Notes to the 2019 financial statements of the EnBW Group

General principles

In accordance with section 315e (1) German Commercial Code (HGB), EnBW Energie Baden-Württemberg AG (EnBW), as the highest-level parent company in the EnBW Group, prepares the consolidated financial statements according to the International Financial Reporting Standards (IFRS), the adoption of which is mandatory in the European Union as of the reporting date. The interpretations promulgated by the International Financial Reporting Interpretations Committee (IFRIC) are also taken into account. IFRS and interpretations whose application is not yet mandatory are not adopted. The consolidated financial statements therefore comply with those IFRS and interpretations issued by the International Accounting Standards Board (IASB) which have been endorsed by the EU.

The consolidated financial statements are presented in millions of euros (€ million). The income statement as well as the statement of comprehensive income, the balance sheet, the cash flow statement and the statement of changes in equity of the EnBW Group are presented separately. There may be rounding differences in both individual and total figures.

In the interest of clarity, items have been combined in the income statement and in the balance sheet, and disclosed separately and explained in the notes. Rounding differences may occur due to the methods used to carry out the calculations.

The income statement has been prepared using the nature of expense method.

Significant events in the reporting period are described in the section “The EnBW Group” of the management report.

Due to the first-time application of IFRS 16 in the 2019 financial year utilising the modified retrospective approach, the reports for the 2019 and 2018 financial years are only comparable to a limited extent.

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

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

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

EnBW’s Board of Management prepared and released the consolidated financial statements for issue on 4 March 2020.

Consolidation principles

The financial statements of the domestic and foreign companies included in the consolidation were prepared in a standardised manner in accordance with the accounting policies which are applicable at EnBW.

Business combinations are accounted for using the acquisition method. The cost of a business combination is measured based on the fair value of the assets acquired and liabilities assumed or entered into as of the acquisition date. Non-controlling interests are measured at the proportionate fair value of the identified assets and the liabilities assumed. Incidental acquisition costs are expensed as incurred. If the business combination is achieved in stages, the acquisition-date fair value of the acquirer’s previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss when the acquirer obtains control. Any excess of the cost of a business combination plus the amount of any non-controlling interest in the acquiree over the acquired identifiable assets, assumed liabilities and contingent liabilities is reported as goodwill if positive or, if negative, is reassessed and recognised through profit or loss.

A change in the ownership interest in an entity which continues to be fully consolidated is accounted for as an equity transaction. All remaining interests are remeasured at fair value upon loss of control.

Receivables, liabilities and provisions between the consolidated entities are netted. Intercompany income is set off against the corresponding expenses. Intercompany profits and losses are eliminated unless they are not of minor importance.

Consolidated companies

In accordance with the full consolidation method, all subsidiaries under the control of the Group are included. The Group controls an associate if it is exposed to risks or has rights to variable returns as a result of its involvement in the associate, and the Group has the ability to use its power over the associate in a way that affects the amount of the returns from the associate. In the full consolidation process, the assets and liabilities of a subsidiary are included in the consolidated financial statements in their entirety.

The equity method is used when there is a joint arrangement in the form of a joint venture or a significant influence may be exercised over the business policy of the associate, but the entity does not qualify as a subsidiary. At the time of acquisition they are recognised at cost and subsequently according to the amortised proportionate net assets. The carrying amounts are increased or reduced each year by the proportionate profit or loss, dividends paid or other changes in equity. This means that when shareholdings are being measured, only the company's proportional equity, rather than its assets and liabilities, is shown in the consolidated financial statements. Any goodwill is included in the stated value of the shareholding in question. Any negative differences are recognised in profit or loss in the investment result.

Joint arrangements that are classified as joint operations are reported based on the proportion of the assets, liabilities, income and expenses which are attributable to us in compliance with the respective applicable IFRS.

Interests in subsidiaries, joint ventures or associates which, in the Group's opinion, are of minor significance, or are not controlled due to their participation structure and as such no significant influence is exercised over them, are recognised at amortised cost. Indicators for determining the materiality of subsidiaries are the revenue, earnings and equity of these companies.

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

The consolidated companies are as follows:

Type of consolidation

Number of companies	31/12/2019	31/12/2018
Fully consolidated companies	192	171
Entities accounted for using the equity method	22	23
Joint operations	3	3

Changes in the consolidated companies

Of the companies included in the consolidated financial statements by way of full consolidation, 15 (previous year: 15) domestic companies and 23 (previous year: 17) foreign companies were consolidated for the first time in the reporting year. 3 (previous year: 0) domestic companies and 2 (previous year: 2) foreign companies were deconsolidated. In addition, 3 (previous year: 5) domestic companies and 9 (previous year: 0) foreign companies were merged.

First-time full consolidation of affiliated entities 2019

First-time full consolidation of Valeco

In order to strengthen its onshore wind business, EnBW acquired 100% of the shares in the developer and operator of wind farms and solar parks Valeco S.A.S., Montpellier, France, from Holding GAY and the minority shareholder Caisse des dépôts et consignations (CDC) on 3 June 2019. Valeco was fully consolidated in the EnBW consolidated financial statements from this point in time.

The fair value of the holding company Valeco at the time of full consolidation was €603.6 million. There were no significant incidental acquisition costs incurred as part of the transaction. The purchase price was paid in the form of cash and cash equivalents. The amount reported for goodwill is preliminary due to the fact that the analysis of the fair value of the assets and liabilities has not yet been concluded. In particular, it represents future business generation and is not deductible for tax purposes.

Following its full consolidation, Valeco contributed €18.0 million to revenues and €-3.2 million to earnings after income taxes in the 2019 financial year. If Valeco had been fully consolidated since the beginning of the year, Group revenue would have increased by €18.0 million to €18,783.0 million, and earnings after income taxes would have decreased by €3.2 million to €901.1 million.

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

in € million	Fair value
Intangible assets	148.2
Property, plant and equipment	146.5
Other non-current assets	282.6
Cash and cash equivalents	41.9
Other current assets	24.5
Total assets	**643.7**
Non-current liabilities	246.4
Current liabilities	33.5
Total liabilities	**279.9**
Net assets[1]	363.8
Non-controlling interests	4.5
Fair value of the shares	603.6
Goodwill	244.3

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

The fair value of the trade receivables acquired as part of the business combination stood at €4.3 million. There were no material individual impairment losses. It is anticipated that the total amount of the trade receivables will be largely collected.

First-time full consolidation of Plusnet

The expansion of activities in the area of telecommunications through the acquisition of 100% of the shares in Plusnet GmbH, Cologne, from QSC AG on 30 June 2019 is part of the strategy to develop EnBW into a supplier of sustainable infrastructure. The company was fully consolidated in the EnBW consolidated financial statements from this point in time. Plusnet has long-standing experience in the operation of modern broadband technology, as well as established sales channels, and operates its own nationwide voice/data network.

The fair value of Plusnet at the time of full consolidation was €227.0 million. There were no significant incidental acquisition costs incurred as part of the transaction. The purchase price was paid in the form of cash and cash equivalents. The amount reported for goodwill is preliminary due to the fact that the analysis of the fair value of the assets and liabilities has not yet been concluded. In particular, it represents future growth expectations and is not deductible for tax purposes.

Following its full consolidation, Plusnet contributed €148.0 million to revenues and €3.0 million to earnings after taxes in the 2019 financial year. If Plusnet GmbH had been fully consolidated since the beginning of the year, Group revenue would have increased by €148.0 million to €18,913.0 million, and earnings after income taxes would have increased by €3.0 million to €907.3 million.

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

in € million	Fair value
Intangible assets	114.2
Property, plant and equipment	93.4
Other non-current assets	18.7
Cash and cash equivalents	35.9
Other current assets	47.3
Total assets	**309.5**
Non-current liabilities	77.4
Current liabilities	72.2
Total liabilities	**149.6**
Net assets[1]	159.9
Fair value of the shares	227.0
Goodwill	67.1

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

The fair value of the trade receivables acquired as part of the business combination stood at €37.5 million. There were no material individual impairment losses. It is anticipated that the total amount of the trade receivables will be largely collected.

Full consolidation without a change in shareholding due to obtaining control in 2019

Full consolidation of EnBW Hohe See

As the requirement for unanimity in the General Meeting of Shareholders ended with the commissioning of the wind farm, EnBW has now obtained control of EnBW Hohe See GmbH & Co. KG, Hamburg, in which it holds a 50.11% shareholding. The other shareholder is a subsidiary of the Canadian energy infrastructure company Enbridge Inc., Calgary. EnBW Hohe See has been fully consolidated in the EnBW consolidated financial statements since 1 October 2019. EnBW Hohe See is an offshore wind farm in the North Sea consisting of 71 wind turbines with a total output of 497 MW. EnBW had previously reported the shares in EnBW Hohe See in the consolidated financial statements as a joint venture using the equity method due to the lack of control as a result of a requirement for unanimity in the General Meeting of Shareholders during the construction phase.

The fair value of the shares held by EnBW in EnBW Hohe See at the time of full consolidation was €1,094.3 million. As the disposal of the EnBW Hohe See shares accounted for using the equity method was worth €847.0 million, there was income of €247.3 million which was reported in the investment result. The value of the non-controlling interest was calculated pro rata based on the identifiable net assets of EnBW Hohe See and stood at €1,096.3 million.

Following its full consolidation, EnBW Hohe See contributed €68.4 million to revenues and €46.3 million to earnings after income taxes in the 2019 financial year. If EnBW Hohe See had been fully consolidated since the beginning of the year, there would not have been any significant increase in Group revenue and earnings after income taxes because EnBW Hohe See was only commissioned for the first time on 1 October 2019.

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

in € million	Fair value
Intangible assets	997.0
Property, plant and equipment	1,532.6
Cash and cash equivalents	162.8
Other current assets	16.5
Total assets	**2,708.8**
Non-current liabilities	206.2
Current liabilities	312.0
Total liabilities	**518.3**
Net assets[1]	2,190.6
Non-controlling interests	1,096.3
Net assets attributable to the shareholders of EnBW AG	1,094.3
Fair value of the shares	1,094.3
Goodwill	0.0

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

The fair value of the trade receivables acquired as part of the business combination stood at €8.5 million. There were no material individual impairment losses. It is anticipated that the total amount of the trade receivables will be largely collected so that the gross value corresponds to the fair value of the trade receivables.

Full consolidation of EnBW Albatros

As the requirement for unanimity in the General Meeting of Shareholders ended with the commissioning of the wind farm, EnBW obtained control of EnBW Albatros GmbH & Co. KG, Hamburg, in which it holds a 50.11% shareholding, on 6 January 2020. The other shareholder is a subsidiary of the Canadian energy infrastructure company Enbridge Inc. EnBW Albatros has been fully consolidated in the EnBW consolidated financial statements since 1 January 2020.

The fair value of the assets and liabilities are currently being determined.

Disposal of entities accounted for using the equity method in 2019

Sale of interest in EMB Energie Mark Brandenburg

The EnBW Group sold its 25.1% shareholding in EMB Energie Mark Brandenburg GmbH, Potsdam, to GASAG AG, Berlin, on 30 September 2019. Income of €16.6 million was reported in the investment result. The proceeds of the sale were paid to EnBW in cash and cash equivalents.

First-time full consolidation of affiliated entities 2018

First-time full consolidation of EnBW Sverige Vind

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

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

If EnBW Sverige Vind had been fully consolidated since the beginning of the year, Group revenue would have increased by €9.9 million to €20,825.3 million, and earnings after income taxes would have decreased by €1.0 million to €466.6 million.

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

in € million	Fair value
Intangible assets	2.4
Property, plant and equipment	66.5
Cash and cash equivalents	0.9
Other current assets	3.0
Total assets	**72.8**
Non-current liabilities	6.7
Current liabilities	2.9
Total liabilities	**9.6**
Net assets	63.2
Fair value of the shares	63.2
Goodwill	0.0

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

Sale of interest in VNG Norge

The EnBW Group sold 100% of the shares in VNG Norge AS, Stavanger, Norway, and its subsidiary VNG Danmark ApS, Copenhagen, Denmark, to Neptune Energy Norge AS, Sandnes, Norway, on 28 September 2018. VNG Norge and VNG Danmark are responsible for oil and gas exploration and production. Income of €81.6 million including a contingent payment of €29.6 million was generated as a result of the sale and is reported under other operating income. The proceeds of the sale were paid to EnBW in cash and cash equivalents. The conditional purchase price of €21.8 million was recognised in profit or loss in 2019.

Changes in accounting policies

First-time adoption of amended accounting standards

The IASB and IFRIC have adopted the following new standards, amendments to existing standards, and interpretations of which application is mandatory as of the 2019 financial year:

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

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

- **IFRS 9 (2019) IFRIC agenda decision "Physical settlement of contracts to buy or sell a non-financial item":** Due to the IFRIC agenda decision, forward contracts for the purchase or sale of non-financial items that are physically settled, and which are recognised as derivatives though profit and loss, must be reported at the relevant spot price under revenues, cost of materials or inventories when they are physically settled. The valuations that were reported as other operating income or expenses can no longer be taken back when the forward contract is settled. In view of this decision, the previously standard practice in the energy industry of reporting physically settled forward contracts within the scope of IFRS 9 based on their forward price can no longer be used. The presentation of the resulting revenues and cost of materials from these contracts will in future thus no longer reflect the contractually agreed prices and will thus not show the actual economic success of the transactions.

The application of the IFRIC agenda decision led to a restatement of the figures for the previous year:

in € million	2018 before application of the agenda decision	Change	2018 after application of the agenda decision
Revenue including electricity and energy taxes	21,193.1	197.9	21,391.0
Electricity and energy taxes	-575.6	0.0	-575.6
Revenue	**20,617.5**	**197.9**	**20,815.4**
Other operating income	1,116.7	68.4	1,185.1
Cost of materials	-16,657.6	-180.5	-16,838.1
Other operating expenses	-1,194.5	-85.8	-1,280.3
EBITDA	**2,089.6**	**0.0**	**2,089.6**

This only had an impact on the presentation of the figures and had no effect on the result of the Group.

The IASB has also adopted the following new standard whose application is mandatory from the 2019 financial year:

- **IFRS 16 (2016) "Leases":** The standard replaces the current standard for accounting for leases IAS 17 and the associated interpretations IFRIC 4, SIC 15 and SIC 27. IFRS 16 must be applied for financial years beginning on or after 1 January 2019. The new standard introduces a uniform accounting model for the lessee, whereby for all leases the lessee recognises the conferred right of use as an asset and a corresponding lease liability. During the term of the lease, the right of use is depreciated and the measurement of the lease liability is carried out using the effective interest method. Accounting for expenses for operating leases on a straight-line basis according to IAS 17 will be replaced by depreciation of the right-of-use assets and interest expenses for the liabilities from the lease. The accounting regulations and the associated classification of leases in line with IAS 17 will remain largely unchanged for the lessor. The transition to the new standard took place on 1 January 2019 according to the modified retrospective approach; the figures for the previous year will not be adjusted. Furthermore, the option of reporting the right of use to the leased asset in the amount of the lease liability at the time of transition was utilised. In this context, no initial direct costs were taken into account when measuring the right-of-use assets. The latest findings on whether agreed extension and termination options are being exercised were considered when determining the amount of the lease liability.

  The simplified approach was used by the EnBW Group to apply IFRS 16 at the time of transition to leases that were already classified as leases according to IAS 17 and IFRIC 4. Due to the first-time application of IFRS 16, right-of-use assets of €509.7 million and lease liabilities of €521.0 million were reported as of 1 January 2019. The €11.3 million difference between the lease liabilities and the right-of-use assets was due to the utilisation of the option to reduce the assets by the amount of provisions for onerous lease contracts as an alternative to performing an impairment review. The first-time application of IFRS 16 resulted in a shift between EBITDA and amortisation and depreciation, as well as interest expenses in the income statement. Accordingly, the EBITDA increased by €114.2 million, amortisation and depreciation by €110.1 million and interest expenses by €7.8 million in the 2019 financial year. On the consolidated cash flow statement, the first-time application of IFRS 16 resulted in an increase in the cash flow from operating activities of €114.2 million due to the higher EBITDA, while the cash flow from financing activities decreased by €114.2 million due to the repayment and interest portion of the lease liability.

  On the basis of the commitments from operating leases as of 31 December 2018, the transition to the opening balance for the lease liabilities as of 1 January 2019 breaks down as follows:

in € million	01/01/2019
Commitments from operating leases as of 31/12/2018	499.7
Minimum lease payments (nominal value) from finance lease liabilities as of 31/12/2018	162.9
Relief for short-term leases	-14.8
Relief for leases involving low-value assets	-6.6
Non-lease components	1.5
Reasonably certain extension and termination options	8.0
Variable index-based lease payments	0.8
Residual value guarantees	0.1
Other	51.4
Gross lease liabilities as of 01/01/2019	**703.0**
Discounting	-82.3
Lease liabilities as of 01/01/2019	**620.7**
Present value of the finance lease liabilities as of 31/12/2018	-99.8
Additional lease liabilities due to the first-time application of IFRS 16 as of 01/01/2019	**521.0**

Amongst other things, “Other” includes other lease term assumptions. The weighted average incremental borrowing rate on 1 January 2019 was 1.33%. The following main classes of underlying assets for former operating leases were identified in the Group that are reported according to the new accounting principles in IFRS 16: distribution facilities and grids, real estate, land, power plants, vehicles and other technical equipment.

Effects of new accounting standards that are not yet mandatory

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

- Amendments to IAS 1 (2020) “Classification of Liabilities as Current or Non-Current”
- Amendments to IAS 1 and IAS 8 (2018) “Definition of Material”
- Amendments to IFRS 3 (2018) “Business Combinations”
- Amendments to IFRS 10 and IAS 28 (2014) “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”
- IFRS 17 (2017) “Insurance Contracts”
- Amendments to the References to the Conceptual Framework for the IFRS Standards (2018)
- Amendments to IFRS 9, IAS 39 and IFRS 7 – Interest Rate Benchmark Reform (2019)

Significant accounting policies

Intangible assets

Intangible assets acquired for a consideration are carried at amortised cost and, except for goodwill, are amortised using the straight-line method over their useful life. The amortisation period of purchased software ranges from 3 to 5 years; the amortisation period of concessions for power plants is between 15 and 65 years. Customer relationships are amortised over their expected useful life of between 4 and 30 years, water rights and the underlying concessions are amortised over 20 years. Until the sale of VNG Norge AS and its subsidiary, the amortisation period for exploration licences was dependent on production and between 12 and 18 years.

Petroleum/natural gas production licences and exploration costs were reported using the successful efforts accounting method according to IFRS 6 until the sale of VNG Norge AS and its subsidiary. The costs were amalgamated in so-called cost centres. The assets were measured at their acquisition or production costs; the subsequent measurement was carried out based on the acquisition cost method. Assets related to secure and economically recoverable deposits were reclassified under property, plant and equipment and depreciated from this point in time.

Internally generated intangible assets are recognised at cost if it is probable that a future economic benefit will flow to the company from the use of the asset and the cost of the asset can be reliably determined. If the recognition criteria are not satisfied, costs are expensed immediately through profit or loss in the year in which they were incurred. At the EnBW Group, these assets relate to software programmes that are amortised on a straight-line basis over a useful life of five years.

The useful lives and amortisation methods are reviewed regularly.

In accordance with the provisions of the IFRS, goodwill from business combinations is not amortised, but tested for impairment at least once a year and whenever there is any indication that the recoverable amount may be lower than the carrying amount.

Property, plant and equipment

Items of property, plant and equipment are measured at cost. Items that are subject to wear and tear are depreciated using the straight-line method over the expected useful life of their individual components. Depreciation is recorded pro rata temporis in the year of addition.

Maintenance and repair costs are recorded as expenses. Renewal or maintenance expenses which lead to future economic benefits of an asset are capitalised.

Construction cost subsidies and household connection costs, as well as investment grants and subsidies, are not deducted from the cost of the asset concerned, but recognised on the liabilities side of the balance sheet.

The power plants also contain the present value, net of depreciation, of the estimated cost of decommissioning. In the case of nuclear power plants, these costs include the cost of decommissioning and dismantling the contaminated facilities.

Depreciation on our major items of property, plant and equipment is computed using the following uniform Group-wide useful lives:

Useful life

in years	
Buildings	25–50
Power plants	10–50
Electricity distribution plants	25–45
Gas distribution plants	10–55
Water distribution plants	15–40
District heat distribution plants	15–30
Telecommunications distribution facilities	4–20
Other equipment, factory and office equipment	4–14

The useful lives and amortisation methods are reviewed regularly.

