased significantly, a risk provision is recognised in the amount of the expected credit losses within the next twelve months (12-month ECL). For financial instruments whose default risk has increased significantly, a risk provision is recognised in the amount of the expected credit losses over the remaining lifetime of the instrument (lifetime ECL).

The simplified approach is used for the application of the impairment model to trade receivables and lease receivables. According to the simplified approach, a company does not need to track changes in the credit risk. Instead, the company has to recognise a risk provision in the amount of the expected credit losses over the whole lifetime of the instrument at initial recognition and also at every subsequent reporting date.

As of 1 January 2018, the application of the impairment rules according to IFRS 9 resulted in an additional impairment of €8.7 million which mainly related to trade receivables.

Please refer to the information in the section "Impairment of financial assets" in the "Significant accounting policies" for more details.

Hedge accounting

IFRS 9 has removed the previous restrictions on hedge accounting according to IAS 39 which has opened up a greater selection of underlying and hedge transactions. In the EnBW Group, the new hedge accounting rules according to IFRS 9 will be applied to existing hedges. No cases have been identified where these rules would need to be applied to other hedging relationships.

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 2018 financial year. The most important changes are presented below:

IFRS 16 (2016) "Leases": The standard replaces the current standard for accounting for leases IAS 17 and the associated interpretations IFRIC 4, SIC-15 and SIC-27. IFRS 16 must be applied for financial years beginning on or after 1 January 2019. The new standard introduces a uniform accounting model for the lessee, whereby for all leases the lessee recognises the conferred right of use as an asset and a corresponding leasing liability. During the term of the lease, the right of use is depreciated and the measurement of the leasing liability is carried out using the effective interest method. Accounting for expenses for operating leases on a straight-line basis according to IAS 17 will be replaced by depreciation of the right-of-use assets and interest expenses for the liabilities from the lease. The accounting regulations and the associated classification of leases in line with IAS 17 will remain largely unchanged for the lessor.

The transition to the new standard will be carried out according to the modified retrospective approach; the figures for the previous year will not be adjusted. EnBW will utilise the simplified approach to report short-term leases and leases involving low-value assets directly on the income statement. The simplified approach will be used by EnBW to apply IFRS 16 at the time of transition to leases that were already classified as leases according to IAS 17 and IFRIC 4. Furthermore, the right of use to the leased asset will be reported in the amount of the leasing liability. EnBW does not expect any material impact on finance lease agreements where EnBW is the lessee. Based on the current information and analyses as part of the implementation project, EnBW anticipates additional leasing liabilities of approximately €500 million as of 1 January 2019. This amount could also change significantly as a result of the final evaluations of our analyses.

The IASB and the IFRS IC have also published the following standards and interpretations whose application is expected to have no material impact on the EnBW consolidated financial statements. Their application in the future is subject to their endorsement by the EU into European law.

- Amendments to IAS 1 and IAS 8 (2018) “Definition of Material”
- Amendments to IAS 19 (2018) “Plan Amendment, Curtailment or Settlement”
- Amendments to IAS 28 (2017) “Long-term interests in Associates and Joint Ventures”
- Amendments to IFRS 3 (2018) “Business Combinations”
- Amendments to IFRS 9 (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 (2017) “Insurance Contracts”
- IFRIC 23 (2017) “Uncertainty over Income Tax Treatments”
- Amendments to the References to the Conceptual Framework for the IFRS Standards (2018)
- Collective standard for the amendment of various IFRS (2017) “Improvements to the IFRS Cycle 2015–2017”

Adjustment to capital employed and net debt

In order to improve the presentation of the net assets, we have classified other assets and other liabilities for the special funds previously reported under capital employed as net debt in 2018 and presented them there under a separate item “Other” within the dedicated financial assets. As these funds are exclusively held for managing the dedicated financial assets, the classification will be adjusted in the future. As of 31 December 2017, net debt decreased by €41.2 million as a result and capital employed decreased accordingly by €41.2 million.

Significant accounting policies

Intangible assets

Intangible assets acquired for a consideration are carried at amortised cost and, except for goodwill, are amortised using the straight-line method over their useful life. The amortisation period of purchased software ranges from 3 to 5 years; the amortisation period of concessions for power plants is between 15 and 65 years. Customer relationships are amortised over their expected useful life of between 4 and 30 years, water rights and the underlying concessions are amortised over 20 years. 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	25–50
Power plants	10–50
Electricity distribution plants	25–45
Gas distribution plants	10–55
Water distribution plants	15–40
District heat distribution plants	15–30
Telecommunications distribution facilities	4–20
Other equipment, factory and office equipment	4–14

The useful lives and 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 3.0% (previous year: 3.2%). Borrowing costs totalling €9.9 million were capitalised in the financial year (previous year: €5.7 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 expense recognised for goodwill may not be reversed in a subsequent period. Accordingly, impairment losses on goodwill are not reversed.

Financial assets

For financial assets, a differentiation is made between debt instruments and equity instruments. Debt instruments are split into three business models: “hold”, “hold to collect and sell” and “other”. The business models determine the measurement categories for the debt instruments. The “hold” business model includes trade receivables, lease receivables and loans, which are generally held to maturity and are thus allocated to the “measured at amortised cost” measurement category. Trade receivables mainly comprise contracts with customers. As in the previous year, loans subject to market interest rates are recognised at nominal value and low-interest or interest-free loans at present value. The “hold to collect and sell” business model comprises fixed-income and floating-rate interest securities. These are allocated to the “measured at fair value through profit or loss” or “measured at fair value in equity” measurement categories. A cash flow characteristics test in accordance with IFRS 9 is carried out for these securities to test whether the cash flows arise exclusively to make interest and redemption payments on the outstanding amount. The securities that pass the cash flow characteristics test are measured at fair value in equity, otherwise the securities are measured at fair value through profit or loss. The “other” business model comprises all debt instruments that are not allocated to the “hold” or “hold to collect and sell” business models. As a result, these debt instruments are allocated to the “measured at fair value through profit or loss” measurement category.

Equity instruments are allocated to the “measured at fair value through profit or loss” measurement category. The option of measuring equity instruments at fair value in equity without recycling is not currently being utilised.

To determine the fair value, the market price on the reporting date is taken for publicly listed financial assets. If no active market exists, the fair value is determined using the most recent market transaction or using a valuation method (such as the discounted cash flow method). If the input parameters for such a valuation cannot be reliably determined with the amount of effort appropriate for the materiality of the equity instrument, the valuation is carried out at acquisition costs. Trade receivables usually have short terms to maturity. Consequently, their carrying amounts as of the reporting date approximate their fair value. Receivables that bear off-market interest or are interest-free with remaining terms to maturity of more than one year are reported in the balance sheet at present value. For other current assets, it is assumed, as in the previous year, that the fair value approximates the carrying amount. For non-current other assets, the market value is determined by discounting the expected future cash flows.

In the previous year, 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, were allocated to the “available for sale” measurement category. This measurement category included all financial assets that were not classified as “held for trading”, “held to maturity” or “loans and receivables”. They could measured at fair value if it were be determined reliably; unrealised gains and losses were recognised directly in equity. If the fair value could not 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. The securities recognised as current financial assets and allocated to the “held for trading” category were 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 were recognised immediately in profit or loss.

Impairment of financial assets

Financial assets that belong to the “measured at amortised cost” or “measured at fair value in equity” measurement categories are impaired using the 3 stage impairment model according to IFRS 9. In stage 1, risk provisions for expected credit losses over the next twelve months are calculated (12-month PD). If the default risk has deteriorated significantly, the expected loss over the whole lifetime is calculated in stages 2 and 3 (lifetime ECL). For financial assets in the “measured at amortised cost” or “measured at fair value in equity” categories, a risk provision is determined at the time of acquisition in the amount of the expected loss within one year (risk provision stage 1). If there has been significant deterioration in the borrower's credit rating, the calculation horizon is extended to cover the lifetime of the receivable (risk provision stage 2). If the credit rating has deteriorated so much as to jeopardise payment or the borrower has actually defaulted, the asset is transferred to risk provision stage 3. The risk provision is also calculated here based on the expected losses over the lifetime of the receivable. However, any interest revenue is now recognised on the basis of the net carrying amount after impairment and using the effective interest rate and no longer on the basis of the gross carrying amount.

A significant increase in the default risk exists at the latest when a payment is more than 30 days past due. An earlier reclassification based on findings from the claims management process is also fundamentally possible. Default is assumed if the payment is 90 days or more past due or if the payment is no longer considered likely due to other events (such as opening insolvency proceedings). Due to the small scope and lack of historical data for defaults on financial assets, the actually expected losses are determined based on weighted expert estimates or external ratings (if available). As long as the absolute default risk is classified as low, the asset is generally not transferred to stage 2. It can be assumed in this process that a financial instrument has a "low default risk" if it fulfils the criteria to achieve an "investment grade" credit rating.

In order to evaluate whether there has been a significant change in the default risk, any actual or expected significant changes are examined, taking into account, amongst other things, the following factors:

- external or internal credit rating of the financial instrument
- business/financial or economic framework conditions
- operating result of the borrower
- regulatory/economic or technological environment of the borrower
- financial support from a parent company
- payment history
- quality of the guarantees provided by a shareholder
- information on delayed payments

In the previous year, impairments were recognised in accordance with the so-called "incurred loss model". Impairment losses were thus recognised based on losses that had been incurred. In the case of loans and other assets, impairment losses were sometimes recognised via a loss allowance account. The decision whether the loss allowance reduced the carrying amount directly or was indirectly recognized via an allowance account depended on the probability of the anticipated default.

In the case of trade receivables, the simplified approach for determining impairments according to IFRS 9 is used irrespective of their term. Accordingly, the expected loss over the whole lifetime is always used for the risk provision. The expected loss rates are calculated based on historical defaults for each customer group. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors that could have an impact on the payment behaviour of our customers. Gross domestic product has been identified as the most relevant factor in this area. In exceptional cases, the default probability is taken from default probabilities that are available externally instead of using historical data. In the previous year, the impairments recognised on trade receivables were based on the actual default risk.

As in the previous year, receivables are generally written off when the receivable is deemed irrecoverable. Possible factors could be:

- an unsuccessful enforcement order
- filing for insolvency proceedings or opening the subsequent insolvency proceedings or refusal to open the insolvency proceedings due to a lack of assets
- a declaration about the ineligibility of the receivable in a court order

However, receivables may only be written off when there is no liability that could be offset against it.

Impairment loss expenses are netted as a separate item on the income statement. In the previous year, the impairment losses were reported under the item "other operating expenses" and income from impairments was reported under other operating income.

Inventories

Inventories are recorded at cost. As a rule, they are measured at average prices. Pursuant to IAS 2, costs of conversion contain the direct costs and an appropriate portion of the necessary materials and production overheads including depreciation. Costs of conversion are determined on the basis of normal capacity utilisation. Borrowing costs are not capitalised as a component of costs of conversion. Appropriate allowance is made for risks relating to reduced usability. Where necessary, the lower net realisable value compared to the carrying amount is recognised. Reversals of impairment losses on inventories are deducted from the cost of materials.

The nuclear fuel rods disclosed in the inventories are measured at amortised cost. 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 emission allowances is accounted for under other provisions. The carrying amount of the provision is determined based on the carrying amount of the existing emission allowances. If further emission allowances are needed, they are accounted for at their fair value as of the reporting date.

Treasury shares

Own equity instruments which are repurchased (treasury shares) are deducted from equity. No gain or loss is recognised in the income statement on the purchase, sale, issue or cancellation of the Group's own equity instruments.

Provisions for pensions and similar obligations

For defined benefit plans, provisions for pensions and similar obligations are determined using the projected unit credit method in accordance with IAS 19. This method considers current and future pension benefits known at the reporting date as well as future anticipated salary and pension increases. Actuarial gains and losses are recorded in their entirety in the financial year in which they arise. They are reported outside of the income statement in the statement of comprehensive income as part of the cumulative changes not impacting income and recorded directly in equity. There will be no recognition in profit and loss in subsequent periods. Plan assets of funds established to cover the pension obligations are deducted from the provision. The service cost is disclosed in personnel expenses, while the net interest portion of additions to the provision and the return on plan assets are recorded in the financial result. Payments for defined contribution plans are recognised as personnel expenses.

Provisions relating to nuclear power

The Act for the Reorganisation of Responsibility in Nuclear Waste Management, which came into force in the middle of June 2017, establishes new rules for the roles and financial responsibilities of the German government and operators. According to the new law, operators are responsible for the decommissioning and dismantling of their nuclear power plants, as well as for the conditioning and packaging of the radioactive waste. The provisions accumulated for these purposes will remain with the companies. The transport, intermediate storage and final storage of the waste is the responsibility of the German government, who has been provided with the money to finance these tasks by the operators of the nuclear power plants. The evaluation of the provisions is carried out mainly on the basis of estimates, which for the decommissioning and dismantling of nuclear power plants, as well as for the conditioning and packaging of radioactive waste, are primarily derived from sector-specific appraisals. The provisions are recognised at the discounted settlement amount at the time they originated.

Other provisions

Other provisions take account of all legal or constructive obligations towards third parties resulting from past events that are identifiable at the reporting date, to the extent that it is probable that they will lead to an outflow of resources in future and their amount can be reliably estimated. The provisions are recognised at their settlement amount. They are measured at the estimated future amount or the amount most likely to be incurred.

The non-current provisions are stated at the future amount needed to settle the obligation discounted to the reporting date. This does not apply to provisions for pensions and similar obligations. These are subject to special rules in accordance with IAS 19.

Deferred taxes

Deferred taxes are recorded in accordance with the temporary concept (IAS 12) on all temporary differences between the tax accounts and the IFRS balance sheet of the individual entities. Deferred taxes from consolidation entries are recognised separately. Deferred tax assets are recognised on deductible temporary differences and carryforwards of unused tax losses if it is reasonably certain that they will be recovered.

Deferred taxes are calculated on the basis of the tax rates that apply or that are expected to apply in the individual countries at the time of utilisation. A tax rate of 29.4% is 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 current other liabilities, it is assumed that the fair value corresponds to the carrying amount. For non-current other liabilities, the market value is determined by discounting the expected future cash outflows. The construction cost subsidies carried as liabilities are reversed to revenue in accordance with the use of the subsidised item of property, plant and equipment. As a rule, the period of reversal for construction cost subsidies is between 20 and 45 years. Investment cost subsidies are reversed over the depreciation period of the subsidised assets. The reversal is offset openly against depreciation.

Assets held for sale and liabilities directly associated with assets classified as held for sale

Assets held for sale are individual non-current assets and groups of assets which can be sold in their present condition, whose sale is highly probable and which satisfy all the criteria defined in IFRS 5. The item “liabilities directly associated with assets classified as held for sale” includes liabilities that are part of a group of assets held for sale.

Assets classified as assets held for sale for the first time are measured at the lower of carrying amount and fair value less costs to sell, and depreciation on such assets ceases.

Gains or losses from measuring individual assets and groups of assets held for sale are disclosed as profit or loss from continuing operations until they are finally sold.

Derivatives

Derivatives are measured at fair value in accordance with IFRS 9. Both the counterparty’s credit default risk and that of the company itself are taken into account in the calculation of fair value. Default risk with respect to an individual counterparty is calculated on the basis of the net risk position. In the case of derivatives for which net recording is not permitted, the credit default risk calculated on the basis of the net position is recorded in proportion to the fair value before the value adjustment. In accordance with the “net approach”, this involves allocating the value adjustment solely to the derivatives’ asset or liability surplus that arises. The derivatives are recognised under other assets and other liabilities and subsidies.

Derivatives are measured using quoted prices in active markets such as stock market prices. Where such prices are not available, the fair values are determined by reference to generally accepted valuation techniques. Quoted prices in active markets are used as inputs wherever possible. If they are not available either, entity-specific planning assumptions are considered in the valuation.

If they are contracts that were entered into and continue to be held for the purpose of the receipt or delivery of a non-financial item, in accordance with the entity's expected purchase, sale or usage requirements (own use), they are not recognised as derivatives under IFRS 9, but as executory contracts in accordance with IAS 37.

Derivatives are allocated to the "measured at fair value through profit or loss" measurement category unless hedge accounting is used.

For derivatives used in a hedge, the accounting treatment of changes in fair value depends on the nature of the hedge.

In the case of changes in the fair value of cash flow hedges which are used to offset future cash flow risks arising from existing hedged items or highly probable forecast transactions, the unrealised gains and losses are initially recognised directly in equity (other comprehensive income) in the amount of the hedged item covered. Amounts are reclassified to the income statement when the hedged item impacts profit or loss.

In the case of a fair value hedge used to hedge the fair value of reported assets or liabilities, the gains or losses from the measurement of derivatives and the associated hedged items are recognised in profit or loss.

Foreign currency risks from investments with a foreign functional currency are secured by hedges of a net investment in a foreign operation. Unrealised exchange rate differences are initially recognised in equity and reclassified to profit or loss when the foreign operation is sold.

Hedging relationships are designated in accordance with the risk management goals and strategies explained in note (24) "Accounting for financial instruments". The economic relationship between the hedging instrument and the hedged transaction, as well as the evaluation of the expected effectiveness of the hedge, are documented at the beginning. Primary and derivative financial instruments will be netted in the balance sheet if an unconditional right to offset exists, or when there is an intention to offset or realise the asset and settle the liability.

Contingent liabilities

Contingent liabilities are possible obligations to third parties or present obligations where the probability of an outflow of resources is remote or the amount cannot be determined reliably. Contingent liabilities outside of company acquisitions are not recognised.

Financial guarantees

Financial guarantees are contracts where EnBW is required to make specified payments to reimburse the holder for a loss incurred because a debtor fails to meet its payment obligations under the financial guarantee. Financial guarantees are measured at fair value upon initial recognition. After initial recognition, the financial guarantees are measured at the higher of amortised cost and the best estimate of the present obligation as of the reporting date.

Revenue recognition

According to IFRS 15, revenue is recognised when control over a good or service has been transferred to the customer. Please refer to note (1) "Revenue" for more details on the accounting policies. In the comparative period, revenue was still recognised in accordance with the regulations that were valid before the introduction of IFRS 15. In contrast to IFRS 15, revenue was generally recognised when the risk had been transferred to the customer in accordance with the old regulations in IAS 18. All substantial risks and rewards were transferred to the customer upon the transfer of title or ownership. According to both IAS 18 and IFRS 15, the revenue is measured according to the consideration defined in the contract with the customer, whereby sales deductions such as price discounts or variable components must be taken into account. Amounts collected on behalf of third parties are excluded from this process. Revenue is recognised net of VAT and after the elimination of intercompany sales. 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.

Exercise of judgement and estimates when applying accounting policies

The preparation of the consolidated financial statements requires judgements and estimates to be made in applying the accounting policies that affect the reported amounts of assets and liabilities, revenue and expenses, and the disclosure of contingent liabilities.

The following judgements in particular have to be made in the process of applying the accounting policies:

- Judgement is required with respect to certain commodity futures contracts to determine whether they are derivatives as defined by IFRS 9 or executory contracts in accordance with the provisions of IAS 37.
- Financial assets are allocated to the "measured at amortised cost", "measured at fair value through profit or loss" and "measured at fair value in equity" measurement categories according to IFRS 9.

These estimates are based on assumptions and forecasts which, by their very nature, are uncertain and may be subject to change. The key future-oriented assumptions and other sources of uncertainty as of the reporting date, concerning estimates which have given rise to a considerable risk that material adjustments of carrying amounts of assets and liabilities may be required in the next financial year, are explained below:

Goodwill: Goodwill is tested for impairment at least once a year. The impairment test involves estimates that concern, above all, future cash 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, a charge in expectations regarding short, medium and long-term electricity prices and the service life of the power plants may lead to impairment losses or reversals of impairment losses. A suitable interest rate is to be used when performing the impairment tests. If this interest rate changes, for example due to a change in the macroeconomic or industry situation, recognition of impairment losses or reversals of impairment losses may also be necessary.

Impairment of financial assets: In order to determine impairments on financial assets, assumptions about the default risk are made that influence the loss rates. The assumptions are made based on the historical experiences of the Group and flow into the calculation of the impairments as input factors. Changes to market conditions and forward-looking estimates before the end of the relevant reporting period are also taken into account in the calculations. The most important assumptions and input factors are described in the section "Significant accounting policies".

In the previous year, changes in the value of financial assets in the "available for sale" measurement category were recognised directly in equity. Permanent impairment was recognised in 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. To take account of the credit risk, impairments were only made for doubtful receivables in the previous year. The amount of the impairment includes estimates and judgements made for individual receivables which are based on the maturity profile of the receivables, the customers' credit rating, past experience relating to the derecognition of receivables and changes in the conditions for payment.

Determining the fair value of financial assets and financial liabilities: The fair value of financial assets and financial liabilities is determined by reference to quoted market prices, insofar as the financial instruments are traded on an active market, or by using valuation techniques such as the discounted cash flow method. Where the parameters used in the valuation techniques are not supported by observable market data, assumptions need to be made which can affect the fair value of financial assets and financial liabilities.

Pension provisions: When calculating pension provisions, differences compared to the actual obligations incurred over time may arise from the selection of underlying assumptions, such as the discount rate or trends, use of demographic probabilities based on the 2018 G Heubeck mortality tables and accepted approximation methods for future pension increases from the statutory pension insurance fund.

Nuclear provisions: The provisions for the decommissioning and dismantling of the power plants, as well as for the conditioning and packaging of radioactive waste, are based mainly on external appraisals that are updated annually. These appraisals are based on cost estimates of the settlement value for each obligation. The uncertainty inherent in the estimates is due primarily to departures from the assumed cost development and changes in payment dates. Changes in the discount rate could also lead to an adjustment of the nuclear provisions.

Provisions for onerous contracts: Provisions for onerous contracts are generally set up for onerous procurement and sales agreements. Future changes in market prices on the procurement or sales side or in the discount rates may lead to an adjustment of the provisions for onerous contracts.

Acquisition accounting: For acquisition accounting purposes, all identifiable assets, liabilities and contingent liabilities acquired in a share purchase are recognised at fair value as of the date of acquisition for first-time consolidation purposes. Estimates are used to calculate the fair value of these assets and liabilities as of the date of acquisition. Land and buildings as well as other equipment, factory and office equipment are generally measured by independent appraisers. Marketable securities are recognised at market price. If the purchase price agreement includes contingent considerations, accounting for those purchase price components also requires estimates.

The measurement of intangible assets is based on the nature of the intangible asset as well as the complexity of determining fair value. Fair value is therefore determined on the basis of an independent external valuation appraisal.

Income tax: Estimates are also needed to capitalise tax assets, to set up tax liabilities and to assess the temporary differences arising from differences in the accounting treatment of certain items in the financial statements between the consolidated balance sheet in accordance with IFRS and the tax accounts. Capitalisation of tax refund claims and the setting up of tax liabilities are fundamentally only recognised if the relevant payments are likely. Deferred tax assets 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. Investments that are accounted for using the equity method in the consolidated financial statements are tested for impairment when circumstances or events indicate that there could be an impairment or increase in value. 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 the investments.

Please refer to note (1) "Revenue" for more details on the exercise of judgement and estimates when applying IFRS 15.

Potential effects due to changes in estimates in other areas are explained in the respective sections. Please refer to note (19) "Provisions" for more information on the provisions.

Currency translation

In the separate financial statements of the entities, business transactions in foreign currency are translated at the rate of the transaction date. Non-monetary items are measured at the rate prevailing when they were first recorded. Monetary items are translated at the closing rate as of the reporting date. Exchange differences from monetary items that are allocable to operating activities are recognised in other operating income or other operating expenses with effect on profit or loss. Translation differences from financing activities are disclosed in the interest result.

The reporting currency of EnBW, which is also the functional currency, is the euro (€). The financial statements of the Group entities are translated to euros. Currency translation is performed in accordance with IAS 21 "The Effects of Changes in Foreign Exchange Rates" using the modified closing rate method. Under this method, the assets and liabilities of entities that do not report in euros are translated at the mean rate prevailing on the reporting date, while expenses and income are translated at the average annual rate. The companies concerned are commercially independent foreign entities. Differences from the currency translation of assets and liabilities compared to the translation of the previous year, as well as exchange differences between the income statement and the balance sheet, are recognised directly in equity under other comprehensive income. The same procedure is applied by analogy for foreign entities accounted for using the equity method.