Property, plant and equipment are derecognised upon disposal or when no further economic benefits are expected from their continued use or sale. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement in the period the asset is derecognised.

Borrowing costs

If a qualifying asset necessarily takes a substantial period of time (more than twelve months) to be made ready for its intended use, the borrowing costs incurred until it is ready for its intended use that are directly attributable to its acquisition or production are capitalised as part of the respective asset. Where there are specific debt financing arrangements, the respective borrowing costs incurred are used. Where the debt financing arrangements are not specific, borrowing costs are capitalised using a uniform rate within the Group of 2.5% (previous year: 3.0%). Borrowing costs totalling €27.2 million were capitalised in the current financial year (previous year: €9.9 million).

Leases

A lease according to IFRS 16 is an agreement that conveys the right to use an asset for a period of time in exchange for the payment of a consideration. Since 1 January 2019, the rights of use to the leased assets must be reported for all leases in which the EnBW Group is the lessee. These are recognised under property, plant and equipment. Correspondingly, the payment obligations from leases must be reported as lease liabilities. In subsequent valuations, the right-of-use assets are depreciated over the term of the lease. The lease liabilities, which are reported under other liabilities, are determined based on the present value of the payment obligations arising from the lease and recognised accordingly using the effective interest method. The lease payments considered in this process are discounted using the interest rate implicit in the lease, insofar as this can be determined. Otherwise, the payments are discounted using the incremental borrowing rate.

In the case of short-term leases and leases involving low-value assets, the option of using the simplified approach is utilised and the lease payments are recognised as an expense in the income statement. Moreover, the option not to separate lease and non-lease components is utilised, except in the case of leases for vehicles, real estate and gas caverns. The simplified approaches used at the time of the transition to IFRS 16 are described in the section "First-time adoption of amended accounting standards".

Leases where the EnBW Group as lessor transfers substantially all the risks and rewards of ownership of the leased asset to the lessee are classified as finance leases. In this case, a receivable is recognised for the amount of the net investment in the lease. The payments made by the lessee are split into repayments for the principal and interest income and recognised accordingly using the effective interest method. All other leases are classified as operating leases. The leased asset is reported under property, plant and equipment and depreciated over its useful life. The payments made by the lessee are recognised as income on a straight-line basis over the term of the lease.

A lease was recognised according to the rules of IAS 17 up until 31 December 2018. According to this replaced standard, leases where the EnBW Group as lessee retains substantially all the risks and rewards of ownership of the leased asset were classified as finance leases. The leased asset was recognised at the lower of fair value and the present value of the minimum lease payments. A liability of the same amount was recognised. The recognised leased asset was depreciated over the shorter of its useful life and the lease term. The liability was repaid and carried forward in subsequent periods using the effective interest method. All other leases where the EnBW Group is the lessee were classified as operating leases. Lease payments and instalments from operating leases were recognised directly as an expense in the income statement. From the perspective of the lessor, the rules for the accounting of leases according to IAS 17 generally correspond to those according to IFRS 16.

Impairment losses/reversals of impairment losses

The carrying amounts of intangible assets, property, plant and equipment and investment properties are tested for impairment when circumstances or events indicate that there could be an impairment or increase in value. If such indications exist, the recoverable amount of the asset concerned is determined through impairment testing. The recoverable amount is the higher of the fair value less costs to sell and the value in use.

The fair value is determined on the basis of a business valuation model and reflects the best estimate of the amount at which a third party would acquire the asset. The value in use corresponds to the present value of the future cash flows expected to be derived from an asset or cash-generating unit. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

If it is not possible to determine the recoverable amount for an individual asset, the recoverable amount is determined for the cash-generating unit to which the asset can be allocated.

Goodwill arising from business combinations is allocated to the cash-generating units or groups of cash-generating units that are expected to achieve synergies from the business combination.

The recoverable amount of these cash-generating units or groups of cash-generating units is tested for impairment at least once a year. An additional test is performed whenever there is any indication that the carrying amount may not be recoverable. For more information, please refer to note (10) “Intangible assets”.

If the recoverable amount of an asset falls short of its carrying amount, an impairment loss is recognised in profit or loss immediately. In the event of impairment losses on cash-generating units to which goodwill has been allocated, the goodwill is reduced first. If the impairment loss exceeds the carrying amount of the goodwill, the difference is allocated proportionally to the remaining non-current assets of the cash-generating unit.

If the reason for a previously recognised impairment loss no longer exists at a later date, the impairment loss is reversed. The increased carrying amount of the asset attributable to a reversal may not exceed the carrying amount that would have been determined had no impairment loss been recognised in previous years (amortised cost).

An impairment loss recognised for goodwill may not be reversed in a subsequent period. Accordingly, impairment losses on goodwill are not reversed.

Investment properties

Investment properties include land and buildings which are held to earn rental income or for capital appreciation and are not used by EnBW itself. Investment properties are measured at cost less depreciation and, for the term of their finite useful life, are depreciated over a term of 25 to 50 years using the straight-line method.

Financial assets

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

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

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

Impairment of financial assets

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

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

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

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

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

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

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

However, receivables may only be written off when there is no liability that could be offset against it. Impairment loss expenses are netted as a separate item on the income statement.

Inventories

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

The nuclear fuel rods disclosed in the inventories are measured at amortised cost. Consumed nuclear fuel rods are recognised under cost of materials based on their actual consumption.

Inventories acquired for trading purposes are recognised at fair value less costs to sell.

Emission allowances

Emission allowances acquired for production purposes are recognised at cost as inventories. Emission allowances acquired for trading purposes are recognised as other assets at fair value through profit or loss, and any fluctuation in fair value is recognised directly in profit or loss.

The obligation to return emission allowances is accounted for under other provisions. The carrying amount of the provision is determined based on the carrying amount of the existing emission allowances. If further emission allowances are needed, they are accounted for at their fair value as of the reporting date.

Treasury shares

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

Provisions for pensions and similar obligations

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

Provisions relating to nuclear power

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

Other provisions

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

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

Deferred taxes

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

Deferred taxes are calculated on the basis of the tax rates that apply or that are expected to apply in the individual countries at the time of utilisation. A tax rate of 29.4% was applied for German Group companies (as in the previous year). Tax assets and tax liabilities are netted with each other by consolidated tax group or entity if the conditions to do so have been satisfied.

Financial liabilities

Financial liabilities are recorded at fair value upon initial recognition. After initial recognition, they are measured at amortised cost. In the previous year, other financial liabilities included liabilities from finance leases according to IAS 17, which were measured at the lower of fair value and present value of the minimum lease payments at the date when the leased asset was recognised. These will be recognised under other liabilities as lease liabilities and at the present value of the outstanding lease payments according to IFRS 16 from the 2019 financial year onwards.

The fair value of bonds listed on the capital market is the nominal value multiplied by the quoted price as of the reporting date. For current financial liabilities, it is assumed that the fair value corresponds to the carrying amount. For non-current financial liabilities, the market value is determined by discounting the expected future cash outflows. If these financial liabilities are subject to floating interest rates, the carrying amount corresponds to the fair value.

Trade payables and other liabilities

Trade payables and other liabilities are recognised at the amount repayable. Trade payables primarily have short terms to maturity. Consequently, their carrying amounts as of the reporting date approximate their fair value. For current other liabilities, it is assumed that the fair value corresponds to the carrying amount. For non-current other liabilities, the market value is determined by discounting the expected future cash outflows. The construction cost subsidies and household connection costs carried as liabilities are reversed to revenue in some cases based on the use of the subsidised item of property, plant and equipment, and in other cases according to the electricity and gas grid fee ordinance. As a rule, the period of reversal for construction cost subsidies is between 20 and 45 years. Investment cost subsidies are reversed over the depreciation period of the subsidised assets. The reversal is offset openly against depreciation.

From the 2019 financial year, other liabilities will include lease liabilities according to IFRS 16, which are recognised at the present value of the outstanding lease payments. This also includes leases that were previously classified as finance leases from the perspective of the lessee according to IAS 17 and were reported under financial liabilities in the previous year.

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

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

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

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

Derivatives

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

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

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

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

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

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

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

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

Hedging relationships are designated in accordance with the risk management goals and strategies explained in note (25) "Accounting for financial instruments". The economic relationship between the hedging instrument and the hedged transaction, as well as the evaluation of the expected effectiveness of the hedge, are documented at the beginning. Primary and derivative financial instruments will be netted in the balance sheet if an unconditional right to offset exists, or when there is an intention to offset or realise the asset and settle the liability.

Contingent liabilities

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

Financial guarantees

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

Revenue recognition

According to IFRS 15, revenue is recognised when control over a good or service has been transferred to the customer. Please refer to note (1) "Revenue" for more details on the accounting policies. Revenue is measured according to the consideration defined in the contract with the customer, whereby sales deductions such as price discounts or variable components must be taken into account. Amounts collected on behalf of third parties are excluded from this process. Revenue is recognised net of VAT and after the elimination of intercompany sales.

Exercise of judgement and estimates when applying accounting policies

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

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

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

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

Goodwill: Goodwill is tested for impairment at least once a year. The impairment test involves estimates that concern, above all, future cash surpluses. To determine the recoverable amount, an appropriate discount rate must be chosen. Future changes in the overall economic, industry or company situation may reduce the cash surpluses or the discount rate, and thus potentially lead to an impairment of goodwill.

Exploration costs: Exploration costs were reported using the successful efforts accounting method until the sale of VNG Norge AS and its subsidiary. The costs for exploration drilling and licence-specific seismic data and analyses were capitalised. All capitalised exploration costs were examined from an economic, technical and strategic perspective at least once a year to see whether any development would have been economically advantageous.

Property, plant and equipment: Property, plant and equipment are tested for impairment when circumstances or events indicate that there could be an impairment or increase in value. For our power plants in particular, in addition to technical progress and damage, a change in expectations regarding short, medium and long-term electricity prices and the service life of the power plants may lead to impairment losses or reversals of impairment losses. A suitable interest rate is to be used when performing the impairment tests. If this interest rate changes, for example due to a change in the macroeconomic or industry situation, recognition of impairment losses or reversals of impairment losses may also be necessary.

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

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

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

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

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

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

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

Income tax: Estimates are also needed to capitalise tax assets, to set up tax liabilities and to assess the temporary differences arising from differences in the accounting treatment of certain items in the financial statements between the consolidated balance sheet in accordance with IFRS and the tax accounts. Capitalisation of tax refund claims and the setting up of tax liabilities are fundamentally only recognised if the relevant payments are likely. Deferred tax assets or liabilities are recognised on temporary differences. Deferred tax assets are, in principle, only recognised when the future tax advantages will probably be realised or where deferred tax liabilities exist. Deferred tax assets are recognised for all carryforwards of unused tax losses to the extent that it is probable that taxable profit will be available against which the loss carryforwards can be utilised. The judgement exercised by management regarding the anticipated timing and level of future taxable profits, as well as regarding future tax planning strategies, is significant in determining the amount of deferred tax assets that can be recognised.

Entities accounted for using the equity method: IFRS financial statements were not available to us for all entities. Therefore, these entities were accounted for using the equity method based on an estimate of the HGB-IFRS differences. Investments that are accounted for using the equity method in the consolidated financial statements are tested for impairment when circumstances or events indicate that there could be an impairment loss or gain. The impairment test involves estimates that concern, above all, future cash surpluses. To determine the recoverable amount, an appropriate discount rate must be chosen. Future changes in the overall economic, industry or company situation may reduce cash surpluses or the discount rate, and thus potentially lead to an impairment of the investments.

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

Potential effects due to changes in estimates in other areas are explained in the respective sections. Please refer to note (20) "Provisions" for more information on **provisions**.

Currency translation

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

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

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

€ 1	Closing rate		Average rate	
	31/12/2019	31/12/2018	2019	2018
Swiss franc	1.09	1.13	1.11	1.15
Pound sterling	0.85	0.89	0.88	0.88
US dollar	1.12	1.15	1.12	1.18
Czech koruna	25.41	25.72	25.67	25.64
Japanese yen	121.94	125.85	122.07	130.40
Norwegian krone	9.86	9.95	9.85	9.60
Danish krone	7.47	7.47	7.47	7.45
Polish zloty	4.26	4.30	4.30	4.26
Swedish krona	10.45	10.25	10.59	10.26

Notes to the income statement and the balance sheet

(1) Revenue

Revenue from contracts with customers is recognised when control over a good or service has been transferred to the customer. The electricity and energy tax paid by the entities is deducted from revenue in the income statement. In the interest of a more accurate presentation of the business development, income and expenses from energy trading businesses are disclosed net. The net disclosure means that revenue from energy trading businesses is reported net of the related cost of materials. For the 2019 financial year, the net energy trading revenue amounted to €32,139.7 million (previous year: €29,202.0 million).

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

in € million[1]	2019	2018
Revenue from contracts with customers	18,459.0	20,658.8
Other revenue	306.0	156.6
Total	**18,765.0**	**20,815.4**

1 The figures for the previous year have been restated.

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

External revenue by region

2019 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Revenue from contracts with customers by region	7,668.5	3,164.0	653.0	6,970.1	3.4	18,459.0
Germany	(6,429.4)	(2,991.7)	(500.7)	(5,462.9)	(3.4)	(15,388.1)
European currency zone excluding Germany	(92.9)	(4.9)	(43.0)	(1,477.4)	(0.0)	(1,618.2)
Rest of Europe	(1,145.7)	(167.4)	(109.3)	(29.8)	(0.0)	(1,452.2)
Rest of world	(0.5)	(0.0)	(0.0)	(0.0)	(0.0)	(0.5)
Other revenue	10.4	295.6	0.0	0.0	0.0	306.0
Total	**7,678.9**	**3,459.6**	**653.0**	**6,970.1**	**3.4**	**18,765.0**

External revenue by region

2018 in € million	Sales[1]	Grids	Renewable Energies	Generation and Trading[1]	Other/ Consolidation	Total
Revenue from contracts with customers by region	7,340.6	3,065.9	477.5	9,767.8	7.0	20,658.8
Germany	(6,323.7)	(2,895.7)	(369.7)	(8,149.8)	(6.9)	(17,745.8)
European currency zone excluding Germany	(102.9)	(4.5)	(6.7)	(1,513.0)	(0.0)	(1,627.1)
Rest of Europe	(914.0)	(165.7)	(101.1)	(105.0)	(0.0)	(1,285.8)
Rest of world	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)
Other revenue	7.1	149.5	0.0	0.0	0.0	156.6
Total	**7,347.7**	**3,215.4**	**477.5**	**9,767.8**	**7.0**	**20,815.4**

1 The figures for the previous year have been restated.

External revenue by product

2019 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/ Consolidation	Total
Revenue from contracts with customers by product	7,668.5	3,164.0	653.0	6,970.1	3.4	18,459.0
Electricity	(5,087.6)	(2,017.9)	(582.1)	(2,960.4)	(0.0)	(10,648.0)
Gas	(2,272.4)	(558.0)	(9.4)	(3,600.4)	(0.0)	(6,440.2)
Energy and environmental services/other	(308.5)	(588.1)	(61.5)	(409.3)	(3.4)	(1,370.8)
Other revenue	10.4	295.6	0.0	0.0	0.0	306.0
Total	**7,678.9**	**3,459.6**	**653.0**	**6,970.1**	**3.4**	**18,765.0**

External revenue by product

2018 in € million	Sales[1]	Grids	Renewable Energies	Generation and Trading[1]	Other/ Consolidation	Total
Revenue from contracts with customers by product	7,340.6	3,065.9	477.5	9,767.8	7.0	20,658.8
Electricity	(5,217.7)	(1,996.0)	(434.2)	(3,491.6)	(0.0)	(11,139.5)
Gas	(1,953.8)	(528.3)	(7.1)	(5,787.8)	(0.0)	(8,277.0)
Energy and environmental services/other	(169.1)	(541.6)	(36.2)	(488.4)	(7.0)	(1,242.3)
Other revenue	7.1	149.5	0.0	0.0	0.0	156.6
Total	**7,347.7**	**3,215.4**	**477.5**	**9,767.8**	**7.0**	**20,815.4**

1 The figures for the previous year have been restated.

Revenues mainly arise from goods supplied or services rendered over a particular time period.

The most important services are described below:

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

The distribution of electricity and gas: EnBW offers its customers use of the electricity and gas grids. EnBW recognises the revenues when the services are rendered. Monthly invoices of the actual costs or monthly advance payments are agreed.

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

The total amount of the expected revenues for performance obligations that have not been fulfilled, either partially or fully, as of 31 December 2019 is €8,111.1 million (previous year restated: €8,005.6 million). Most of these performance obligations will be fulfilled as expected within the next five years. Revenues for performance obligations totalling €2,559.5 million (previous year restated: €2,747.8 million) are expected to be fulfilled within the next financial year. This does not include any remaining performance obligations from customer contracts which have an expected initial term of no more than one year.

As of 31 December 2019, contract liabilities amounted to €932.0 million (previous year: €909.7 million). From the contract liabilities contained in the opening balance of €909.7 million (previous year: €909.4 million), €76.4 million (previous year: €74.3 million) was recognised as revenue within the reporting period. The contract liabilities mainly comprise construction cost subsidies and household connection costs. These are non-refundable prepayments that are carried as liabilities and reversed over a period of 20 to 45 years.

Receivables are recognised as such at the time a good is delivered or after the conclusion of an associated performance period because this is the point in time at which there is an unconditional claim to receipt of the consideration and only the passage of time is required until the payment is due. Please refer to note (25) "Accounting for financial instruments" for the development of receivables connected to customer contracts. In the reporting period, revenues of €201.3 million (previous year: €163.2 million) were recognised for performance obligations that were fulfilled either fully or partially in preceding periods.

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

Commission paid to intermediaries and sales employees for concluding contracts is capitalised as additional costs for acquiring the contracts. As of 31 December 2019, the total assets that are recognised from the costs for the conclusion of customer contracts amounted to €30.7 million (previous year: €28.9 million). These costs primarily comprise commission paid to sales offices when customers are successfully acquired for EnBW. In 2019, the amount of amortisation was €14.8 million (previous year: €17.0 million). The amortisation template works in line with the transfer of the good or service to the customers and is based on the average customer-retention period.

Additional costs for acquiring contracts are immediately recognised as an expense when they arise, insofar as the amortisation period for the assets is one year or less. An adjustment to the transaction price to take account of a significant financing component is not required because no contracts have been concluded where the time period between the transfer of the promised good or service to the customer and the payment by the customer exceeds one year.

(2) Other operating income

in € million[1]	2019	2018
Income from disposals	37.4	100.2
Income from the reversals of provisions	218.0	206.2
Income from derivatives	749.2	346.4
Income from reversals of impairment losses	4.5	22.1
Rent and lease income	20.5	25.5
Miscellaneous	514.4	484.7
Total	**1,544.0**	**1,185.1**

1 The figures for the previous year have been restated.

Income from disposals in the previous year mainly included income from the sale of VNG Norge and its subsidiary VNG Danmark.

Income from derivatives increased primarily due to valuation effects from derivatives and the IFRIC agenda decision “Physical settlement of contracts to buy or sell a non-financial item”.

The increase in miscellaneous other operating income was primarily due to higher income from the CO_2 allowances. This was offset to some extent in the reporting year by lower income from currency exchange rate gains of €2.4 million (previous year: €40.0 million). Miscellaneous other operating income also includes income from the reversal of accruals and income from insurance claims.