Currency translation was based on the following exchange rates, amongst others:

€ 1	Closing rate		Average rate	
	31/12/2018	31/12/2017	2018	2017
Swiss franc	1.13	1.17	1.15	1.11
Pound sterling	0.89	0.89	0.88	0.88
US dollar	1.15	1.20	1.18	1.13
Czech koruna	25.72	25.54	25.64	26.33
Japanese yen	125.85	135.01	130.40	126.63
Norwegian krone	9.95	9.84	9.60	9.33
Danish krone	7.47	7.44	7.45	7.44
Polish zloty	4.30	4.18	4.26	4.26

Notes to the income statement and the balance sheet

(1) Revenue

Revenue from contracts with customers is recognised when control over a good or service has been transferred to the customer. The electricity and energy tax paid by the entities is deducted from revenue in the income statement. In the interest of a more accurate presentation of the business development, income and expenses from energy trading businesses are disclosed net. The net disclosure means that revenue from energy trading businesses is reported net of the related cost of materials. For the 2018 financial year, the net energy trading revenue amounted to €29,202.0 million gross (previous year: €13,427.6 million).

Alongside revenue from contracts with customers, there is other revenue from ordinary business activities. This is how they break down:

in € million	2018
Revenue from contracts with customers	20,460.9
Other revenue	156.6
Total	**20,617.5**

The change in revenue is explained in more detail in the management report in the section "The EnBW Group" and mainly relates to revenue from contracts with customers. The following table shows a breakdown of revenue by region and products for the different segments of the EnBW Group.

External revenue by region

2018 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Revenue from contracts with customers by region	7,057.5	3,065.9	477.5	9,853.0	7.0	20,460.9
Germany	(6,323.8)	(2,895.7)	(369.7)	(7,951.8)	(6.9)	(17,547.9)
European currency zone excluding Germany	(22.6)	(4.5)	(6.7)	(1,593.3)	(0.0)	(1,627.1)
Rest of Europe	(711.1)	(165.7)	(101.1)	(307.9)	(0.0)	(1,285.8)
Rest of world	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)
Other revenue	3.9	149.5	0.0	3.2	0.0	156.6
Total	**7,061.4**	**3,215.4**	**477.5**	**9,856.2**	**7.0**	**20,617.5**

External revenue by region

2017 in € million[1]	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Germany	6,677.1	7,313.7	346.4	5,739.3	9.1	20,085.6
European currency zone excluding Germany	16.8	3.5	22.0	659.3	0.0	701.6
Rest of Europe	660.4	154.6	139.1	232.5	0.0	1,186.6
Rest of world	0.0	0.0	0.0	0.0	0.2	0.2
Total	**7,354.3**	**7,471.8**	**507.5**	**6,631.1**	**9.3**	**21,974.0**

1 IAS 18 was applied in the previous year.

External revenue by product

2018 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Revenue from contracts with customers by product	7,057.5	3,065.9	477.5	9,853.0	7.0	20,460.9
Electricity	(5,207.2)	(1,996.0)	(434.2)	(4,029.0)	(0.0)	(11,666.4)
Gas	(1,691.1)	(528.3)	(7.1)	(5,335.5)	(0.0)	(7,562.0)
Energy and environmental services/other	(159.2)	(541.6)	(36.2)	(488.5)	(7.0)	(1,232.5)
Other revenue	3.9	149.5	0.0	3.2	0.0	156.6
Total	**7,061.4**	**3,215.4**	**477.5**	**9,856.2**	**7.0**	**20,617.5**

External revenue by product

2017 in € million [1]	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Electricity	5,559.2	6,553.1	473.2	2,814.5	0.0	15,400.0
Gas	1,704.9	375.2	0.0	3,447.3	0.0	5,527.4
Energy and environmental services/other	90.2	543.5	34.3	369.3	9.3	1,046.6
Total	**7,354.3**	**7,471.8**	**507.5**	**6,631.1**	**9.3**	**21,974.0**

1 IAS 18 was applied in the previous year.

Revenues mainly arise from goods and services that are transferred over a particular time period.

The most important services are described below:

Electricity and gas deliveries: The revenues primarily result from the transfer of electricity and gas to customers. In the case of contracts in which no fixed purchase volume has been agreed, the performance obligation consists in particular of providing energy and the possibility of accessing it at all times. As the customer uses these services while they are being rendered, the revenue is recognised over a period of time. The measure of progress is generally carried out on a straight-line basis together with the allocation of variable fees for certain performance elements. If fixed purchase volumes are agreed, the performance obligation consists of transferring the energy volumes and the revenue is thus recognised when control over the energy is transferred. In the case of customer groups who pay according to rolling annual statements, the transaction price is calculated based on past consumption values while taking into account the current temperature influences and time of year. Discounts or bonus payments are taken into account as variable considerations against revenue from the beginning of the contract. If individual contracts include the transfer of assets as an additional performance obligation, the revenue for these assets is recognised at the time of delivery and measured at the relative individual sales price. Monthly advance payments are generally agreed.

The distribution of electricity and gas: EnBW offers its customers use of the electricity and gas grids. EnBW recognises the revenues when the services are rendered. Monthly invoices of the actual costs or monthly advance payments are agreed. Construction cost subsidies are non-refundable prepayments that are carried as liabilities and reversed over a period of 20 to 45 years. The liabilities are reversed to revenue. Please refer to note (21) "Liabilities and subsidies" for the development of construction cost subsidies and to note (31) "Notes to the cash flow statement" for the amounts recognised as revenue.

In addition, other revenue includes the areas of services, district heating, contracting and waste management. The majority of the contracts include services for which customers pay while they are being rendered and the revenue is thus recognised over a time period. The measure of progress is generally carried out on a straight-line basis together with the allocation of variable fees for certain performance elements.

The following table contains the revenues that are expected to be recognised in future in combination with the performance obligations that have not been fulfilled either partially or fully as of 31 December 2018.

Transaction price allocated to the remaining performance obligations

in € million	< 1 year	1–5 years	6–10 years	> 10 years
Electricity supply contracts	1,359.7	1,118.0	120.6	36.0
Gas supply contracts	2,828.6	5,392.8	183.2	30.3
Other	416.6	1,263.7	450.2	456.8

As well as the areas described above, the "Other" line also includes income from the reversal of construction cost subsidies. The amounts stated include variable payments but limited variable payments are excluded. All other contracts for goods and services have an expected contractual term of one year or less, or they are invoiced according to the service rendered or a fixed amount per unit. In these cases, EnBW utilises the practical expedients in IFRS 15.121 and does not provide information on the remaining performance obligations. The simplified option is also used, for example, for grid usage contracts because they usually run for an indefinite period of time but can generally be terminated at least on a yearly basis.

Receivables are recognised upon delivery of goods or upon completion of an underlying performance period, because this is the point in time at which there is an unconditional claim to receipt of the consideration and only the passage of time is required until the payment is due. Please refer to note (24) "Accounting for financial instruments" for the development of receivables connected to customer contracts. In the reporting period, revenues for performance obligations of €163.2 million were recognised that were fulfilled either fully or partially in preceding periods.

Judgement is required for determining the transaction price which for multi-component agreements must be split into all of the separate performance obligations based on their relative individual sales prices. This includes, in particular, the existence and the level of any variable considerations (e.g. discounts, bonus payments), which are subtracted from the transaction price. These judgements are based on the contractual conditions and past empirical values. Judgements made about the recognition of revenues over time are based in particular on the selection of a suitable measure of progress for services. As the customer generally benefits from the service evenly over time, the revenue is recognised on a straight-line basis.

Commission paid to intermediaries and sales employees for concluding contracts are capitalised as additional costs for acquiring the contracts. As of 31 December 2018, the total assets that are recognised from the costs for the conclusion of customer contracts amount to €28.9 million. These costs primarily comprise commission paid to sales offices when customers are successfully acquired for EnBW. In 2018, the amount of amortisation was €17.0 million. The amortisation template works in line with the transfer of the good or service to the customers and is based on the average customer-retention period.

Additional costs for acquiring contracts are immediately recognised as an expense when they arise, insofar as the amortisation period for the assets is one year or less. An adjustment to the transaction price to take account of a significant financing component is not required because EnBW has not concluded any contracts where the time period between the transfer of the promised good or service to the customer and the payment by the customer exceeds one year.

(2) Other operating income

in € million	2018	2017
Income from the reimbursement of the nuclear fuel rod tax	0.0	1,444.9
Income from disposals	100.2	327.6
Income from the reversals of provisions	206.2	274.7
Income from derivatives	278.0	152.2
Income from reversals of impairment losses	22.1	93.1
Rent and lease income	25.5	26.6
Income from the reversal and reduction of specific loss allowances	-	10.7
Miscellaneous	484.7	420.5
Total	**1,116.7**	**2,750.3**

Income from disposals in the reporting year includes mainly income from the sale of VNG Norge AS and its subsidiary VNG Danmark ApS. In the previous year, it mainly included the sale of 49.89% of the shares in each of EnBW Hohe See GmbH & Co. KG and EnBW Albatros GmbH & Co. KG.

The decrease in income from the reversals of provisions was primarily attributable to the high income from the reversal of nuclear provisions in the comparative period, mainly due to an update of the cost estimate for the decommissioning of nuclear power plants.

The reversals of impairment losses in the previous 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 discount rate used in the valuation was 5.5% in the previous year. 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 the optimisation of costs introduced by the company. The fair value calculated for the power plants of €2.3 billion was therefore slightly above the carrying amount.

In the reporting year, income from currency exchange rate gains amounted to €40.0 million (previous year: €26.5 million).

The increase in miscellaneous other operating income was primarily due to higher income from the CO_2 allowances as a result of higher prices. Miscellaneous other operating income also includes income from the reversal of accruals and income from insurance claims.

(3) Cost of materials

in € million	2018	2017
Cost of materials and supplies and of purchased merchandise	13,853.4	15,310.7
Cost of purchased services	2,802.8	2,877.0
Exploration costs	1.4	1.6
Total	**16,657.6**	**18,189.3**

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 the 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. Fuel costs for conventional power plants, as well as costs for the procurement of CO_2 allowances, are also recorded under this item.

Cost of purchased services mainly contains expenses for use of the grids, services purchased for the operation and maintenance of the plants as well as concession fees. In addition, other expenses directly attributable to services rendered are disclosed under cost of purchased services.

(4) Personnel expenses

in € million	2018	2017
Wages and salaries	1,404.7	1,334.3
Social security, pension and other benefit costs	467.1	442.8
of which for post-employment benefits	(221.3)	(210.5)
Total	**1,871.8**	**1,777.1**

Employees

annual average	2018	2017
Sales	3,466	3,258
Grids	8,913	8,729
Renewable Energies	1,101	1,049
Generation and Trading	5,434	5,393
Other	2,610	2,648
Employees	**21,524**	**21,077**
Apprentices and trainees including DH students in the Group	880	869

The total number includes employees of joint operations of 7 employees (previous year: 6) based on the proportion attributable to EnBW.

(5) Other operating expenses

in € million	2018	2017
Administrative and selling costs and other overheads	378.0	335.9
Expenses from derivatives	214.5	182.4
Audit, legal and consulting fees	102.6	85.7
Other personnel expenses	81.8	101.1
Advertising expenses	80.6	75.3
Expense from specific loss allowances	-	60.9
Rent and lease expenses	69.7	59.5
Insurance	55.9	52.3
Dues and levies	23.7	17.4
Other taxes	19.1	36.7
Costs from disposals	11.2	9.8
Miscellaneous	157.4	146.1
Total	**1,194.5**	**1,163.1**

Miscellaneous other operating expenses contain expenses from currency exchange rate losses amounting to €43.1 million (previous year: €39.9 million) and expenses for provisions.

(6) Amortisation and depreciation

in € million	2018	2017
Amortisation of intangible assets	106.8	156.8
Depreciation of property, plant and equipment	1,106.2	1,094.0
Depreciation of investment properties	1.8	1.4
Reversals of investment cost subsidies	-1.0	-3.8
Total	**1,213.8**	**1,248.4**

As in the previous year, there were no impairment losses made on goodwill in the reporting year.

The impairment losses on other intangible assets, property, plant and equipment and investment property amounted to €13.8 million (previous year: €134.2 million) and mainly concerned property, plant and equipment. In the previous year, the impairment losses mainly comprised impairment valuation allowances of gas storage facilities and exploration licences and were 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 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.

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	2018	2017
Share of profit/loss of entities accounted for using the equity method	28.2	45.4
Write-downs on entities accounted for using the equity method	-56.4	-2.1
Write-ups of entities accounted for using the equity method	4.1	0.0
Net profit/loss from entities accounted for using the equity method	**-24.1**	**43.3**
Investment income	120.9	110.1
Write-downs on investments	-6.5	-9.8
Write-ups of investments	1.8	0.0
Result from the sale of equity investments	8.8	15.7
Other profit/loss from investments [1]	**125.0**	**116.0**
Investment result (+income/-expense)	**100.9**	**159.3**

1 Of which €92.3 million (previous year: €73.7 million) was income from investments held as financial assets.

The write-downs of entities accounted for using the equity method primarily contain an impairment for the carrying amount of our Turkish investment in the current financial year. The recoverable amount calculated on the basis of the fair value less selling costs was €107.7 million and corresponds to Level 3 of the IFRS 13 valuation hierarchy. Using a business valuation model, the fair value is derived from the cash flow planning, based on the long-term planning that is valid as of the date of the impairment test. The discount rates used in the valuations were between 7.6% and 9.1%.

The write-downs on investments in the 2018 financial year mainly related to other investments. In the previous year, the write-downs on investments mainly related to other investments and also investments held as financial assets.

The result from the sale of equity investments in the 2017 financial year 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.

(8) Financial result

in € million	2018	2017
Interest and similar income	99.9	404.6
Other finance income	195.6	299.5
Finance income	**295.5**	**704.1**
Borrowing costs	-230.0	-264.5
Other interest and similar expenses	-43.4	-20.8
Interest portion of increases in liabilities	-170.7	-159.6
Personnel provisions	(-112.2)	(-116.3)
Provisions relating to nuclear power	(-41.9)	(-28.3)
Other non-current provisions	(-9.0)	(-7.8)
Other liabilities	(-7.6)	(-7.2)
Other finance costs	-231.8	-64.6
Finance costs	**-675.9**	**-509.5**
Financial result (+ income/- costs)	**-380.4**	**194.6**

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 previous 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 2018 financial year, interest income of €20.3 million (previous year: €19.2 million) was offset against economically related interest expenses. In the reporting period, other finance income includes income from the "measured at fair value through profit or loss" measurement category of €158,4 million. In the previous year, other finance income mainly contained realised market price gains on the sale of securities amounting to €222.0 million.

Borrowing costs are composed as follows:

in € million	2018	2017
Expenses incurred for bank interest and bonds	213.9	247.5
Interest portion of the costs of finance lease agreements	3.0	2.8
Other borrowing costs	13.1	14.2
Borrowing costs	**230.0**	**264.5**

In the reporting year, other interest and similar expenses contains interest expenses as a result of reducing the discount rate for the remaining nuclear provisions held by EnBW from 0.72% to 0.59%.

The interest portion of increases in liabilities relates mainly to the annual accretion of the non-current provisions.

In the reporting period, other finance costs mainly included costs from the "measured at fair value through profit or loss" measurement category of €196.9 million. In the previous year, they contained expenses from impairment losses on our financial investments of €3.8 million, which were mainly allocated to the "available for sale" measurement category. In addition, they also contained market price losses on the sale of securities amounting to €7.3 million (previous year: €21.3 million). Impairment losses on loans of €0.4 million (previous year: €0.6 million) were recognised in the reporting period.

The total interest income and expenses for financial assets and financial liabilities presented in the financial result breaks down as follows:

Total interest income and expenses

in € million	2018	2017
Total interest income	45.6	216.1
Total interest expenses	-226.0	-263.7

The total interest income and expenses arose from financial instruments that are not measured at fair value through profit or loss. The main items here are interest received from loans and bank balances, which are measured at amortised cost, as well as interest and dividends received from financial assets allocated to the "measured at fair value in equity" measurement category. In the reporting period, total interest income comprised the interest income from the "measured at amortised cost" measurement category of €35.2 million and the interest income from the "measured at fair value in equity" measurement category of €10.4 million. In the previous year, total interest income included interest income from the "available for sale" and "loans and receivables" measurement categories. In the reporting period, the interest expenses for the financial assets measured at amortised cost totalling €226.0 million were incurred in particular on bonds, bank liabilities and finance lease liabilities. In the previous year, there was no material interest income from impaired financial assets.

(9) Income tax

in € million	2018	2017
Actual income tax		
Domestic corporate income tax	241.9	195.3
Domestic trade tax	109.8	130.2
Foreign income taxes	33.9	44.7
Total (-income/+expense)	**385.6**	**370.2**
Deferred taxes		
Germany	-269.5	356.4
Abroad	12.6	-45.0
Total (-income/+expense)	**-256.9**	**311.4**
Income tax (-income/+expense)	**128.7**	**681.6**

The actual income tax amounting to €385.6 million (previous year: €370.2 million) concerns income tax expenses from the current financial year amounting to €107.3 million (previous year: €313.7 million) and income tax expenses for past periods amounting to €278.3 million (previous year: €56.5 million).

Deferred tax income amounting to €256.9 million (previous year: €311.4 million expense) consists of deferred tax expenses from the current financial year amounting to €36.7 million (previous year: €394.6 million) and deferred tax income for past periods of €293.6 million (previous year: €83.2 million). In the previous year, the balance of the deferred taxes contained income totalling €6.3 million from the change in tax rates.

The change in the actual and deferred income tax expenses for past periods was mainly due to tax audits and changes in the tax assessments.

The corporate income tax rate was 15.0% plus a solidarity surcharge of 5.5% of the corporate income tax. The trade tax rate was 13.6%. This represents a tax rate on income of 29.4%. For the foreign entities, the tax rate applicable in the country in which they are based of between 19.0% and 25.5% (previous year: between 19.0% and 25.2%) is used to calculate income taxes. Deferred tax assets and liabilities are measured at the tax rates expected to apply when the asset is realised or the liability is settled.

Deferred taxes comprise the following:

in € million	2018	2017
Origination or reversal of temporary differences	-220.8	238.3
Origination of carryforwards of unused tax losses	-38.9	-19.9
Utilisation of carryforwards of unused tax losses	2.8	96.3
Correction of carryforwards of tax losses unused in previous years	0.0	-3.3
Deferred taxes (-income/+expense)	**-256.9**	**311.4**

The reconciliation from the expected income tax expense to the current income tax expense is presented below:

in € million	2018	in %	2017	in %
Earnings before tax	**596.3**		**2,857.9**	
Expected tax rate		29.4		29.4
Expected income tax (-income/+expense)	**175.3**		**840.2**	
Tax effects				
Differences in foreign tax rates and tax rate differences	-17.2	-2.9	-45.4	-1.6
Tax-free income	-22.2	-3.7	-73.7	-2.6
Non-deductible expenses	21.3	3.6	13.9	0.5
Add-backs and reductions for trade tax purposes	10.7	1.8	11.9	0.4
Accounting for joint ventures and associates using the equity method	7.1	1.2	-12.3	-0.4
Zero-rated disposals of investments	-25.2	-4.2	-4.4	-0.2
Taxes relating to other periods	-15.3	-2.6	-26.7	-0.9
Tax credit	0.0	0.0	-11.0	-0.4
Other	-5.8	-1.0	-10.9	-0.4
Current income tax (-income/+expense)	**128.7**		**681.6**	
Current tax rate		**21.6**		**23.8**

(10) Intangible assets

in € million	Concessions, industrial property rights and similar rights and assets	Exploration costs	Internally generated intangible assets	Goodwill	Other	Total
Cost						
As of 01/01/2018	2,017.7	27.9	102.2	973.5	16.6	3,137.9
Increase/decrease due to changes in the consolidated companies	2.3	0.0	0.0	0.8	0.0	3.1
Additions	37.9	6.2	8.1	0.0	9.8	62.0
Reclassifications	7.1	0.0	1.1	0.0	-9.0	-0.8
Reclassification to assets held for sale	-140.8	-34.5	0.0	0.0	0.0	-175.3
Currency adjustments	11.6	0.4	0.0	-2.2	0.0	9.8
Disposals	-5.0	0.0	0.0	0.0	-3.1	-8.1
As of 31/12/2018	1,930.8	0.0	111.4	972.1	14.3	3,028.6
Accumulated amortisation						
As of 01/01/2018	1,091.9	0.5	91.6	48.0	0.0	1,232.0
Additions	100.5	0.0	5.1	0.0	0.0	105.6
Reclassifications	1.0	0.0	0.0	0.0	0.0	1.0
Reclassification to assets held for sale	-58.5	-0.5	0.0	0.0	0.0	-59.0
Currency adjustments	3.2	0.0	0.0	0.0	0.0	3.2
Disposals	-4.1	0.0	0.0	0.0	0.0	-4.1
Impairment	0.6	0.0	0.6	0.0	0.0	1.2
As of 31/12/2018	1,134.6	0.0	97.3	48.0	0.0	1,279.9
Carrying amounts						
As of 31/12/2018	796.2	0.0	14.1	924.1	14.3	1,748.7

in € million	Concessions, industrial property rights and similar rights and assets	Exploration costs	Internally generated intangible assets	Goodwill	Other	Total
Cost						
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
Accumulated amortisation						
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
Carrying amounts						
As of 31/12/2017	925.8	27.4	10.6	925.5	16.6	1,905.9

The carrying amount of the intangible assets includes concessions to operate power plants amounting to €516.1 million (previous year: €521.1 million) and customer relationships amounting to €125.7 million (previous year: €147.1 million).

In 2018, a total of €40.6 million (previous year: €39.8 million) was spent on research and development. This sum contains public subsidies totalling €2.3 million (previous year: €2.9 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 was allocated to the Generation and Trading segment until the sale of VNG Norge AS and its subsidiary.

in € million	2018	2017
Impairment losses on exploration	0.0	-0.5
Other exploration costs	-1.4	-1.6
Costs from exploration activities	**-1.4**	**-2.1**
Assets from exploration	0.0	27.4
Net payments for operative exploration activities	-1.4	-1.6
Net payments for investing activities for exploration	-6.2	-7.4

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, raw 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 6.6% after tax, or between 4.9% and 8.1% before tax (previous year: 3.5% to 6.7% after tax, and 4.9% to 8.3% 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 2018, there were no impairments to goodwill, as in the previous year.

In all cash-generating units, the recoverable amounts were above the carrying amounts so that, based on the current assessment of the economic situation, only a significant change in the main measurement parameters would lead to an impairment.

As of 31 December 2018, goodwill totalled €924.1 million (previous year: €925.5 million). Of this figure, 86.5% (previous year: 86.5%) is attributable to the cash-generating units or groups of cash-generating units presented in the table below:

Cash-generating units/groups of cash-generating units

	Discount rates after tax (%)		Goodwill in € million	
	2018	2017	2018	2017
PRE subgroup	4.5 – 6.5	4.7 – 6.7	265.9	267.1
Electricity sales and distribution	3.5 – 5.5	3.5 – 5.5	131.7	131.7
Stadtwerke Düsseldorf AG subgroup	3.5 – 5.5	3.5 – 5.5	127.4	127.4
Energiedienst Holding AG subgroup	3.5 – 5.5	3.5 – 5.5	147.1	147.1
ONTRAS Gastransport GmbH	3.5	3.5	127.2	127.2

The goodwill allocated to the other cash-generating units or groups of cash-generating units accounted for less than 6.5% (previous year: 6.5%) of total goodwill in each case. Its aggregate total amounted to €124.8 million (previous year: €125.0 million).

(11) Property, plant and equipment

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2018	4,020.6	18,522.9	16,117.7	1,877.5	1,219.4	41,758.1
Increase/decrease due to changes in the consolidated companies	4.8	67.6	2.9	22.5	0.4	98.2
Additions	39.2	343.9	392.6	54.3	734.7	1,564.7
Reclassifications	21.3	136.1	111.5	18.6	-288.8	-1.3
Reclassification to assets held for sale	-5.8	-64.8	-1.2	-111.2	-124.1	-307.1
Currency adjustments	-0.7	11.5	-12.9	7.7	3.1	8.7
Disposals	-31.1	-516.4	-116.5	-22.0	-16.0	-702.0
As of 31/12/2018	4,048.3	18,500.8	16,494.1	1,847.4	1,528.7	42,419.3
Accumulated amortisation						
As of 01/01/2018	2,184.0	13,687.8	8,986.4	1,278.5	24.0	26,160.7
Additions	62.0	541.0	387.3	104.5	0.0	1,094.8
Reclassifications	-1.3	0.0	-0.7	1.8	0.0	-0.2
Reclassification to assets held for sale	-1.2	-46.3	0.0	-26.2	-2.9	-76.6
Currency adjustments	-0.3	7.5	-5.3	5.1	0.0	7.0
Disposals	-24.7	-501.0	-80.7	-19.4	0.0	-625.8
Impairment	1.0	4.5	0.9	0.4	4.6	11.4
Reversal of impairment losses	-6.6	-3.5	-0.2	-9.1	-0.1	-19.5
As of 31/12/2018	2,212.9	13,690.0	9,287.7	1,335.6	25.6	26,551.8
Carrying amounts						
As of 31/12/2018	1,835.4	4,810.8	7,206.4	511.8	1,503.1	15,867.5

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
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
Accumulated amortisation						
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
Carrying amounts						
As of 31/12/2017	1,836.6	4,835.1	7,131.3	599.0	1,195.4	15,597.4

Items of property, plant and equipment amounting to €64.7 million (previous year: €71.9 million) serve as collateral for liabilities to banks, of which real estate liens accounted for €4.8 million (previous year: €0.0 million).