(3) Cost of materials

in € million[1]	2019	2018
Cost of materials and supplies and of purchased merchandise	12,039.8	14,033.9
Cost of purchased services	2,801.3	2,802.8
Exploration costs	0.0	1.4
Total	**14,841.1**	**16,838.1**

1 The figures for the previous year have been restated.

Cost of materials and supplies and of purchased merchandise comprises, in particular, electricity and gas procurement costs, including increases in provisions for onerous contracts for electricity procurement agreements. In addition, it includes the necessary increase in provisions for the decommissioning of nuclear power plants, unless these are required to be recognised as part of the cost of the asset. However, the accretion of the provisions is not included. Expenses relating to nuclear power also include costs for the disposal of irradiated fuel rods and radioactive waste, as well as the consumption of nuclear fuel rods and nuclear fuels. Fuel costs for conventional power plants, as well as costs for the procurement of 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	2019	2018
Wages and salaries	1,520.5	1,404.7
Social security, pension and other benefit costs	486.5	467.1
of which for post-employment benefits	(219.8)	(221.3)
Total	**2,007.0**	**1,871.8**

Employees in continuing operations as an annual average

annual average	2019	2018
Sales[1]	4,186	3,518
Grids	9,003	8,913
Renewable Energies	1,309	1,101
Generation and Trading[1]	5,458	5,382
Other	2,666	2,610
Employees	**22,622**	**21,524**
Apprentices and trainees including DH students in the Group	912	880

1 The figures for the previous year have been restated.

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

(5) Other operating expenses

in € million[1]	2019	2018
Administrative and selling costs and other overheads	378.1	378.0
Expenses from derivatives	391.3	300.3
Audit, legal and consulting fees	98.6	102.6
Other personnel expenses	90.9	81.8
Advertising expenses	76.0	80.6
Rent and lease expenses	49.3	69.7
Insurance	61.4	55.9
Dues and levies	22.5	23.7
Other taxes	27.2	19.1
Costs from disposals	19.0	11.2
Miscellaneous	78.6	157.4
Total	**1,292.9**	**1,280.3**

1 The figures for the previous year have been restated.

Miscellaneous other operating expenses contain, amongst other things, expenses from currency exchange rate losses amounting to €2.5 million (previous year: €43.1 million) and expenses for provisions.

(6) Amortisation and depreciation

in € million	2019	2018
Amortisation of intangible assets	132.7	106.8
Depreciation of property, plant and equipment	1,405.0	1,106.2
Depreciation of investment properties	0.7	1.8
Depreciation of right-of-use assets from leases	111.0	–
Reversals of investment cost subsidies	-0.9	-1.0
Total	**1,648.5**	**1,213.8**

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

The impairment losses on other intangible assets, property, plant and equipment and investment property amounted to €160.7 million (previous year: €13.8 million). In the current financial year, the impairments mainly comprised impairment losses on power plants and are primarily allocated to the Generation and Trading segment in the segment reporting. The recoverable amount was calculated on the basis of the fair value less costs to sell and corresponds to Level 3 of the IFRS 13 fair value hierarchy. Using a business valuation model, the fair value was derived from the cash flow planning, based on, amongst other things, the medium-term planning approved by the Board of Management and valid as of the date of the impairment test as well as long-term market expectations beyond the detailed planning horizon. These plans were based on past experience and on estimates concerning future market development. The discount rate used in the valuation was 5.1% (previous year: 5.5%). The impairment losses were mainly due to the quicker phase-out pathway for hard coal. The fair value calculated for the power plants of around €2.0 billion is therefore below the respective carrying amounts.

With regard to the impact on possible future changes to key estimation parameters, please refer to the "Exercise of judgement and estimates when applying accounting policies" section.

(7) Investment result

in € million	2019	2018
Share of profit/loss of entities accounted for using the equity method	22.8	28.2
Write-downs on entities accounted for using the equity method	-2.1	-56.4
Write-ups of entities accounted for using the equity method	8.3	4.1
Net profit/loss from entities accounted for using the equity method	**29.0**	**-24.1**
Investment income	108.9	120.9
Write-downs on investments	-6.2	-6.5
Write-ups of investments	0.0	1.8
Result from the sale of equity investments	269.6	8.8
Other profit/loss from investments[1]	**372.3**	**125.0**
Investment result (+income/-expense)	**401.3**	**100.9**

1 Of which €83.2 million (previous year: €92.3 million) was income from investments held as financial assets.

The write-downs of entities accounted for using the equity method primarily contained an impairment for the carrying amount of our Turkish investment in the previous financial year. The write-downs on investments in the 2019 financial year and the previous year mainly related to other investments.

The result from the sale of equity investments in the reporting period was primarily attributable to the revaluation of the shares in EnBW Hohe See, which was no longer accounted for using the equity method from 1 October 2019 but was instead fully consolidated.

(8) Financial result

in € million[1]	2019	2018
Interest and similar income	117.9	99.9
Other finance income	419.2	195.6
Finance income	**537.1**	**295.5**
Borrowing costs	-201.0	-230.0
Other interest and similar expenses	-7.9	-23.1
Interest portion of increases in liabilities	-347.4	-191.0
Personnel provisions	(-114.4)	(-112.2)
Provisions relating to nuclear power	(-212.0)	(-62.2)
Other non-current provisions	(-12.7)	(-9.0)
Other liabilities	(-8.4)	(-7.6)
Other finance costs	-76.6	-231.8
Finance costs	**-632.9**	**-675.9**
Financial result (+ income/- costs)	**-95.8**	**-380.4**

1 The figures for the previous year have been restated.

Interest and similar income mainly contains interest income from interest-bearing securities and loans, dividends and shares in profits. In the 2019 financial year, interest income of €19.6 million (previous year: €20.3 million) was offset against economically related interest expenses. In the reporting period, other finance income includes income from the “measured at fair value through profit or loss” measurement category of €391.3 million (previous year: €158.4 million).

Borrowing costs are composed as follows:

in € million	2019	2018
Expenses incurred for bank interest and bonds	167.5	213.9
Interest portion of lease liabilities	12.1	3.0
Other borrowing costs	21.4	13.1
Borrowing costs	**201.0**	**230.0**

The interest portion of increases in liabilities relates mainly to the adjustment to the discount rate for the remaining nuclear provisions held by EnBW of 0.59% to 0.03% (previous year: 0.72% to 0.59%). In addition, the annual accretion of the non-current provisions is included.

In the reporting period, other finance costs mainly included costs from the “measured at fair value through profit or loss” measurement category of €55.8 million (previous year: €196.9 million). In addition, they also contained market price losses on the sale of securities amounting to €2.4 million (previous year: €7.3 million). Impairment losses on loans of €0.5 million (previous year: €0.4 million) were recognised in the reporting period.

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

Total interest income and expenses

in € million	2019	2018
Total interest income	42.6	45.6
Total interest expenses	-185.1	-226.0

The total interest income and expenses arose from financial instruments that are not measured at fair value through profit or loss. The main items here are interest received from loans and bank balances, which are measured at amortised cost, as well as interest and dividends received from financial assets allocated to the “measured at fair value in equity” measurement category. Total interest income comprised the interest income from the “measured at amortised cost” measurement category of €32.1 million (previous year: €35.2 million) and the interest income from the “measured at fair value in equity” measurement category of €10.5 million (previous year: €10.4 million). In the reporting period, the interest expenses for the financial assets measured at amortised cost totalling €185.1 million (previous year: €226.0 million) were incurred in particular on bonds, bank liabilities and finance lease liabilities, as in the previous year.

(9) Income tax

in € million	2019	2018
Actual income tax		
Domestic corporate income tax	-56.7	241.9
Domestic trade tax	62.4	109.8
Foreign income taxes	45.8	33.9
Total (-income/+expense)	**51.5**	**385.6**
Deferred taxes		
Germany	-40.4	-269.5
Abroad	-13.2	12.6
Total (-income/+expense)	**-53.6**	**-256.9**
Income tax (-income/+expense)	**-2.1**	**128.7**

The actual income tax amounting to €51.5 million (previous year: €385.6 million expense) concerns income tax expenses from the current financial year amounting to €167.3 million (previous year: €107.3 million) and income tax income for past periods amounting to €115.8 million (previous year: €278.3 million expense).

Deferred tax income amounting to €53.6 million (previous year: €256.9 million) consists of deferred tax income from the current financial year amounting to €162.0 million (previous year: €36.7 million expense) and deferred tax expenses for past periods of €108.4 million (previous year: €293.6 million income).

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

As in the previous year, the corporate income tax rate was 15.0% plus a solidarity surcharge of 5.5% of the corporate income tax. The trade tax rate was 13.6% as in the previous year. This represents a tax rate on income of 29.4% (as in the previous year). For the foreign entities, the tax rate applicable in the country in which they are based of between 19.0% and 25.8% (previous year: between 19.0% and 25.5%) is used to calculate income taxes. Deferred tax assets and liabilities are measured at the tax rates expected to apply when the asset is realised or the liability is settled.

Deferred taxes comprise the following:

in € million	2019	2018
Origination or reversal of temporary differences	-59.2	-220.8
Origination of carryforwards of unused tax losses	-15.6	-38.9
Utilisation of carryforwards of unused tax losses	21.2	2.8
Deferred taxes (-income/+expense)	**-53.6**	**-256.9**

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

in € million	2019	in %	2018	in %
Earnings before tax	**902.2**		**596.3**	
Expected tax rate		29.4		29.4
Expected income tax (-income/+expense)	**265.2**		**175.3**	
Tax effects				
Differences in foreign tax rates and tax rate differences	-30.0	-3.3	-17.2	-2.9
Tax-free income	-130.1	-14.4	-22.2	-3.7
Non-deductible expenses	29.3	3.2	21.3	3.6
Add-backs and reductions for trade tax purposes	11.7	1.3	10.7	1.8
Accounting for joint ventures and associates using the equity method	-7.4	-0.8	7.1	1.2
Adjustment/valuation/non-recognition of carryforwards of unused tax losses	-16.6	-1.8	0.0	0.0
Zero-rated disposals of investments	-116.8	-12.9	-25.2	-4.2
Taxes relating to other periods	-7.4	-0.9	-15.3	-2.6
Other	0.0	0.0	-5.8	-1.0
Current income tax (-income/+expense)	**-2.1**		**128.7**	
Current tax rate		**-0.2**		**21.6**

(10) Intangible assets

in € million	Concessions, industrial property rights and similar rights and assets	Internally generated intangible assets	Goodwill	Other	Total
Cost					
As of 01/01/2019	1,930.8	111.4	972.1	14.3	3,028.6
Increase/decrease due to changes in the consolidated companies	1,272.6	4.1	348.4	0.0	1,625.1
Additions	57.2	11.7	0.6	27.5	97.0
Reclassifications	9.5	2.3	0.0	-10.6	1.2
Currency adjustments	13.5	0.0	3.2	0.0	16.7
Disposals	-10.3	-0.6	-0.6	-0.6	-12.1
As of 31/12/2019	3,273.3	128.9	1,323.7	30.6	4,756.5
Accumulated amortisation					
As of 01/01/2019	1,134.6	97.3	48.0	0.0	1,279.9
Additions	114.5	8.2	0.0	0.0	122.7
Reclassifications	-0.2	0.0	0.0	0.0	-0.2
Currency adjustments	5.7	0.0	0.0	0.0	5.7
Disposals	-8.5	-0.6	0.0	0.0	-9.1
Impairment	10.0	0.0	0.0	0.0	10.0
As of 31/12/2019	1,256.1	104.9	48.0	0.0	1,409.0
Carrying amounts					
As of 31/12/2019	2,017.2	24.0	1,275.7	30.6	3,347.5

in € million	Concessions, industrial 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

The carrying amount of the intangible assets includes concessions to operate power plants amounting to €1,458.4 million (previous year: €516.1 million) and customer relationships amounting to €112.8 million (previous year: €125.7 million). The increase in concessions was primarily due to the EnBW Hohe See offshore wind farm which has since been fully reconsolidated.

In 2019, a total of €54.4 million (previous year: €40.6 million) was spent on research and development. The criteria for recognition under IFRS were not satisfied.

The following table provides information on the exploration costs contained within various items of the consolidated financial statements up until the sale of VNG Norge AS and its subsidiary. In the segment reporting, the exploration business was allocated to the Generation and Trading segment until the sale of VNG Norge AS and its subsidiary.

in € million	2019	2018
Other exploration costs	0.0	-1.4
Costs from exploration activities	**0.0**	**-1.4**
Net payments for operative exploration activities	0.0	-1.4
Net payments for investing activities for exploration	0.0	-6.2

For the purpose of impairment testing, goodwill was allocated to the respective cash-generating units (CGU) or groups of cash-generating units (CGU). The carrying amount of the CGU is compared with the recoverable amount as part of impairment testing. The recoverable amount is the higher of the two values of the fair value less costs to sell of the CGU and its value in use. In the EnBW Group, the recoverable amount of the CGU is initially calculated on the basis of the fair value less costs to sell and corresponds to Level 3 of the IFRS 13 fair value hierarchy. The value in use is also calculated if necessary. Using a business valuation model, the fair value is derived from cash flow planning, based on the medium-term planning approved by the Board of Management for a period of three years and valid as of the date of the impairment test. The plans are based on past experience and on estimates concerning future market development. In justified, exceptional cases it is based on a longer detailed planning period, provided that this is necessitated by commercial or regulatory requirements.

Key assumptions underlying the determination of fair value less costs to sell include projections of future electricity and gas prices, raw materials prices, company-specific investing activities, the regulatory framework as well as growth and discount rates. These assumptions are based on internal and external estimates.

The interest rates used for discounting the cash flows are calculated on the basis of market data and are between 2.7% and 6.6% after tax, or between 3.9% and 8.1% before tax (previous year: 3.5% to 6.6% after tax, and 4.9% to 8.1% before tax).

Constant growth rates of 0.0% and 1.5% (as in the previous year) are used to extrapolate the cash flows beyond the detailed planning period in order to take into account the expected price and volume-related growth.

In 2019, there were no impairments to goodwill, as in the previous year.

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

As of 31 December 2019, goodwill totalled €1.3 billion (previous year: €0.9 billion). Of this figure, 82.4% (previous year: 86.5%) is attributable to the cash-generating units or groups of cash-generating units presented in the table below:

Cash-generating units/groups of cash-generating units

	Discount rates after tax (%)		Goodwill in € million	
	2019	2018	2019	2018
PRE subgroup	3.7–6.6	4.5–6.5	273.5	265.9
Electricity sales and distribution	2.7–5.5	3.5–5.5	131.7	131.7
Stadtwerke Düsseldorf AG subgroup	2.7–5.5	3.5–5.5	127.4	127.4
Energiedienst Holding AG subgroup	2.7–5.5	3.5–5.5	147.1	147.1
ONTRAS Gastransport GmbH	2.7	3.5	127.2	127.2
Valeco subgroup	3.2–4.9	–	244.3	–

The goodwill allocated to the other cash-generating units or groups of cash-generating units accounted for less than 5.3% (previous year: 6.5%) of total goodwill in each case. Its aggregate total amounted to €224.5 million (previous year: €124.8 million).

(11) Property, plant and equipment

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2019[1]	4,048.3	18,418.5	16,488.9	1,844.3	1,528.7	42,328.7
Increase/decrease due to changes in the consolidated companies	7.7	139.4	12.1	19.2	1,571.9	1,750.3
Additions	63.6	250.6	566.6	76.2	776.6	1,733.6
Reclassifications	85.3	280.4	251.8	32.0	-597.7	51.8
Reclassification to assets held for sale	-2.3	0.0	0.0	0.0	0.0	-2.3
Currency adjustments	2.0	11.4	20.1	0.5	0.4	34.4
Disposals	-5.5	-80.5	-97.1	-27.5	-15.6	-226.2
As of 31/12/2019	4,199.1	19,019.8	17,242.4	1,944.7	3,264.3	45,670.3
Accumulated amortisation						
As of 01/01/2019[1]	2,212.9	13,618.4	9,282.5	1,334.0	25.6	26,473.4
Additions	69.8	690.8	397.2	97.8	0.0	1,255.6
Reclassifications	6.8	12.0	-12.1	0.5	-3.2	4.0
Reclassification to assets held for sale	-2.3	0.0	0.0	0.0	0.0	-2.3
Currency adjustments	1.0	8.1	9.5	0.4	0.0	19.0
Disposals	-2.9	-77.4	-74.2	-23.9	-2.4	-180.8
Impairment	24.1	124.0	0.1	0.9	0.4	149.5
Reversal of impairment losses	-1.4	-0.8	0.0	-1.3	-1.0	-4.5
As of 31/12/2019	2,308.0	14,375.1	9,603.0	1,408.4	19.4	27,713.9
Carrying amounts						
As of 31/12/2019	1,891.1	4,644.7	7,639.4	536.3	3,244.9	17,956.4

1 Opening balance adjusted due to the separate disclosure of the right-of-use assets under note (12) "Leases".

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

Items of property, plant and equipment amounting to €232.9 million (previous year: €64.7 million) serve as collateral for liabilities to banks, of which real estate liens accounted for €0.0 million (previous year: €4.8 million). This increase is attributable to the first-time consolidation of Valeco.

The Group's capital expenditure on intangible assets and property, plant and equipment totalling €1,947.8 million (previous year: €1,369.5 million) can be derived from the statement of changes in non-current assets as follows:

in € million	2019	2018
Additions to intangible assets, property, plant and equipment and right-of-use assets according to the statement of changes in non-current assets	1,924.5	1,626.7
Less additions to assets recognised under finance leases	–	-1.3
Less additions to assets recognised as right-of-use assets under leases	-94.0	–
Less additions to the provision recognised for the decommissioning and dismantling of property, plant and equipment	-193.9	-279.6
Plus additions to intangible assets and property, plant and equipment of assets held for sale	0.0	23.7
Plus investments which became cash relevant after the change in consolidation method	311.2	–
Capital expenditure on intangible assets and property, plant and equipment	**1,947.8**	**1,369.5**

(12) Leases

The rules for the accounting of leases in the accounting standard IFRS 16 "Leases" have been applied within the EnBW Group since 1 January 2019. Please refer to the notes in sections "Changes in accounting policies" and "Significant accounting policies" for more detailed information on the impact of the first-time application of IFRS 16 on the EnBW Group and the consolidated financial statements in 2019.

Lessee disclosures

The following table shows the development of the rights-of-use assets from leases:

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Total
Right-of-use assets					
As of 01/01/2019[1]	0.0	82.3	5.2	3.1	90.6
Changes in accounting policies due to IFRS 16	191.9	2.0	289.1	26.7	509.7
Increase/decrease due to changes in the consolidated companies	11.9	0.0	78.8	0.8	91.5
Additions	14.2	3.4	52.6	23.7	93.9
Reclassifications	0.0	0.0	0.0	0.5	0.5
Currency adjustments	0.1	0.0	0.7	0.0	0.8
Disposals	-1.3	0.0	-5.2	-0.3	-6.8
As of 31/12/2019	216.8	87.7	421.2	54.5	780.2
Accumulated amortisation					
As of 01/01/2019[1]	0.0	71.6	5.2	1.6	78.4
Additions	23.6	0.7	68.8	16.7	109.8
Reclassifications	0.0	0.0	0.0	0.1	0.1
Disposals	-0.2	0.0	-5.2	-0.2	-5.6
Impairment	0.0	1.2	0.0	0.0	1.2
As of 31/12/2019	23.4	73.5	68.8	18.2	183.9
Carrying amounts					
As of 31/12/2019	193.4	14.2	352.4	36.3	596.3

1 The opening balance represents the finance lease agreements according to IAS 17.

The lease liabilities are due as follows:

in € million[1]	31/12/2019		31/12/2018	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	127.2	117.4	7.4	3.5
Due in 1 to 5 years	324.4	298.0	28.5	12.9
Due in more than 5 years	364.0	284.2	127.0	83.4
Total	**815.6**	**699.6**	**162.9**	**99.8**

1 Lease liabilities were reported under other financial liabilities up to the 2018 financial year in accordance with IAS 17, they are reported under other liabilities from the 2019 financial year in accordance with IFRS 16.

The effects on the income statement due to leases break down as follows:

in € million	2019
Expenses from short-term leases	5.1
of which cost of materials	(0.1)
of which other operating expenses	(5.0)
Expenses from leases involving low-value assets	7.5
of which cost of materials	(0.3)
of which other operating expenses	(7.2)
Variable lease payments	1.8
of which cost of materials	(1.8)
Depreciation of right-of-use assets	111.0
Interest portion of lease liability	12.1

The cash flow statement is impacted as follows:

in € million	2019
Repayment portion of the lease liabilities	108.3
Interest portion of lease liabilities	12.1
Expenses from short-term leases, leases involving low-value assets and variable lease payments	14.4
Total	**134.8**

The repayment and interest portions of the lease liabilities are recognised in cash flow from financing activities. The cash flow from operating activities contains the expenses from short-term leases, leases involving low-value assets and variable lease payments.

In the EnBW Group, there are agreements for variable lease payments totalling €291.8 million, which mainly relate to long-term electricity procurement agreements that have not yet begun. In addition, there are other leases of commercial real estates, totalling €47.2 million that have not yet begun. Furthermore, the EnBW Group has leases with extension and termination options totalling €255.9 million, which could not be taken into account initially in the rights-of-use assets and corresponding lease liability because they could not be assessed as being reasonably certain. The financial commitments from short-term leases and leases involving low-value assets are included in note (26) “Contingent liabilities and other financial commitments”.

Lessor disclosures

The finance lease receivables of €26.7 million (previous year: €24.0 million) arose from supply contracts for various forms of energy such as electricity, heat, cooling and compressed air (so-called contracting agreements), under which the economic ownership of the leased technical equipment and machinery is allocable to the lessee. The lease payments receivable are due as follows:

in € million	31/12/2019	31/12/2018
Due within 1 year	4.3	4.5
Due in 1 to 2 years	3.6	3.6
Due in 2 to 3 years	2.7	3.1
Due in 3 to 4 years	2.5	2.6
Due in 4 to 5 years	2.2	2.4
Due in more than 5 years	11.4	7.8
Total	**26.7**	**24.0**

The lease payments receivable can be reconciled with the net investment in the lease as follows:

in € million[1]	31/12/2019	31/12/2018
Nominal value of lease payments	26.7	24.0
Gross investment	**26.7**	**24.0**
Finance income not yet realised	-5.9	-4.5
Net investment	**20.8**	**19.5**

1 The figures for the previous year have been restated.

The outstanding receivables from finance leases in the 2019 financial year include impairment losses of €0.1 million (previous year: €0.1 million). The loss rate (weighted average) is still 0.5%. All the lease receivables are not overdue.

The effects on the income statement due to the finance leases break down as follows:

in € million	2019
Capital gains/losses on disposals	1.0
Finance income on net investment	1.6

The claims due to the EnBW Group from operating leases of €143.7 million (previous year: €122.3 million) are mainly attributable to contracting agreements and renting out commercial and residential real estate and usable areas. In the case of leases for real estate and usable areas, there are general termination risks that are classified overall as low due to the potential ability to rent them again. For contracting agreements, there is a reutilisation risk, should the agreement be terminated, due to the high level of customisation in some cases.

The lease payments receivable from operating leases are due as follows:

in € million	2019	2018
Due within 1 year	23.5	22.5
Due in 1 to 2 years	20.2	7.6
Due in 2 to 3 years	7.9	6.2
Due in 3 to 4 years	7.3	4.1
Due in 4 to 5 years	7.1	3.6
Due in more than 5 years	77.7	78.3
Total	**143.7**	**122.3**

Due to materiality, operating leases are not reported separately under property, plant and equipment.

Income from operating leases in the 2019 financial year was €20.9 million.

(13) Entities accounted for using the equity method

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

In the previous year, the carrying amount for joint ventures included €596.9 million for EnBW Hohe See, whose offshore wind farm was under construction in the North Sea. The construction of this wind farm was financed by equity. Due to a lack of control during the construction phase as a result of a requirement for unanimity in the General Meeting of Shareholders, it was reported in the consolidated financial statements temporarily as a joint venture using the equity method. As the requirement for unanimity in the General Meeting of Shareholders ended with the commissioning of the wind farm, EnBW has now obtained control of EnBW Hohe See in which it holds a 50.11% shareholding. It has been fully consolidated in the EnBW consolidated financial statements since 1 October 2019.

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

Financial data (EnBW's interest)

in € million	2019		2018	
	Associates	Joint ventures	Associates	Joint ventures
Carrying amount of entities accounted for using the equity method	521.5	542.6	614.0	986.2
Net profit/loss for the year from continuing operations	20.6	2.1	29.3	-1.1
Other income	1.1	0.8	3.7	6.5
Total comprehensive income	21.7	2.9	33.0	5.4

Elektrizitätswerk Rheinau AG and Fernwärme Ulm GmbH have a different reporting date and are consolidated with the figures from their financial statements for the year ending 30 September 2019.

(14) Other financial assets

in € million	Shares in affiliated entities	Other investments[1]	Non-current securities	Investment properties	Loans	Total
Cost						
As of 01/01/2019	187.7	1,818.3	3,362.5	59.7	143.4	5,571.6
Increase/decrease due to changes in the consolidated companies	154.4	10.1	22.9	0.0	6.6	194.0
Additions	64.0	378.9	3,465.6	0.0	38.0	3,946.5
Reclassifications	0.7	-5.9	-329.5	-4.5	4.6	-334.6
Currency adjustments	0.0	2.4	0.0	0.0	0.5	2.9
Disposals	-11.7	-281.7	-2,598.1	-0.1	-5.2	-2,896.8
As of 31/12/2019	395.1	1,922.1	3,923.4	55.1	187.9	6,483.6
Accumulated amortisation						
As of 01/01/2019	41.5	70.3	0.0	28.1	5.2	145.1
Decrease due to changes in the consolidated companies	-4.8	0.0	0.0	0.0	0.0	-4.8
Additions	0.0	0.0	0.0	0.7	1.5	2.2
Impairment	2.5	3.7	0.0	0.0	0.0	6.2
Reclassifications	0.0	-7.0	0.0	-4.0	-0.2	-11.2
Disposals	-6.7	-0.4	0.0	0.0	-3.3	-10.4
Reversal of impairment losses	0.0	0.0	0.0	0.0	-0.4	-0.4
As of 31/12/2019	32.5	66.6	0.0	24.8	2.8	126.7
Carrying amounts						
As of 31/12/2019	362.6	1,855.5	3,923.4	30.3	185.1	6,356.9

1 The carrying amounts include €1,587.4 million accounted for by investments held as financial assets.

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

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

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

The non-current securities are mainly fixed-income securities as well as listed shares. To a large extent, the non-current securities are held in special funds. For consolidation purposes, the individual securities in the special funds are shown separately in the consolidated balance sheet by type of investment. The non-current securities, loans and investments, which are held as financial assets, are available to cover the pension and nuclear provisions in the amount of €5,517.7 million (previous year: €4,864.4 million). Of the loans, €178.1 million (previous year: €128.0 million) is allocated to capital employed.

The loans consist of loans to affiliated entities amounting to €39.4 million (previous year: €4.0 million), loans to entities accounted for using the equity method of €115.8 million (previous year: €110.2 million), loans to investments held as financial assets of €6.9 million (previous year: €10.2 million) and to operative investments allocated to capital employed of €15.5 million (previous year: €7.0 million) and other loans allocated to capital employed of €7.4 million (previous year: €6.8 million).

(15) Trade receivables

in € million	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Trade receivables	3,976.8	331.3	4,308.1	4,515.7	302.0	4,817.7
of which receivables from affiliated entities	(61.0)	(0.0)	(61.0)	(32.9)	(0.0)	(32.9)
of which receivables from other investees and investors	(78.7)	(0.0)	(78.7)	(53.4)	(0.0)	(53.4)
of which receivables from entities accounted for using the equity method	(33.0)	(0.0)	(33.0)	(31.4)	(0.0)	(31.4)

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

Further details on loss allowances and default risks within trade receivables can be found in note (25) "Accounting for financial instruments".

(16) Other assets

in € million	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Income tax refund claims	156.8	0.8	157.6	102.2	0.8	103.0
Other tax refund claims	134.1	0.0	134.1	127.7	0.0	127.7
Derivatives	3,455.4	358.7	3,814.1	2,357.6	381.1	2,738.7
of which without hedges	(3,410.6)	(270.4)	(3,681.0)	(2,310.6)	(275.5)	(2,586.1)
of which cash flow hedge	(44.8)	(7.5)	(52.3)	(47.0)	(20.5)	(67.5)
of which fair value hedge	(0.0)	(80.8)	(80.8)	(0.0)	(85.1)	(85.1)
Finance lease receivables	2.8	17.9	20.7	3.2	16.2	19.4
Payments on account	36.7	8.5	45.2	61.3	14.2	75.5
Prepaid expenses	63.0	76.2	139.2	48.5	66.0	114.5
Miscellaneous assets	960.5	294.1	1,254.6	1,088.4	263.5	1,351.9
Total	**4,809.3**	**756.2**	**5,565.5**	**3,788.9**	**741.8**	**4,530.7**

Current and non-current income tax refund claims mainly include deductible tax on investment income, tax overpayments from the 2019 financial year and those from previous years that have not yet been fully assessed by the tax authorities.

Payments on account contain prepayments for electricity procurement agreements amounting to €16.9 million (previous year: €28.8 million).

Miscellaneous assets contain collateral for exchange-based and over-the-counter trading businesses amounting to €616.8 million (previous year: €806.3 million) as well as variation margins of €111.7 million (previous year: €58.1 million). A market interest rate is applied to the collateral provided for exchange-based trading businesses. This collateral will be used by the stock exchanges in the event that the obligations resulting from stock market transactions are not met. In addition, miscellaneous assets contain the surplus cover from benefit entitlements of €251.5 million (previous year: €208.8 million).

Further details on loss allowances and default risks within other assets can be found in note (25) "Accounting for financial instruments".

(17) Financial assets

Profit participation rights, funds and shares mainly consist of fixed-income and floating rate interest securities. Other current financial assets in the 2019 financial year and the previous year mainly relate to loans. In the reporting year, there were impairment losses recognised on other financial assets of €0.5 million (previous year: €0.0 million). The current financial assets are available to the operative business in the amount of €139.7 million (previous year: €200.6 million) and to cover pension and nuclear provisions in the amount of €299.4 million (previous year: €569.1 million). From the loans allocated to the current financial assets, €9.5 million (previous year: €5.0 million) is assigned to capital employed.

in € million	31/12/2019	31/12/2018
Profit participation rights, funds and shares	350.4	592.1
Other current financial assets	98.2	182.6
Total	**448.6**	**774.7**

(18) Cash and cash equivalents

Cash and cash equivalents relate primarily to bank deposits, largely in the form of time and day-to-day deposits whose term is less than three months and which are only subject to an immaterial risk of fluctuation in value. Cash and cash equivalents of €21.8 million (previous year: €10.3 million) are subject to restrictions on disposal.

Cash and cash equivalents are available to the operative business in the amount of €1,127.7 million (previous year: €1,954.0 million) and to cover pension and nuclear provisions in the amount of €236.1 million (previous year: €295.4 million).

(19) Equity

The development of equity and total comprehensive income is presented separately in the statement of changes in equity. The components of total comprehensive income are presented in the statement of comprehensive income.

Subscribed capital

The share capital of EnBW AG amounts to €708,108,042.24 as of 31 December 2019 (previous year: €708,108,042.24) and is divided into 276,604,704 (previous year: 276,604,704) no-par-value bearer shares, all of which have been fully paid in. The no-par-value shares each represent an imputed share of €2.56 per share (previous year: €2.56 per share) of the subscribed capital.

Capital reserve

The capital reserve contains the amounts received from the issue of shares of EnBW AG which exceed the imputed value of the shares.

Revenue reserves

The revenue reserves primarily contain the pro rata revenue reserves of the parent company and the other companies included in the consolidation after the date of acquisition.

Retained earnings/loss of EnBW AG

Taking account of the profit carried forward amounting to €103.0 million (previous year: €827.8 million) and the withdrawal from other revenue reserves amounting to €0.0 million (previous year: €252.0 million), retained earnings amounted to €383.6 million (previous year: €279.1 million). We will propose to the Annual General Meeting that a dividend of €0.70 (previous year: €0.65) per share be distributed from the retained earnings of EnBW AG. As of 31 December 2019, a total of 270,855,027.0 shares (previous year: 270,855,027.0 shares) were entitled to dividends. If the Annual General Meeting approves this proposal, the total amount distributed by EnBW AG for the 2019 financial year will be €189.6 million (previous year: €176.1 million).

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

Treasury shares

As of 31 December 2019, EnBW AG holds 5,749,677.0 (previous year: 5,749,677.0) treasury shares. The acquisition cost of the treasury shares amounting to €204.1 million (previous year: €204.1 million) was deducted from the carrying amount of the equity. The amount of share capital attributable to them is €14,719,173.12 (previous year: €14,719,173.12). This corresponds to 2.1% (previous year: 2.1%) of the subscribed capital. The treasury shares were acquired on 28 and 29 December 1998 based on the authorisation issued on 25 August 1998 by the Annual General Meeting pursuant to section 71 (1) No. 8 AktG. The acquisition was carried out with a view to planned cooperations with domestic and foreign energy suppliers, as well as industrial customers, that were to be underpinned by mutual capital participations.

The company has no rights or dividend entitlements from directly held treasury shares; they are not entitled to dividends. In accordance with the rulings of IFRS, the treasury shares are not recognised as securities, but are offset in one sum against equity in the balance sheet.

Other comprehensive income

Other comprehensive income comprises changes in the market value of financial assets in the category "measured at fair value in equity", changes in the market value of cash flow hedges, amounts recognised directly in equity for accounting for entities using the equity method, currency translation differences from the translation of financial statements of foreign entities and the revaluation of pensions and similar obligations.

For details on the changes recognised directly in equity on financial assets in the category "measured at fair value in equity" and of cash flow hedges, please refer to note (25) "Accounting for financial instruments".

Presentation of the components of other comprehensive income:

2019 in € million	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Financial assets at fair value in equity	Entities accounted for using the equity method	Shares of the shareholders of EnBW AG	Non-controlling interests	Total
Unrealised changes in market value in the current period	-1,007.0	17.3	79.4	37.6	-1.9	-874.6	-23.3	-897.9
Reclassification adjustments included in the income statement	0.0	0.0	82.9	-19.3	-1.4	62.2	-1.6	60.6
Reclassification to cost of hedged items	0.0	0.0	-19.5	0.0	0.0	-19.5	0.0	-19.5
Total other comprehensive income before tax	**-1,007.0**	**17.3**	**142.8**	**18.3**	**-3.3**	**-831.9**	**-24.9**	**-856.8**
Income tax	295.0	0.0	-47.0	-5.0	0.0	243.0	8.2	251.2
Total other comprehensive income	**-712.0**	**17.3**	**95.8**	**13.3**	**-3.3**	**-588.9**	**-16.7**	**-605.6**

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

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

in € million		2019			2018	
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Revaluation of pensions and similar obligations	-1,028.3	300.8	-727.5	-110.0	31.8	-78.2
Currency translation differences	24.4	0.0	24.4	17.6	0.4	18.0
Cash flow hedge	70.1	-51.3	18.8	-112.7	73.4	-39.3
Financial assets measured at fair value in equity	37.8	-11.2	26.6	-17.9	5.0	-12.9
Entities accounted for using the equity method	-1.9	0.0	-1.9	1.0	0.0	1.0
Total other comprehensive income	**-897.9**	**238.3**	**-659.6**	**-222.0**	**110.6**	**-111.4**

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

in € million		2019			2018	
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Currency translation differences	0.0	0.0	0.0	-12.5	0.0	-12.5
Cash flow hedge	61.7	7.2	68.9	-31.1	3.0	-28.1
Financial assets measured at fair value in equity	-19.2	5.7	-13.5	1.7	-0.3	1.4
Entities accounted for using the equity method	-1.4	0.0	-1.4	0.0	0.0	0.0
Total other comprehensive income	**41.1**	**12.9**	**54.0**	**-41.9**	**2.7**	**-39.2**

Non-controlling interests

Non-controlling interests are shares in Group companies held by third parties. They relate, in particular, to Energiedienst Holding AG, VNG AG, Stadtwerke Düsseldorf AG and Pražská energetika a.s. with their relevant subsidiaries, EnBW Hohe See GmbH & Co. KG and EnBW Baltic 2 GmbH & Co. KG (in the previous year: EnBW Baltic 2 S.C.S.).

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

in € million						2019
	Energiedienst Holding AG	VNG AG	Stadtwerke Düsseldorf AG	Pražská energetika a.s.	EnBW Hohe See GmbH & Co. KG	EnBW Baltic 2 GmbH & Co. KG
Capital share in % of non-controlling interests	33.33	25.79	45.05	30.16	49.89	49.89
Annual net profit from non-controlling interests	12.1	14.4	30.1	27.6	29.8	47.8
Dividends paid from non-controlling interests	7.5	10.5	45.8	19.8	0.0	34.2
Carrying amount of non-controlling interests	398.8	426.7	370.7	261.9	1,232.6	642.9
Balance sheet data						
Non-current assets	1,582.1	2,914.7	1,406.5	1,212.4	2,576.9	1,286.8
Current assets	346.8	4,365.2	488.1	211.4	136.1	246.8
Non-current liabilities	538.8	1,135.0	762.6	357.7	126.3	148.0
Current liabilities	198.0	4,382.4	377.8	193.5	50.6	13.6
Funds from operations (FFO)	77.9	120.1	121.2	160.8	73.9	176.6
Earnings data						
Adjusted EBITDA	91.0	184.9	165.9	192.9	75.6	195.1

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

in € million					2018
	Energiedienst Holding AG	VNG AG	Stadtwerke Düsseldorf AG	Pražská energetika a.s.	EnBW Baltic 2 S.C.S.
Capital share in % of non-controlling interests	33.33	25.79	45.05	30.16	49.89
Annual net profit from non-controlling interests	6.1	12.9	43.5	27.1	36.9
Dividends paid from non-controlling interests	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

(20) Provisions

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

in € million	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Provisions for pensions and similar obligations	174.0	7,481.3	7,655.3	163.6	6,387.3	6,550.9
Provisions relating to nuclear power	571.6	5,292.9	5,864.5	496.9	5,351.3	5,848.2
Other provisions	790.4	1,558.7	2,349.1	889.4	1,507.4	2,396.8
Other dismantling obligations	(33.8)	(664.5)	(698.3)	(8.2)	(580.8)	(589.0)
Provisions for onerous contracts	(117.5)	(468.2)	(585.7)	(95.4)	(526.9)	(622.3)
Other electricity and gas provisions	(350.6)	(40.9)	(391.5)	(449.1)	(-0.0)	(449.1)
Personnel provisions	(115.7)	(145.3)	(261.0)	(121.2)	(150.5)	(271.7)
Miscellaneous provisions	(172.8)	(239.8)	(412.6)	(215.5)	(249.2)	(464.7)
Total	**1,536.0**	**14,332.9**	**15,868.9**	**1,549.9**	**13,246.0**	**14,795.9**

Provisions for pensions and similar obligations

The provisions for pensions and similar obligations are recorded on the basis of actuarial valuations for the existing commitments for future and current post-employment benefits to current and former employees with a pension entitlement, as well as their surviving dependants. A substantial majority of the employees of the EnBW Group are entitled to pension payments from defined benefit pension plans. There are different post-employment provision schemes, which reflect how long the respective employees have served the company. In the case of employees who have already retired, the schemes in question are mainly final salary-based systems, in which the pension paid is calculated on the basis of the length of service, the rate of increase and the last pensionable income. As of 1 January 2005, this system was decoupled from the adjustments to the statutory pension insurance system as part of a reorganisation. The amount of the provisions for pensions and similar obligations accounted for by these final salary-based systems as of 31 December 2019 was €6,461.4 million (previous year: €5,678.6 million). The bulk of the active employees are covered by ongoing salary-based schemes and/or a pension component system in the form of an average salary plan, in which the pension paid consists of annual pension components. For employees who joined the company from 1998 onwards, the pension obligation is based solely on a pension component system. The related provisions amounted to €895.9 million (previous year: €623.5 million). In addition, the employees are granted energy-price reductions for the period in which they receive their pensions. Other commitments amounted to €46.5 million (previous year: €40.0 million). These mainly comprise fixed-sum commitments.

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

Number of employees	31/12/2019		31/12/2018	
	Staff with prospective pension entitlements	Pensioners	Staff with prospective pension entitlements	Pensioners
Closed systems dependent on final salary	7,289	13,186	7,789	13,271
Pension component systems	10,136	444	9,132	392
Other commitments	846	626	841	608

The obligations are measured above all on the basis of the length of service and remuneration of the employees. In addition, the company pension scheme includes defined benefit obligations under multi-employer plans using the same measurement basis. The contributions payable to the supplemental pension plan are made as a certain percentage of the respective employee's remuneration that is subject to the supplemental pension plan.

The amount of provisions earmarked for the defined benefit obligations corresponds to the present value of the expected future obligations. The provisions are calculated using actuarial methods. Plan assets were created in accordance with IAS 19.8 and will be used exclusively to cover pension obligations. They are deducted from the pension obligations. They exist in the form of contractual trust arrangements (CTA) in the EnBW Group. A CTA is a legally structured trustee arrangement for the capital cover of direct pension obligations with separated and spun-off assets.