Land and buildings also includes, amongst other things, similar rights and buildings on leasehold land. Other equipment includes waste disposal plants, other technical plants as well as factory and office equipment.

The carrying amounts of property, plant and equipment include €12.1 million (previous year: €15.3 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 expenditure on intangible assets and property, plant and equipment totalling €1,369.5 million (previous year: €1,419.2 million) can be derived from the statement of changes in non-current assets as follows:

in € million	2018	2017
Additions to intangible assets and property, plant and equipment according to the statement of changes in non-current assets	1,626.7	1,413.5
Less additions to assets recognised under finance leases	-1.3	-3.7
Less additions to the provision recognised for the decommissioning and dismantling of property, plant and equipment	-279.6	-23.7
Plus additions to intangible assets and property, plant and equipment of assets held for sale	23.7	33.1
Capital expenditure on intangible assets and property, plant and equipment	**1,369.5**	**1,419.2**

(12) Entities accounted for using the equity method

Both joint ventures and associates are accounted for using the equity method.

The carrying amount for joint ventures includes €596.9 million (previous year: €396.0 million) for EnBW Hohe See GmbH & Co. KG, Hamburg, whose wind farm is currently under construction in the North Sea. The construction of this wind farm is being financed by equity. Due to a lack of control during the construction phase as a result of a requirement for unanimity in the General Meeting of Shareholders, it is reported in the consolidated financial statements temporarily as a joint venture using the equity method.

The following table shows a summary of the financial information for the entities accounted for using the equity method:

Financial data (EnBW's interest)

in € million	2018		2017	
	Associates	Joint ventures	Associates	Joint ventures
Carrying amount of entities accounted for using the equity method	614.0	986.2	621.2	767.4
Net profit/loss for the year from continuing operations	29.3	-1.1	38.8	6.6
Other income	3.7	6.5	-1.8	-15.7
Total comprehensive income	33.0	5.4	37.0	-9.1

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 2018.

(13) Other financial assets

in € million	Shares in affiliated entities	Other investments[1]	Non-current securities	Investment properties	Loans	Total
Cost						
As of 01/01/2018	138.7	1,765.0	4,097.2	107.5	151.4	6,259.8
Changes in accounting policies	0.0	26.8	-63.8	0.0	0.0	-37.0
Increase/decrease due to changes in the consolidated companies	-4.8	0.0	0.0	0.0	-12.2	-17.0
Additions	53.3	318.0	2,240.0	0.0	18.8	2,630.1
Reclassifications	1.2	-35.8	-405.3	0.4	2.1	-437.4
Reclassification to assets held for sale	0.0	-8.1	-291.9	-10.2	-0.3	-310.5
Currency adjustments	0.0	2.8	0.0	0.0	0.4	3.2
Disposals	-0.7	-250.4	-2,213.7	-38.0	-16.8	-2,519.6
As of 31/12/2018	187.7	1,818.3	3,362.5	59.7	143.4	5,571.6
Accumulated amortisation						
As of 01/01/2018	34.2	111.2	67.2	57.2	4.3	274.1
Changes in accounting policies	0.0	-10.2	-67.2	0.0	0.9	-76.5
Additions	0.0	0.0	0.0	0.6	0.0	0.6
Impairment	6.2	0.3	0.0	1.2	0.4	8.1
Reclassifications	1.2	-23.0	0.0	0.3	0.0	-21.5
Reclassification to assets held for sale	0.0	-1.0	0.0	-5.5	0.0	-6.5
Disposals	0.0	-5.3	0.0	-23.1	0.0	-28.4
Reversal of impairment losses	-0.1	-1.7	0.0	-2.6	-0.4	-4.8
As of 31/12/2018	41.5	70.3	0.0	28.1	5.2	145.1
Carrying amounts						
As of 31/12/2018	146.2	1,748.0	3,362.5	31.6	138.2	5,426.5

1 The carrying amounts include €1,491.7 million accounted for by investments held as financial assets.

in € million	Shares in affiliated entities	Other investments[1]	Non-current securities	Investment properties	Loans	Total
Cost						
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
Accumulated amortisation						
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
Carrying amounts						
As of 31/12/2017	104.5	1,653.8	4,030.0	50.3	147.1	5,985.7

1 The carrying amounts include €1,451.3 million accounted for by investments held as financial assets.

The investments in affiliated entities disclosed in the financial assets are entities that are not included in the consolidated financial statements due to immateriality.

The non-current securities are mainly fixed-income securities as well as listed shares. To a large extent, the non-current securities are held in special funds. For consolidation purposes, the individual securities in the special funds are shown separately in the consolidated balance sheet by type of investment. The non-current securities, loans and investments, which are held as financial assets, are available to the operating business in the amount of €0.0 million (previous year: €4.3 million) and to cover the pension and nuclear provisions in the amount of €4,864.4 million (previous year: €5,487.6 million). From the loans, €128.0 million (previous year: €136.5 million) was allocated to capital employed.

The receivables from irredeemable operating leases of the EnBW Group amounting to €122.3 million (previous year: €139.0 million) originate primarily from renting out 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	2018	2017
Due within 1 year	22.5	27.2
Due in 1 to 5 years	21.5	32.0
Due in more than 5 years	78.3	79.8
Total	**122.3**	**139.0**

The loans consist of loans to affiliated entities amounting to €4.0 million (previous year: €13.9 million), loans to entities accounted for using the equity method of €110.2 million (previous year: €109.0 million), loans to investments held as financial assets of €10.2 million (previous year: €10.6 million) and to operative investments allocated to capital employed of €7.0 million (previous year: €6.5 million) and other loans allocated to capital employed of €6.8 million (previous year: €7.1 million).

(14) Trade receivables

in € million			31/12/2018			31/12/2017
	Current	Non-current	Total	Current	Non-current	Total
Trade receivables	4,515.7	302.0	4,817.7	4,408.7	320.9	4,729.6
of which receivables from affiliated entities	(32.9)	(0.0)	(32.9)	(16.5)	(0.0)	(16.5)
of which receivables from other investees and investors	(53.4)	(0.0)	(53.4)	(65.6)	(0.0)	(65.6)
of which receivables from entities accounted for using the equity method	(31.4)	(0.0)	(31.4)	(28.2)	(0.0)	(28.2)

Non-current trade receivables principally include receivables relating to electricity supplies, whose term to maturity does not match the customary business cycle.

Further details on loss allowances and default risks within the trade receivables can be found in note (24) "Accounting for financial instruments".

(15) Other assets

in € million			31/12/2018			31/12/2017
	Current	Non-current	Total	Current	Non-current	Total
Income tax refund claims	102.2	0.8	103.0	101.7	0.5	102.2
Other tax refund claims	127.7	0.0	127.7	122.8	0.0	122.8
Interest from tax refunds	0.0	0.0	0.0	4.6	0.0	4.6
Derivatives	2,357.6	381.1	2,738.7	1,936.8	292.2	2,229.0
of which without hedges	(2,310.6)	(275.5)	(2,586.1)	(1,917.2)	(188.3)	(2,105.5)
of which cash flow hedge	(47.0)	(20.5)	(67.5)	(17.4)	(12.2)	(29.6)
of which fair value hedge	(0.0)	(85.1)	(85.1)	(2.2)	(91.7)	(93.9)
Finance lease receivables	3.2	16.2	19.4	4.8	21.0	25.8
Payments on account	61.3	14.2	75.5	65.0	49.2	114.2
Prepaid expenses	48.5	66.0	114.5	27.8	44.3	72.1
Miscellaneous assets	1,088.4	263.5	1,351.9	583.6	204.5	788.1
Total	**3,788.9**	**741.8**	**4,530.7**	**2,847.1**	**611.7**	**3,458.8**

Current and non-current income tax refund claims mainly include deductible tax on investment income, tax overpayments from the 2018 financial year and those from previous years that have not yet been fully assessed by the tax authorities.

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	31/12/2018	31/12/2017
Total lease instalments	24.0	32.1
Interest portion of outstanding lease instalments	4.6	6.3
Present value of outstanding lease instalments	**19.4**	**25.8**

The outstanding lease instalments are due as follows:

in € million	31/12/2018		31/12/2017	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	4.5	3.7	6.0	5.1
Due in 1 to 5 years	11.7	9.3	14.0	10.6
Due in more than 5 years	7.8	6.4	12.1	10.1
Total	**24.0**	**19.4**	**32.1**	**25.8**

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 €28.8 million (previous year: €49.9 million).

Miscellaneous assets contain collateral for exchange-based and over-the-counter trading businesses amounting to €806.3 million (previous year: €380.0 million), as well as variation margins of €58.1 million (previous year: €4.0 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 €208.8 million (previous year: €179.3 million).

Further details on loss allowances and default risks within the other assets can be found in note (24) "Accounting for financial instruments".

(16) Financial assets

The profit participation rights, funds and shares mainly consist of fixed-income and floating-rate interest securities. Other current financial assets in the 2018 financial year and the previous year mainly relate to loans. The current financial assets are available to the operative business in the amount of €200.6 million (previous year: €277.0 million) and to cover the pension and nuclear provisions in the amount of €569.1 million (previous year: €307.2 million). From the loans allocated to the current financial assets, €5.0 million (previous year: €3.9 million) was assigned to capital employed.

in € million	31/12/2018	31/12/2017
Profit participation rights, funds and shares	592.1	377.0
Other current financial assets	182.6	211.1
Total	**774.7**	**588.1**

(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 €10.3 million (previous year: €21.5 million) are subject to restrictions on disposal.

Cash and cash equivalents are available to the operative business in the amount of €1,954.0 million (previous year: €2,954.7 million) and to cover pension and nuclear provisions in the amount of €295.4 million (previous year: €258.6 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 2018 (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 profit carried forward amounting to €827.8 million (previous year: loss carried forward of €63.5 million) and the withdrawal from other revenue reserves amounting to €252.0 million (previous year: transfer to other revenue reserves amounting to €963.0 million), retained earnings amounted to €279.1 million (previous year: €963.2 million). We will propose to the Annual General Meeting that a dividend of €0.65 (previous year: €0.50) per share be distributed from the retained earnings of EnBW AG. As of 31 December 2018, 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 amount distributed by EnBW AG for the 2018 financial year will total €176.1 million (previous year: €135.4 million).

The retained earnings of EnBW AG are disclosed under revenue reserves.

Treasury shares

As of 31 December 2018, 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 financial assets in the category “measured at fair value in equity”, changes in the market value of cash flow hedges, amounts recognised directly in equity for accounting for entities using the equity method, currency translation differences from the translation of financial statements of foreign entities and the revaluation of pensions and similar obligations.

For details on the changes recognised directly in equity on financial assets in the category “measured at fair value in equity” and of cash flow hedges, please refer to note (24) “Accounting for financial instruments”.

Presentation of the components of other comprehensive income:

2018 in € million	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Financial assets at fair value in equity	Entities accounted for using the equity method	Shares of the share-holders of EnBW AG	Non-controlling interests	Total
Unrealised changes in market value in the current period	-105.1	12.0	-114.1	-17.7	1.0	-223.9	1.9	-222.0
Reclassification adjustments included in the income statement	0.0	-9.2	82.0	1.6	0.0	74.4	-3.3	71.1
Reclassification to cost of hedged items	0.0	0.0	-113.0	0.0	0.0	-113.0	0.0	-113.0
Total other comprehensive income before tax	**-105.1**	**2.8**	**-145.1**	**-16.1**	**1.0**	**-262.5**	**-1.4**	**-263.9**
Income tax	30.5	0.4	76.9	4.9	0.0	112.7	0.6	113.3
Total other comprehensive income	**-74.6**	**3.2**	**-68.2**	**-11.2**	**1.0**	**-149.8**	**-0.8**	**-150.6**

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	Shares of the 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
Total other comprehensive income before tax	**81.2**	**39.5**	**3.8**	**101.6**	**-4.1**	**222.0**	**14.8**	**236.8**
Income tax	-13.5	-3.3	-15.3	-14.3	0.0	-46.4	-1.4	-47.8
Total other comprehensive income	**67.7**	**36.2**	**-11.5**	**87.3**	**-4.1**	**175.6**	**13.4**	**189.0**

Presentation of the tax effects relating to unrealised gains and losses in equity:

in € million	2018			2017		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Revaluation of pensions and similar obligations	-110.0	31.8	-78.2	86.6	-14.7	71.9
Currency translation differences	17.6	0.4	18.0	46.0	-3.3	42.7
Cash flow hedge	-112.7	73.4	-39.3	-41.7	-24.7	-66.4
Available-for-sale financial assets	-17.9	5.0	-12.9	300.7	-20.3	280.4
Entities accounted for using the equity method	1.0	0.0	1.0	1.9	0.0	1.9
Total other comprehensive income	**-222.0**	**110.6**	**-111.4**	**393.5**	**-63.0**	**330.5**

Presentation of the tax effects of reclassification adjustments included in the income statement and the cost of hedged items:

in € million	2018			2017		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Currency translation differences	-12.5	0.0	-12.5	0.0	0.0	0.0
Cash flow hedge	-31.1	3.0	-28.1	46.2	9.6	55.8
Available-for-sale financial assets	1.7	-0.3	1.4	-196.9	5.6	-191.3
Entities accounted for using the equity method	0.0	0.0	0.0	-6.0	0.0	-6.0
Total other comprehensive income	**-41.9**	**2.7**	**-39.2**	**-156.7**	**15.2**	**-141.5**

Non-controlling interests

Non-controlling interests are shares in Group companies held by third parties. They relate, in particular, to the Energiedienst group, VNG AG, 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					2018
	Energiedienst Holding AG	VNG AG	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	6.1	12.9	43.5	27.1	36.9
Dividends paid	9.4	9.0	31.4	40.5	43.7
Carrying amount of non-controlling interests	400.5	420.4	395.0	255.9	677.8
Balance sheet data					
Non-current assets	1,534.2	2,683.2	1,447.2	1,135.4	1,356.5
Current assets	334.1	3,544.6	655.8	225.9	222.3
Non-current liabilities	477.2	1,108.7	800.6	299.9	130.2
Current liabilities	192.1	3,363.7	473.5	208.6	18.0
Funds from operations (FFO)	58.4	171.7	141.9	153.8	148.1
Earnings data					
Adjusted EBITDA	74.6	198.6	187.1	183.3	165.9

Financial information for subsidiaries where there is a significant influence without a controlling interest

in € million[1]					2017
	Energiedienst Holding AG	VNG AG	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
Balance sheet data					
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)	67.5	209.1	148.5	156.0	190.4
Earnings data					
Adjusted EBITDA	81.2	172.4	189.1	180.1	196.1

1 The figures for the previous year have been restated.

(19) Provisions

Provisions disclosed separately according to maturity in the balance sheet are combined in the notes to the financial statements.

in € million			31/12/2018			31/12/2017
	Current	Non-current	Total	Current	Non-current	Total
Provisions for pensions and similar obligations	163.6	6,387.3	6,550.9	156.1	6,185.1	6,341.2
Provisions relating to nuclear power	496.9	5,351.3	5,848.2	614.8	5,187.9	5,802.7
Provisions for non-contractual nuclear obligations	(319.0)	(2,600.6)	(2,919.6)	(409.5)	(2,403.7)	(2,813.2)
Provisions for contractual nuclear obligations	(177.9)	(2,750.7)	(2,928.6)	(205.3)	(2,784.2)	(2,989.5)
Other provisions	889.4	1,507.4	2,396.8	827.8	1,751.5	2,579.3
Other dismantling obligations	(8.2)	(580.8)	(589.0)	(9.3)	(720.4)	(729.7)
Provisions for onerous contracts	(95.4)	(526.9)	(622.3)	(163.2)	(619.1)	(782.3)
Other electricity provisions	(449.1)	(0.0)	(449.1)	(269.7)	(0.0)	(269.7)
Personnel provisions	(121.2)	(150.5)	(271.7)	(119.4)	(151.2)	(270.6)
Miscellaneous provisions	(215.5)	(249.2)	(464.7)	(266.2)	(260.8)	(527.0)
Total	**1,549.9**	**13,246.0**	**14,795.9**	**1,598.7**	**13,124.5**	**14,723.2**

Provisions for pensions and similar obligations

The provisions for pensions and similar obligations are recorded on the basis of actuarial valuations for the existing commitments for future and current post-employment benefits to current and former employees with a pension entitlement, as well as their surviving dependants. A substantial majority of the employees of the EnBW Group are entitled to pension payments from defined benefit pension plans. There are different post-employment provision schemes, which reflect how long the respective employees have served the company. In the case of employees who have already retired, the schemes in question are mainly final salary-based systems, in which the pension paid is calculated on the basis of the length of service, the rate of increase and the last pensionable income. As of 1 January 2005, this system was decoupled from the adjustments to the statutory pension insurance system as part of a reorganisation. The amount of the provisions for pensions and similar obligations accounted for by these final salary-based systems as of 31 December 2018 was €5,678.6 million (previous year restated: €5,576.7 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. For employees who joined the company from 1998 onwards, the pension commitment is based solely on a pension component system. The related provisions amounted to €623.5 million (previous year: €549.0 million). In addition, the employees are granted energy-price reductions during the period in which they receive their pensions. Other commitments amounted to €40.0 million (previous year: €36.2 million).

The pensioners and those with prospective pension entitlements are distributed as follows amongst the different post-employment provision schemes:

Number of employees [1]	31/12/2018		31/12/2017	
	Staff with prospective pension entitlements	Pensioners	Staff with prospective pension entitlements	Pensioners
Closed systems dependent on final salary	7,789	13,271	8,150	13,372
Pension component systems	9,132	392	8,533	335
Other commitments	841	608	822	615

1 The figures for the previous year have been restated.

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. They exist in the form of contractual trust arrangements (CTA) in the EnBW Group. A CTA is a legally structured trustee arrangement for the capital cover of direct pension 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 can be achieved with a minimum of risk. As of 31 December 2018, the dedicated financial assets for pension and nuclear provisions totalled approximately €6.3 billion (previous year: €6.2 billion) and were allocated to a total of nine asset classes. In addition to direct investments, financial investments were bundled within two master funds and the infrastructure funds consolidated in a SICAV (société d'investissement à capital variable, open-ended investment company).

The following premises are taken into account when investments are made:

> Risk-optimised performance in line with the market is targeted.
> The risk was minimised by, for example, the implementation of an intervention line concept, the establishment of issuer limits and minimum ratings for bonds, adherence to a broad diversification of asset classes and further appropriate measures.
> The impact on the balance sheet and the income statement are to be minimised.
> Reducing costs and simplifying administration are also major priorities.

The anticipated development of the cash flows of the post-employment provision schemes is as follows:

in € million	2018	2019 – 2023[1]	2024 – 2028[1]	2029 – 2033[1]	2034 – 2038[1]	2039 – 2043[1]	2044 – 2048[1]	2049 – 2053[1]
Closed systems dependent on final salary	163.6	173.8	207.4	240.6	249.0	234.5	207.2	168.3
Pension component systems	1.9	2.4	5.7	12.6	23.5	34.1	47.3	62.3
Total	**165.5**	**176.2**	**213.1**	**253.2**	**272.5**	**268.6**	**254.5**	**230.6**

1 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	31/12/2018		31/12/2017	
	Pension component systems	Closed pension systems dependent on final salary	Pension component systems	Closed pension systems dependent on final salary
Discount rate +/-0.5%	-98.8/118.6	-510.1/580.4	-89.5/107.2	-509.3/579.7
Salary trend +/-0.5%	19.2/-17.8	148.0/-130.3	19.1/-17.6	146.4/-128.8
Pension trend +/-0.5%	5.3/-5.0	418.6/-379.5	5.8/-6.6	413.4/-375.4
Life expectancy +/-1 year	22.2/-22.3	281.1/-274.5	7.8/-18.1	243.2/-236.3

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 %	31/12/2018	31/12/2017
Actuarial interest rate	1.80	1.80
Future expected wage and salary increases	2.70	2.75
Future expected pension increase	2.00	1.90
Employee turnover	2.00	2.00

The calculations are based on the 2018 G mortality tables devised by Prof. Dr. Klaus Heubeck.

The expenses for pensions and similar obligations are comprised as follows:

in € million	2018	2017
Current service cost	115.5	122.6
Interest income from plan assets	-20.3	-19.2
Interest costs	130.9	134.1
Recording in the income statement	**226.1**	**237.5**
Income from plan assets excluding interest income	-37.3	-219.2
Actuarial gains (+)/losses (-) from changes in demographic assumptions	71.1	0.0
Actuarial gains (+)/losses (-) from changes in financial assumptions	13.2	117.8
Actuarial gains (-)/losses (+) from experience-based restatements	63.0	14.8
Recording in the statement of comprehensive income	**110.0**	**-86.6**
Total	**336.1**	**150.9**

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	31/12/2018	31/12/2017
Defined benefit obligation at the beginning of the financial year	7,388.5	7,221.8
Current service cost	115.5	122.6
Interest costs	130.9	134.1
Benefits paid	-266.4	-259.1
Actuarial gains (-)/losses (+)	147.3	132.6
Actuarial gains (+)/losses (-) from changes in demographic assumptions	(71.1)	(0.0)
Actuarial gains (+)/losses (-) from changes in financial assumptions	(13.2)	(117.8)
Actuarial gains (-)/losses (+) from experience-based restatements	(63.0)	(14.8)
Changes in the consolidated companies and currency adjustments	7.6	26.2
Reclassifications	15.3	10.3
Present value of the defined benefit obligation at the end of the financial year	**7,538.7**	**7,388.5**
Fair market value of plan assets at the beginning of the financial year	1,226.6	1,138.5
Interest income	20.3	19.2
Appropriations to (+)/transfers from (-) plan assets[1]	8.9	-38.2
Benefits paid	-100.9	-103.3
Income from plan assets excluding interest income	37.3	219.2
Change in consolidated companies, currency adjustments and reclassifications	4.4	-8.8
Fair market value of plan assets at the end of the financial year	**1,196.6**	**1,226.6**
Surplus cover from benefit entitlements	208.8	179.3
Provisions for pensions and similar obligations	**6,550.9**	**6,341.2**

1 Applies almost exclusively to the employer's contributions.

The change in actuarial gains/losses from changes in demographic assumptions was due to the application of the new 2018 G mortality tables devised by Prof. Dr. Klaus Heubeck. The 2005 G mortality tables had been used previously.

Payments into the plan assets in the amount of €9.1 million (previous year: €9.1 million) are planned in the subsequent period.

The present value of the defined benefit obligation breaks down as follows by asset-funded and non-asset-funded status:

in € million	31/12/2018	31/12/2017
Funded benefits	1,002.5	1,435.4
Full funding	(999.5)	(1,408.9)
Partial funding	(3.0)	(26.5)
Pension entitlements without asset funding	6,536.2	5,953.1

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[1]	31/12/2018	31/12/2017
Present value of benefit obligations	7,538.7	7,388.5
Fair market value of plan assets	1,196.6	1,226.6
Plan surplus	208.8	179.3
Plan deficit	6,550.9	6,341.2

1 The figures for the previous year have been restated.

The plan assets consist of the following asset classes:

in %	31/12/2018	31/12/2017
Shares	93.0	91.8
Share-based investment funds	0.0	0.4
Fixed-income funds	2.0	1.7
Fixed-income securities	6.3	6.1
Land and buildings	1.9	1.7
Current financial assets	1.2	1.0
Other	-4.4	-2.7
	100.0	**100.0**

The plan assets are invested almost entirely within the EU and mainly in energy supply companies. Their performance is subject to country-specific and energy-industry risks. They do not include any shares of EnBW Group companies or any owner-occupied property. The investment strategy takes into consideration the maturity structure and volume of benefit obligations.

The plan assets mainly have market price listings on active markets. The shares contain €244.7 million (previous year: €262.7 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 €15.5 million (previous year: €15.0 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 2018 amounted to €102.0 million (previous year: €98.4 million).