The objective of asset management in this area is to cover the non-current provisions for pensions and similar obligations, as well as the Group's nuclear provisions, within an economically sensible period by means of appropriate financial investments. The investment goals indicated can be achieved with a minimum of risk. As of

31 December 2019, the dedicated financial assets for pension and nuclear provisions totalled approximately €6.3 billion (previous year: €6.3 billion) and were allocated to a total of nine asset classes. In addition to direct investments, financial investments were bundled within two master funds and the infrastructure funds consolidated in a SICAV (société d'investissement à capital variable, open-ended investment company).

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

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

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

in € million	2019	2020–2024[1]	2025–2029[1]	2030–2034[1]	2035–2039[1]	2040–2044[1]	2045–2049[1]	2050–2054[1]
Closed systems dependent on final salary	170.0	183.6	217.5	246.9	250.1	232.5	202.1	161.5
Pension component systems	2.2	3.1	7.9	16.1	27.1	38.5	56.4	72.4
Other commitments	1.5	1.7	1.8	1.8	1.6	1.3	1.0	0.8
Total	**173.7**	**188.3**	**227.2**	**264.9**	**278.8**	**272.2**	**259.5**	**234.7**

1 Average values for five years.

The calculations are based on a duration of 18.6 years (previous year: 17.5 years).

Changes in the underlying parameters for calculating the provisions for pensions and similar obligations would have the following impact on their amounts:

in € million	31/12/2019		31/12/2018	
	Pension component systems	Closed pension systems dependent on final salary	Pension component systems	Closed pension systems dependent on final salary
Discount rate +/- 0.5%	-147.6/178.4	-594.5/679.6	-98.8/118.6	-510.1/580.4
Salary trend +/- 0.5%	25.3/-23.4	154.0/-136.5	19.2/-17.8	148.0/-130.3
Pension trend +/- 0.5%	9.2/-7.5	491.4/-437.0	5.3/-5.0	418.6/-379.5
Life expectancy +/- 1 year	36.2/-35.8	332.0/-325.4	22.2/-22.3	281.1/-274.5

The parameters for the sensitivity analysis were chosen from the point of view of materiality. Their impact on the defined benefit obligation (DBO) was determined separately in each case to prevent interactions. The parameter variation is based on past experience and the long-term planning premises applied within the Group.

The material parameters (average values) for calculating the defined benefit obligations at the Group's domestic companies are shown below:

in %	31/12/2019	31/12/2018
Actuarial interest rate	1.10	1.80
Future expected wage and salary increases	2.60	2.70
Future expected pension increase	1.90	2.00

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

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

in € million	2019	2018
Current service cost	115.4	115.5
Past service costs	0.2	0.0
Interest income from plan assets	-19.6	-20.3
Interest costs	132.4	130.9
Recording in the income statement	**228.4**	**226.1**
Income from plan assets excluding interest income	-97.9	-37.3
Actuarial gains (-)/losses (+) from changes in demographic assumptions	19.0	71.1
Actuarial gains (-)/losses (+) from changes in financial assumptions	976.7	13.2
Actuarial gains (-)/losses (+) from experience-based restatements	130.5	63.0
Recording in the statement of comprehensive income	**1,028.3**	**110.0**
Total	**1,256.7**	**336.1**

The development of the pension provisions, categorised by the present value of the defined benefit obligation and the market value of the plan assets, is as follows:

in € million	31/12/2019	31/12/2018
Defined benefit obligation at the beginning of the financial year	7,538.7	7,388.5
Current service cost	115.4	115.5
Interest costs	132.4	130.9
Benefits paid	-276.3	-266.4
Actuarial gains (-)/losses (+)	1,126.2	147.3
Actuarial gains (-)/losses (+) from changes in demographic assumptions	(19.0)	(71.1)
Actuarial gains (-)/losses (+) from changes in financial assumptions	(976.7)	(13.2)
Actuarial gains (-)/losses (+) from experience-based restatements	(130.5)	(63.0)
Past service costs	0.2	0.0
Changes in the consolidated companies and currency adjustments	5.4	7.6
Reclassifications	-12.5	15.3
Present value of the defined benefit obligation at the end of the financial year	**8,629.5**	**7,538.7**
Fair market value of plan assets at the beginning of the financial year	1,196.6	1,226.6
Interest income	19.6	20.3
Appropriations to (+)/transfers from (-) plan assets[1]	9.7	8.9
Benefits paid	-102.6	-100.9
Income from plan assets excluding interest income	97.9	37.3
Changes in the consolidated companies, currency adjustments and reclassifications	4.5	4.4
Fair market value of plan assets at the end of the financial year	**1,225.7**	**1,196.6**
Surplus cover from benefit entitlements	251.5	208.8
Provisions for pensions and similar obligations	**7,655.3**	**6,550.9**

1 Applies almost exclusively to the employer's contributions.

The actuarial gains/losses from changes in demographic assumptions in the previous year were due to the application of the new 2018 G mortality tables devised by Prof. Dr. Klaus Heubeck.

Payments into the plan assets in the amount of €9.7 million (previous year: €9.1 million) are planned in the subsequent period.

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

in € million	31/12/2019	31/12/2018
Funded benefits	1,040.8	1,002.5
Full funding	(1,025.4)	(999.5)
Partial funding	(15.4)	(3.0)
Pension entitlements without asset funding	7,588.7	6,536.2

The present value of the benefit obligations, the fair market value of plan assets and the plan surplus or deficit have developed as follows:

in € million	31/12/2019	31/12/2018
Present value of benefit obligations	8,629.5	7,538.7
Fair market value of plan assets	1,225.7	1,196.6
Plan surplus	251.5	208.8
Plan deficit	7,655.3	6,550.9

The plan assets consist of the following asset classes:

in %	31/12/2019	31/12/2018
Shares	74.5	93.0
Fixed-income funds	2.0	2.0
Fixed-income securities	7.9	6.3
Land and buildings	2.0	1.9
Current financial assets	1.5	1.2
Other	12.1	-4.4
	100.0	100.0

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

The plan assets mainly have market price listings on active markets. The shares contain €0.0 million (previous year: €244.7 million) whose fair value was determined with the help of the discounted cash flow method in the absence of an active market.

Multi-employer plans

Multi-employer plans, which are defined benefit plans, are accounted for as defined contribution plans because the information required to allocate the obligations and plan assets to the respective participating employer and the corresponding expenses is not provided by the supplemental pension plans. The expenses from defined benefit obligations via multi-employer plans amounted to €16.1 million (previous year: €15.5 million). Appropriations of a similar magnitude are anticipated for the subsequent year. Potential future increases in contributions from obligations that are not fully funded will not have a significant effect on the EnBW Group.

The employer's contributions to statutory pension insurance in 2019 amounted to €110.8 million (previous year: €102.0 million).

Provisions relating to nuclear power

The provisions relating to nuclear power as of 31 December 2019 were formed for the conditioning and packaging of radioactive waste, as well as for the decommissioning and dismantling of the nuclear power plants.

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

in € million	31/12/2019	31/12/2018
Remaining operation and post-operation	2,271.8	2,264.5
Dismantling including preparation	1,406.6	1,580.8
Treatment of residual material, packaging of radioactive waste	1,799.3	1,664.5
Other	386.9	338.4
Total	**5,864.6**	**5,848.2**

Provisions relating to nuclear power are reported in accordance with section 5 (2) of the Ordinance on the Transparency of Dismantling Provisions and are discounted at a risk-free interest rate of on average around 0.03% (previous year: 0.6%). A corresponding rate of increase of costs of 2.4% (previous year: 2.4%) is applied. This results in a net interest (spread) of around -2.4% (previous year: -1.8%), which generally corresponds to the real interest rate. The change in this parameter led overall to an increase in the nuclear power provisions of €309.0 million (previous year: €390.5 million).

A reduction or increase of 0.1 percentage points in the real interest rate would increase the present value of the provisions by €45.9 million (previous year: €56.3 million) or reduce it by €41.3 million (previous year: €54.0 million).

The nominal amount of the provisions (without taking into account the effects of the discount rate and rate of increase of costs) as of 31 December 2019 was €4,770.1 million (previous year: €4,978.6 million).

The provisions for the decommissioning and dismantling of contaminated plants, as well as for fuel rods, are recognised at the discounted settlement amount at the time of commissioning. This is disclosed accordingly under the power plants and depreciated. Changes in estimates due to changes in assumptions concerning the future development of costs were generally recognised without effect on profit or loss by adjusting the appropriate balance sheet items by €101.8 million upwards (previous year: €240.4 million upwards). Changes in estimates relating to decommissioned power plants were recognised through profit or loss.

Decommissioning and dismantling costs are calculated on the basis of the scenario that assumes that the plants will be removed immediately. The provisions are partially offset by receivables amounting to €360.4 million (previous year: €334.4 million) which relate to dismantling obligations for nuclear power plants assumed by a contractual partner in connection with electricity supplies.

Other provisions

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

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

Other electricity provisions primarily relate to obligations from emission allowances.

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

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

The provisions developed as follows in the reporting year:

Statement of changes in provisions

in € million	As of 01/01/2019	Increases	Reversals	Accretion	Changes recognised in equity	Changes in consolidated companies, currency adjustments, reclassifications	Utilisation	As of 31/12/2019
Provisions relating to nuclear power[1]	5,848.2	155.3	108.5	212.0	101.8	-12.5	331.8	5,864.5
Other provisions	2,385.5	658.0	120.3	14.2	91.7	-11.3	668.7	2,349.1
Other dismantling obligations	(589.0)	(3.0)	(0.0)	(8.6)	(92.0)	(9.3)	(3.6)	(698.3)
Provisions for onerous contracts[2]	(611.0)	(68.3)	(3.5)	(0.0)	(0.0)	(-6.7)	(83.4)	(585.7)
Other electricity and gas provisions	(449.1)	(386.2)	(37.3)	(0.0)	(-0.4)	(0.0)	(406.1)	(391.5)
Personnel provisions	(271.7)	(105.4)	(5.6)	(1.6)	(0.1)	(-43.4)	(68.8)	(261.0)
Miscellaneous provisions	(464.7)	(95.1)	(73.9)	(4.0)	(0.0)	(29.5)	(106.8)	(412.6)
Total	**8,233.7**	**813.3**	**228.8**	**226.2**	**193.5**	**-23.8**	**1,000.5**	**8,213.6**

1 Utilisation breaks down into decommissioning and dismantling totalling €275.9 million, disposal of spent fuel rods totalling €54.5 million and waste totalling €1.4 million.
2 Opening balance adjusted by €11.3 million due to the effects of the first-time application of IFRS 16.

(21) Deferred taxes

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

in € million	31/12/2019		31/12/2018	
	Deferred tax assets[1]	Deferred tax liabilities[1]	Deferred tax assets[1]	Deferred tax liabilities[1]
Intangible assets	32.1	317.0	54.8	48.0
Property, plant and equipment	190.0	1,606.7	84.8	1,554.7
Financial assets	70.4	270.9	50.9	213.8
Other assets	74.4	31.0	72.1	28.3
Derivative financial instruments	1.9	109.9	0.7	114.7
Non-current assets	**368.8**	**2,335.5**	**263.3**	**1,959.5**
Inventories	64.3	3.2	14.1	11.4
Financial assets	0.0	19.4	0.8	39.4
Other assets	322.1	1,354.4	522.7	943.8
Current assets	**386.4**	**1,377.0**	**537.6**	**994.6**
Provisions	1,997.3	76.0	1,605.9	78.6
Liabilities and subsidies	252.3	148.6	187.3	167.1
Non-current liabilities	**2,249.6**	**224.6**	**1,793.2**	**245.7**
Provisions	199.5	35.3	249.3	29.6
Liabilities and subsidies	1,390.7	335.1	913.3	283.8
Current liabilities	**1,590.2**	**370.4**	**1,162.6**	**313.4**
Carryforwards of unused tax losses	36.5	0.0	41.0	0.0
Deferred taxes before netting	**4,631.5**	**4,307.5**	**3,797.7**	**3,513.2**
Netting	-3,417.5	-3,417.5	-2,738.4	-2,738.4
Deferred taxes after netting	**1,214.0**	**890.0**	**1,059.3**	**774.8**

1 Deferred tax assets and liabilities prior to netting.

In the 2019 financial year, €3,417.5 million (previous year: €2,738.4 million) in deferred tax assets was netted against deferred tax liabilities. Deferred taxes are netted with each other per consolidated tax group or entity if the conditions to do so have been satisfied.

In the measurement differences compared to the tax accounts, a negative balance from deferred taxes resulting from consolidation of €19.0 million (previous year: €22.1 million) is taken into account.

In addition, deferred tax assets on measurement differences compared to the tax accounts contain €2.1 million (previous year: €1.6 million) in non-current financial assets, €1,051.4 million (previous year: €750.6 million) in non-current provisions and €47.9 million (previous year: €150.9 million) in current liabilities and subsidies that were offset against equity.

The deferred tax liabilities on measurement differences compared to the tax accounts contain €7.0 million (previous year: €1.0 million) in non-current financial assets and €5.6 million (previous year: €63.9 million) in current financial assets that were offset against equity.

Deferred tax assets totalling €1,088.8 million (previous year: €838.2 million) were offset directly against equity under other comprehensive income as of 31 December 2019.

The deferred tax assets contain an amount of €108.4 million (previous year: €257.2 million) that was formed in connection with risks related to the tax audit.

In order to evaluate the deferred tax assets from deductible temporary differences in assets and carryforwards of unused tax losses, a tax planning forecast was derived based on the company's multi-year plans and corporate strategy. In this process, it was possible at EnBW and the main Group companies to prove, with sufficient certainty, that there would be adequate taxable income available in the planning horizon used as the basis for the tax planning forecast for the full capitalisation of deferred tax assets both from deductible temporary differences in assets and also carryforwards of unused tax losses. Carryforwards of unused tax losses are composed as follows:

in € million	31/12/2019		31/12/2018	
	Corporate income tax	Trade tax	Corporate income tax	Trade tax
Unlimited ability to carry forward the previously unused tax losses for which no deferred tax assets have been recognised in the balance sheet	175.1	231.3	190.8	171.0
Deferred taxes on the non-valued carryforwards of unused tax losses that would theoretically have to be formed	27.7	31.4	30.2	23.2
Unlimited ability to carry forward the existing unused tax losses for which deferred tax assets were formed[1]	102.1	138.6	136.7	143.8

1 Mainly concerns German companies.

Carryforwards of unused tax losses reduced the actual tax burden by €21.2 million (previous year: €2.8 million).

As of the reporting date, deferred tax assets of €25.0 million (previous year: €29.9 million) were recognised for Group companies that suffered losses in the reporting period or the previous period.

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

in € million	31/12/2019	31/12/2018
Corporate income tax (or comparable foreign tax)	16.9	21.6
Trade tax	19.6	19.4
Total	**36.5**	**41.0**

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

in € million	31/12/2019	31/12/2018
Opening balance	41.0	101.5
Utilisation of tax losses	-21.2	-2.8
Origination of tax losses (addition)	15.6	38.9
Change in consolidated companies	1.1	-96.6
Closing balance	**36.5**	**41.0**

In the reporting period, there were no deferred taxes on interest amounts carried forward as in the previous year.

No deferred tax liabilities were recognised on temporary differences of €14.1 million (previous year: €8.9 million) because any retained profits from subsidiaries based on the current planning will remain invested on a permanent basis or because it is not likely that these temporary differences will reverse in the foreseeable future.

(22) Liabilities and subsidies

Financial liabilities

Financial liabilities break down as of 31 December 2019 compared to the previous year as follows:

in € million[1]			31/12/2019			31/12/2018
	Current	Non-current	Total	Current	Non-current	Total
Hybrid bonds	0.0	2,978.5	2,978.5	0.0	1,975.2	1,975.2
Bonds	0.0	2,724.2	2,724.2	0.0	2,644.2	2,644.2
Commercial papers	0.0	0.0	0.0	250.0	0.0	250.0
Liabilities to banks	751.8	1,270.0	2,021.8	264.7	1,218.1	1,482.8
Other financial liabilities[2]	78.4	388.0	466.4	140.1	503.9	644.0
Financial liabilities	**830.2**	**7,360.7**	**8,190.9**	**654.8**	**6,341.4**	**6,996.2**

1 Please refer to note (25) "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.
2 Lease liabilities were reported under other financial liabilities up to the 2018 financial year in accordance with IAS 17, they are reported under other liabilities from the 2019 financial year in accordance with IFRS 16.

Of the non-current financial liabilities, €3,512.5 million (previous year: €2,786.2 million) have a term of between one year and five years, and €3,848.2 million (previous year: €3,555.2 million) have a term of more than five years.

Overview of the hybrid bonds

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
EnBW AG[1]	€1.000 million	€997.1 million	3.625%	02/04/2076
EnBW AG[2]	€725 million	€721.1 million	3.375%	05/04/2077
EnBW AG[2]	US$ 300 million	€266.2 million	3.003%[3]	05/04/2077
EnBW AG[4]	€500 million	€497.0 million	1.625%	05/08/2079
EnBW AG[5]	€500 million	€497.1 million	1.125%	05/11/2079
		€2,978.5 million		

1 Option for EnBW to redeem every five years after the first coupon date; the earliest possible date is 2 April 2021.
2 Option for EnBW to redeem in the three-month period before 5 April 2022, then on every coupon date.
3 After the swap into euros.
4 Option for EnBW to redeem in the three-month period before 5 August 2027, then on every coupon date.
5 Option for EnBW to redeem in the three-month period before 5 November 2024, then on every coupon date.

In July 2019, EnBW issued two green hybrid bonds, each with a volume of €500 million. The bonds have terms of 60 and 60.25 years, respectively. The issue date was 5 August 2019 and the final repayment date is 5 August and 5 November 2079, respectively. EnBW has both the right to call and redeem the bonds in the three-month period before 5 August 2027 and in the three-month period before 5 November 2024, respectively, and then at every coupon date. The first coupon date for the bond with the first call date in 2024 was 5 November 2019, while the first coupon date for the bond with the first call date in 2027 is 5 August 2020. The bonds have initial coupons of 1.125% and 1.625%, respectively.

All outstanding hybrid bonds include early redemption rights for EnBW and are subordinate to all other financial liabilities, although they have equal ranking with each other. EnBW has the option of suspending interest payments. However, these interest payments must be subsequently paid if EnBW pays dividends or services another hybrid bond. Based on their terms and conditions, all EnBW bonds qualify for 50% of the amount being recognised as equity in accordance with the methods used by the rating agencies Moody's and Standard & Poor's.

Overview of the senior bonds of EnBW

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
Public bonds				
EnBW International Finance B.V.	CHF 100 million	€92.0 million	2.250%	12/07/2023
EnBW International Finance B.V.	€500 million	€560.6 million [1]	4.875%	16/01/2025
EnBW International Finance B.V.	€500 million	€498.8 million	2.500%	04/06/2026
EnBW International Finance B.V.	€600 million	€590.1 million	6.125%	07/07/2039
Green bond				
EnBW International Finance B.V.	€500 million	€496.7 million	1.875%	31/10/2033
Private placements				
EnBW International Finance B.V.	€100 million	€98.5 million	2.875%	13/06/2034
EnBW International Finance B.V.	JPY 20 billion	€164.0 million	5.460% [2]	16/12/2038
EnBW International Finance B.V.	€100 million	€99.2 million	3.080%	16/06/2039
EnBW International Finance B.V.	€75 million	€74.7 million	2.080%	21/01/2041
EnBW International Finance B.V.	€50 million	€49.6 million	2.900%	01/08/2044
		€2,724.2 million		

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

In January 2019, EnBW International Finance made a private placement with a total volume of €75 million. The term is 22 years. The bond has been given a coupon of 2.080%.

In July and November 2018, EnBW repaid bonds that were due with volumes of CHF 100 million and €750 million, respectively, from the existing liquidity position.

Commercial paper programme

As of 31 December 2019, no funds were drawn under the commercial paper programme set up by EnBW and EnBW International Finance B.V. for short-term financing purposes (previous year: €250 million).

Liabilities to banks

Liabilities to banks increased in the 2019 financial year due to short-term money market loans taken out by EnBW and a subsidiary and the first-time consolidation of the Valeco Group. This was offset to some extent by scheduled repayments that were made by EnBW and its subsidiaries. The majority of the outstanding liabilities to banks are bilateral loan agreements.