Provisions relating to nuclear power

The provisions relating to nuclear power as of 31 December 2018 were formed for the conditioning and packaging of radioactive waste, as well as for the decommissioning and dismantling of the nuclear power plants.

The evaluation of the provisions is carried out mainly on the basis of estimates, which for decommissioning and disposal costs are primarily derived from sector-specific appraisals. The provisions are recognised at the discounted settlement amount at the time they originated.

in € million[1]	31/12/2018	31/12/2017
Remaining operation and post-operation	2,264.5	2,169.4
Dismantling including preparation	1,580.8	1,534.2
Treatment of residual material, packaging of radioactive waste	1,664.5	1,682.4
Other	338.4	416.7
Total	**5,848.2**	**5,802.7**

1 The figures for the previous year have been restated based on the tasks stated in section 5 (2) of the Ordinance on the Transparency of Dismantling Provisions.

The provisions relating to nuclear power are discounted at a risk-free interest rate of on average around 0.6% (previous year: 0.7%). A corresponding rate of increase of costs of around 2.4% (previous year: 1.7%) is applied. This results in a net interest (spread) of around -1.8% (previous year: -1.0%), 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 nuclear power provisions of €390.5 million (previous year: €49.8 million).

A reduction or increase of 0.1 percentage points in the real interest rate would increase the present value of the provisions by €56.3 million (previous year: €52.5 million) or reduce it by €54.0 million (previous year: €54.4 million), respectively.

The nominal amount of the provisions (without taking into account the effects of the discount rate and rate of increase of costs) as of 31 December 2018 was €4,978.6 million (previous year: €5,295.0 million).

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 previously 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 by €240.4 million upwards (previous year: €18.1 million downwards). 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 €334.4 million (previous year: €369.5 million) which relate to dismantling obligations for nuclear power plants assumed by a contractual partner in connection with electricity supplies.

Other provisions

The other dismantling obligations mainly relate to gas storage facilities, wind and hydroelectric power plants and grids.

The provisions for onerous contracts concern future obligations from onerous procurement and sales agreements. The obligations mainly relate to the procurement of electricity.

Other electricity provisions primarily relate to obligations from emission allowances.

Personnel provisions primarily concern obligations from phased retirement arrangements, long-service awards and restructuring measures.

The majority of other non-current provisions have a term of more than five years.

The provisions developed as follows in the reporting year:

Provisions

in € million	As of 01/01/2018	Increases	Reversals	Accretion	Changes recognised in equity	Changes in consolidated companies, currency adjustments, reclassifications	Reclassification of liabilities directly associated with assets classified as held for sale	Utilisation	As of 31/12/2018
Provisions relating to nuclear power [1]	5,802.7	217.1	53.7	41.9	240.4	-74.8	0.0	325.4	5,848.2
Other provisions	2,579.3	721.6	157.0	9.8	38.9	-231.2	-2.6	562.0	2,396.8
Other dismantling obligations	(729.7)	(8.6)	(0.1)	(6.7)	(38.9)	(-190.2)	(0.0)	(4.6)	(589.0)
Provisions for onerous contracts	(782.3)	(57.6)	(83.8)	(0.1)	(0.0)	(-13.3)	(0.0)	(120.6)	(622.3)
Other electricity and gas provisions	(269.7)	(434.0)	(16.9)	(0.0)	(0.0)	(-0.9)	(-2.0)	(234.8)	(449.1)
Personnel provisions	(270.6)	(100.7)	(6.7)	(1.6)	(0.0)	(-24.0)	(-0.2)	(70.3)	(271.7)
Miscellaneous provisions	(527.0)	(120.7)	(49.5)	(1.4)	(0.0)	(-2.8)	(-0.4)	(131.7)	(464.7)
Total	**14,723.2**	**1,054.2**	**210.7**	**162.3**	**389.3**	**-266.9**	**-2.6**	**1,052.9**	**14,795.9**

1 Utilisation breaks down into decommissioning and dismantling totalling €244.0 million, disposal of spent fuel rods totalling €74.9 million and waste totalling €6.5 million.

(20) Deferred taxes

The deferred taxes on measurement differences compared to the tax accounts break down as follows:

in € million	31/12/2018		31/12/2017	
	Deferred tax assets [1]	Deferred tax liabilities [1]	Deferred tax assets [1]	Deferred tax liabilities [1]
Intangible assets	54.8	48.0	31.0	238.9
Property, plant and equipment	84.8	1,554.7	249.7	1,983.8
Financial assets	50.9	213.8	35.1	213.2
Other assets	72.1	28.3	78.3	22.8
Derivative financial instruments	0.7	114.7	0.7	68.3
Non-current assets	**263.3**	**1,959.5**	**394.8**	**2,527.0**
Inventories	14.1	11.4	55.9	18.8
Financial assets	0.8	39.4	0.0	12.9
Other assets	522.7	943.8	140.1	719.8
Current assets	**537.6**	**994.6**	**196.0**	**751.5**
Provisions	1,605.9	78.6	1,657.2	33.5
Liabilities and subsidies	187.3	167.1	312.2	66.9
Non-current liabilities	**1,793.2**	**245.7**	**1,969.4**	**100.4**
Provisions	249.3	29.6	300.4	78.6
Liabilities and subsidies	913.3	283.8	772.8	120.4
Current liabilities	**1,162.6**	**313.4**	**1,073.2**	**199.0**
Carryforwards of unused tax losses	41.0	0.0	101.5	0.0
Deferred taxes before netting	**3,797.7**	**3,513.2**	**3,734.9**	**3,577.9**
Netting	-2,738.4	-2,738.4	-2,778.5	-2,778.5
Deferred taxes after netting	**1,059.3**	**774.8**	**956.4**	**799.4**

1 Deferred tax assets and liabilities prior to netting.

In the 2018 financial year, €2,738.4 million (previous year: €2,778.5 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 €22.1 million (previous year: €45.1 million) is taken into account.

In addition, deferred tax assets on measurement differences compared to the tax accounts contain €1.6 million (previous year: €2.3 million) in non-current financial assets, €750.6 million (previous year: €719.1 million) in non-current provisions and €150.9 million (previous year: €48.1 million) in current liabilities and subsidies that were offset against equity.

The deferred tax liabilities on measurement differences compared to the tax accounts contain €1.0 million (previous year: €84.0 million) in non-current financial assets and €63.9 million (previous year: €38.0 million) in current financial assets that were offset against equity.

Deferred tax assets totalling €838.2 million (previous year: €647.5 million) were offset directly against equity under other comprehensive income as of 31 December 2018.

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	31/12/2018		31/12/2017	
	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	190.8	171.0	117.6	161.6
Deferred taxes on the non-valued carryforwards of unused tax losses that would theoretically have to be formed	30.2	23.2	18.6	21.9
Unlimited ability to carry forward the existing unused tax losses for which deferred tax assets were formed [1]	136.7	143.8	281.8	30.5

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 €2.8 million (previous year: €238.0 million).

The deferred taxes on carryforwards of unused tax losses break down as follows:

in € million	31/12/2018	31/12/2017
Corporate income tax (or comparable foreign tax)	21.6	97.5
Trade tax	19.4	4.0
Total	**41.0**	**101.5**

Presentation of the development of deferred taxes on carryforwards of unused tax losses:

in € million	31/12/2018	31/12/2017
Opening balance	101.5	103.4
Utilisation of tax losses	-2.8	-96.3
Correction of unrecognised carryforwards of unused tax losses in previous years (addition)	0.0	3.3
Origination of tax losses (addition)	38.9	19.9
Change in consolidated companies	-96.6	71.2
Closing balance	**41.0**	**101.5**

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 €8.9 million (previous year: €10.7 million) in connection with shares in subsidiaries because it is not likely that these temporary differences will reverse in the foreseeable future.

(21) Liabilities and subsidies

Financial liabilities

Financial liabilities break down as of 31 December 2018 compared to the previous year as follows:

in € million [1]			31/12/2018			31/12/2017
	Current	Non-current	Total	Current	Non-current	Total
Hybrid bonds	0.0	1,975.2	1,975.2	0.0	1,959.5	1,959.5
Bonds	0.0	2,644.2	2,644.2	835.5	2,139.3	2,974.8
Commercial papers	250.0	0.0	250.0	0.0	0.0	0.0
Liabilities to banks	264.7	1,218.1	1,482.8	381.3	1,324.3	1,705.6
Other financial liabilities	140.1	503.9	644.0	90.0	528.9	618.9
Financial liabilities	**654.8**	**6,341.4**	**6,996.2**	**1,306.8**	**5,952.0**	**7,258.8**

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, €2,786.2 million (previous year: €2,829.4 million) have a term of between one year and five years, and €3,555.2 million (previous year: €3,122.6 million) have a term of more than five years.

Overview of the hybrid bonds

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
EnBW AG [1]	€1,000 million	€995.0 million	3.625 %	02/04/2076
EnBW AG [2]	€725 million	€719.4 million	3.375 %	05/04/2077
EnBW AG [2]	US-$300 million	€260.8 million	3.003 % [3]	05/04/2077
		€1,975.2 million		

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.	CHF100 million	€88.5 million	2.250 %	12/07/2023
EnBW International Finance B.V.	€500 million	€564.7 million [1]	4.875 %	16/01/2025
EnBW International Finance B.V.	€500 million	€498.6 million	2.500 %	04/06/2026
EnBW International Finance B.V.	€600 million	€589.8 million	6.125 %	07/07/2039
Green bond				
EnBW International Finance B.V.	€500 million	€496.5 million	1.875 %	31/10/2033
Private placements				
EnBW International Finance B.V.	€100 million	€98.4 million	2.875 %	13/06/2034
EnBW International Finance B.V.	JPY20 billion	€158.9 million	5.460 % [2]	16/12/2038
EnBW International Finance B.V.	€100 million	€99.2 million	3.080 %	16/06/2039
EnBW International Finance B.V.	€50 million	€49.6 million	2.900 %	01/08/2044
		€2,644.2 million		

1 Adjusted for valuation effects from interest-induced hedging transactions.
2 After the swap into euro.

A CHF 100 million bond with a coupon of 1.25% issued in July 2013 expired on 12 July 2018, while a €750 million bond with a coupon of 6.875% issued in November 2008 became due for repayment on 20 November 2018. Both bonds were repaid from the existing liquidity position.

Green bond
EnBW issued a green bond with a volume of €500 million and a term to maturity of 15 years at the end of October 2018. The bond has been given a coupon of 1.875%. The funds from the bond were allocated exclusively to climate-friendly projects in the area of wind power, photovoltaics and electromobility.

Commercial paper programme
As of 31 December 2018, €250 million had been drawn under the commercial paper programme set up by EnBW and EnBW International Finance B.V. for short-term financing purposes (previous year: undrawn).

Liabilities to banks
Liabilities to banks decreased in the 2018 financial year due to scheduled repayments made by EnBW and its subsidiaries. The majority of the outstanding liabilities to banks are bilateral loan agreements.

The existing syndicated credit line for €1.5 billion (previous year: €1.5 billion) has a term until July 2021. The credit line remained undrawn as of 31 December 2018.

In addition, a further €1.1 billion (previous year: €1.4 billion) in bilateral free credit lines was available within the Group. This also includes the new syndicated loan facility with a volume of €700 million and a term until July 2023 that was agreed by VNG in July 2018. The credit lines are not subject to any restrictions as regards their utilisation.

Liabilities to banks to the amount of €4.8 million (previous year: €0.0 million) are collateralised with real estate liens. Liabilities to banks to the amount of €108.6 million are collateralised with other types of securities (previous year: €123.8 million).

Other financial liabilities
The item "other financial liabilities" primarily includes promissory notes and other loans from subsidiaries as well as finance lease agreements.

The minimum payments from finance leases included in other financial liabilities have the following maturities:

in € million[1]	31/12/2018		31/12/2017	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	7.4	3.5	7.9	3.5
Due in 1 to 5 years	28.5	12.9	26.8	10.6
Due in more than 5 years	127.0	83.4	123.6	89.6
Total	**162.9**	**99.8**	**158.3**	**103.7**

1 The figures for the previous year have been restated.

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	As of 01/01/2018	Cash-relevant changes	Non-cash-relevant changes					As of 31/12/2018
			Changes in the group of consolidated companies	Currency effects	Fair value	Accrued interest	Other changes	
Hybrid bonds	1,959.5	0.0	0.0	11.7	0.0	0.0	4.0	1,975.2
Bonds	2,974.8	-337.8	0.0	14.4	-7.2	0.0	0.0	2,644.2
Commercial papers	0.0	250.0	0.0	0.0	0.0	0.0	0.0	250.0
Liabilities to banks	1,705.6	-226.2	6.8	-1.0	-0.6	5.1	-6.9	1,482.8
Other financial liabilities	618.9	6.5	3.5	0.3	0.0	4.0	10.8	644.0
Financial liabilities[1]	**7,258.8**	**-307.5**	**10.3**	**25.4**	**-7.8**	**9.1**	**7.9**	**6,996.2**
Other liabilities (interest on bonds)	114.7	-214.9	0.0	0.0	0.0	210.5	0.0	110.3
Total	**7,373.5**	**-522.4**	**10.3**	**25.4**	**-7.8**	**219.6**	**7.9**	**7,106.5**

1 The cash-relevant changes include €7.2 million from interest payments.

in € million	As of 01/01/2017	Cash-relevant changes	Non-cash-relevant changes					As of 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
Financial liabilities[1]	**7,928.9**	**-987.0**	**383.9**	**-64.0**	**-16.1**	**5.8**	**7.3**	**7,258.8**
Other liabilities (interest on bonds)	151.4	-271.8	0.0	0.0	0.0	235.1	0.0	114.7
Total	**8,080.3**	**-1,258.8**	**383.9**	**-64.0**	**-16.1**	**240.9**	**7.3**	**7,373.5**

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	31/12/2018	31/12/2017
Non-current liabilities	846.7	704.4
Current liabilities	9,008.3	8,030.4
Liabilities	**9,855.0**	**8,734.8**
Non-current subsidies	828.0	1,339.4
Current subsidies	64.6	66.4
Subsidies	**892.6**	**1,405.8**
Non-current liabilities and subsidies	1,674.7	2,043.8
Current liabilities and subsidies	9,072.9	8,096.8
Liabilities and subsidies	**10,747.6**	**10,140.6**

Other liabilities as of 31 December 2018 break down as follows compared to the previous year:

in € million[1]		31/12/2018			31/12/2017	
	Current	Non-current	Total	Current	Non-current	Total
Payments received on account	54.7	25.2	79.9	61.3	29.3	90.6
Trade payables	5,039.8	0.6	5,040.4	4,838.1	0.5	4,838.6
of which liabilities to affiliated entities	(27.0)	(0.0)	(27.0)	(22.3)	(0.0)	(22.3)
of which liabilities to other investees and investors	(64.9)	(0.0)	(64.9)	(62.4)	(0.0)	(62.4)
of which liabilities to entities accounted for using the equity method	(88.7)	(0.0)	(88.7)	(58.0)	(0.0)	(58.0)
Other deferred income	30.4	172.5	202.9	27.2	176.9	204.1
Liabilities from derivatives	2,193.2	347.1	2,540.3	2,017.1	249.3	2,266.4
of which without hedges	(2,152.0)	(311.6)	(2,463.6)	(1,985.3)	(185.6)	(2,170.9)
of which cash flow hedge	(41.2)	(35.5)	(76.7)	(31.8)	(63.7)	(95.5)
Income tax liabilities	269.9	189.5	459.4	176.0	146.1	322.1
Miscellaneous liabilities	1,420.3	111.8	1,532.1	910.7	102.3	1,013.0
of which interest from back taxes	(0.6)	(0.0)	(0.6)	(0.8)	(0.0)	(0.8)
of which from other taxes	(170.7)	(0.0)	(170.7)	(154.2)	(0.0)	(154.2)
of which relating to social security	(15.0)	(0.0)	(15.0)	(15.5)	(0.1)	(15.6)
Other liabilities	**9,008.3**	**846.7**	**9,855.0**	**8,030.4**	**704.4**	**8,734.8**

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 other non-current liabilities, €735.2 million (previous year: €577.5 million) has a remaining term of between one year and five years, and €111.5 million (previous year: €126.9 million) has a remaining term of more than five years.

Trade payables include obligations for outstanding invoices amounting to €829.3 million (previous year: €1,132.4 million).

Miscellaneous liabilities mainly concern collateral for over-the-counter trading business (margin calls received) amounting to €331.7 million (previous year: €172.9 million), as well as exchange-based trading business (variation margins) of €336.5 million (previous year: €60.1 million), interest obligations from bonds amounting to €110.3 million (previous year: €114.7 million) and non-controlling interests in fully consolidated partnerships recorded as liabilities to the amount of €89.3 million (previous year: €77.8 million).

Subsidies mainly include construction cost subsidies and investment cost subsidies.

in € million	31/12/2018	31/12/2017
Investment cost subsidies	7.7	8.5
Other subsidies from public authorities	8.1	13.7
Construction cost subsidies	876.8	1,383.6
Total	**892.6**	**1,405.8**

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 reversed over the estimated useful life of the subsidised assets. The substantial reduction in construction cost subsidies was mainly due to the first-time application of IFRS 15.

(22) Assets held for sale and liabilities directly associated with assets classified as held for sale

Assets held for sale

in € million	31/12/2018	31/12/2017
Intangible assets	0.4	0.0
Property, plant and equipment	5.8	3.0
Other financial assets	303.8	0.0
Other assets	32.3	0.0
Total	**342.3**	**3.0**

Liabilities directly associated with assets classified as held for sale

in € million	31/12/2018	31/12/2017
Deferred taxes	2.7	0.0
Provisions	2.7	0.0
Other liabilities and subsidies	15.8	0.0
Total	**21.2**	**0.0**

In the reporting year, intangible assets, property, plant and equipment and other assets held for sale comprises shares sold at the beginning of 2019 with a loss of economic control as well as pieces of land held for sale. This is allocated in the segment reporting to the Grids segment.

In the 2018 financial year, other financial assets held for sale include most importantly the 6% of the shares in EWE, which were reclassified due to EnBW's right from 1 July 2019 to sell the shares to EWE-Verband with an associated obligation for EWE-Verband to purchase them. This is allocated in the segment reporting under "Other/Consolidation".

The deferred taxes, provisions and other liabilities and subsidies associated with assets classified as held for sale in the 2018 financial year relate to shares sold at the beginning of 2019 with a loss of economic control.

The property, plant and equipment held for sale in the previous year refers mainly to pieces of land and buildings held for sale. This was allocated in the segment reporting under "Other/Consolidation".

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		2018	2017
Earnings from continuing operations	in € million	467.6	2,176.3
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(334.2)	(2,054.1)
Group net profit	in € million	467.6	2,176.3
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(334.2)	(2,054.1)
Number of shares outstanding (weighted average)	thousands	270,855	270,855
Earnings per share from continuing operations [1]	in € million	1.23	7.58
Earnings per share from Group net profit (€) [1]	in € million	1.23	7.58
Dividend per share for the EnBW AG 2017 financial year	in € million	–	0.50
Proposed dividend per share for the EnBW AG 2018 financial year	in € million	0.65	–

1 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 not indicated separately, the fair value is measured recurrently.

31/12/2018		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	5,706.8	2,754.7	1,215.8	1,415.5	320.8	494.4	6,201.2
Measured at fair value through profit or loss	(3,697.1)	(1,270.6)	(1,011.0)	(1,415.5)			(3,697.1)
Measured at fair value in equity	(1,688.9)	(1,484.1)	(204.8)				(1,688.9)
Measured at amortised cost	(320.8)				(320.8)		(320.8)
Trade receivables	4,817.7				4,817.7		4,817.7
Measured at amortised cost	(4,817.7)				(4,817.7)		(4,817.7)
Other assets	3,898.5	103.5	2,635.2		1,159.8	632.2	4,530.7
Measured at fair value through profit or loss	(2,586.1)	(102.7)	(2,483.4)				(2,586.1)
Measured at amortised cost	(1,140.4)				(1,140.4)		(1,140.4)
Derivatives designated as hedging instruments	(152.6)	(0.8)	(151.8)				(152.6)
Carrying amount in accordance with IAS 17	(19.4)				(19.4)		(19.4)
Cash and cash equivalents	2,249.4				2,249.4		2,249.4
Measured at amortised cost	(2,249.4)				(2,249.4)		(2,249.4)
Assets held for sale [1]	299.2			291.9	7.3	43.1	342.3
Total assets	**16,971.6**	**2,858.2**	**3,851.0**	**1,707.4**	**8,555.0**	**1,169.7**	**18,141.3**
Financial liabilities	7,432.1				6,996.2		6,996.2
Measured at amortised cost	(7,332.3)				(6,896.4)		(6,896.4)
Carrying amount in accordance with IAS 17	(99.8)				(99.8)		(99.8)
Trade payables	802.4				802.4	4,237.4	5,039.8
Measured at amortised cost	(802.4)				(802.4)		(802.4)
Other liabilities and subsidies	3,588.5	99.7	2,440.6		1,048.2	2,119.3	5,707.8
Held for trading	(2,463.6)	(98.9)	(2,364.7)				(2,463.6)
Measured at amortised cost	(1,048.2)				(1,048.2)		(1,048.2)
Derivatives designated as hedging instruments	(76.7)	(0.8)	(75.9)				(76.7)
Liabilities directly associated with assets classified as held for sale	0.0					21.2	21.2
Total liabilities	**11,823.0**	**99.7**	**2,440.6**	**0.0**	**8,846.8**	**6,377.9**	**17,765.0**

1 This refers to a non-recurring measurement of the fair value due to the application of IFRS 5.

31/12/2017		Hierarchy of input data					
in € million	Fair value	Level 1	Level 2	Level 3	Measured at amortised cost	Not in IFRS 7's field of application	Carrying amount
Financial assets	6,523.5	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 [1]	(2,105.5)	(371.4)	(1,734.1)				(2,105.5)
Loans and receivables	(606.8)				(606.8)		(606.8)
Derivatives designated as hedging instruments	(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 [2]						3.0	3.0
Total assets	**17,328.0**	**839.9**	**5,504.2**	**1,576.5**	**9,407.4**	**650.5**	**17,978.5**
Financial liabilities	8,145.9				7,258.8		7,258.8
Measured at amortised cost [3]	(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 designated as hedging instruments	(95.5)		(95.5)				(95.5)
Total liabilities	**11,693.0**	**439.7**	**1,826.7**	**0.0**	**8,539.5**	**6,593.5**	**17,399.4**

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.

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 an allocation to a different level.

The fair value of the assets in the "measured at fair value through profit or loss" measurement category amounts to €6,283.2 million, of which €1,373.3 million is allocated to the first hierarchical level, €3,494.4 million to the second hierarchical level and €1,415.5 million to the third hierarchical level. The assets in the "measured at fair value in equity" measurement category have a fair value of €1,688.9 million, of which €1,484.1 million is allocated to the first hierarchical level and €204.8 million to the second hierarchical level. Assets in the "measured at amortised cost" measurement category amounted to €8,528.3 million.

In the previous year, the fair value of the assets in the "held for trading" measurement category amounted to €2,162.8 million, of which €428.7 million was allocated to the first hierarchical level and €1,734.1 million to the second hierarchical level. This included financial instruments of €1.6 million that were allocated to this category when reported for the first time. In the previous year, the assets in the "available for sale" measurement category had a fair value totalling €6,108.0 million, of which €393.4 million was allocated to the first hierarchical level, €3,664.4 million to the second hierarchical level, €1,576.5 million to the third hierarchical level and €473.7 million to "measured at amortised cost". Assets classified as "loans and receivables" were measured at amortised cost and amounted to €8,907.9 million. Equity instruments measured at amortised cost had a carrying amount of €473.7 million in the previous year.

In the previous year, financial instruments reported for the first time were allocated to the "held for trading" measurement category. This comprised securities containing embedded derivatives which cannot be separated. The maximum default risk amounted to €1.6 million. The evaluation was carried out at market rates.

In the previous year, 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 as of 31 December 2017, because the measurement factors that previously precluded the fair value from being reliably determined no longer exist. In order to determine the fair value, a Level 3 measurement method was used as no prices listed in active markets were available. The measurement was 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 were 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[1]	As of 01/01/2018	Changes in consolidated companies, currency adjustments, other	Changes recognised through profit or loss	Changes recognised in equity	Additions	Disposals	Reclassification to assets held for sale	As of 31/12/2018
Financial assets	1,614.0	-6.8	135.4	1.8	139.8	-176.8	-291.9	1,415.5

1 The figures for the previous year have been restated.

Due to the first-time application of IFRS 9, the financial instruments that were previously measured at amortised cost are now measured at fair value. This resulted in an adjustment to the opening balance of €37.5 million.

The changes recognised through profit or loss of €135.4 million were recognised in the amount of €50.5 million in the investment result and in the amount of €84.9 million in the financial result. In the financial year, gains from Level 3 financial instruments were recognised in the investment result in the amount of €106.9 million (previous year: €65.3 million), of which €103.9 million (previous year: €65.3 million) is accounted for by financial instruments still held on the reporting date.

Financial liabilities as of 31 December 2018 include bonds with a fair value of €5,297.9 million (previous year: €5,813.1 million) and liabilities to banks with a fair value of €1,490.1 million (previous year: €1,714.1 million).

Disclosures – offsetting financial assets and financial liabilities

The derivative financial instruments are part of standard market netting agreements. Master netting agreements exist with our business partners that were created with banks, in particular, on the basis of ISDA 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.

31/12/2018				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Trade receivables	1,863.3	-1,579.4	283.9	-71.4	0.0	212.5
Other assets	5,647.2	-4,021.7	1,625.5	-311.8	-386.6	927.1
Measured at fair value through profit or loss	(5,286.4)	(-3,728.4)	(1,558.0)	(-307.8)	(-386.6)	(863.6)
Measured at amortised cost	(182.5)	(-182.5)	(0.0)	(0.0)	(0.0)	(0.0)
Derivatives designated as hedging instruments	(178.3)	(-110.8)	(67.5)	(-4.0)	(0.0)	(63.5)
Trade payables	1,897.9	-1,579.4	318.5	-71.4	0.0	247.1
Other liabilities and subsidies	5,412.0	-4,021.7	1,390.3	-311.8	-35.0	1,043.5
Held for trading	(5,014.6)	(-3,729.5)	(1,285.1)	(-307.8)	(-45.0)	(932.3)
Measured at amortised cost	(224.2)	(-195.7)	(28.5)	(0.0)	(0.0)	(28.5)
Derivatives designated as hedging instruments	(173.2)	(-96.5)	(76.7)	(-4.0)	(10.0)	(82.7)

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)
Measured at amortised cost	(73.2)	(0.0)	(73.2)	(-48.6)	(0.0)	(24.6)
Derivatives designated as hedging instruments	(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 designated as hedging instruments	(164.7)	(-142.8)	(21.9)	(-3.8)	(-13.2)	(4.9)

The following net gains/losses were presented in the income statement:

Net gains or losses by measurement category

in € million	2018	2017
Financial assets and liabilities measured at fair value through profit or loss	189.8	-
Financial assets measured at fair value in equity	3.4	-
Financial assets measured at amortised cost	-10.5	-
Financial assets and liabilities held for trading	-	53.1
Available-for-sale financial assets	-	147.7
Loans and receivables	-	-92.1
Financial liabilities measured at amortised cost	0.0	-0.7

The presentation of net gains and losses does not include derivatives that are designated as hedging instruments. Stand-alone derivatives are included in the “financial assets and liabilities measured at fair value through profit or loss” category. Please refer to note (8) “Financial result” for information on the total interest income and expenses arising from the financial assets and liabilities measured at fair value in equity and at amortised cost.

The net gain posted in the “financial assets and liabilities measured at fair value through profit or loss” measurement category includes gains from marking to market and gains on the sale of financial instruments, as well as interest and currency effects. In the previous year, these effects on earnings were presented in the “financial assets and liabilities held for trading” measurement category and resulted in a net gain.

In the reporting year, the net gain in the “financial assets measured at fair value in equity” measurement category was mainly due to loss allowances and gains on the sale of financial instruments. In the previous year, financial instruments measured at fair value in equity were presented in the “available-for-sale financial assets” measurement category. There was a net gain that was also due to loss allowances and gains on the sale of financial instruments.

The net loss in the “financial assets measured at amortised cost” measurement category was due to loss allowances that exceeded the positive currency effects and the reversals of loss allowances in the reporting year. In the previous year, the financial assets measured at amortised cost were presented in the “loans and receivables” measurement category. The net loss in the previous year in the “loans and receivables” measurement category was primarily attributable to loss allowances and negative currency effects.

In the previous year, there was also a net loss on the financial liabilities measured at amortised cost due to credit fees.

Earnings from changes in the market value of financial assets measured at fair value in equity (previous year: “available-for-sale financial assets”) were recognised in equity in the amount of €17.9 million in the 2018 financial year (previous year: €300.7 million). Of the changes in market values posted with no impact on income, €1.7 million was transferred with a negative impact on earnings (previous year: €196.9 million with a positive impact on earnings) to the income statement.

The loss allowances on the financial assets in the reporting year are presented under “Default risk” in this note.

In the previous year, the loss allowances on financial assets in the “available for sale” and “loans and receivables” measurement categories amounted to €13.6 million and €0.6 million, respectively. In the 2017 financial year, loss allowances were recognised in profit or loss for trade receivables amounting to €42.7 million and on other assets totalling €4.6 million which were measured at amortised cost. As of 31 December 2017, loss allowances on financial assets, trade receivables and other assets totalled €165.2 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 IFRS 9 is applied in the finance area mainly for interest rate hedges for non-current liabilities. A previously used currency hedge for investments with a foreign functional currency expired in the reporting year. In the commodity area, fluctuations of future cash flows from forecast procurement and sales transactions are hedged. The economic relationship between a hedged transaction and the hedging instrument is determined by the currency, amount or quantity and timing of the relevant cash flows depending on the risk being hedged. Risks are hedged in their entirety and a 1:1 hedging relationship is used. In order to evaluate the expected effectiveness of the hedge, hypothetical derivative methods and the "dollar offset method" are used. Ineffectiveness in the hedging relationship may occur due to discounting effects.

Cash flow hedges have been entered into particularly in the commodity area to cover price risks from future sales and procurement transactions, to limit the currency risk from liabilities denominated in foreign currency and to limit the risk of interest rate fluctuation of floating-rate liabilities.

The change in the fair value of the hedges used, particularly forward contracts and futures, is, insofar as they are effective, recorded directly in other comprehensive income (measurement of financial instruments at market value) until termination of the hedge. The ineffective portion of the gain or loss on the hedging instrument is immediately recognised in profit or loss.

Date of the reclassification of the result that was directly recognised in equity to the 2018 income statement

in € million	Fair value	2019	2020–2023	>2023
Currency-related cash flow hedges	-12.1	14.5	-6.7	-19.9
Commodity cash flow hedges	13.4	5.6	7.8	0.0
Interest-related cash flow hedges	3.8	0.0	0.0	3.8

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

As of 31 December 2018, unrealised losses from derivatives amounted to €250.5 million (previous year: €106.7 million). The effective portion of the cash flow hedges amounting to €114.1 million (previous year: €41.6 million) was recognised directly in equity in the reporting period. From the ineffective portion of the cash flow hedges in 2018, there arose income of €1.0 million (previous year: expense in the amount of €1.1 million) and expenses from reclassifications from other comprehensive income in the amount of €82.0 million (previous year: expense in the amount of €123.0 million) to the income statement. The reclassifications were made to revenue (decrease of €219.5 million, previous year: decrease of €58.3 million), cost of materials (decrease of €51.0 million, previous year: increase of €20.6 million), other operating income (increase of €57.4 million, previous year: €0.0 million) and the financial result (increase of €29.1 million, previous year: decrease of €44.1 million). An amount of €113.0 million (previous year: €76.6 million) was reclassified from inventories to other comprehensive income. This led to a decrease (previous year: decrease) in acquisition costs.

As of 31 December 2018, existing hedged transactions are covered by cash flow hedges for foreign currencies with terms of up to around 58 years (previous year: up to 59 years). 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 regularly redesignated as is customary in the industry.

Fair value hedges are entered into above all to hedge fixed-income liabilities against market price risks. Interest rate swaps are used as hedging instruments. With a fair value hedge, both the hedged transaction and the hedging instrument are measured with respect to the risk at fair value through profit or loss. The change in the fair value of hedging instruments of €7.2 million was recognised in the income statement with a negative impact on earnings in the reporting year (previous year: €15.9 million with a negative 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 €7.2 million that resulted from the underlying transactions were measured through profit or loss with a positive impact on earnings (previous year: €15.8 million with a positive impact on earnings).

Hedges of net investments in foreign operations: Primary foreign currency bonds were used in the reporting year to hedge against foreign exchange risks from investments with a foreign functional currency. This hedging instrument expired in the 2018 financial year. Also in the 2018 financial year, €38.0 million (previous year: €36.5 million) arising from the hedges' exchange rate changes was reported within equity as unrealised losses under "currency translation". The hedging relationship was not ineffective.

Contracts that have been concluded to meet the company's expected usage requirements are not recorded in the balance sheet pursuant to the provisions of IFRS 9.

Regular way purchases or sales (spot purchases/sales) of primary financial instruments are generally recognised as of the settlement date at fair value taking into account the transaction costs. Derivative financial assets are recognised as of the trading date. Derivative and primary financial instruments are recognised in the balance sheet when EnBW becomes party to the contract.

Purchases and sales of fuels are made in euros or US dollars.

Counterparty risks are assessed taking into account the period for which the current replacement and selling risk has been calculated. Moreover, these risks are analysed with reference to the current rating by the rating agencies Moody's and Standard & Poor's. An internal rating procedure is used for trading partners that do not have such an external rating.

The counterparty risk is based on replacement and selling risks resulting from the market value of the item in question with the individual trading partner as of the reporting date. Netting options agreed in master agreements concluded with the trading partner are also taken into account when determining the counterparty risk.

If there is a netting agreement, positive and negative market values are netted for each trading partner. Otherwise, only positive market values are taken into consideration.

The following table presents the amounts that relate to items designated as hedging instruments. The nominal volume of the derivatives presented below has not been netted. It represents the sum of all purchase and sale amounts underlying the transactions. The amount of the nominal volume allows conclusions to be drawn about the extent to which derivatives have been used. However, it does not reflect the risk to the Group as the derivative transactions are counterbalanced by hedged transactions that have counter risks. Securities are deposited or have been provided for derivatives that are traded on the stock exchange.

31/12/2018	Nominal amount of the hedging instrument	Carrying amount of the hedging instrument		Balance sheet items containing the hedging instrument	Change in value to determine the ineffectiveness of the hedging instrument
in € million		Assets	Liabilities		
Cash flow hedges	**3,691.0**	**67.5**	**76.7**		**44.4**
Commodity price risks	2,530.9	48.7	42.1	Other assets/ Other liabilities	-27.6
Forward transactions	(2,530.9)	(48.7)	(42.1)		(-27.6)
Currency risk	1,041.6	18.8	30.9	Other assets/ Other liabilities	73.2
Swap transactions	(1,041.6)	(18.8)	(30.9)		(73.2)
Interest rate risk	118.5	0.0	3.7	Other assets/ Other liabilities	-1.2
Swap transactions	(118.5)	(0.0)	(3.7)		(-1.2)
Fair value hedges	**300.0**	**85.1**	**0.0**		**-6.6**
Interest rate risk	300.0	85.1	0.0	Other assets/ Other liabilities	-6.6
Swap transactions	(300.0)	(85.1)	(0.0)		(-6.6)
Hedges of net investments in foreign operations	**0.0**	**0.0**	**0.0**		**1.4**

The following table presents the amounts that relate to items designated as hedged transactions:

31/12/2018	Carrying amount of the transaction	Change in value of the hedged transaction that is contained in the carrying amount of the recognised transaction	Balance sheet items containing the transaction	Change in value to determine the ineffectiveness of the hedging instrument	Cash flow hedge reserve
in € million	Liabilities	Liabilities			
Cash flow hedges	**473.0**	**0.0**		**-43.4**	**-253.8**
Commodity price risks	-	-		25.8	-261.0
Expected transactions	-	-		(25.8)	(-261.0)
Currency risk	419.7	0.0		-70.4	7.2
Expected transactions	-	-	-	(-30.1)	(26.5)
Bonds	(419.7)	(0.0)	Financial liabilities	(-40.3)	(-19.3)
Interest rate risk	53.3	0.0		1.2	0.0
Bonds	(53.3)	(0.0)	Financial liabilities	(1.2)	(0.0)
Fair value hedges	**373.2**	**73.2**		**6.6**	**-**
Interest rate risk	373.2	73.2		6.6	-
Bonds	(373.2)	(73.2)	Financial liabilities	(6.6)	-
Hedges of net investments in foreign operations	**0.0**	**27.0**	Equity	**-1.4**	**0.0**

In the reporting year, the amounts associated with items designated as hedging instruments were as follows:

2018	Hedging gains or losses in the reporting period recognised under other comprehensive income	Ineffectiveness of the hedging relationship recognised in profit or loss	Items on the statement of comprehensive income that contain the recognised ineffectiveness	Reclassification to the income statement with an effect on profit or loss [1]	Items on the statement of comprehensive income affected by the reclassification
in € million					
Cash flow hedges	**-114.1**	**1.0**		**-82.0**	
Commodity price risks	-159.7	1.0	Other operating income	-111.1	Cost of materials/ revenue/ other operating income
Interest rate risk	45.6	0.0		29.1	Financial result

1 Detailed information on the reclassifications with an effect on profit or loss can be found in the information on cash flow hedges.

Counterparty risk Moody's, S&P and/or internal rating

in € million	31/12/2018		31/12/2017	
	< 1 year	1–5 years	< 1 year	1–5 years
up to A1	23.3	37.1	37.8	9.0
up to A3	8.2	16.8	25.2	16.1
Baa1	61.6	33.1	59.4	155.3
up to Baa3	32.6	45.1	21.4	27.9
below Baa3	4.6	8.9	2.6	3.9
Total	**130.3**	**141.0**	**146.4**	**212.2**

Derivatives used for hedging purposes can be reconciled to other comprehensive income (cash flow hedge) as follows:

in € million [1]	31/12/2018	31/12/2017	Change
Derivatives used in cash flow hedges with a positive fair value	178.3	202.7	-24.4
Derivatives used in cash flow hedges with a negative fair value	173.2	238.3	-65.1
	5.1	**-35.6**	**40.7**
Deferred tax on change recognised directly in equity in derivatives used in cash flow hedges	76.1	-0.5	76.6
Hedge ineffectiveness	-1.0	0.0	-1.0
Cascading effects	-309.8	-118.9	-190.9
Effects realised from hedged transactions [2]	55.4	47.8	7.6
Non-controlling interests	-3.2	-2.0	-1.2
Cash flow hedge (recognised in equity)	**-177.4**	**-109.2**	**-68.2**

1 Before offsetting financial assets and financial liabilities according to IAS 32.
2 Of which €44.5 million (previous year: €14.4 million) which will be reclassified to the income statement in the period 2019–2020 (previous year: 2018–2020).

The cascading effects concern the changes in market value of the futures that are part of hedges accumulated until the time of cascading.

In cascading, annual and quarterly futures are settled by other futures instead of in cash.

Risk management system

As an energy supply company, EnBW is exposed to financial price risks in the currency, interest and commodity areas in the course of its operating activities, investments and financing transactions. In addition, there are credit and liquidity risks. It is company policy to eliminate or limit these risks by systematic risk management.

Exchange rate fluctuations between the euro and other currencies, fluctuation in interest rates on international money and capital markets, as well as fluctuating prices on the markets for electricity, coal, gas and emission allowances are the main price risks for EnBW. The hedging policy used to limit these risks is set forth by the Board of Management and is documented in intercompany guidelines. It also provides for the use of derivatives.

The derivatives used to hedge against financial risks are subject to the assessment criteria defined in the risk management guidelines. These include value-at-risk ratios and position limits and loss limits. The segregation of duties between trading and back-office processing and control is a further key element of our risk management.

The corresponding financial transactions are only concluded with counterparties with excellent credit ratings. Using suitable hedging instruments, it is possible to make use of market opportunities while hedging the risk position.

The risks arising from financial instruments as well as the methods used to assess and manage them have not changed significantly since the previous year.

For further details on EnBW's risk management system, we refer to our explanations given in the risk report contained in the management report.

Default risk

EnBW is exposed to default risks that result from the counterparties not fulfilling contractual agreements. EnBW manages its default risks by generally demanding a high credit rating of its counterparties and limiting the default risk with counterparties. The credit ratings of counterparties are continually monitored by EnBW's system for managing credit ratings. Commodity and energy transactions are generally made under master agreements such as EFET, ISDA or IETA.

These master agreements are generally only entered into following careful scrutiny of the counterparty's creditworthiness. Exceptions to this business policy can be made only if it is in the justified interest of the company, e.g. in order to penetrate new markets. In terms of the customer structure, the receivables from individual counterparties are not large enough to give rise to a significant concentration of risk.

Financial investments are only made with the investment limits and counterparties defined in the treasury guidelines. Compliance with these guidelines is constantly monitored by the internal control system (ICS).

The loss allowances for financial assets measured at fair value in equity and financial assets measures at amortised cost developed as follows:

2018	Financial assets measured at fair value in equity		Financial assets measured at amortised cost		
in € million	Carrying amount	Expected 12-month credit loss	Carrying amount	Expected 12-month credit loss	Expected credit loss over the term – impaired creditworthiness
As of 1 January according to IAS 39	**1,539.4**	**0.0**	**4,178.3**	**0.0**	**-41.0**
Effect of first-time application of IFRS 9	0.0	-0.7	0.0	-0.8	-
As of 1 January according to IFRS 9	**1,538.7**	**-0.7**	**4,177.5**	**-0.8**	**-41.0**
Net revaluation of the loss allowances	-	0.7	-	0.0	2.8
Newly acquired financial assets	-	-0.8	-	-0.5	0.0
Repaid financial assets	-	0.1	-	0.0	3.5
As of 31/12	**1,688.9**	**-0.7**	**3,710.6**	**-1.3**	**-34.7**

The loss allowances for trade receivables and lease receivables developed as follows in the financial year:

31/12/2018		Trade receivables			Lease receivables	
in € million	Carrying amount	Loss allowance	Loss rate (weighted average)	Carrying amount	Loss allowance	Loss rate (weighted average)
Not past due	4,653.1	-36.3	0.8 %	19.4	-0.1	0.5 %
Past due	164.6	-99.8				
Due within 3 months	(75.0)	(-2.2)	2.8 %			
Due in between 3 and 6 months	(17.0)	(-4.6)	21.3 %			
Due in between 6 months and 1 year	(24.8)	(-2.0)	7.5 %			
Due in more than 1 year	(47.8)	(-91.0)	65.6 %			

The maximum default risk for financial assets (including derivatives with positive market value) is equivalent to the carrying amounts recognised in the balance sheet. As of 31 December 2018, the maximum default risk amounts to €16,972.4 million (previous year: €17,328.0 million).

A detailed description of the model can be found in the accounting policies in the section “Impairment of financial assets”.

Liquidity risk

Liquidity risks arise for EnBW from the obligation to repay liabilities fully and punctually. The objective of EnBW’s cash and liquidity management is to secure the company’s solvency at all times.

Cash management determines any cash requirements and inflows on a central basis. By offsetting cash requirements and cash inflows, the number of banking transactions is reduced to a minimum. The offsetting is carried out by cash pooling. Cash management has implemented standardised processes and systems to manage bank accounts and internal clearing accounts and perform automated payment transactions.

For liquidity management purposes, a finance plan based on cash flows is prepared centrally. As they arise, finance needs are covered by suitable financial instruments as part of the liquidity management. In addition to ensuring that liquidity is available on a daily basis, EnBW maintains further liquidity reserves of €2.6 billion (previous year: €2.9 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 2018 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 2018 were used.

Foreign currency financial instruments are translated at the respective spot price as of 31 December 2018.

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 31/12/2018

in € million	Total	2019	2020	2021	2022	Cash flows > 2022
Non-derivative financial liabilities						
Debt instruments issued	6,316.7	184.4	184.0	1,183.7	1,096.5	3,668.1
Liabilities to banks	1,302.9	215.2	158.2	102.1	66.3	761.1
Finance lease liabilities	162.9	7.4	7.1	7.1	7.1	134.2
Other financial liabilities	590.9	141.4	42.2	27.4	92.0	287.9
Trade payables	802.4	802.4				
Other financial obligations	586.7	570.3	3.9	2.4	6.9	3.2
Derivative financial assets	11,269.7	8,510.3	2,075.3	650.8	21.9	11.4
Derivative financial liabilities	5,669.2	3,597.0	1,376.6	553.2	127.0	15.4
Financial guarantees	227.7	227.7				
Total	**26,929.1**	**14,256.1**	**3,847.3**	**2,526.7**	**1,417.7**	**4,881.3**

Undiscounted cash flows as of 31/12/2017

in € million [1]	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	158.3	7.9	6.4	6.4	6.3	131.3
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	9,483.7	6,917.3	1,783.3	718.2	64.4	0.5
Derivative financial liabilities	1,712.7	1,361.9	152.0	132.0	21.7	45.1
Financial guarantees	258.3	258.3				
Total	**21,877.2**	**11,244.3**	**2,320.9**	**1,232.7**	**1,413.6**	**5,665.7**

1 The figures for the previous year have been restated.

The increase in the liquidity risk for the derivative financial assets is due to both a higher volume of forward transactions and also the increase in the prices for commodities. The development and volatility of market prices on the commodity markets is the decisive factor for the classification of these derivatives as financial assets on the reporting date. 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, EnBW's actual liquidity risk from derivatives is not revealed directly.

Market price risks

Market price risks can arise from foreign exchange and interest rate risks as well as from commodity and other price risks for shares, share-based investment funds and interest-bearing securities. The price risks are reduced through the implementation of a comprehensive hedging concept and the associated closing of risk positions.

The main foreign currency risks of EnBW result from procurement and hedging of prices for its fuel requirements, gas and oil trading business and liabilities denominated in foreign currency. Other currency risks resulting from investments in shares, share-based investment funds 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 €1,546.4 million (previous year: €1,407.8 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			31/12/2018	31/12/2017
Euros against all currencies	+5% (previous year: +7%)	Profit for the year	-7.3	-3.6
	+5% (previous year: +7%)	Equity	28.6	42.7
of which euro/US dollar	+5% (previous year: +7%)	Profit for the year	(-8.9)	(-7.8)
	+5% (previous year: +7%)	Equity	(25.7)	(34.9)
of which euro/Swiss franc	+5% (previous year: +7%)	Profit for the year	(1.6)	(4.2)
	+5% (previous year: +7%)	Equity	(2.9)	(7.8)

EnBW uses a multitude of interest-sensitive financial instruments in order to meet the requirements of operational and strategic liquidity management. Interest rate risks only stem from floating-rate instruments.

Interest-induced changes in the market value of interest-bearing securities in the “measured at fair value through profit or loss” and “measured at fair value in equity” measurement categories are presented under other price risks for shares, share-based investment funds 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 €1,658.3 million (previous year: €1,447.5 million) and financial liabilities of €1,555.2 million (previous year: €1,854.5 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		31/12/2018	31/12/2017
Increase in interest rate +45 basis points (previous year: +60 basis points)	Profit for the year	-1.0	-3.4
of which interest rate derivatives	Profit for the year	(-1.1)	(-2.0)
of which cash at banks with a floating interest rate	Profit for the year	(6.7)	(7.6)
of which primary financial debt with a floating interest rate	Profit for the year	(-6.6)	(-9.0)
	Profit for the year		
Decrease in interest rate -45 basis points (previous year: -60 basis points)	Profit for the year	0.7	2.7
of which interest rate derivatives	Profit for the year	(1.1)	(2.0)
of which cash at banks with a floating interest rate	Profit for the year	(-6.7)	(-7.6)
of which primary financial debt with a floating interest rate	Profit for the year	(6.3)	(8.3)

In the context of our energy trading activities, EnBW enters into energy trading contracts for the purpose of price risk management, optimisation of power stations, load equalisation and optimisation of margins. Trading for own account is only permitted within narrow, clearly defined boundaries.

The price risks mostly arise from the procurement and sale of electricity, the procurement of coal, gas and oil as fuels, and the procurement of emission allowances. Furthermore, EnBW is exposed to price risks from speculative items entered into in own-account trading. The price risks are hedged using appropriate financial instruments on the basis of continuously monitored forecasts of market prices. The hedging instruments used in the reporting period were forwards, futures, swaps and options.

The sensitivity of the measurement of derivatives to the price of electricity, coal, oil, gas and emission allowances is analysed below. The analysis was made assuming that all other parameters remain unchanged. It includes only derivatives whose changes in market value affect equity or the net profit/loss for the year. These are derivatives that are accounted for as stand-alone derivatives as well as derivatives used as hedging instruments in cash flow hedges. For all commodities, typical volatilities were determined and rounded on the basis of the front year. These volatilities give the percentage rate by which the market price is shifted on the evaluation date. For all commodities, the resulting changes in market prices are multiplied by the sensitivities and aggregated for each commodity.