The existing syndicated credit line for €1.5 billion (previous year: €1.5 billion) has a term until July 2021. The credit line remained undrawn as of 31 December 2019.

In addition, a further €0.7 billion (previous year: €1.1 billion) in bilateral free credit lines was available within the Group. The credit lines are not subject to any restrictions as regards their utilisation.

Liabilities to banks to the amount of €0.0 million (previous year: €4.8 million) are collateralised with real estate liens. Liabilities to banks to the amount of €286.7 million are collateralised with other types of securities (previous year: €108.6 million). This increase is attributable to the first-time consolidation of the Valeco Group.

Other financial liabilities

The item “other financial liabilities” primarily includes promissory notes and other loans from subsidiaries. In the previous year, this item also included finance lease agreements according to IAS 17.

Other liabilities and subsidies

Other liabilities and subsidies disclosed separately according to maturity in the balance sheet are combined in the notes to the financial statements.

in € million[1]	31/12/2019	31/12/2018
Non-current liabilities	2,142.7	1,660.5
Current liabilities	8,736.0	9,071.5
Liabilities	**10,878.7**	**10,732.0**
Non-current subsidies	13.3	14.4
Current subsidies	1.3	1.4
Subsidies	**14.6**	**15.8**
Non-current liabilities and subsidies	2,156.0	1,674.9
Current liabilities and subsidies	8,737.3	9,072.9
Liabilities and subsidies	**10,893.3**	**10,747.8**

1 The figures for the previous year have been restated.

Other liabilities as of 31 December 2019 break down as follows compared to the previous year:

in € million[1,2]	31/12/2019			31/12/2018		
	Current	Non-current	Total	Current	Non-current	Total
Trade payables	4,055.1	0.5	4,055.6	5,039.8	0.6	5,040.4
of which liabilities to affiliated entities	(52.2)	(0.0)	(52.2)	(27.0)	(0.0)	(27.0)
of which liabilities to other investees and investors	(70.4)	(0.0)	(70.4)	(64.9)	(0.0)	(64.9)
of which liabilities to entities accounted for using the equity method	(110.3)	(0.0)	(110.3)	(88.7)	(0.0)	(88.7)
Other deferred income	24.7	180.8	205.5	32.9	167.6	200.5
Liabilities from derivatives	3,161.7	301.4	3,463.1	2,193.2	347.1	2,540.3
of which without hedges	(3,124.0)	(259.5)	(3,383.5)	(2,152.0)	(311.6)	(2,463.6)
of which cash flow hedge	(35.5)	(41.9)	(77.4)	(41.2)	(35.5)	(76.7)
of which fair value hedge	(2.3)	(0.0)	(2.3)	(0.0)	(0.0)	(0.0)
Income tax liabilities	74.1	81.3	155.4	269.9	189.5	459.4
of which liabilities for audit risks	(1.7)	(81.3)	(83.0)	(2.6)	(189.5)	(192.1)
Contract liabilities	74.5	857.5	932.0	65.9	843.8	909.7
Miscellaneous liabilities	1,345.9	721.2	2,067.1	1,469.8	111.9	1,581.7
of which lease liabilities[3]	(117.4)	(582.2)	(699.6)	–	–	–
of which interest from back taxes	(0.0)	(0.0)	(0.0)	(0.6)	(0.0)	(0.6)
of which from other taxes	(160.1)	(0.2)	(160.3)	(170.7)	(0.0)	(170.7)
of which relating to social security	(14.6)	(0.0)	(14.6)	(15.0)	(0.0)	(15.0)
Other liabilities	**8,736.0**	**2,142.7**	**10,878.7**	**9,071.5**	**1,660.5**	**10,732.0**

1 The figures for the previous year have been restated.
2 Please refer to note (25) "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.
3 Lease liabilities were reported under other financial liabilities up to the 2018 financial year in accordance with IAS 17, they are reported under other liabilities from the 2019 financial year in accordance with IFRS 16.

Of the non-current financial liabilities, €1,194.2 million (previous year: €1,549.0 million) has a remaining term of between one year and five years, and €948.4 million (previous year: €111.5 million) has a remaining term of more than five years.

Trade payables include obligations for outstanding invoices amounting to €624.9 million (previous year: €829.3 million).

Contract liabilities primarily comprise advance payments received for construction cost subsidies and household connection costs. In addition, they include payments received for other contracts within the scope of application of IFRS 15.

Other liabilities include construction cost subsidies totalling €901.6 million (previous year: €876.8 million).

Miscellaneous liabilities mainly concern collateral for over-the-counter trading business (margin calls received) amounting to €316.1 million (previous year: €331.7 million), as well as exchange-based trading business (variation margins) of €140.3 million (previous year: €336.5 million), interest obligations from bonds amounting to €116.4 million (previous year: €110.3 million) and non-controlling interests in fully consolidated partnerships recorded as liabilities to the amount of €89.5 million (previous year: €89.3 million).

Subsidies mainly include investment cost subsidies.

in € million	31/12/2019	31/12/2018
Investment cost subsidies	6.7	7.7
Other subsidies from public authorities	7.9	8.1
Total	**14.6**	**15.8**

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

Assets held for sale

in € million	31/12/2019	31/12/2018
Intangible assets	0.0	0.4
Property, plant and equipment	0.9	5.8
Other financial assets	0.0	303.8
Other assets	0.0	32.3
Total	**0.9**	**342.3**

Liabilities directly associated with assets classified as held for sale

in € million	31/12/2019	31/12/2018
Deferred taxes	0.0	2.7
Provisions	0.0	2.7
Other liabilities and subsidies	0.0	15.8
Total	**0.0**	**21.2**

The property, plant and equipment held for sale in the reporting year refers mainly to pieces of land with buildings held for sale. This is allocated in the segment reporting to the Grids segment.

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

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

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

Other disclosures

(24) Earnings per share

Earnings per share is determined by dividing the profit or loss attributable to the shareholders of EnBW AG by the average number of shares outstanding. This indicator may be diluted by potential shares on account of share options or convertible bonds. As EnBW does not have any potential shares, the basic earnings per share is identical to the diluted earnings per share.

Earnings per share		2019	2018
Earnings from continuing operations	in € million	904.3	467.6
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(734.2)	(334.2)
Group net profit	in € million	904.3	467.6
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(734.2)	(334.2)
Number of shares outstanding (weighted average)	thousands	270,855	270,855
Earnings per share from continuing operations[1]	in €	2.71	1.23
Earnings per share from Group net profit[1]	in €	2.71	1.23
Dividend per share for the EnBW AG 2018 financial year	in €	–	0.65
Proposed dividend per share for the EnBW AG 2019 financial year	in €	0.70	–

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

(25) Accounting for financial instruments

Financial instruments include primary financial instruments and derivatives. On the assets side, primary financial instruments mainly consist of financial assets, trade receivables, other assets, and cash and cash equivalents. On the liabilities side, they consist of financial liabilities, trade payables and other liabilities.

Fair value and carrying amounts of financial instruments by measurement category

The table below shows the fair values and carrying amounts of the financial assets and financial liabilities contained in the individual balance sheet items. If not indicated separately, the fair value is measured recurrently.

31/12/2019		Hierarchy of input data					
in € million	Fair value	Level 1	Level 2	Level 3	Measured at amortised cost	Not in IFRS 7's field of application	Carrying amount
Financial assets	6,063.8	2,805.9	1,461.9	1,512.7	283.3	741.7	6,805.5
Measured at fair value through profit or loss	(4,248.6)	(1,580.5)	(1,155.4)	(1,512.7)			(4,248.6)
Measured at fair value in equity	(1,531.9)	(1,225.4)	(306.5)				(1,531.9)
Measured at amortised cost	(283.3)				(283.3)		(283.3)
Trade receivables	4,308.1				4,308.1		4,308.1
Measured at amortised cost	(4,308.1)				(4,308.1)		(4,308.1)
Other assets	4,762.8	5.8	3,808.3		948.7	802.8	5,565.6
Measured at fair value through profit or loss	(3,681.0)	(5.8)	(3,675.2)				(3,681.0)
Measured at amortised cost	(928.0)				(928.0)		(928.0)
Derivatives designated as hedging instruments	(133.1)		(133.1)				(133.1)
Lease receivables	(20.7)				(20.7)		(20.7)
Cash and cash equivalents	1,363.8				1,363.8		1,363.8
Measured at amortised cost	(1,363.8)				(1,363.8)		(1,363.8)
Assets held for sale						0.9	0.9
Total assets	**16,498.5**	**2,811.7**	**5,270.2**	**1,512.7**	**6,903.9**	**1,545.4**	**18,043.9**
Financial liabilities[1]	9,227.6				8,190.9		8,190.9
Measured at amortised cost	(9,227.6)				(8,190.9)		(8,190.9)
Trade payables	844.5				844.5	3,210.6	4,055.1
Measured at amortised cost	(844.5)				(844.5)		(844.5)
Other liabilities and subsidies	5,058.3	6.9	3,456.3		1,595.1	1,779.8	6,838.1
Held for trading	(3,383.5)	(5.0)	(3,378.5)				(3,383.5)
Measured at amortised cost	(895.5)				(895.5)		(895.5)
Derivatives designated as hedging instruments	(79.7)	(1.9)	(77.8)				(79.7)
Lease liabilities	(699.6)				(699.6)		(699.6)
Total liabilities	**15,130.4**	**6.9**	**3,456.3**	**0.0**	**10,630.5**	**4,990.4**	**19,084.1**

1 The fair value of bonds and of liabilities to banks must be allocated to hierarchical Level 1 and 2, respectively.

31/12/2018		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[2]	7,432.1				6,996.2		6,996.2
Measured at amortised cost	(7,332.3)				(6,896.4)		(6,896.4)
Carrying amount in accordance with IAS 17	(99.8)				(99.8)		(99.8)
Trade payables	802.4				802.4	4,237.4	5,039.8
Measured at amortised cost	(802.4)				(802.4)		(802.4)
Other liabilities and subsidies	3,588.5	99.7	2,440.6		1,048.2	2,119.3	5,707.8
Held for trading	(2,463.6)	(98.9)	(2,364.7)				(2,463.6)
Measured at amortised cost	(1,048.2)				(1,048.2)		(1,048.2)
Derivatives designated as hedging instruments	(76.7)	(0.8)	(75.9)				(76.7)
Liabilities directly associated with assets classified as held for sale						21.2	21.2
Total liabilities	**11,823.0**	**99.7**	**2,440.6**	**0.0**	**8,846.8**	**6,377.9**	**17,765.0**

1 This refers to a non-recurring measurement of the fair value due to the application of IFRS 5.
2 The fair value of bonds and of liabilities to banks must be allocated to hierarchical Level 1 and 2, respectively.

The calculation of fair values is explained in the section entitled accounting policies. The individual levels of the valuation hierarchy are as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: Other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly
- Level 3: Procedures that use input parameters which have a material impact on the recorded fair value and are not based on observable market data

At the end of each reporting period it is determined whether there is any reason to reclassify between the levels of the valuation hierarchy. A reclassification is carried out if the valuation procedure for measuring fair value is being changed and the input factors with significance for the valuation lead to an allocation to a different level. Due to the fact that prices quoted by brokers are used, securities with a fair value of €11.5 million were reclassified from Level 1 to Level 2 in the 2019 financial year.

The fair value of the assets in the "measured at fair value through profit or loss" measurement category amounts to €7,929.6 million (previous year: €6,283.2 million), of which €1,586.3 million (previous year: €1,373.3 million) is allocated to the first hierarchical level, €4,830.6 million (previous year: €3,494.4 million) to the second hierarchical level and €1,512.7 million (previous year: €1,415.5 million) to the third hierarchical level. The assets in the "measured at fair value in equity" measurement category have a fair value of €1,531.9 million (previous year: €1,688.9 million), of which €1,225.4 million (previous year: €1,484.1 million) is allocated to the first hierarchical level and €306.5 million (previous year: €204.8 million) to the second hierarchical level. Assets in the "measured at amortised cost" measurement category amount to €6,883.2 million (previous year: €8,528.3 million).

The fair values of investments in private equity companies are provided by the respective investment companies. The fair value depends on the changes in market value of the respective asset. The most up-to-date fair value available is taken as the basis in each case.

The following table shows the development of the financial instruments to be accounted for at fair value in accordance with Level 3:

in € million	As of 01/01/2019	Changes in 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 31/12/2019
Financial assets	1,415.5	12.1	61.1	-1.3	260.0	-234.8	0.0	1,512.6

The changes recognised through profit or loss of €61.1 million (previous year: €135.4 million) were recognised in the amount of €0.0 million (previous year: €50.5 million) in the investment result and in the amount of €61.1 million (previous year: €84.9 million) in the financial result. In the financial year, gains from Level 3 financial instruments were recognised in the investment result in the amount of €69.8 million (previous year: €106.9 million), of which, €69.5 million (previous year: €103.9 million) is accounted for by financial instruments still held on the reporting date.

Financial liabilities as of 31 December 2019 include bonds with a fair value of €6,729.5 million (previous year: €5,297.9 million) and liabilities to banks with a fair value of €2,031.7 million (previous year: €1,490.1 million).

Disclosures – offsetting financial assets and financial liabilities

The derivative financial instruments are part of standard market netting agreements. Master netting agreements exist with our business partners that were created with banks, in particular, on the basis of ISDA (International Swaps and Derivatives Association) agreements. Transactions concluded as part of commodity transactions are generally subject to EFET (European Federation of Energy Traders) agreements. The netting agreements are included in the calculations of fair value.

The following table contains the financial instruments netted in the balance sheet and those which, irrespective of that, are subject to a legally enforceable netting agreement. These financial instruments are contained in the non-netted amounts. In addition, the non-netted amounts also contain collateral to be furnished in advance for on-exchange transactions.

31/12/2019				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Trade receivables	3,750.1	-2,470.2	1,279.9	-559.2	0.0	720.7
Other assets	7,181.6	-5,583.3	1,598.3	-48.2	-316.1	1,234.0
Measured at fair value through profit or loss	(6,732.9)	(-5,159.4)	(1,573.5)	(-47.2)	(-316.1)	(1,210.2)
Measured at amortised cost	(357.3)	(-357.3)	(0.0)	(0.0)	(0.0)	(0.0)
Derivatives designated as hedging instruments	(91.4)	(-66.6)	(24.8)	(-1.0)	(0.0)	(23.8)
Trade payables	2,812.0	-2,470.2	341.8	-77.6	0.0	264.2
Other liabilities and subsidies	6,908.7	-5,583.3	1,325.4	-48.2	-566.1	711.1
Held for trading	(6,607.9)	(-5,283.6)	(1,324.3)	(-47.2)	(-566.0)	(711.1)
Measured at amortised cost	(157.8)	(-157.8)	(0.0)	(0.0)	(0.0)	(0.0)
Derivatives designated as hedging instruments	(143.0)	(-141.9)	(1.1)	(-1.0)	(-0.1)	(0.0)

31/12/2018				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Trade receivables	1,863.3	-1,579.4	283.9	-71.4	0.0	212.5
Other assets	5,647.2	-4,021.7	1,625.5	-311.8	-386.6	927.1
Measured at fair value through profit or loss	(5,286.4)	(-3,728.4)	(1,558.0)	(-307.8)	(-386.6)	(863.6)
Measured at amortised cost	(182.5)	(-182.5)	(0.0)	(0.0)	(0.0)	(0.0)
Derivatives designated as hedging instruments	(178.3)	(-110.8)	(67.5)	(-4.0)	(0.0)	(63.5)
Trade payables	1,897.9	-1,579.4	318.5	-71.4	0.0	247.1
Other liabilities and subsidies	5,412.0	-4,021.7	1,390.3	-311.8	-55.0	1,023.5
Held for trading	(5,014.6)	(-3,729.5)	(1,285.1)	(-307.8)	(-45.0)	(932.3)
Measured at amortised cost	(224.2)	(-195.7)	(28.5)	(0.0)	(0.0)	(28.5)
Derivatives designated as hedging instruments[1]	(173.2)	(-96.5)	(76.7)	(-4.0)	(-10.0)	(62.7)

1 The figures for the previous year have been restated.

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

Net gains or losses by measurement category

in € million	2019	2018
Financial assets and liabilities measured at fair value through profit or loss[1]	848.8	168.5
Financial assets measured at fair value in equity	17.9	3.4
Financial assets measured at amortised cost	-89.3	-10.5
Financial liabilities measured at amortised cost	0.0	0.0

1 The figures for the previous year have been restated.

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

The net gain (as in the previous year) posted in the "financial assets and liabilities measured at fair value through profit or loss" measurement category includes gains from marking to market and gains on the sale of financial instruments, as well as interest and currency effects.

In the reporting year, the net gain in the "financial assets measured at fair value in equity" measurement category was mainly due to loss allowances and gains on the sale of financial instruments (as in the previous year).

The net loss (as in the previous year) in the "financial assets measured at amortised cost" measurement category was due to loss allowances that exceeded the positive currency effects and the reversals of loss allowances in the reporting year.

In the 2019 financial year, earnings from changes in the market value of financial assets measured at fair value in equity were recognised in equity with a positive impact of €26.6 million (previous year: €17.9 million negative impact). Of the changes in market values posted with no impact on income, €13.3 million was transferred with a positive impact on earnings (previous year: €1.7 million negative impact on earnings) to the income statement.

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

Derivative financial instruments and hedging

Derivatives: Both physical and financial options and forward transactions are entered into to hedge risks in the commodity area, while forward transactions are used almost exclusively in the foreign exchange area. In the area of financing, swap transactions are concluded to minimise risks.

All derivatives held for trading are accounted for as assets or liabilities. They are measured at fair value.

Changes in the fair value of derivatives which are neither intended solely for own use nor qualify as cash flow hedges are recorded in the income statement.

Hedge accounting in accordance with IFRS 9 is applied in the finance area mainly for interest rate hedges for non-current liabilities. A previously used currency hedge for investments with a foreign functional currency expired in the reporting year. In the commodity area, fluctuations of future cash flows from planned procurement and sales transactions are hedged. The economic relationship between a hedged transaction and the hedging instrument is determined by the currency, amount or quantity and timing of the relevant cash flows, depending on the risk being hedged. Risks are hedged in their entirety and a 1:1 hedging relationship is used. In order to evaluate the expected effectiveness of the hedge, the hypothetical derivative methods, and the dollar offset method are used. Ineffectiveness in the hedging relationship may occur due to discounting effects.

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

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

Date of the reclassification of the result that was directly recognised in equity to the 2019 income statement

in € million	Fair value	2020	2021–2024	> 2024
Currency-related cash flow hedges	-5.8	9.8	17.9	-33.5
Commodity cash flow hedges	-99.5	-34.8	-64.7	0.0
Interest-related cash flow hedges	5.0	0.0	0.2	4.8

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

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

As of 31 December 2019, unrealised losses from derivatives amounted to €118.5 million (previous year: €250.5 million). The effective portion of the cash flow hedges was recognised directly in equity with a positive impact of €79.4 million in the reporting period (previous year: €114.1 million negative impact). From the ineffective portion of the cash flow hedges in 2019, there was income of €2.6 million (previous year: €1.0 million) and expenses from reclassifications from other comprehensive income in the amount of €82.9 million (previous year: €82.0 million) to the income statement. The reclassifications were made to revenue (decrease of €150.5 million, previous year: €219.5 million), cost of materials (decrease of €6.5 million, previous year: €51.0 million), other operating income (increase of €33.6 million, previous year: €57.4 million) and the financial result (increase of €23.8 million, previous year: €29.1 million). An amount of €22.3 million (previous year: €0.0 million) was reclassified from inventories to other comprehensive income. This led to a decrease in acquisition costs as in the previous year.

The amounts reclassified also included the de-designation of cash flow hedges of €22.3 million. As a result of changes in market prices, the expected highly probable generated volumes of electricity and the expected highly probable requirements for coal were reduced for the 2020 financial year.

As of 31 December 2019, existing hedged transactions that are covered by cash flow hedges with terms of up to around 57 years (previous year: up to 58 years) are included in the area of foreign currencies. In the commodity area, the terms of planned underlying transactions are generally up to four years (as in the previous year).

For optimisation purposes, hedging relationships are regularly redesignated as is customary in the industry.

Fair value hedges are entered into above all to hedge fixed-income liabilities against market price risks. Interest rate swaps are used as hedging instruments. With a fair value hedge, both the hedged transaction and the hedging instrument are measured with respect to the hedged risk at fair value through profit or loss. The change in the fair value of hedging instruments of €6.7 million was recognised in the income statement with a negative impact on earnings in the reporting year (previous year: €7.2 million). For hedged liabilities, the fluctuation in market values arising from the hedged risk is also recognised in profit or loss. In the reporting year, the fluctuations in market values totalling €6.7 million that resulted from the underlying transactions were measured through profit or loss with a positive impact on earnings (previous year: €7.2 million).

Hedges of net investments in foreign operations: Primary foreign currency bonds were used in the reporting year to hedge against foreign exchange risks from investments with a foreign functional currency. This hedging instrument expired in the 2019 financial year. As of 31 December 2019, €0.0 million (previous year: €38.0 million) arising from the hedges' exchange rate changes was reported within equity as unrealised losses under "currency translation". The hedging relationship was not ineffective.

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

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

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

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

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

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

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

31/12/2019	Nominal amount of the hedging instrument	Carrying amount of the hedging instrument		Balance sheet items containing the hedging instrument	Change in value to determine the ineffectiveness of the hedging instrument
in € million		Assets	Liabilities		
Cash flow hedges	**3,346.0**	**52.3**	**77.4**		**-80.2**
Commodity price risks	2,110.5	22.7	46.5	Other assets/ Other liabilities	-89.6
Forward transactions	(2,110.5)	(22.7)	(46.5)		(-89.6)
Currency risk	1,193.2	25.0	30.9	Other assets/ Other liabilities	10.6
Swap transactions	(1,193.2)	(25.0)	(30.9)		(10.6)
Interest rate risk	42.3	4.6	0.0		-1.2
Swap transactions	(42.3)	(4.6)	(0.0)		(-1.2)
Fair value hedges	**569.7**	**80.8**	**2.3**		**-6.7**
Interest rate risk	300.0	80.8	0.0	Other assets/ Other liabilities	-4.4
Swap transactions	(300.0)	(80.8)	(0.0)		(-4.4)
Exchange rates	269.7	0.0	2.3		-2.3
Swap transactions	(269.7)	(0.0)	(2.3)		(-2.3)

31/12/2018	Nominal amount of the hedging instrument	Carrying amount of the hedging instrument		Balance sheet items containing the hedging instrument	Change in value to determine the ineffectiveness of the hedging instrument
in € million		Assets	Liabilities		
Cash flow hedges	**3,620.3**	**67.5**	**76.7**		**44.4**
Commodity price risks	2,530.9	48.7	42.1	Other assets/ Other liabilities	-27.6
Forward transactions	(2,530.9)	(48.7)	(42.1)		(-27.6)
Currency risk	1,041.6	18.8	30.9	Other assets/ Other liabilities	73.2
Swap transactions	(1,041.6)	(18.8)	(30.9)		(73.2)
Interest rate risk[1]	47.8	0.0	3.7	Other assets/ Other liabilities	-1.2
Swap transactions	(47.8)	(0.0)	(3.7)		(-1.2)
Fair value hedges	**300.0**	**85.1**	**0.0**		**-6.6**
Interest rate risk	300.0	85.1	0.0	Other assets/ Other liabilities	-6.6
Swap transactions	(300.0)	(85.1)	(0.0)		(-6.6)
Hedges of net investments in foreign operations	**0.0**	**0.0**	**0.0**		**1.4**

1 The figures for the previous year have been restated.

The following tables present the amounts that relate to items designated as hedged transactions:

31/12/2019	Carrying amount of the transaction	Change in value of the hedged transaction that is contained in the carrying amount of the recognised transaction	Balance sheet items containing the transaction	Change in value to determine the ineffectiveness of the hedging instrument	Cash flow hedge reserve
in € million	Liabilities	Liabilities			
Cash flow hedges	**430.2**	**0.0**		**79.4**	**-110.8**
Commodity price risks	–	–		86.0	-100.2
Expected transactions	–	–		(86.0)	(-100.2)
Currency risk	430.2	0.0		-7.8	-10.6
Expected transactions	–	–	–	(-6.0)	(21.0)
Bonds	(430.2)	(0.0)	Financial liabilities	(-1.8)	(-31.6)
Interest rate risk	0.0	0.0		1.2	0.0
Expected transactions	–	(0.0)	Financial liabilities	(1.2)	(0.0)
Fair value hedges	**642.0**	**339.3**		**6.7**	**–**
Interest rate risk	372.3	72.3		4.4	–
Bonds	(372.3)	(72.3)	Financial liabilities	(4.4)	–
Currency risk	269.7	267.0		2.3	0.0
Swap transactions	(269.7)	(267.0)		(2.3)	(0.0)

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

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

2019	Hedging gains or losses in the reporting period recognised under other comprehensive income	Ineffectiveness of the hedging relationship recognised in profit or loss	Items on the statement of comprehensive income that contain the recognised ineffectiveness	Reclassification adjustments included in the income statement[1]	Items on the statement of comprehensive income affected by the reclassification
in € million					
Cash flow hedges	**79.4**	**2.6**		**-82.9**	
Commodity price risks	79.2	2.2	Other operating income	-110.4	Cost of materials/ revenue/other operating income
Interest rate risk	0.2	0.0		23.8	Financial result
Currency risk	0.0	0.4		0.0	

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

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

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

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

in € million[1]	31/12/2019	31/12/2018	Change
Derivatives used in cash flow hedges with a positive fair value	74.3	178.3	-104.0
Derivatives used in cash flow hedges with a negative fair value	174.6	173.2	1.4
	-100.3	**5.1**	**-105.4**
Deferred tax on change recognised directly in equity in derivatives used in cash flow hedges	31.7	76.1	-44.4
Hedge ineffectiveness	-2.6	-1.0	-1.6
Cascading effects	-21.7	-309.8	288.1
Effects realised from hedged transactions[2]	3.6	55.4	-51.8
Non-controlling interests	7.8	-3.2	11.0
Cash flow hedge (recognised in equity)	**-81.5**	**-177.4**	**95.9**

1 Before offsetting financial assets and financial liabilities according to IAS 32.
2 Of which €9.7 million (previous year: €44.5 million) will be reclassified to the income statement in 2020 (previous year: 2019 – 2020).

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

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

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

in € million	31/12/2019		31/12/2018	
	< 1 year	1–5 years	< 1 year	1–5 years
up to A1	220.5	40.0	23.3	37.1
up to A3	130.8	62.5	8.2	16.8
Baa1	47.1	44.5	61.6	33.1
up to Baa3	102.5	26.2	32.6	45.1
below Baa3	61.1	11.3	4.6	8.9
Total	**562.0**	**184.5**	**130.3**	**141.0**

Risk management system

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

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

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

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

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

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

Default risk

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

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

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

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

in € million	Financial assets measured at fair value in equity		Financial assets measured at amortised cost		
	Carrying amount	Expected 12-month credit loss	Carrying amount	Expected 12-month credit loss	Expected credit loss over the term – impaired creditworthiness
As of 01/01/2018	**1,538.7**	**-0.7**	**4,177.5**	**0.0**	**-41.0**
Net revaluation of the loss allowances	–	0.7	–	0.0	2.8
Newly acquired financial assets	–	-0.8	–	0.0	0.0
Repaid financial assets	–	0.1	–	0.0	3.5
As of 31/12/2018	**1,688.9**	**-0.7**	**3,710.6**	**-1.3**	**-34.7**
Net revaluation of the loss allowances	–	–	–	-1.1	5.8
Newly acquired financial assets	–	-0.7	–	-0.3	-2.5
Repaid financial assets	–	0.5	–	-0.5	0.0
As of 31/12/2019	**1,531.9**	**-0.9**	**2,575.1**	**-3.2**	**-31.4**

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

Trade receivables	31/12/2019			31/12/2018		
in € million	Carrying amount	Loss allowance	Loss rate (weighted average)	Carrying amount	Loss allowance	Loss rate (weighted average)
Not past due	3,844.0	-56.5	1.4%	4,653.1	-36.3	0.8%
Past due	464.1	-91.9		164.6	-99.8	
Due within 3 months	(380.5)	(-40.2)	9.6%	(75.0)	(-2.2)	2.8%
Due in between 3 and 6 months	(12.8)	(-3.8)	22.9%	(17.0)	(-4.6)	21.3%
Due in between 6 months and 1 year	(47.2)	(-13.3)	22.0%	(24.8)	(-2.0)	7.5%
Due in more than 1 year	(23.6)	(-34.6)	59.5%	(47.8)	(-91.0)	65.6%

Please refer to note (12) “Leases” for the loss allowances for lease receivables.

The maximum default risk for financial assets (including derivatives with positive market value) is equivalent to the carrying amounts recognised in the balance sheet. As of 31 December 2019, the maximum default risk amounts to €16.5 billion (previous year: €17.0 billion).

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

Liquidity risk

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

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

For liquidity management purposes, a finance plan based on cash flows is prepared centrally. As they arise, finance needs are covered by suitable financial instruments as part of the liquidity management. In addition to ensuring that liquidity is available on a daily basis, EnBW maintains further liquidity reserves of €2.2 billion (previous year: €2.6 billion) which are available at short notice. The amount of liquidity reserves is based on strategic liquidity planning, taking into account defined worst-case parameters. The liquidity reserve is made up of contractually agreed, syndicated and free credit lines with various terms to maturity. In view of the liquidity available and existing credit lines, EnBW does not consider there to be any concentration of risk.

For further details on financial liabilities refer to note (22) "Liabilities and subsidies".

The tables below show future undiscounted cash flows from financial liabilities and derivative financial instruments that affect the future liquidity situation of the EnBW Group.

The analysis includes all contractual obligations as of the reporting date 31 December 2019 that are disclosed in the balance sheet.

Interest and redemption payments are taken into consideration for debt instruments issued and liabilities to banks.

The interest payments on fixed-income financial instruments are based on the contractually agreed interest rates. For financial instruments subject to floating interest, the interest rates last fixed prior to 31 December 2019 were used.

Foreign currency financial instruments are translated at the respective spot price as of 31 December 2019.

Where derivatives are concerned, positive or negative market values are generally included, provided they give rise to a net cash outflow. Undiscounted cash flows determined on the basis of the following conditions:

- Swap transactions are only included in the liquidity analysis if they give rise to a net cash outflow.
- Forward exchange transactions are taken into account provided they give rise to a cash outflow.
- In the case of forward transactions, all calls are taken into account. The future cash flows are equivalent to the quantities measured at the contractually agreed price.
- Futures transactions are not included in the liquidity analysis because they are settled by daily variation margins.

Undiscounted cash flows as of 31/12/2019

in € million	Total	2020	2021	2022	2023	Cash flows > 2023
Non-derivative financial liabilities						
Debt instruments issued	7,402.2	256.1	1,199.3	1,112.0	206.3	4,628.5
Liabilities to banks	2,062.5	758.0	118.3	235.8	270.0	680.4
Other financial liabilities	495.0	83.7	38.9	93.9	16.4	262.1
Trade payables	844.5	844.5				
Lease liabilities	815.5	127.1	117.9	109.5	96.9	364.2
Other financial obligations	434.7	418.3	3.0	7.0	3.5	2.9
Derivative financial assets	4,820.0	3,438.1	672.4	586.6	95.5	27.4
Derivative financial liabilities	27,073.2	18,874.4	5,947.3	1,940.2	248.3	63.0
Financial guarantees	291.8	291.8				
Total	**44,239.4**	**25,092.0**	**8,097.1**	**4,085.0**	**936.9**	**6,028.5**

Undiscounted cash flows as of 31/12/2018

in € million[1]	Total	2019	2020	2021	2022	Cash flows > 2022
Non-derivative financial liabilities						
Debt instruments issued	6,316.7	184.4	184.0	1,183.7	1,096.5	3,668.1
Liabilities to banks	1,522.8	215.2	378.1	102.1	66.3	761.1
Finance lease liabilities	162.9	7.4	7.1	7.1	7.1	134.2
Other financial liabilities	590.9	141.4	42.2	27.4	92.0	287.9
Trade payables	802.4	802.4				
Other financial obligations	586.7	570.3	3.9	2.4	6.9	3.2
Derivative financial assets	11,269.7	8,510.3	2,075.3	650.8	21.9	11.4
Derivative financial liabilities	5,669.2	3,597.0	1,376.6	553.2	127.0	15.4
Financial guarantees	227.7	227.7				
Total	**27,149.0**	**14,256.1**	**4,067.2**	**2,526.7**	**1,417.7**	**4,881.3**

1 The figures for the previous year have been restated.

The increase in the liquidity risk for the derivative financial instruments is mainly due to a further increase in the volume of forward transactions. The development of market prices on the commodity markets and the valuation on the reporting date are the decisive factors for the classification of these derivatives as financial assets or financial liabilities. Because only the derivatives that cause a cash outflow are presented and the netting agreements concluded with numerous trading partners as part of our risk management activities are also omitted here, EnBW's actual liquidity risk from derivatives is not revealed directly.

Market price risks

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

The main foreign currency risks of EnBW result from procurement and hedging of prices for its fuel requirements, gas and oil trading business and liabilities denominated in foreign currency. Other currency risks resulting from investments in shares, share-based investment funds, fixed-income securities and private equity companies are taken into account under other price risks due to their minor significance for the dedicated financial assets. The currency risk is hedged with the help of appropriate standardised financial instruments – in the reporting period, forward exchange contracts in particular – on the basis of continuously monitored exchange rate forecasts. Foreign exchange risks are hedged centrally. EnBW principally has exposure to currency risks from US dollars and Swiss francs. The deviation used to derive information on the currency sensitivity is determined on the basis of an annual analysis of the average deviation in the exchange rates.

The net assets tied up at foreign Group entities outside the eurozone, and their related translation risks, are hedged against exchange rate fluctuation only in exceptional cases.

The effects of changes in exchange rates on the net profit/loss for the year and on equity are analysed below. The analysis was made assuming that all other parameters, such as interest rates, remain unchanged. The analysis includes financial instruments to the amount of €1,222.8 million (previous year: €1,546.4 million) whose exchange rate exposure might affect equity or the net profit/loss for the year. The information presented in the table shows only the effects on the net profit/loss for the year and on equity in the case of an increase in the exchange rates, a reduction of the same amount would have the opposite effect.

These are mainly hedging instruments from cash flow hedges and from hedges of net investments in foreign operations, stand-alone derivatives and receivables and liabilities denominated in foreign currency.

Currency risk

in € million			31/12/2019	31/12/2018
Euros against all currencies	+5% (previous year: +5%)	Profit for the year	-12.9	-7.3
	+5% (previous year: +5%)	Equity	19.8	28.6
of which euro/US dollar	+5% (previous year: +5%)	Profit for the year	(-14.5)	(-8.9)
	+5% (previous year: +5%)	Equity	(16.8)	(25.7)
of which euro/Swiss franc	+5% (previous year: +5%)	Profit for the year	(1.6)	(1.6)
	+5% (previous year: +5%)	Equity	(3.0)	(2.9)

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

Interest-induced changes in the market value of interest-bearing securities in the “measured at fair value through profit or loss” and “measured at fair value in equity” measurement categories are presented under other price risks for shares, share-based investment funds, interest-bearing securities and investments in private equity companies.

On the assets side, there is interest exposure from bank balances and on the liabilities side from floating-rate liabilities to banks. In addition, there are interest rate risks from derivatives in the form of swap transactions. EnBW mainly has interest rate risks in the eurozone. The analysis includes financial assets of €1,441.4 million (previous year: €1,658.3 million) and financial liabilities of €1,926.5 million (previous year: €1,555.2 million), whose interest rate exposure might affect equity or the net profit/loss for the year.

The effects of changes in interest rates on the net profit/loss for the year and on equity on the reporting date are analysed below. The situation on the reporting date for the period is decisive for the quantitative information; the effects for one year on the current reporting period are presented. The analysis was made assuming that all other parameters, such as exchange rates, remain unchanged. The analysis includes only financial instruments whose interest rate exposure might affect equity or the net profit/loss for the year. For analysis purposes, the average change in yield over the last ten years was used.

Interest rate risk

in € million		31/12/2019	31/12/2018
Increase in interest rate +40 basis points (previous year: +45 basis points)	Profit for the year	-3.2	-1.0
of which interest rate derivatives	Profit for the year	(-0.9)	(-1.1)
of which cash at banks with a floating interest rate	Profit for the year	(5.1)	(6.7)
of which primary financial debt with a floating interest rate	Profit for the year	(-7.4)	(-6.6)
Decrease in interest rate -40 basis points (previous year: -45 basis points)	Profit for the year	3.0	0.7
of which interest rate derivatives	Profit for the year	(0.9)	(1.1)
of which cash at banks with a floating interest rate	Profit for the year	(-5.1)	(-6.7)
of which primary financial debt with a floating interest rate	Profit for the year	(7.2)	(6.3)

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

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

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

The analysis does not include any derivatives that are intended for the purpose of receipt or delivery of non-financial items in accordance with the entity's expected purchase, sale or usage requirements (own use), which are not required to be accounted for in accordance with IFRS 9. Our generation and distribution positions are not included in the analysis either.

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

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

Price risks

in € million			31/12/2019	31/12/2018
Electricity	+20% (previous year: +25%)	Profit for the year	-8.4	-103.3
	+20% (previous year: +25%)	Equity	-92.6	-249.8
Coal	+25% (previous year: +20%)	Profit for the year	12.1	34.2
	+25% (previous year: +20%)	Equity	85.5	104.8
Oil	+25% (previous year: +20%)	Profit for the year	5.0	4.9
	+25% (previous year: +20%)	Equity	0.0	0.0
Gas	+25% (previous year: +20%)	Profit for the year	34.2	-22.0
	+25% (previous year: +20%)	Equity	0.0	0.0
Emission allowances	+45% (previous year: +50%)	Profit for the year	112.9	295.2
	+45% (previous year: +50%)	Equity	150.6	51.2

EnBW has investments in shares, share-based investment funds, fixed-income securities and private equity companies that pose price risks for the company, which include, amongst other things, currency risk. When selecting securities, the company always attaches particular importance to high marketability and a good credit rating. As of the reporting date 31 December 2019, shares, share-based investment funds, fixed-income securities and investments in private equity companies totalling €5,661.1 million (previous year restated: €5,250.1 million) were exposed to market risk.

The effects of price risks from shares, share-based investment funds, interest-bearing securities and investments in private equity companies (real estate, infrastructure and private equity funds) on the net profit/loss for the year and on equity are analysed below. The analysis was made assuming that all other parameters, such as interest, remain unchanged. The analysis includes financial instruments whose price risks might affect equity or the net profit/loss for the year. The analysis of the market price risk of shares, share-based investment funds and investments in private equity funds was carried out based on historical volatility. A standard deviation was assumed as a realistic scenario. The market risk of fixed-income securities was analysed by modified duration. Taking into account the changes in interest rates assumed (see interest rate risk) in relation to the fair value of fixed-income securities, results are determined in absolute figures. The premises on which the sensitivity analysis is based are 10% for shares, share-based investment funds and investments in private equity funds (previous year: 10%) and 1% for interest-bearing securities and investments in real estate and infrastructure funds (previous year: 1%).

In the risk scenario in question, the net profit/loss for the year would improve by €217.8 million (previous year restated: €196.5 million). The hypothetical change in profit/loss for the year is primarily due to shares, share-based investment funds and investments in private equity companies. In the risk scenario in question, the equity would increase by €15.3 million (previous year: €16.9 million). Of the hypothetical change in equity, €15.3 million (previous year: €16.9 million) is accounted for by fixed-income securities. The information presented shows only the effects on the net profit/loss for the year and on equity in the case of an increase in the values of shares, share-based investment funds, interest-bearing securities and investments in private equity companies, a reduction of the same amount would have the opposite effect.

(26) Contingent liabilities and other financial commitments

The disclosures on contingent liabilities and other financial commitments relate to the nominal values.

Contingent liabilities

After the amended German Atomic Power Act (AtG) and the amended Directive on the Coverage Provisions in the Nuclear Power Industry (AtDeckV) came into force on 27 April 2002, German nuclear power plant operators are required to provide evidence of coverage provision up to a maximum amount of €2.5 billion per case of damage for risks related to nuclear power. Of this provision, €255.6 million is covered by uniform third-party liability insurance. Nuklear Haftpflicht GbR now only provides solidarity coverage in respect of claims relating to officially prescribed evacuation measures ranging from €0.5 million to €15.0 million. In proportion to their shares in the nuclear power plants, Group companies have undertaken to provide the operating companies responsible for the nuclear power plants with sufficient liquidity to enable them to meet their obligations arising from their membership of Nuklear Haftpflicht GbR at any time.