The analysis does not include any derivatives that are intended for the purpose of receipt or delivery of 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 IFRS 9. Our generation and distribution positions are not included in the analysis either.

The sensitivities presented below therefore do not represent the actual economic risks to which the EnBW Group is exposed but rather serve solely to satisfy the disclosure requirements of IFRS 7.

The information presented in the table shows only the effects on the net profit/loss for the year and on equity in the case of an increase in prices, a reduction of the same amount would have the opposite effect.

Price risks

in € million			31/12/2018	31/12/2017
Electricity	+25% (previous year: +20%)	Profit for the year	-103.3	-77.7
	+25% (previous year: +20%)	Equity	-249.8	-158.1
Coal	+20% (previous year: +25%)	Profit for the year	34.2	17.2
	+20% (previous year: +25%)	Equity	104.8	127.2
Oil	+20% (previous year: +20%)	Profit for the year	4.9	5.5
	+20% (previous year: +20%)	Equity	0.0	0.0
Gas	+20% (previous year: +15%)	Profit for the year	-22.0	-34.0
	+20% (previous year: +15%)	Equity	0.0	0.0
Emission allowances	+50% (previous year: +45%)	Profit for the year	295.2	51.5
	+50% (previous year: +45%)	Equity	51.2	34.9

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 2018, shares, share-based investment funds and fixed-income securities totalling €3,970.5 million (previous year: €4,115.1 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 10% for shares and share-based investment funds (previous year: 15%) and 1% for interest-bearing securities (previous year: 2%).

In the risk scenario in question, the net profit/loss for the year would improve by €135.8 million (previous year: €1.1 million). The hypothetical change in profit/loss for the year is primarily due to fixed-income securities. In the risk scenario in question, the equity would increase by €16.9 million (previous year: €332.3 million). Of the hypothetical change in equity, €0.0 million (previous year: €289.8 million) is accounted for by shares and share-based investment funds and €16.9 million (previous year: €42.5 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 26.4% share of the liability coverage, plus 5% for costs to settle any claims for damages, as of 31 December 2018, and 25.2% as of 1 January 2019, as the Obrigheim nuclear power plant is no longer included. Sufficient provisions have been made to ensure this liquidity and are taken into account in the liquidity plan.

As of 31 December 2018, the Obrigheim nuclear power plant is no longer included in the previously mentioned solidarity agreement. Due to the removal of all of the fuel rods from the power plant, the coverage provision for the Obrigheim nuclear power plant has been fixed at €9.7 million.

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.

In addition, there are other contingent liabilities at the EnBW Group amounting to €2,469.7 million (previous year: €2,261.0 million). This amount includes sureties of €2,371.4 million (previous year: €2,242.3 million). The amount also includes €13.2 million (previous year: €12.8 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 €32.3 billion (previous year: €32.0 billion), of which €6.9 billion (previous year: €5.8 billion) is due within one year.

Miscellaneous other financial commitments break down as follows:

in € million	31/12/2018			Of which due in	31/12/2017
		< 1 year	1–5 years	> 5 years	
Financial commitments from rent and lease agreements	499.7	92.6	257.3	149.8	584.3
Purchase commitments	924.9	672.9	191.9	60.1	1,048.6
Investment obligations for intangible assets and property, plant and equipment	1,142.7	500.7	613.2	28.8	829.1
Financial commitments from corporate acquisitions [1]	476.1	224.4	205.3	46.4	454.1
Other financial commitments	291.2	75.3	91.8	124.1	442.0
Total	**3,334.6**	**1,565.9**	**1,359.5**	**409.2**	**3,358.1**

1 Financial commitments from corporate acquisitions < 1 year include investments held as financial assets amounting to €143.8 million (previous year: €113.8 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 German Energy Industry Act (EnWG), independent transmission operators must possess the financial, technical, material and human resources required to operate the transmission grid. For this purpose, the independent transmission operators must be the owner, either directly or through shareholdings, of all of the assets required to operate the transmission grid.

As of 31 December 2018, the EnBW Group held a total of €2,569.6 million (previous year: €2,262.0 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 [1]	2018	2017
Statutory audit	3.4	3.3
Other attestation services	1.6	1.4
Tax advisory services	0.2	0.1
Other services	0.4	0.5
Total	**5.6**	**5.3**

1 The figures for the previous year have been restated.

KPMG AG Wirtschaftsprüfungsgesellschaft audited the annual and consolidated financial statements of EnBW AG. 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 EnBW AG as a service provider. In addition, there was a review of parts of the compliance management system. Furthermore, other legal or contractual audits were carried out, such as audits according to EEG and KWKG, and two letters of comfort issued.

In connection with matters relating to value added tax and ongoing income taxes, EnBW was 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 as well as other economic matters.

(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) HGB or section 264b HGB in the 2018 financial year:

Exemptions pursuant to section 264 (3) HGB

- EnBW He Dreiht GmbH, Varel
- EnBW Offshore 1 GmbH, Stuttgart
- EnBW Offshore 2 GmbH, Stuttgart
- EnBW Offshore 3 GmbH, Stuttgart
- EnBW Perspektiven GmbH, Karlsruhe
- EnBW REG Beteiligungsgesellschaft mbH, Stuttgart
- EnBW Rückbauservice GmbH, Stuttgart
- EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe
- Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim
- MSE Mobile Schlammentwässerungs GmbH, Karlsbad-Ittersbach
- Neckarwerke Stuttgart GmbH, Stuttgart
- Netze BW Wasser GmbH, Stuttgart
- NWS Finanzierung GmbH, Karlsruhe
- NWS REG Beteiligungsgesellschaft mbH, Stuttgart
- RBS wave GmbH, Stuttgart
- symbiotic services GmbH, Karlsruhe
- TPLUS GmbH, Karlsruhe
- u-plus Umweltservice GmbH, Karlsruhe

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 5 December 2018 and made it permanently available to shareholders on the Internet at www.enbw.com/declarations-of-compliance.

(30) Share deals and shareholdings of key management personnel

The company did not receive any notices in the 2018 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 2018 financial year amounting to €-975.5 million (previous year: €-1,076.7 million).

Cash and cash equivalents relate almost exclusively to bank deposits, largely in the form of time and day-to-day deposits. In the 2018 financial year, cash flow from operating activities amounted to €827.6 million (previous year: €-1,696.1 million).

The income tax paid in the reporting year totalled €270.7 million (previous year: €81.1 million income tax received).

Other non-cash-relevant expenses and income break down as follows:

in € million	2018	2017
Income from the reversal of construction cost subsidies	-65.7	-66.9
Impairment losses	40.1	-
Expense from the reversal and reduction of specific loss allowances	-	52.8
Reversal of impairment losses on property, plant and equipment and intangible assets	-22.1	-93.1
Expense from the reversal of capitalised costs for acquiring contracts	17.0	0.0
Write-ups/write-downs on inventories	-14.7	27.6
Other	17.8	11.5
Total	**-27.6**	**-68.1**

In the 2018 financial year, €177.4 million (previous year: €84.7 million) was distributed to third-party shareholders of Group companies.

The purchase prices paid in cash for the acquisition of entities fully consolidated and accounted for using the equity method, as well as for shares in joint operations, totalled €298.0 million (previous year: €227.9 million). In the reporting year, €0.4 million (previous year: €0.0 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, as well as the acquisition of Power Wind Partners AB, Rabbalshede, Sweden. Property, plant and equipment of €61.2 million, other assets of €9.6 million, provisions of €4.6 million and other liabilities of €3.4 million were acquired with the purchase. The cash payments in the comparative period primarily concerned capital increases at entities accounted for using the equity method.

The sale prices from the disposal of entities fully consolidated and accounted for using the equity method, as well as for shares in joint operations, totalled €359.4 million (previous year: €293.2 million). Cash and cash equivalents of €61.5 million (previous year: €57.8 million) were relinquished in the reporting year as a result of the sale of shares. In the reporting period, the cash received mainly resulted from the sale of equity in VNG Norge AS, Stavanger, Norway, and its subsidiary VNG Danmark ApS, Copenhagen, Denmark. In addition, there were capital reductions at entities accounted for using the equity method. Due to the sale of VNG Norge AS, assets held for sale of €567.4 million and liabilities directly associated with assets classified as held for sale of €271.5 million were derecognised. A contingent payment of €29.6 million is not included in the sale price. In the comparative 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.

Cash-relevant net investment in the section “The EnBW Group” of the management report can be reconciled as follows:

in € million	2018	2017
Cash flow from investing activities	-895.8	2,160.7
- Interest and dividends received	-284.6	-591.7
- Cash received/paid for investments in connection with short-term finance planning	-10.5	-44.3
- Net investments held as financial assets	-52.0	110.6
- Net investments in property held as financial assets	-14.9	-28.2
- Net investments in other assets	-38.5	-2,912.3
- Acquired/relinquished cash [1]	61.1	0.0
+ Payments for alterations of capital in non-controlling interests	-51.8	-55.0
+ Cash received/paid for changes in ownership interest without loss of control	4.6	1.5
+ Cash received/paid from participation models	-4.7	-8.4
Cash payments for net investments	**-1,287.1**	**-1,367.1**

1 In the previous year, 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 €-34.0 million (previous year: €-6.4 million) is reported separately for the representation of the retained cash flow in the liquidity analysis in the section “The EnBW Group” of the management report.

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 adjusted retained cash flow, 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 impact that the utilisation of the pension and nuclear obligations may have on the operating business is limited to €300 million (plus an inflation supplement) a year using an ongoing contribution from the financial assets. If the provisions are fully covered by the financial assets, no further funds will be taken from operating cash flow as part of the model.

EnBW uses a rolling planning horizon of three months for the short-term management of liquidity. EnBW also uses tools which allow forecasts to be made about liquidity requirements beyond the medium-term period.

EnBW has a well-balanced maturity profile for its financial liabilities. The financial policy focuses on ensuring the solvency of the company, limiting financial risks and optimising capital costs. As of 31 December 2018, the credit-worthiness of EnBW was rated by the rating agencies Moody's, Standard and Poor's and Fitch with A3/stable, A-/stable and A-/ stable, respectively.

(33) Segment reporting

2018 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolida-tion	Total
Revenue						
External revenue	7,061.4	3,215.4	477.5	9,856.2	7.0	20,617.5
Internal revenue	677.1	2,353.1	333.1	2,647.7	-6,011.0	0.0
Total revenue	7,738.5	5,568.5	810.6	12,503.9	-6,004.0	20,617.5
Earnings indicators						
Adjusted EBITDA	270.6	1,176.9	297.7	428.6	-16.3	2,157.5
EBITDA	232.6	1,120.0	285.1	407.9	44.0	2,089.6
Adjusted EBIT	202.2	719.4	124.0	-42.5	-45.6	957.5
EBIT	161.7	662.5	110.6	-72.6	13.6	875.8
Income from reversals of impairment losses	0.2	2.6	0.0	19.3	0.0	22.1
Scheduled amortisation and depreciation	-68.4	-457.5	-173.7	-471.1	-29.3	-1,200.0
Impairment losses	-2.5	0.0	-0.8	-9.4	-1.1	-13.8
Net profit/loss from entities accounted for using the equity method	1.1	22.2	-48.3	0.9	0.0	-24.1
Significant non-cash-relevant items	-11.0	51.1	4.8	30.0	-7.9	67.0
Assets and liabilities						
Capital employed	1,009.4	7,213.9	3,843.2	2,164.4	2,714.6	16,945.5
of which carrying amount of entities accounted for using the equity method	(188.2)	(402.1)	(863.4)	(146.5)	(0.0)	(1,600.2)
Capital expenditure on intangible assets and property, plant and equipment	91.5	959.3	138.9	160.3	19.5	1,369.5

2017 in € million[1]	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolida-tion	Total
Revenue						
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
Earnings indicators						
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-relevant items	31.2	27.2	2.8	0.6	-14.1	47.7
Assets and liabilities						
Capital employed	1,004.6	6,534.8	3,501.9	2,293.0	2,021.0	15,355.3
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 expenditure on intangible assets and property, plant and equipment	83.3	784.0	417.3	115.7	18.9	1,419.2

1 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	2018	2017
Adjusted EBITDA	2,157.5	2,113.0
Non-operating EBITDA	-67.9	1,639.4
of which income/expenses relating to nuclear power	(-132.1)	(1,278.2)
of which income from the reversal of other provisions	(11.8)	(25.7)
of which result from disposals	(89.0)	(317.8)
of which reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	(39.2)	(59.2)
of which income from reversals of impairment losses	(22.1)	(93.1)
of which restructuring	(-49.1)	(-70.0)
of which other non-operating result	(-48.8)	(-64.6)
EBITDA	**2,089.6**	**3,752.4**
Amortisation and depreciation	-1,213.8	-1,248.4
Earnings before interest and taxes (EBIT)	**875.8**	**2,504.0**
Investment result	100.9	159.3
Financial result	-380.4	194.6
Earnings before tax (EBT)	**596.3**	**2,857.9**

The components of non-operating EBITDA can be found on the income statement, in particular, in income to the amount of €265.6 million (previous year: €1,971.4 million), as well as in expenses to the amount of €333.5 million (previous year: €332.0 million).

Segment reporting is based on internal reporting.

Sales of electricity and gas, as well as the provision of services related to the energy industry, such as billing services, 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. The Generation and Trading segment encompasses electricity generation and the trading of gas and electricity, the provision of system services for the operators of transmission grids, the gas midstream business with storage, the operation of reserve power plants, district heating, environmental services and the dismantling of power plants. Until the sale of VNG Norge AS and its subsidiary, the Generation and Trading segment also included the exploration and production of gas. All activities which cannot be attributed to the separately presented activities of the segments are disclosed together with eliminations between the segments under “Other/Consolidation”.

The segment figures have been determined in accordance with the accounting policies used in the consolidated financial statements. Internal revenue shows the level of sales between Group companies. Sales between the segments were made at market prices.

The significant non-cash-relevant items principally comprise expenses from allocations to provisions as well as income from the reversal of construction cost subsidies and deferred liabilities.

Capital employed, which we record as segment assets, comprises all assets from the operating business. Non-interest-bearing liabilities – such as trade payables – are deducted.

Capital employed is calculated as follows:

in € million [1]	31/12/2018	31/12/2017
Intangible assets	1,748.7	1,905.9
Property, plant and equipment	15,867.5	15,597.4
Investment properties	31.6	50.3
Investments [2]	2,002.7	1,695.6
Loans	133.0	140.4
Inventories	1,192.0	958.1
Trade receivables [3]	4,450.4	4,343.6
Other assets [4]	4,198.6	3,115.6
of which income tax refund claims	(103.0)	(102.2)
of which other tax refund claims	(127.7)	(122.8)
of which derivatives	(2,736.1)	(2,227.6)
of which payments on account	(75.5)	(114.2)
of which active prepaid expenses	(114.5)	(72.1)
of which miscellaneous assets	(1,292.3)	(746.9)
of which assets held for sale	(43.4)	(3.0)
of which components attributable to net debt	(-293.9)	(-273.2)
Other provisions	-2,396.8	-2,579.3
Trade payables and other liabilities [5]	-9,674.1	-8,623.5
of which payments received on account	(-79.9)	(-90.6)
of which trade payables	(-5,013.4)	(-4,816.3)
of which other deferred income	(-202.9)	(-204.1)
of which derivatives	(-2,523.0)	(-2,264.1)
of which income tax liabilities	(-459.4)	(-322.1)
of which other liabilities	(-1,441.0)	(-931.5)
of which liabilities directly associated with the assets classified as held for sale	(-21.2)	(0.0)
of which components attributable to net debt	(66.7)	(5.2)
Subsidies	-892.6	-1,405.8
Deferred taxes [6]	284.5	157.0
Capital employed	**16,945.5**	**15,355.3**
Average capital employed [7]	**16,053.3**	**15,119.9**

1 The figures for the previous year have been restated: The capital employed amounted to €14,808.9 million as of 01/01/2017. It includes a retroactive adjustment due to the allocation of other assets and other liabilities for the special funds of €-28.5 million to net debt. The adjustment was made in "Other/Consolidation".
2 Including entities accounted for using the equity method, shares in affiliated entities and other investments allocable to operating activities.
3 Excluding affiliated entities, excluding receivables associated with nuclear provisions.
4 Excluding net profit from CTA, excluding valuation effects from interest-induced hedging transactions.
5 Excluding affiliated entities, excluding non-controlling interests in fully consolidated partnerships recognised as liabilities.
6 Deferred tax assets and liabilities netted.
7 Average calculation based on the relevant quarterly values for the reporting year and the year-end value for the previous year.

External revenue by region is determined by the location supplied. The EnBW Group does not generate 10% or more of its external revenue with any one external customer.

External revenue by region

in € million	2018	2017
Germany	17,701.4	20,085.6
European currency zone excluding Germany	1,627.1	701.6
Rest of Europe	1,288.9	1,186.6
Rest of world	0.1	0.2
	20,617.5	**21,974.0**

External revenue by product

in € million	2018	2017
Electricity	11,801.5	15,400.0
Gas	7,562.0	5,527.4
Energy and environmental services/other	1,254.0	1,046.6
	20,617.5	**21,974.0**

Intangible assets and property, plant and equipment by region

in € million	31/12/2018	31/12/2017
Germany	15,783.8	15,433.5
Rest of Europe	1,832.4	2,069.8
	17,616.2	**17,503.3**

(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 2018, the Federal State of Baden-Württemberg and its wholly owned subsidiary NECKARPRI GmbH indirectly held 46.75% of the shares in EnBW AG, and NECKARPRI-Beteiligungsgesellschaft mbH held the same amount directly (unchanged). NECKARPRI-Beteiligungsgesellschaft mbH is a wholly owned subsidiary of NECKARPRI GmbH. OEW indirectly held 46.75% of the shares in EnBW AG, and its wholly owned subsidiary OEW Energie-Beteiligungs GmbH (OEW GmbH) held the same amount directly (also unchanged). 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 2018. All business transactions with the Federal State were based on customary market terms and conditions. There are no contingent liabilities or financial commitments to the Federal State.

Except for dividends paid, there are no business relations with OEW GmbH or NECKARPRI-Beteiligungsgesellschaft mbH.

Business relations with related parties, which, amongst others, result from supply and procurement agreements in the electricity and gas sectors and took place at customary market terms and conditions, are as follows:

in € million	2018		2017	
	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	62.7	351.8	270.7	286.0
Expenses	-30.3	-298.9	-86.5	-258.9
Assets	110.9	46.7	110.5	38.7
Liabilities	43.3	372.3	6.2	392.9
Other obligations	2,431.8	150.1	2,371.7	112.4

In business relations with joint ventures accounted for using the equity method, receivables and liabilities are due within one year. The high level of other obligations is mainly due to the granting of sureties to wind farms. In addition, other obligations also includes guarantees, lease agreements with Stuttgart Netze GmbH and future purchase price obligations.

The business relations with associated companies accounted for using the equity method, including with municipal entities (particularly municipal utilities), mainly exist in the course of ordinary business activity. The receivables and liabilities for the reporting period are almost exclusively due within one year. There are also provisions for long-term procurement agreements that are regularly adjusted to current market assessments. Other obligations to these entities result primarily from long-term purchase obligations in the electricity sector.

Related parties also include the EnBW Trust e.V., which manages the plan assets for securing pension obligations.

(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 2018 financial year amounts to €7.9 million (previous year: €8.6 million). Short-term benefits amount to €4.7 million (previous year: €5.3 million) and long-term benefits to €3.2 million (previous year: €3.3 million). As of 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 €0.9 million (previous year: €1.0 million). For this group of people, there was an expense of €1.3 million in the 2018 financial year (previous year: €1.3 million), which includes service and interest costs. There are defined benefit obligations in accordance with IFRS of €16.6 million for the current members of the Board of Management (previous year: €15.2 million).

Former members of the Board of Management and their surviving dependants received €4.8 million (previous year: €4.7 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €0.6 million (previous year: €0.6 million). There are defined benefit obligations to former members of the Board of Management and their surviving dependants in accordance with IFRS of €99.0 million (previous year: €98.8 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €27.8 million (previous year: €27.6 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 2018 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 2018 financial year.

(36) Additional disclosures

List of shareholdings pursuant to section 313 (2) HGB as of 31 December 2018

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
Sales segment					
Fully consolidated companies					
1	bmp greengas GmbH, Munich		100.00	5,697	0
2	ED GrünSelect GmbH, Rheinfelden	6	100.00	497	1
3	EnBW Mainfrankenpark GmbH, Dettelbach	3	100.00	3,759	-
4	EnBW Vertriebsbeteiligungen GmbH, Stuttgart		100.00	13,709	-2
5	energieNRW GmbH, Düsseldorf	5	100.00	276	9
6	ESD Energie Service Deutschland GmbH, Offenburg		100.00	3,261	1,201
7	eYello CZ k.s., Prague/Czech Republic	5, 15	100.00	269	1
8	G.EN. Gaz Energia Sp. z o.o., Tarnowo Podgórne/Republic of Poland		100.00	48,255	5,415
9	GasVersorgung Süddeutschland GmbH, Stuttgart	3	100.00	65,000	-
10	Gasversorgung Unterland GmbH, Heilbronn		100.00	15,769	5
11	goldgas GmbH, Vienna/Austria		100.00	487	4,531
12	goldgas GmbH, Eschborn		100.00	30,050	6,859
13	NaturEnergie+ Deutschland GmbH, Mühlacker		100.00	1,036	-2,601
14	PREzakaznicka a.s., Prague/Czech Republic	12	100.00	-	-
15	Sales & Solutions GmbH, Stuttgart	3	100.00	75,618	-
16	VNG-Erdgascommerz GmbH, Leipzig	3	100.00	25,500	-
17	Watt Synergia GmbH, Frankfurt am Main	3	100.00	250	-
18	Yello Strom GmbH, Cologne	3	100.00	1,100	-
19	ZEAG Immobilien GmbH & Co. KG, Heilbronn		100.00	3,153	1,121
20	Messerschmid Energiesysteme GmbH, Bonndorf	5	60.00	531	161
21	TRITEC AG, Aarberg/ Switzerland	6	60.00	909	-431
22	winsun AG, Steg-Hohtenn/Switzerland	6	51.00	-1,103	-1,709
23	Energie- und Medienversorgung Sandhofer Straße GmbH & Co. KG, Mannheim	8	49.91	3,495	237
24	Pražská energetika a.s., Prague/Czech Republic	14	41.40	462,723	89,865
Non-consolidated affiliated entities					
25	EZG Operations GmbH, Wismar	5	100.00	163	3
26	NatürlichEnergie Swiss NES GmbH, Laufenburg/Switzerland	5	100.00	77	-143
27	SENEC GmbH, Leipzig (formerly Deutsche Energieversorgung GmbH, Leipzig)	5	100.00	-3,328	-12,482
28	VNG ViertelEnergie GmbH, Leipzig	5	100.00	98	-2
29	VNG-Erdgastankstellen GmbH, Leipzig	5	100.00	25	0
30	Yello Solar GmbH, Karlsruhe	5	100.00	-1,153	-1,177
31	ZEAG Immobilien Verwaltungsgesellschaft mbH, Heilbronn	5	100.00	25	2
32	WTT CampusONE GmbH, Ludwigsburg	5	80.00	-486	-780
33	LIV-T GmbH, Munich	5	72.00	977	-947
34	BEN Fleet Services GmbH, Karlsruhe	12	65.40	-	-
35	grünES GmbH, Esslingen am Neckar	5	51.00	158	61
36	Stromvertrieb Backnang Verwaltungs GmbH, Backnang	5	51.00	27	1
37	Energie- und Medienversorgung Sandhofer Straße Verwaltungs GmbH, Mannheim	5	50.00	51	2
Entities accounted for using the equity method					
38	EMB Energie Mark Brandenburg GmbH, Potsdam	5	25.10	110,318	15,563
39	MITGAS Mitteldeutsche Gasversorgung GmbH, Halle (Saale)	5	24.60	129,245	37,289

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
Investments[16]					
40	effizienzcloud GmbH, Leipzig	5	74.99	320	-38
41	AutenSys GmbH, Karlsruhe	5	65.00	85	-156
42	backnangstrom GmbH & Co. KG, Backnang (formerly Stromvertrieb Backnang GmbH & Co. KG, Backnang)	5	51.00	0	-20
43	my-e-car GmbH, Lörrach	5	50.00	6	-15
44	NatürlichEnergie EMH GmbH, Monzelfeld	5	50.00	802	-233
45	Regionah Energie GmbH, Munderkingen	5	50.00	34	-51
46	SMITE ITALIA S.r.l. i.L., Milan/Italy		50.00	-	-
47	Tender365 GmbH, Leipzig	12	50.00	-	-
48	Einhorn Energie GmbH & Co. KG, Giengen an der Brenz	5	49.90	733	447
49	Einhorn Energie Verwaltungsgesellschaft mbH, Giengen an der Brenz	5	49.90	32	1
50	Stadtwerke Freiberg a.N. GmbH, Freiberg am Neckar	5	49.90	100	-27
51	Gasversorgung Pforzheim Land GmbH, Pforzheim	5	49.00	15,262	1,592
52	Sautter PE GmbH, Ellhofen	5	49.00	-6	-36
53	Silphienergie GmbH, Ostrach (formerly Biomethangas Hahnennest GmbH, Ostrach)	5	40.00	141	40
54	caplog-x GmbH, Leipzig	5	37.34	627	427
55	apio AG, Wallisellen/Switzerland	5	33.33	793	25
56	espot GmbH, Stuttgart	5	32.60	483	-55
57	energy app provider GmbH, Essen	5	29.24	-483	-239
58	Gemeinschaft für Energieeffizienz GmbH, Düsseldorf	5	26.40	292	-673
59	Energieagentur Heilbronn GmbH, Heilbronn	5, 6	25.00	73	-81
60	Stadt- und Überlandwerke GmbH Luckau-Lübbenau, Luckau	5	23.38	2,489	2,489
61	EDSR Energiedienste Staldenried AG, Staldenried/Switzerland	5	20.00	191	12
Grids segment					
Fully consolidated companies					
62	ED Netze GmbH, Rheinfelden	3, 6	100.00	65,165	-
63	EnBW Kommunale Beteiligungen GmbH, Stuttgart	3	100.00	995,226	-
64	EnBW REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	405,649	-
65	EVGA Grundstücks- und Gebäudemanagement GmbH & Co. KG, Obrigheim		100.00	91,621	16,098
66	FRONTIER TECHNOLOGIES, s.r.o., Prague/Czech Republic		100.00	570	239
67	KORMAK nemovitosti s.r.o., Prague/Czech Republic	5	100.00	446	38
68	KORMAK Praha a.s., Prague/Czech Republic	5	100.00	961	848
69	Netze BW GmbH, Stuttgart	3	100.00	1,130,861	-
70	Netze BW Wasser GmbH, Stuttgart	3	100.00	32,894	-
71	Netze-Gesellschaft Südwest mbH, Karlsruhe	3	100.00	71,139	-
72	Netzgesellschaft Düsseldorf mbH, Düsseldorf	3, 5	100.00	1,000	-
73	Netzgesellschaft Ostwürttemberg DonauRies GmbH, Ellwangen Jagst	3	100.00	135	-
74	NHF Netzgesellschaft Heilbronn-Franken mbH, Heilbronn	3	100.00	4,000	-
75	NHL Netzgesellschaft Heilbronner Land GmbH & Co. KG, Heilbronn		100.00	0	-494
76	NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim		100.00	320,933	49,369
77	NWS REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	79,988	-
78	ONTRAS Gastransport GmbH, Leipzig		100.00	120,000	0
79	PREdistribuce a.s., Prague/Czech Republic	5	100.00	766,757	50,925
80	PREmereni a.s., Prague/Czech Republic	5	100.00	26,298	6,261
81	PREnetcom, a.s., Prague/Czech Republic	12	100.00	-	-
82	RBS wave GmbH, Stuttgart	3	100.00	503	-

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
83	terranets bw GmbH, Stuttgart	3	100.00	20,000	-
84	TransnetBW GmbH, Stuttgart	3	100.00	728,141	-
85	ZEAG Engineering GmbH, Heilbronn (formerly Technologie Service Heilbronn GmbH, Heilbronn)		100.00	100	178
86	EnBW Ostwürttemberg DonauRies AG, Ellwangen	3	99.73	115,439	-
87	ZEAG Energie AG, Heilbronn		98.64	194,964	4,020
88	Erdgas Südwest GmbH, Karlsruhe		79.00	72,838	5,537
89	NetCom BW GmbH, Ellwangen		74.90	24,785	-7,356
90	Stuttgart Netze Betrieb GmbH, Stuttgart	3	74.90	4,926	-
91	Stadtwerke Düsseldorf AG, Düsseldorf	5	54.95	531,508	44,920
92	Stromnetzgesellschaft Heilbronn GmbH & Co. KG, Heilbronn	8	49.90	37,365	2,173
93	Neckar Netze GmbH & Co. KG, Esslingen am Neckar	8	49.00	25,709	5,603
Non-consolidated affiliated entities					
94	Elektrizitätswerk Aach GmbH, Aach	5	100.00	3,233	1,036
95	Energieversorgung Gaildorf OHG der EnBW Kommunale Beteiligungen GmbH und NWS REG Beteiligungsgesellschaft mbH, Gaildorf	5	100.00	2,372	745
96	Energieversorgung Raum Friedrichshafen GmbH & Co. KG, Stuttgart	5	100.00	1,278	-8
97	Energieversorgung Raum Friedrichshafen Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	27	1
98	GDMcom Gesellschaft für Dokumentation und Telekommunikation mbH, Leipzig	3, 5	100.00	304	-
99	GEOMAGIC GmbH, Leipzig	5	100.00	2,051	830
100	HEV Hohenloher Energie Versorgung GmbH, Ilshofen-Obersteinach	3, 5	100.00	10,219	-
101	Konverter Ultranet GmbH & Co. KG, Stuttgart	5	100.00	0	0
102	Konverter Ultranet Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	24	0
103	MoviaTec GmbH, Leipzig	12	100.00	-	-
104	Neckar Netze Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	100.00	116	4
105	NHL Verwaltungs-GmbH, Heilbronn	5	100.00	24	-1
106	OSG ONTRAS Servicegesellschaft mbH, Leipzig	5	100.00	25	0
107	INFRACON Infrastruktur Service GmbH & Co. KG, Leipzig	5	99.50	1,076	976
108	Rieger GmbH & Co. KG, Lichtenstein, Kreis Reutlingen	5	74.28	899	630
109	Rieger Beteiligungs-GmbH, Lichtenstein, Kreis Reutlingen	5	74.24	48	1
110	Elektrizitätswerk Weißenhorn AG, Weißenhorn	5	63.24	3,715	306
111	Netze Pforzheim-Region GmbH & Co. KG, Pforzheim	5	60.00	19,257	1,308
112	Gasnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	3,590	166
113	Gasnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	26	1
114	Netzgesellschaft Elz-Neckar GmbH & Co. KG, Obrigheim	5	50.10	1,180	23
115	Netzgesellschaft Elz-Neckar Verwaltungs GmbH, Obrigheim	5	50.10	31	1
116	Stromnetzgesellschaft Albershausen GmbH & Co. KG, Albershausen	5	50.10	841	34
117	Stromnetzgesellschaft Albershausen Verwaltungs GmbH, Albershausen	5	50.10	29	1
118	Stromnetzgesellschaft Heilbronn Verwaltungs-GmbH, Heilbronn	5	50.10	26	0
119	Stromnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	2,306	123
120	Stromnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	26	1
Entities accounted for using the equity method					
121	Stadtwerke Esslingen am Neckar GmbH & Co. KG, Esslingen am Neckar	5	49.98	60,358	6,519
122	Pražská energetika Holding a.s., Prague/Czech Republic	5, 9	49.00	238,040	-287
123	Zweckverband Landeswasserversorgung, Stuttgart	5	27.20	112,714	650
124	Heilbronner Versorgungs GmbH, Heilbronn	4, 5	25.10	51,750	-

		Footnote	Capital share [1] (in %)	Equity [2] (in T€)	Earnings [2] (in T€)
125	Stuttgart Netze GmbH, Stuttgart	4, 5, 9	25.10	199,448	-
126	FairEnergie GmbH, Reutlingen	4, 5	24.90	111,466	-
127	Stadtwerke Hilden GmbH, Hilden	5	24.90	18,165	2,889
128	GasLINE Telekommunikationsnetzgesellschaft deutscher Gasversorgungsunternehmen mbH & Co. Kommanditgesellschaft, Straelen	5	23.39	70,888	58,888
129	Zweckverband Bodensee-Wasserversorgung, Stuttgart	5	21.43	152,878	1,500
130	Stadtwerke Karlsruhe GmbH, Karlsruhe	4, 5	20.00	172,210	-
Investments [16]					
131	Netzgesellschaft Sontheim GmbH & Co. KG, Sontheim an der Brenz	5	74.90	1,531	328
132	Netzgesellschaft Sontheim Verwaltungsgesellschaft mbH, Sontheim an der Brenz	5	74.90	25	0
133	Netzgesellschaft Steinheim GmbH & Co. KG, Steinheim am Albuch	5	74.90	250	87
134	Netzgesellschaft Steinheim Verwaltungsgesellschaft mbH, Steinheim am Albuch	5	74.90	25	0
135	Stromnetz Herrenberg Verwaltungsgesellschaft mbH, Herrenberg	5	74.90	31	1
136	Stromnetzgesellschaft Herrenberg mbH & Co. KG, Herrenberg	5	74.90	4,212	346
137	Stadtwerke Sinsheim Versorgungs GmbH & Co. KG, Sinsheim	5	60.00	9,492	1,157
138	Stadtwerke Sinsheim Verwaltungs GmbH, Sinsheim	5	60.00	29	1
139	Stromnetz Langenau GmbH & Co. KG, Langenau	5	50.10	2,649	145
140	Stromnetz Langenau Verwaltungs-GmbH, Langenau	5	50.10	33	1
141	CESOC AG i.L., Laufenburg/Switzerland		50.00	-	-
142	e.wa riss GmbH & Co. KG, Biberach	5	50.00	30,339	5,272
143	e.wa riss Verwaltungsgesellschaft mbH, Biberach	5	50.00	66	0
144	Fränkische Wasser Service GmbH, Crailsheim	5	50.00	50	9
145	HDRegioNet GmbH i.L., Düsseldorf		50.00	-	-
146	Niederrheinisch-Bergisches Gemeinschaftswasserwerk GmbH, Düsseldorf	5	50.00	3,040	87
147	Ostalbwasser Ost GmbH, Ellwangen	5	50.00	38	3
148	Ostalbwasser Service GmbH, Aalen	5	50.00	88	12
149	Ostalbwasser West GmbH, Schwäbisch Gmünd	5	50.00	40	3
150	regioaqua Gesellschaft für Wasser und Abwasser mbH, Rheinfelden	5	50.00	94	16
151	Stadtwerke Schramberg GmbH & Co. KG, Schramberg	5	50.00	14,120	2,421
152	Stadtwerke Schramberg Verwaltungsgesellschaft mbH, Schramberg	5	50.00	38	2
153	Stromnetzgesellschaft Hechingen GmbH & Co. KG, Hechingen	5	50.00	1,721	-55
154	Stromnetzgesellschaft Hechingen Verwaltungs GmbH, Hechingen	5	50.00	25	0
155	Wasserübernahme Neuss-Wahlscheid GmbH, Neuss	5	50.00	404	17
156	Stadtwerke Emmendingen GmbH, Emmendingen	5	49.90	17,624	1,781
157	Stromnetz Blaubeuren GmbH, Blaubeuren	5	49.90	1,459	76
158	Stadtwerke Esslingen-Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	49.80	42	1
159	Energie Sachsenheim GmbH & Co. KG, Sachsenheim	5	49.00	4,769	235
160	Energie Sachsenheim Verwaltungs-GmbH, Sachsenheim	5	49.00	32	2
161	Energieversorgung Strohgäu GmbH & Co. KG, Gerlingen	5	49.00	8,678	582
162	Energieversorgung Strohgäu Verwaltungs GmbH, Gerlingen	5	49.00	25	1
163	Gemeindewerke Bodanrück GmbH & Co. KG, Allensbach	5	49.00	4,817	275
164	Gemeindewerke Bodanrück Verwaltungs-GmbH, Allensbach	5	49.00	27	1
165	LEO Energie GmbH & Co. KG, Leonberg	5	49.00	8,576	671
166	Netzgesellschaft Marbach GmbH & Co. KG, Marbach am Neckar	5	49.00	2,203	89
167	Stadtwerke Backnang GmbH, Backnang	3, 5	49.00	14,215	-

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
168	Stadtwerke Bad Wildbad GmbH & Co. KG, Bad Wildbad	5	49.00	6,598	653
169	Stadtwerke Bad Wildbad Verwaltungs-GmbH, Bad Wildbad	5	49.00	45	-1
170	Stadtwerke Eppingen GmbH & Co. KG, Eppingen	5	48.96	8,126	410
171	Energie Calw GmbH, Calw	4, 5	48.82	12,723	-
172	Stadtwerke Münsingen GmbH, Münsingen	5	45.00	6,191	754
173	Stadtwerke Böblingen GmbH & Co. KG, Böblingen	5	41.10	35,502	2,318
174	Stadtwerke Böblingen Verwaltungs GmbH, Böblingen	5	41.10	6	0
175	Energieversorgung Südbaar GmbH & Co. KG, Blumberg	5	40.00	6,756	850
176	SUEnergie GmbH & Co. KG, Süßen	5	40.00	2,185	52
177	SUEnergie Verwaltungs GmbH, Süßen	5	40.00	31	1
178	Stadtwerke Weinheim GmbH, Weinheim	5	39.32	29,220	2,971
179	Energieversorgung Rottenburg am Neckar GmbH, Rottenburg am Neckar	4, 5	38.00	7,160	-
180	EVG Grächen AG, Grächen/Switzerland	5	35.00	3,750	100
181	EVN Energieversorgung Nikolai AG, St. Niklaus/Switzerland	5, 7	35.00	1,050	67
182	EVR Energieversorgung Raron AG, Raron/Switzerland	5, 7	35.00	828	136
183	EVWR Energiedienste Visp - Westlich Raron AG, Visp/Switzerland	5	35.00	2,277	350
184	Valgrid SA, Sion/Switzerland	5	35.00	18,845	1,221
185	VED Visp Energie Dienste AG, Visp/Switzerland	5, 7	35.00	2,985	511
186	Seeallianz GmbH & Co. KG, Markdorf	5	33.00	3	-2
187	Taubernetze GmbH & Co. KG, Tauberbischofsheim	5	33.00	1,821	72
188	Taubernetze Verwaltungs-GmbH, Tauberbischofsheim	5	33.00	25	1
189	ErmstalEnergie Dettingen an der Erms GmbH & Co. KG, Dettingen an der Erms	5	32.60	3,267	299
190	Versorgungsbetriebe Dettingen an der Erms Verwaltungs-GmbH, Dettingen an der Erms	5	32.60	29	1
191	eneREGIO GmbH, Muggensturm	5	32.00	9,201	706
192	Regionalnetze Linzgau GmbH, Pfullendorf	4, 5	31.64	6,462	-
193	Elektrizitätswerk Mittelbaden AG & Co. KG, Lahr	5	31.00	64,701	12,477
194	Elektrizitätswerk Mittelbaden Verwaltungsaktiengesellschaft, Lahr	5	31.00	130	7
195	Stadtwerke Bad Herrenalb GmbH, Bad Herrenalb	5	30.00	11,137	-463
196	Energie- und Wasserversorgung Bruchsal GmbH, Bruchsal	4, 5	27.41	23,002	-
197	Stadtwerke Bad Säckingen GmbH, Bad Säckingen	3, 5	26.30	8,673	-
198	tktVivaxGmbH, Backnang (formerly tkt teleconsult Kommunikationstechnik GmbH, Backnang)	7	25.21	927	174
199	Albwerk GmbH & Co. KG, Geislingen an der Steige	5	25.10	19,994	4,645
200	Albwerk Verwaltungsgesellschaft mbH, Geislingen an der Steige	5	25.10	75	2
201	Energie Kirchheim unter Teck GmbH & Co. KG, Kirchheim unter Teck	5	25.10	9,384	644
202	Energie Kirchheim unter Teck Verwaltungs-GmbH, Kirchheim unter Teck	5	25.10	29	1
203	Energieversorgung Immenstaad GmbH & Co. KG, Immenstaad am Bodensee	5	25.10	874	28
204	Filderstadt Netze GmbH, Filderstadt	5	25.10	100	-9
205	Gasnetzgesellschaft Schorndorf GmbH & Co. KG, Schorndorf	5	25.10	4,123	254
206	Gasnetzgesellschaft Winnenden mbH, Winnenden	4, 5	25.10	2,275	-
207	Gasnetzverwaltungsgesellschaft Schorndorf GmbH, Schorndorf	5	25.10	31	2
208	Gemeindewerke Brühl GmbH & Co. KG, Brühl	5	25.10	1,275	64
209	Gemeindewerke Brühl Verwaltungs-GmbH, Brühl	5	25.10	30	1
210	Gemeindewerke Plüderhausen GmbH, Plüderhausen	4, 5	25.10	1,598	-
211	Infrastrukturgesellschaft Plochingen GmbH & Co. KG, Plochingen	5	25.10	2,881	211
212	Netzgesellschaft Besigheim GmbH & Co. KG, Besigheim	5	25.10	4,789	307

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
213	Netzgesellschaft Besigheim Verwaltungs GmbH, Besigheim	5	25.10	30	1
214	Netzgesellschaft Leinfelden-Echterdingen GmbH, Leinfelden-Echterdingen	5	25.10	9,636	594
215	Netzgesellschaft Salach GmbH & Co. KG, Salach	5	25.10	1,315	60
216	Netzgesellschaft Salach Verwaltungs GmbH, Salach	5	25.10	29	1
217	Netzgesellschaft Schwetzingen GmbH & Co. KG, Schwetzingen	5	25.10	2,026	105
218	Netzgesellschaft Schwetzingen Verwaltungs GmbH, Schwetzingen	5	25.10	27	1
219	Netzgesellschaft Vaihingen GmbH & Co. KG, Vaihingen an der Enz	5	25.10	7,722	461
220	Netzgesellschaft Vaihingen Verwaltungs-GmbH, Vaihingen an der Enz	5	25.10	29	1
221	Stadtwerke Ellwangen GmbH, Ellwangen	4, 5	25.10	8,002	-
222	Stadtwerke Giengen GmbH, Giengen	5	25.10	12,881	859
223	Stadtwerke Schwäbisch Gmünd GmbH, Schwäbisch Gmünd	4, 5	25.10	30,251	-
224	Stadtwerke Stockach GmbH, Stockach	5	25.10	10,716	1,352
225	Stadtwerke Weinstadt Energieversorgung GmbH, Weinstadt	4, 5	25.10	6,153	-
226	Stadtwerke Wiesloch - Strom - GmbH & Co. KG, Wiesloch	5	25.10	2,387	142
227	Stromgesellschaft March GmbH & Co. KG, March	5	25.10	821	35
228	Stromnetzgesellschaft Ebersbach GmbH & Co. KG, Ebersbach an der Fils	5	25.10	3,463	159
229	Stromnetzgesellschaft Ebersbach Verwaltungs GmbH, Ebersbach an der Fils	5	25.10	30	1
230	Stromnetzgesellschaft Östlicher Schurwald GmbH & Co. KG, Rechberghausen	5	25.10	2,992	167
231	Stromnetzgesellschaft Östlicher Schurwald Verwaltungs GmbH, Rechberghausen	5	25.10	29	1
232	Technische Werke Schussental GmbH & Co. KG, Ravensburg	5	25.10	40,728	3,353
233	Technische Werke Schussental Verwaltungsgesellschaft mbH, Ravensburg	5	25.10	31	12
234	Stromversorgung Sulz am Neckar GmbH, Sulz am Neckar	5	24.90	4,207	464
235	Netzeigentumsgesellschaft Rheinstetten GmbH & Co. KG, Rheinstetten	5	24.50	4,377	165
236	Stadtwerke Wehr GmbH & Co. KG, Wehr	5	24.50	2,251	129
237	Stadtwerke Wehr Verwaltungs-GmbH, Wehr	5	24.50	21	1
238	Energieversorgung Oberes Wiesental GmbH, Todtnau	5	24.00	4,032	149
239	Netzgesellschaft Edingen-Neckarhausen GmbH & Co. KG, Edingen-Neckarhausen	5	24.00	847	67
240	ENRW Energieversorgung Rottweil GmbH & Co. KG, Rottweil	5	20.00	28,353	4,822
241	ENRW Verwaltungs-GmbH, Rottweil	5	20.00	13	-1
242	GASPOOL Balancing Services GmbH, Berlin	5	20.00	4,247	76
243	Stadtwerke Sindelfingen GmbH, Sindelfingen	5	20.00	38,523	4,536
Renewable Energies segment					
Fully consolidated companies					
244	Aletsch AG, Mörel/Switzerland	6	100.00	21,671	0
245	BALANCE Erneuerbare Energien GmbH, Leipzig		100.00	7,453	540
246	BALANCE VNG Bioenergie GmbH, Leipzig	3	100.00	15,749	-
247	Bliekevare Nät AB, Rabbalshede/Sweden		100.00	68	0
248	Bliekevare Vind AB, Rabbalshede/Sweden		100.00	1,699	-6,971
249	Brahehus Vind AB, Rabbalshede/Sweden		100.00	7,101	-2,297
250	Connected Wind Services A/S, Balle/Denmark		100.00	1,466	-7,153
251	Connected Wind Services Danmark A/S, Balle/Denmark	5	100.00	416	-1,022
252	Connected Wind Services Deutschland GmbH, Rantrum	5	100.00	516	-392
253	Connected Wind Services Refurbishment A/S, Balle/Denmark	5	100.00	608	-4,195
254	EnAlpin AG, Visp/Switzerland	6	100.00	170,521	1,324

		Footnote	Capital share [1] (in %)	Equity [2] (in T€)	Earnings [2] (in T€)
255	EnBW Biogas GmbH, Stuttgart	3	100.00	52	-
256	EnBW He Dreiht GmbH, Varel	3	100.00	26,016	-
257	EnBW Holding A.S., Gümüssuyu-Istanbul/Turkey		100.00	218,322	-5,873
258	EnBW NAG-Beteiligungsgesellschaft mbH, Stuttgart		100.00	23	0
259	EnBW Offshore 1 GmbH, Stuttgart	3	100.00	28,737	-
260	EnBW Offshore 2 GmbH, Stuttgart	3	100.00	690,453	-
261	EnBW Offshore 3 GmbH, Stuttgart	3	100.00	510,310	-
262	EnBW Offshore Service GmbH, Klausdorf-Barhöft	3	100.00	25	-
263	EnBW Renewables International GmbH, Stuttgart (formerly EnBW Omega Sechsundneunzigste Verwaltungsgesellschaft mbH, Stuttgart)		100.00	83,359	0
264	EnBW Solar GmbH, Stuttgart	3	100.00	25	-
265	EnBW Solarpark Tuningen GmbH, Stuttgart	3	100.00	3,680	-
266	EnBW Solarpark Weesow-Willmersdorf GmbH, Cottbus		100.00	31	101
267	EnBW Sverige AB, Falkenberg/Sweden	12	100.00	0	-
268	EnBW Wind Onshore 1 GmbH, Stuttgart	3	100.00	25	-
269	EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe	3	100.00	4,475	-
270	EnBW Windkraftprojekte GmbH, Stuttgart		100.00	26,073	2,611
271	EnBW Windpark Buchholz III GmbH, Stuttgart (formerly Windpark Freckenfeld GmbH, Stuttgart)		100.00	23,030	2
272	EnBW Windpark Eisenach II GmbH, Stuttgart		100.00	28,969	-116
273	Energiedienst AG, Rheinfelden	6	100.00	186,461	20,282
274	Gnosjö Energi AB, Rabbalshede/Sweden		100.00	8,465	-530
275	Granberget Vind AB, Rabbalshede/Sweden		100.00	4,716	-2,034
276	Grünwerke GmbH, Düsseldorf	3, 5	100.00	38,400	-
277	Hedbodberget Säliträdberget Bliekevare Finans AB, Rabbalshede/Sweden		100.00	40,633	-13,289
278	Hedbodberget Säliträdberget Bliekevare Holding AB, Rabbalshede/Sweden		100.00	34,682	-11,297
279	Hedbodberget Vind AB, Rabbalshede/Sweden		100.00	1,221	-2,133
280	Langenburg Infrastruktur GmbH, Stuttgart		100.00	10,466	3
281	Leipziger Biogasgesellschaft mbH, Leipzig		100.00	25	97
282	MBG Mitteldeutsche Biogasgesellschaft mbH, Leipzig		100.00	25	143
283	Power Wind Partners AB, Rabbalshede/Sweden		100.00	43	-26
284	PRE FVE Svetlik s.r.o., Leitnowitz/Czech Republic		100.00	9,978	683
285	PWP Produktion AB, Rabbalshede/Sweden		100.00	36,354	4
286	Rödbergsfjället Nät AB, Rabbalshede/Sweden		100.00	9	0
287	Rödbergsfjället Vind AB, Rabbalshede/Sweden		100.00	3,404	-3,258
288	Säliträdberget Vind AB, Rabbalshede/Sweden		100.00	1,717	-2,920
289	SCE Wind Zernitz GmbH & Co. KG, Stuttgart		100.00	1,884	-6,331
290	SOLARINVEST - GREEN ENERGY, s.r.o., Prague/Czech Republic	5	100.00	1,117	19
291	Svenska Connected Wind Services AB, Falkenberg/Sweden	5	100.00	466	-735
292	Windpark "Auf der Weißen Trisch" GmbH, Zweibrücken		100.00	163	137
293	Windpark Breitenbach GmbH, Düsseldorf		100.00	25	-326
294	Windpark Niederlinxweiler GmbH & Co. KG, Leinfelden-Echterdingen		100.00	269	171
295	Windpark Rot am See GmbH, Ellwangen Jagst	3	100.00	25	-
296	EE BürgerEnergie Boxberg GmbH & Co. KG, Boxberg		99.99	13,000	673
297	EE Bürgerenergie Braunsbach GmbH & Co. KG, Braunsbach		99.99	7,600	146
298	EE BürgerEnergie Forchtenberg GmbH & Co. KG, Forchtenberg		99.99	1,500	32
299	BürgerEnergie Königheim GmbH & Co. KG, Königheim		99.97	3,000	185
300	EE BürgerEnergie Möckmühl GmbH & Co. KG, Möckmühl		96.15	1,558	34

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
301	EE BürgerEnergie Jagsthausen GmbH & Co. KG, Jagsthausen		96.11	4,577	100
302	Bürgerenergie Widdern GmbH & Co. KG, Widdern		96.08	7,500	133
303	EE Bürgerenergie Ilshofen GmbH & Co. KG, Ilshofen		86.55	3,000	185
304	EE Bürgerenergie Hardthausen GmbH & Co. KG, Hardthausen am Kocher		84.25	12,000	231
305	Neckar Aktiengesellschaft, Stuttgart		82.20	10,179	0
306	Geothermie-Gesellschaft Bruchsal GmbH, Bruchsal		74.90	2,147	-771
307	JatroSolutions GmbH, Stuttgart		70.49	371	-1,019
308	Energiedienst Holding AG, Laufenburg/Switzerland	6, 10	66.67	913,224	32,179
309	Rheinkraftwerk Neuhausen AG, Neuhausen/Switzerland	6	56.00	1,092	46
310	Solarpark Berghülen GmbH, Stuttgart		51.00	3,020	31
311	Solarpark Riedlingen-Zwiefaltendorf GmbH, Stuttgart		51.00	5,829	91
312	EnBW Baltic 1 GmbH & Co. KG, Stuttgart		50.32	42,472	11,258
313	Windenergie Tautschbuch GmbH, Riedlingen		50.10	623	0
314	EnBW Baltic 2 GmbH & Co. KG, Biberach an der Riß		50.10	1	-
315	EnBW Baltic 2 S.C.S., Luxembourg/Luxembourg	17	50.09	1,284,414	60,590
316	EnBW Onshore Portfolio GmbH, Stuttgart		50.02	112,074	3,124
317	Kraftwerk Lötschen AG, Steg/Switzerland	6, 11	50.00	25,600	0
Joint operations					
318	Rheinkraftwerk Iffezheim GmbH, Iffezheim	9	50.00	100,953	3,325
319	Rhonewerke AG, Ernen/Switzerland	5, 9	30.00	24,611	0
Non-consolidated affiliated entities					
320	BALANCE Management GmbH, Leipzig	5	100.00	22	-3
321	CarbonBW (Thailand) Ltd., Bangkok/Thailand	5	100.00	7,448	631
322	EnBW Albatros Management GmbH, Hamburg	5	100.00	25	0
323	EnBW Asia Pacific Ltd, Taipei/Taiwan	12	100.00	-	-
324	EnBW Baltic 1 Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	1
325	EnBW Baltic 2 Management GmbH, Biberach an der Riß	12	100.00	-	-
326	EnBW Baltic 2 Management S.a r.l., Luxembourg/Luxembourg	5	100.00	10	8
327	EnBW Baltic 2 Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	28	0
328	EnBW Baltic Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	33	1
329	EnBW Danemark ApS, Balle/Denmark	5	100.00	-3,311	-24
330	EnBW France GmbH, Stuttgart (formerly EnBW Omega Vierundfünfzigste Verwaltungsgesellschaft mbH, Stuttgart)	3, 5	100.00	25	-
331	EnBW Hohe See Management GmbH, Hamburg	5	100.00	26	1
332	EnBW North America Inc., Wilmington, Delaware/USA	12	100.00	-	-
333	EnBW Wind Onshore Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	4
334	EnBW Wind op Zee B.V., Amsterdam/The Netherlands	5	100.00	-26	-36
335	EnBW Windpark Aalen-Waldhausen GmbH, Stuttgart	12	100.00	-	-
336	EnBW Windpark Kleinliebringen GmbH, Stuttgart	5	100.00	25	0
337	EnBW Windpark Langenburg GmbH, Stuttgart	3, 5	100.00	25	-
338	Grünwerke Verwaltungs GmbH, Düsseldorf	5	100.00	36	3
339	Kemberg Windpark Management GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	100.00	1,383	108
340	NatürlichSonne Trogen GmbH & Co. KG, Monzelfeld	5	100.00	308	18
341	NatürlichSonne Trogen Verwaltungs GmbH, Ettlingen (formerly EnBW Omega Zweiundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	24	0
342	SP XIV GmbH & Co. KG, Cottbus	5	100.00	0	-1
3432	SP XV GmbH & Co. KG, Cottbus	5	100.00	0	-1
344	Windpark Rot am See Infrastruktur GmbH, Stuttgart	5	100.00	29	-1

		Footnote	Capital share [1] (in %)	Equity [2] (in T€)	Earnings [2] (in T€)
345	ZEAG Erneuerbare Energien GmbH, Heilbronn	5	100.00	43	18
346	JATROSELECT-Paraguay Sociedad de Responsabilidad Limitada, Volendam/Paraguay	5	99.98	254	-53
347	EE Bürgerenergie Bühlerzell GmbH & Co. KG, Bühlerzell	5	99.00	78	-6
348	EE Bürgerenergie Frankenhardt GmbH & Co. KG, Frankenhardt	5	99.00	82	-3
349	EE Bürgerenergie Hardheim GmbH & Co. KG, Hardheim	5	99.00	82	-8
350	EE Bürgerenergie Höpfingen GmbH & Co. KG, Höpfingen	5	99.00	83	-7
351	EE BürgerEnergie Krautheim GmbH & Co. KG, Krautheim	5	99.00	29	-10
352	EE BürgerEnergie Neudenau GmbH & Co. KG, Neudenau	5	99.00	74	-5
353	EE Bürgerenergie Sulzbach-Laufen GmbH & Co. KG, Sulzbach-Laufen	5	99.00	100	-3
354	Holzkraft Plus GmbH, Düsseldorf	5	90.00	151	-15
355	EnPV GmbH, Karlsruhe	5	71.30	25	0
356	JatroGreen S.A.R.L., Antananarivo/Madagascar	5	70.00	126	-49
357	Erneuerbare Energien Neckarwestheim GmbH & Co. KG, Neckarwestheim	5	52.80	700	22
358	Alb-Windkraft Verwaltungs GmbH, Geislingen an der Steige	5	51.00	50	8
359	Solarpark Leutkirch GmbH & Co. KG, Leutkirch im Allgäu	5	51.00	9,407	621
360	Solarpark Leutkirch Verwaltungsgesellschaft mbH, Leutkirch im Allgäu	5	51.00	25	1
Entities accounted for using the equity method					
361	EnBW Albatros GmbH & Co. KG, Hamburg	5, 9	50.11	84,391	-464
362	EnBW Hohe See GmbH & Co. KG, Hamburg	5, 9	50.11	529,403	-3
363	Borusan EnBW Enerji yatırımları ve Üretim Anonim Șirketi, Istanbul/Turkey	5, 9	50.00	203,402	-14,211
364	Elektrizitätswerk Rheinau AG, Rheinau/Switzerland	5, 7	50.00	20,120	760
365	Bayerische-Schwäbische Wasserkraftwerke Beteiligungsgesellschaft mbH, Gundremmingen	5	37.80	62,953	8,288
366	KW Ackersand I AG, Stalden/Switzerland	5	25.00	1,790	0
Investments [16]					
367	Netzanschlussgesellschaft Windparks Ostercappeln/Bohmte mbH, Kirchdorf	5	66.66	25	11
368	biogasNRW GmbH i.L., Düsseldorf		50.00	-	-
369	Centrale Electrique Rhénane de Gambsheim SA, Gambsheim/France	5	50.00	9,809	0
370	Kraftwerk Reckingen AG, Reckingen	5	50.00	3,204	72
371	Rheinkraftwerk Säckingen AG, Bad Säckingen	5	50.00	7,504	300
372	SwissAlpin SolarTech AG, Visp/Switzerland	5	50.00	50	-1
373	Wasserkraftwerk Hausen GbR, Hausen im Wiesental	5, 15	50.00	590	-78
374	WKM Wasserkraftwerke Maulburg GmbH, Maulburg	5	50.00	472	13
375	KW Jungbach AG, St. Niklaus/Switzerland	5	49.00	3,657	230
376	Projektentwicklung Waldeck-Frankenberg GmbH & Co. KG, Korbach	12	49.00	-	-
377	Projektentwicklung Waldeck-Frankenberg Verwaltungs GmbH, Korbach	12	49.00	-	-
378	Obere Donau Kraftwerke AG, Munich	5	40.00	3,180	0
379	TWKW Trinkwasserkraftwerke Niedergesteln AG, Niedergesteln/Switzerland	5	40.00	1,606	148
380	Kraftwerk Ryburg-Schwörstadt AG, Rheinfelden/Switzerland	5, 7	38.00	33,302	1,646
381	Haiding One International Investment Co., Ltd., Taipei/Taiwan	12	37.50	-	-
382	Haiding Three International Investment Co., Ltd., Taipei/Taiwan	12	37.50	-	-
383	Haiding Two International Investment Co., Ltd., Taipei/Taiwan	12	37.50	-	-
384	GEIE Exploitation Miniere de la Chaleur, Kutzenhausen/France	5, 15	33.33	0	-249
385	Windpark Prützke II GmbH & Co. KG, Düsseldorf	5	33.33	1,650	-41

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
386	KWT Kraftwerke Törbel-Moosalp AG, Törbel/Switzerland	5	30.00	819	0
387	Baltic Windpark Beteiligungen GmbH & Co. KG, Stuttgart	5	29.17	25,421	3,394
388	EE Bürgerenergie Heilbronn GmbH & Co. KG, Heilbronn	5	26.00	1,000	68
389	Windpark Lindtorf GmbH, Rheine	5	26.00	4,214	29
390	Alb-Windkraft GmbH & Co. KG, Geislingen an der Steige	5	25.50	692	374
391	Biosphärenwindpark Schwäbische Alb GmbH, Münsingen	5	25.00	25	-178
392	ANOG Anergienetz Obergoms AG, Obergoms/Switzerland	5	24.50	460	12
393	KWOG Kraftwerke Obergoms AG, Obergoms/Switzerland	5	24.50	11,548	404
394	Erneuerbare Energien Zollern Alb GmbH i.L., Balingen		20.00	-	-
395	Kooperation Erneuerbare Energien im Landkreis Rottweil GmbH, Schramberg	5	20.00	92	15
396	Wasserkraftwerk Pfinztal GmbH & Co. KG, Pfinztal	5	20.00	241	-13
Generation and Trading segment					
Fully consolidated companies					
397	AWISTA Logistik GmbH, Düsseldorf	3, 5	100.00	3,025	-
398	EnBW Biomasse GmbH, Karlsruhe		100.00	1,716	265
399	EnBW Etzel Speicher GmbH, Karlsruhe	3	100.00	825	-
400	EnBW Grundstücksverwaltung Rheinhafen GmbH, Karlsruhe		100.00	2,372	154
401	EnBW Kraftwerk Lippendorf Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	297,640	-
402	EnBW Rückbauservice GmbH, Stuttgart	3	100.00	25	-
403	ENERGIEUNION GmbH, Schwerin	3	100.00	4,387	-
404	Gemeinschaftsheizkraftwerk Fortuna GmbH, Düsseldorf		100.00	25	2,960
405	Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim	3	100.00	117,377	-
406	HANDEN Sp. z o.o., Warsaw/Republic of Poland		100.00	61,001	-1,133
407	Heizkraftwerk Stuttgart GmbH, Stuttgart		100.00	5,129	0
408	Kernkraftwerk Obrigheim GmbH, Obrigheim	3	100.00	51,130	-
409	MSE Mobile Schlammentwässerungs GmbH, Karlsbad-Ittersbach	3	100.00	1,171	-
410	TAE Thermische Abfallentsorgung Ansbach GmbH, Ansbach		100.00	58,800	-11
411	TPLUS GmbH, Karlsruhe	3	100.00	18,162	-
412	TWS Kernkraft GmbH, Gemmrigheim	3	100.00	149,297	-
413	u-plus Umweltservice GmbH, Karlsruhe	3	100.00	99,979	-
414	VNG Austria GmbH, Gleisdorf/Austria		100.00	7,718	176
415	VNG Energie Czech s.r.o., Prague/Czech Republic		100.00	1,613	-312
416	VNG Gasspeicher GmbH, Leipzig	3	100.00	10,000	-
417	VNG Handel & Vertrieb GmbH, Leipzig	3	100.00	37,840	-
418	VNG Italia S.r.l., Bologna/Italy		100.00	100	0
419	EnBW Kernkraft GmbH, Obrigheim	3	99.80	10,000	-
420	SPIGAS S.r.l., La Spezia/Italy		80.00	16,000	1,401
421	VNG AG, Leipzig (formerly VNG-Verbundnetz Gas Aktiengesellschaft, Leipzig)		74.21	744,254	70,639
422	AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, Düsseldorf	5	51.00	53,667	23,138
423	KNG Kraftwerks- und Netzgesellschaft mbH, Rostock		50.40	522	8
Joint operations					
424	Friedeburger Speicherbetriebsgesellschaft mbH "Crystal", Friedeburg	9	50.00	102,338	775
Non-consolidated affiliated entities					
425	EnergieFinanz GmbH, Schwerin	5	100.00	951	42
426	VNG Slovakia, spol. s r.o., Bratislava/Slovak Republic	5	100.00	9,338	130

		Footnote	Capital share [1] (in %)	Equity [2] (in T€)	Earnings [2] (in T€)
427	Südwestdeutsche Nuklear-Entsorgungsgesellschaft mbH, Stuttgart	5	86.49	9,397	2,018
428	Zentraldeponie Hubbelrath GmbH, Düsseldorf	5	76.00	25,545	977
429	Nahwärme Düsseldorf GmbH, Düsseldorf	5	66.00	2,756	361
Entities accounted for using the equity method					
430	Erdgasspeicher Peissen GmbH, Halle (Saale)	5, 9	50.00	100,917	-2,134
431	Fernwärme Ulm GmbH, Ulm	5, 7, 9	50.00	34,143	3,078
432	Schluchseewerk Aktiengesellschaft, Laufenburg Baden	5	50.00	62,148	2,809
433	REMONDIS Rhein-Wupper GmbH & Co. KG, Düsseldorf	5	49.00	15,459	8,982
434	Grosskraftwerk Mannheim AG, Mannheim	5	32.00	120,788	6,647
Investments [16]					
435	ANITA S.r.l. i.L., Sarzana/Italy		50.00	-	-
436	Fernwärme Rhein-Neckar GmbH, Mannheim	5	50.00	5,985	2,627
437	KDM Kompostierungs- und Vermarktungsgesellschaft für Stadt Düsseldorf/Kreis Mettmann mbH, Ratingen	5	50.00	3,020	304
438	Kraftwerksbatterie Heilbronn GmbH, Stuttgart	5	50.00	4,119	-24
439	MIOGAS & LUCE S.r.l., Rozzano/Italy	5	50.00	10,626	667
440	Powerment GmbH & Co. KG, Ettlingen	5	50.00	4,908	2,720
441	RheinWerke GmbH, Düsseldorf	5	50.00	4,641	-181
442	MOWA Mobile Waschanlagen GmbH, Neunkirchen-Seelscheid	5	49.00	259	224
443	REMONDIS Rhein-Wupper Verwaltungs GmbH, Düsseldorf	5	49.00	38	1
444	HWM Holzwärme Müllheim GmbH, Müllheim	5	45.00	528	-28
445	Fernwärme Zürich AG, Zürich/Switzerland	5	40.00	4,469	2,538
446	Untergrundspeicher- und Geotechnologie-Systeme Gesellschaft mit beschränkter Haftung, Mittenwalde	5	40.00	8,192	120
447	SPIGAS CLIENTI S.r.l., La Spezia/Italy	7	35.00	515	395
448	Nuovenergie S.p.A., Milan/Italy	5	30.00	2,398	917
449	Contiplan AG i.L., Vaduz/Liechtenstein		25.10	-	-
450	Rheticus AG i.L., Vaduz/Liechtenstein		25.10	-	-
451	Beteiligungsgesellschaft der EVU an der Kerntechnischen Hilfsdienst GmbH - GbR, Karlsruhe	5, 15	21.59	0	0
452	CANARBINO S.p.A., Sarzana/Italy	7	20.00	47,749	11,943
Other					
Fully consolidated companies					
453	ED Immobilien GmbH & Co. KG, Rheinfelden	6	100.00	0	237
454	ED Immobilien Verwaltungsgesellschaft mbH, Rheinfelden	6	100.00	31	0
455	ED Kommunal GmbH, Rheinfelden	12	100.00	-	-
456	EnBW City GmbH & Co. KG, Obrigheim		100.00	8,885	9,984
457	EnBW Immobilienbeteiligungen GmbH, Karlsruhe		100.00	482,911	6,540
458	EnBW International Finance B.V., Amsterdam/The Netherlands		100.00	1,164,210	32,496
459	EnBW Perspektiven GmbH, Karlsruhe	3	100.00	1,500	-
460	Energiedienst Support GmbH, Rheinfelden	5	100.00	357	-33
461	Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim		100.00	199,595	12,622
462	Neckarwerke Stuttgart GmbH, Stuttgart		100.00	1,880,237	57,443
463	NWS Finanzierung GmbH, Karlsruhe	3	100.00	1,237,605	-
464	SBZ Beteiligungen GmbH, Karlsruhe		100.00	25	0
465	symbiotic services GmbH, Karlsruhe	3	100.00	25	-
466	MURVA Grundstücks-Verwaltungsgesellschaft mbH & Co. KG, Grünwald	5	95.00	-9,541	583
467	EnBW VersicherungsVermittlung GmbH, Stuttgart		51.00	3,641	3,590

		Footnote	Capital share [1] (in %)	Equity [2] (in T€)	Earnings [2] (in T€)
Non-consolidated affiliated entities					
468	EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe (formerly E-City Immobilienverwaltungs GmbH, Karlsruhe)	3, 5	100.00	25	-
469	EnBW CZ spol. s.r.o., Prague/Czech Republic	5	100.00	485	-3
470	EnBW New Ventures GmbH, Karlsruhe	3, 5	100.00	8,166	-
471	EnBW Omega 103. Verwaltungsgesellschaft mbH, Karlsruhe	12	100.00	-	-
472	EnBW Omega 104. Verwaltungsgesellschaft mbH, Karlsruhe	12	100.00	-	-
473	EnBW Omega 105. Verwaltungsgesellschaft mbH, Karlsruhe	12	100.00	-	-
474	EnBW Omega 106. Verwaltungsgesellschaft mbH, Stuttgart	12	100.00	-	-
475	EnBW Omega 107. Verwaltungsgesellschaft mbH, Stuttgart	12	100.00	-	-
476	EnBW Omega 108. Verwaltungsgesellschaft mbH, Stuttgart	12	100.00	-	-
477	EnBW Omega 110. Verwaltungsgesellschaft mbH, Stuttgart	12	100.00	-	-
478	EnBW Omega Achtundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
479	EnBW Omega Achtundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	0
480	EnBW Omega Achtzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	0
481	EnBW Omega Dreiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
482	EnBW Omega Dreiundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	0
483	EnBW Omega Fünfundfünfzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
484	EnBW Omega Fünfundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
485	EnBW Omega Hundertste Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
486	EnBW Omega Neunundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
487	EnBW Omega Sechsundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
488	EnBW Omega Siebenundneunzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
489	EnBW Omega Siebzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
490	EnBW Omega Vierundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
491	EnBW Omega Zweiundfünfzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
492	EnBW Omega Zweiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	25	0
493	EnBW Real Estate GmbH, Obrigheim	5	100.00	98	7
494	EnBW Senergi Immobilien GmbH, Karlsruhe	5	100.00	74	0
495	Interconnector GmbH, Karlsruhe	3, 5	100.00	25	-
496	KMS Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	44	0
497	MGMTree GmbH, Leipzig	5	100.00	88	41
498	Rheintal PE GmbH & Co. KG, Bad Homburg v. d. Höhe	5	100.00	14,748	-794
499	SSG Verwaltungsgesellschaft mbH i.L., Kornwestheim		100.00	-	-
500	VNG Innovation Consult GmbH, Leipzig	12	100.00	-	-
501	VNG Innovation GmbH, Leipzig	3, 5	100.00	1,251	-
Investments [16]					
502	WP Global Germany Private Equity L.P., Wilmington, Delaware/USA	5, 15	100.00	148,593	14,117
503	Impulse L.P., Edinburgh/UK	5, 15	99.87	147,590	11,314
504	Continuum Capital Limited Partnership, Edinburgh/UK	5, 15	98.00	112,809	0
505	Sirius EcoTech Fonds Düsseldorf GmbH & Co. KG., Düsseldorf	5	78.15	4,841	-1,487
506	regiodata GmbH, Lörrach	5	35.00	835	274
507	RWE - EnBW Magyaroszág Kft., Budapest/Hungary	5	30.00	412	21

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
508	E & G Bridge Equity Fonds GmbH & Co. KG, Munich	5, 7	29.97	365	2,593
509	MVV Energie AG, Mannheim	7, 13	28.76	1,121,574	113,985
510	EFR Europäische Funk-Rundsteuerung GmbH, Munich	5	25.10	3,609	3,800
511	GasLINE Telekommunikationsnetz-Geschäftsführungsgesellschaft deutscher Gasversorgungsunternehmen mbH, Straelen	5	22.67	67	2
512	vialytics GmbH, Stuttgart	12	20.00	-	-
Investments in large corporations > 5%					
513	EWE Aktiengesellschaft, Oldenburg	5	6.00	1,346,500	-136,900

1 Shares of the respective parent company calculated in accordance with section 313 (2) HGB (as of 31 December 2018).
2 In the case of separate entities, the figures stem from financial statements prepared pursuant to local principles and do not show the contributions of each entity to the consolidated financial statements.
3 Profit and loss transfer agreement and/or domination agreement and/or loss assumption agreement.
4 Profit and loss transfer agreement with third parties.
5 Previous year's figures.
6 Preliminary figures.
7 Divergent financial year.
8 Control due to contractual agreement.
9 Joint control pursuant to IFRS 11.
10 Before taking treasury shares of the company into account.
11 Majority of the voting rights.
12 New company, annual financial statements not yet available.
13 No significant influence exists.
14 Other shareholdings included due to contractual control arrangements.
15 Companies whose shareholders with unlimited liability are a company that is included in the consolidated financial statements.
16 Includes investments that are not accounted for using the equity method because of their minor importance. They are recognised instead at their acquisition costs.
17 Transfer of assets and liabilities as of 31 December 2018 via a fiduciary relationship to EnBW 2 GmbH & Co. KG.

(37) Disclosures concerning concessions

Concession agreements in the areas of electricity, gas, district heating and water are in place between the individual entities in the EnBW Group and the municipalities. The majority of the concession agreements have a term of 20 years. There are obligations governed by law to connect to the supply networks. Under the concession agreements, the EnBW Group is obliged to provide and maintain the facilities required to satisfy the general supply needs. In addition, it is required to pay a concession fee to the municipalities. Upon expiry of a concession agreement, the facilities must be returned or transferred to the municipalities or the successor network operator, respectively, in return for reasonable compensation, unless the concession agreement is extended.

(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 2018.

Karlsruhe, 7 March 2019

EnBW Energie Baden-Württemberg AG

Dr. Mastiaux Dr. Beck Kusterer

Rückert-Hennen Dr. Zimmer