In order to fulfil the subsequent coverage provision amounting to €2,244.4 million per case of damage, EnBW and the other parent companies of the German nuclear power station operators reached a solidarity agreement on 11 July, 27 July, 21 August and 28 August 2001, which was extended with agreements on 25 March, 18 April, 28 April and 1 June 2011, to provide a liable nuclear power station operator with sufficient funding – after exhausting its own possibilities and those of the Group parent companies – to meet its payment obligations in the event of a claim for damages. According to the agreement, EnBW has to bear a 25.187% share of the liability coverage, plus 5% for costs to settle any claims for damages, as of 31 December 2019, and 20.450% as of 1 January 2020, as the Biblis B, Unterweser, Krümmel, Neckarwestheim 1 and Philippsburg 1 nuclear power plants are no longer included. Sufficient provisions have been made to ensure this liquidity and are taken into account in the liquidity plan.

As of 31 December 2019, the Neckarwestheim 1 and Philippsburg 1 nuclear power plants are no longer included in the solidarity agreement. Due to the removal of all of the fuel rods from the power plants, the coverage provision for the Neckarwestheim 1 nuclear power plant and the coverage provision for the Philippsburg 1 nuclear power plant where each fixed at €15.0 million in 2019.

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

EnBW Energie Baden-Württemberg AG, Kernkraftwerk Obrigheim GmbH and EnBW Kernkraft GmbH are members of the European Mutual Association for Nuclear Insurance (EMANI). Comprehensive property insurance has been taken out with EMANI for all nuclear power plants operated by EnBW. In the event that the guarantee fund held by EMANI is exhausted, or if EMANI no longer holds the legally stipulated liquidity, EMANI can demand the payment of an amount up to six times the annual net premium from the members in accordance with its statutes. The annual net premium for all nuclear power plant blocks operated by EnBW is currently €0.953 million.

In addition, there are other contingent liabilities at the EnBW Group amounting to €627.7 million (previous year: €2,469.7 million). This amount includes sureties of €591.1 million (previous year: €2,371.4 million). This decrease is due to the change in consolidation of EnBW Hohe See. The amount also includes €10.9 million (previous year: €13.2 million) for pending litigation where no provisions were made because the counterparty is unlikely to win the case. More detailed explanations on important legal risks for which contingent liabilities are reported can be found in the risk report. In addition, various court cases, investigations by authorities or proceedings and other claims are pending against EnBW. The chances of these being successful are, however, remote and they are therefore not reported under contingent liabilities.

Other financial commitments

The EnBW Group has long-term purchase commitments for natural gas, coal and other fossil fuels, as well as for electricity. In addition, there are commitments from long-term agreements for the purchase, conversion, enrichment, production and disposal of uranium. The total volume of these commitments amounts to €29.5 billion (previous year: €32.3 billion), of which €5.2 billion (previous year: €6.9 billion) is due within one year.

Miscellaneous other financial commitments break down as follows:

in € million	31/12/2019			Of which due in	31/12/2018
		< 1 year	1–5 years	> 5 years	
Financial commitments from rent and lease agreements	159.0	26.4	56.6	76.0	499.7
Purchase commitments	903.6	768.4	126.2	9.0	924.9
Investment obligations for intangible assets and property, plant and equipment	1,213.8	632.7	510.3	70.8	1,142.7
Financial commitments from corporate acquisitions[1]	535.5	259.2	229.9	46.4	476.1
Other financial commitments	407.0	114.5	151.6	140.9	291.2
Total	3,218.9	**1,801.2**	**1,074.6**	**343.1**	**3,334.6**

1 Financial commitments from corporate acquisitions < 1 year include investments held as financial assets amounting to €133.5 million (previous year: €143.8 million).

(27) Significant restrictions

As a result of regulatory and legal requirements, the ability of the Group to transfer assets within the Group is limited to some extent.

In accordance with the German Energy Industry Act (EnWG), independent transmission operators must possess the financial, technical, material and human resources required to operate the transmission grid. For this purpose, the independent transmission operators must be the owner, either directly or through shareholdings, of all of the assets required to operate the transmission grid. As of 31 December 2019, the EnBW Group held a total of €3,002.9 million (previous year: €2,569.6 million) in assets restricted due to these legal regulations.

(28) Audit fees

The fees of the Group auditor Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, which are recorded as an expense, break down as follows:

in € million[1]	2019	2018
Statutory audit	3.1	3.4
Other attestation services	0.5	1.6
Tax advisory services	0.7	0.2
Other services	0.5	0.4
Total	4.8	**5.6**

1 The audit was carried out by KPMG AG Wirtschaftsprüfungsgesellschaft in the previous year.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft audited the annual and consolidated financial statements of EnBW AG. In addition, attestation services that are not prescribed by law were provided relating to financial information for the reviews of interim financial statements and to voluntary audits of annual and consolidated financial statements. As part of the audit services, there was an audit of the IT systems that is not prescribed by law. Furthermore, other audits specific to the sector of the economy that are not prescribed by law, such as audits according to EEG, KWKG and the Concession Fee Ordinance, were carried out. Attestation services that are not prescribed by law relating to capital market transactions comprised the issuing of one comfort letter. Agreed investigative measures were also carried out.

In connection with matters relating to value added tax and ongoing income taxes, EnBW AG was also provided with tax advice by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft. In addition, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft provided advisory services in connection with the initial introduction of accounting standards and advised us on business transactions as well as other economic matters.

(29) Exemptions pursuant to section 264 (3) or section 264b HGB

The following German subsidiaries made use of some or all of the exemption provisions of section 264 (3) HGB or section 264b HGB in the 2019 financial year:

Exemptions pursuant to section 264 (3) HGB

- EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe
- EnBW France GmbH, Stuttgart
- EnBW He 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 Renewables International GmbH, Stuttgart
- EnBW Rückbauservice GmbH, Stuttgart
- EnBW Telekommunikation GmbH, Karlsruhe (formerly EnBW Omega Zweiundfünfzigste Verwaltungsgesellschaft mbH, Karlsruhe)
- 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
- Plusnet GmbH, Cologne
- RBS wave GmbH, Stuttgart
- symbiotic services GmbH, Karlsruhe
- TPLUS GmbH, Karlsruhe
- u-plus Umweltservice GmbH, Karlsruhe
- Ventelo GmbH, Cologne

Exemptions pursuant to section 264b HGB

- EnBW City GmbH & Co. KG, Obrigheim
- Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim
- NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim
- Plusnet Infrastruktur GmbH & Co. KG, Cologne

(30) Declaration of compliance with the German Corporate Governance Code

The Board of Management and Supervisory Board of EnBW Energie Baden-Württemberg AG issued the declaration of compliance with the German Corporate Governance Code required by section 161 AktG on 4 December 2019 and made it permanently available to shareholders on the Internet at www.enbw.com/german-corporate-governance-code.

(31) Share deals and shareholdings of key management personnel

The company did not receive any notices in the 2019 financial year about transactions involving EnBW shares, EnBW bonds, emissions allowances or any associated financial instruments concerning persons in managerial positions or those persons closely related to them in accordance with section 19 (1) EU Market Abuse Regulation 596/2014 (MAR).

(32) Notes to the cash flow statement

The cash flow statement is split up into cash flows from operating, investing and financing activities. The balance of the cash flow statement represents the change in cash and cash equivalents during the 2019 financial year amounting to €-1,058.2 million (previous year: €-975.5 million).

Cash and cash equivalents almost exclusively relate to bank deposits, largely in the form of time and day-to-day deposits where the term is less than three months and which are only subject to an immaterial risk of fluctuation in value. In the 2019 financial year, operating cash flow amounted to €707.0 million (previous year: €827.6 million).

The income tax paid in the reporting year totalled €409.1 million (previous year: €270.7 million).

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

in € million	2019	2018
Income from the reversal of construction cost subsidies	-66.7	-65.7
Impairment losses	93.3	40.1
Reversal of impairment losses on property, plant and equipment and intangible assets	-4.5	-22.1
Expense from the reversal of capitalised costs for acquiring contracts	14.8	17.0
Write-ups/write-downs on inventories and valuations of associated derivatives	37.2	8.2
Other	-9.3	-5.1
Total	**64.8**	**-27.6**

In the 2019 financial year, €140.5 million (previous year: €177.4 million) was distributed to third-party shareholders of Group companies.

Capital expenditure on intangible assets and property, plant and equipment includes €96.9 million (previous year: €64.7 million) for intangible assets and €1,850.9 million (previous year: €1,304.8 million) for property, plant and equipment. The acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations item includes €752.8 million (previous year: €62.9 million) for fully consolidated companies and €382.3 million (previous year: €234.7 million) for entities accounted for using the equity method.

The purchase prices paid in cash for the acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations totalled €1,212.9 million (previous year: €298.0 million). In the reporting year, €77.8 million (previous year: €0.4 million) cash and cash equivalents were acquired in the course of share purchases. The cash payments in the reporting period were primarily related to the acquisition of Valeco and Plusnet. Intangible assets of €148.2 million, property, plant and equipment of €146.5 million, financial assets of €282.6 million, other current assets of €66.4 million, non-current liabilities of €250.9 million and current liabilities of €33.5 million were acquired with the purchase of Valeco. Intangible assets of €114.2 million, property, plant and equipment of €93.4 million, financial assets of €14.5 million, other non-current assets of €4.2 million, other current assets of €83.2 million, non-current liabilities of €77.4 million and current liabilities of €72.2 million were acquired with the purchase of Plusnet. In addition, there were capital increases at entities accounted for using the equity method. The cash payments in the comparative period primarily concerned capital increases at entities accounted for using the equity method and payments for the acquisition of EnBW Sverige Vind (formerly Power Wind Partners). Intangible assets of €2.4 million, property, plant and equipment of €66.5 million, other current assets of €3.9 million, non-current liabilities of €6.7 million and current liabilities of €2.9 million were acquired with the purchase.

The sale prices from the sale of subsidiaries, entities accounted for using the equity method and interests in joint operations totalled €108.5 million (previous year: €359.4 million). Cash and cash equivalents of €40.2 million (previous year: €61.5 million) were relinquished in the reporting year as a result of the sale of shares. In the reporting period, the cash received mainly resulted from the sale of the shares in EMB Energie Mark Brandenburg. Other cash was received from the sale of shares in Stuttgart Netze Betrieb. Due to the sale of Stuttgart Netze Betrieb, assets held for sale of €80.7 million and liabilities directly associated with assets classified as held for sale of €69.9 million were derecognised. In addition, there were capital reductions at entities accounted for using the equity method. In the comparative period, the cash received mainly resulted from the sale of shares in VNG Norge and its subsidiary VNG Danmark. Due to the sale of VNG Norge, assets held for sale of €567.4 million and liabilities directly associated with assets classified as held for sale of €271.5 million were derecognised. A contingent payment of €29.6 million was not included in the sale price. In addition, there were capital reductions at entities accounted for using the equity method.

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

in € million[1]	2019	2018
Cash flow from investing activities	-2,317.1	-895.8
- Interest and dividends received	-286.5	-284.6
- Cash received/paid for investments in connection with short-term finance planning	20.9	-10.5
- Net investments held as financial assets	17.3	-52.0
- Net investments in property held as financial assets	-4.8	-14.9
- Net investments in other assets	-94.1	-51.4
- Acquired/relinquished cash	-37.6	61.1
+ Payments for alterations of capital in non-controlling interests	59.1	-51.8
+ Cash received/paid for changes in ownership interest without loss of control	22.6	4.6
+ Cash received/paid from participation models	-8.3	-4.7
Cash payments for net investments	**-2,628.5**	**-1,300.0**

1 The figures for the previous year have been restated.

The dedicated financial assets contribution of €19.2 million (previous year: €-34.0 million) is reported separately for the representation of the retained cash flow in the liquidity analysis in the section “The EnBW Group” of the management report.

Liabilities included in the cash flow from financing activities item in the cash flow statement can be reconciled as follows:

in € million	As of 01/01/2019	Cash-relevant changes	Non-cash-relevant changes						As of 31/12/2019
			Changes in the group of consolidated companies	Changes in accounting policies	Currency effects	Addition to leases	Accrued interest	Other changes	
Hybrid bonds	1,975.2	993.7	0.0	0.0	5.0		0.0	4.5	2,978.4
Bonds	2,644.2	74.5	1.3	0.0	8.5		0.0	-4.4	2,724.1
Commercial papers	250.0	-250.0	0.0	0.0	0.0		0.0	0.0	0.0
Liabilities to banks	1,482.8	370.0	160.5	0.0	2.0		7.2	-0.6	2,021.9
Other financial liabilities	644.0	-95.5	38.9	-99.8	0.8		9.8	-31.9	466.3
Financial liabilities[1]	**6,996.2**	**1,092.7**	**200.7**	**-99.8**	**16.3**	**0.0**	**17.0**	**-32.4**	**8,190.7**
Other liabilities (interest on bonds)	110.3	-98.8	0.0	0.0	0.0		104.9	0.0	116.4
Other liabilities (leases)[2]	0.0	-120.4	92.3	620.7	0.8	94.0	0.0	12.1	699.5
Total	**7,106.5**	**873.5**	**293.0**	**521.0**	**17.1**	**94.0**	**121.9**	**-20.3**	**9,006.6**

1 The cash-relevant changes include €16.9 million from interest payments.
2 The cash-relevant changes include €12.1 million from interest payments.

in € million	As of 01/01/2018	Cash-relevant changes	Non-cash-relevant changes					As of 31/12/2018
			Changes in the group of 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[1]	618.9	6.5	3.5	0.3	0.0	4.0	10.8	644.0
Financial liabilities[2]	**7,258.8**	**-307.5**	**10.3**	**25.4**	**-7.8**	**9.1**	**7.9**	**6,996.2**
Other liabilities (interest on bonds)	114.7	-214.9	0.0	0.0	0.0	210.5	0.0	110.3
Total	**7,373.5**	**-522.4**	**10.3**	**25.4**	**-7.8**	**219.6**	**7.9**	**7,106.5**

1 Other financial liabilities include the lease liabilities up to 2018.
2 The cash-relevant changes include €7.2 million from interest payments.

For further explanations on the cash flow statement, please refer to the details given in the management report on the financial position of the EnBW Group.

(33) Additional disclosures on capital management

Capital management at EnBW covers both the management of the net debt of €12,852.4 million (previous year: €9,586.6 million) and the liabilities and financial assets. Financial assets include non-current securities and loans, as well as current financial assets and cash and cash equivalents. On the liabilities side, capital management covers financial liabilities, as well as provisions for pensions and those relating to nuclear power.

By limiting cash-relevant net investment to the level of the adjusted retained cash flow of €1,485.7 million (previous year: €1,199.1 million), measured by the internal financing capability of 82.6% (previous year: 92.2%), EnBW controls the level of net financial debt irrespective of the interest rate-related volatility of the pension and nuclear provisions. For further explanations, please refer to the details given in the management report on the liquidity analysis of the EnBW Group. EnBW ensures the timely coverage of the pension and nuclear obligations using an asset liability management model. EnBW uses this cash flow-based model to determine the anticipated effects over the next 30 years, based on appraisals of the pension provisions, as well as appraisals of the nuclear provisions. This model forms the basis for the management of the financial assets. It allows simulations of various alternative return and provision scenarios.

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

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

EnBW has a well-balanced maturity profile for its financial liabilities. The financial policy focuses on ensuring the solvency of the company, limiting financial risks and optimising capital costs. As of 31 December 2019, the creditworthiness of EnBW was rated by the rating agencies Moody’s, Standard and Poor’s and Fitch with A3/negative, A-/stable and A-/stable, respectively.

(34) Segment reporting

2019 in € million	Sales	Grids	Renewable Energies	Generation and Trading	Other/Con-solidation	Total
Revenue						
External revenue	7,678.9	3,459.6	653.0	6,970.1	3.3	18,765.0
Internal revenue	769.6	1,359.6	405.0	3,085.0	-5,619.3	0.0
Total revenue	8,448.5	4,819.2	1,058.1	10,055.1	-5,616.0	18,765.0
Earnings indicators						
Adjusted EBITDA	294.3	1,311.2	482.8	383.8	-39.6	2,432.5
EBITDA	272.5	1,275.6	469.2	228.1	-0.2	2,245.2
Adjusted EBIT	179.1	793.4	261.7	-205.5	-84.0	944.7
EBIT	157.3	756.8	236.5	-509.3	-44.6	596.7
Income from reversals of impairment losses	0.3	0.0	0.0	4.2	0.0	4.5
Scheduled amortisation and depreciation	-115.3	-517.7	-221.1	-589.4	-44.3	-1,487.8
Impairment losses	0.0	-1.1	-11.6	-148.0	0.0	-160.7
Net profit/loss from entities accounted for using the equity method	2.0	19.1	1.2	6.5	0.0	28.9
Significant non-cash-relevant items	-22.7	21.5	3.9	48.6	-15.1	36.2
Assets and liabilities						
Capital employed	1,379.4	8,990.7	6,627.1	1,848.3	3,037.9	21,883.4
of which carrying amount of entities accounted for using the equity method	(93.8)	(396.9)	(426.7)	(146.6)	(0.0)	(1,064.0)
Capital expenditure on intangible assets and property, plant and equipment	123.7	1,215.1	166.5	96.3	35.0	1,636.6

2018 in € million[1]	Sales	Grids	Renewable Energies	Generation and Trading	Other/Con-solidation	Total
Revenue						
External revenue	7,347.7	3,215.4	477.5	9,767.8	7.0	20,815.4
Internal revenue	727.8	2,353.1	333.1	2,719.6	-6,133.6	0.0
Total revenue	8,075.5	5,568.5	810.6	12,487.4	-6,126.6	20,815.4
Earnings indicators						
Adjusted EBITDA	268.4	1,176.9	297.7	430.8	-16.3	2,157.5
EBITDA	225.1	1,120.0	285.1	415.4	44.0	2,089.6
Adjusted EBIT	199.9	719.4	124.0	-40.2	-45.6	957.5
EBIT	154.1	662.5	110.6	-65.0	13.6	875.8
Income from reversals of impairment losses	0.2	2.6	0.0	19.3	0.0	22.1
Scheduled amortisation and depreciation	-68.5	-457.5	-173.7	-471.0	-29.3	-1,200.0
Impairment losses	-2.5	0.0	-0.8	-9.4	-1.1	-13.8
Net profit/loss from entities accounted for using the equity method	1.1	22.2	-48.3	0.9	0.0	-24.1
Significant non-cash-relevant items	-11.9	48.9	4.8	30.9	-5.7	67.0
Assets and liabilities						
Capital employed	1,051.3	7,213.9	3,843.2	2,122.5	2,714.6	16,945.5
of which carrying amount of entities accounted for using the equity method	(188.2)	(402.1)	(863.4)	(146.5)	(0.0)	(1,600.2)
Capital expenditure on intangible assets and property, plant and equipment	91.5	959.3	138.9	160.3	19.5	1,369.5

1 The figures for the previous year have been restated.

Detailed descriptions of the segments are given in the section "The EnBW Group" of the management report.

Adjusted EBITDA is one of the key internal performance indicators. Adjusted EBITDA is an earnings ratio before the investment and financial results, income taxes and amortisation, adjusted for non-operating effects, which accurately reflects the development of results of operations. In the management report, the performance of the segments is explained with the aid of adjusted EBITDA.

Adjusted EBITDA can be reconciled to earnings before taxes (EBT) as follows:

in € million	2019	2018
Adjusted EBITDA	2,432.5	2,157.5
Non-operating EBITDA	-187.3	-67.9
of which income/expenses relating to nuclear power	(-61.9)	(-132.1)
of which income from the reversal of other provisions	(48.2)	(11.8)
of which result from disposals of assets	(18.4)	(89.0)
of which reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	(-54.8)	(39.2)
of which income from reversals of impairment losses	(4.5)	(22.1)
of which restructuring	(-41.0)	(-49.1)
of which other non-operating result	(-100.7)	(-48.8)
EBITDA	**2,245.2**	**2,089.6**
Amortisation and depreciation	-1,648.5	-1,213.8
Earnings before interest and taxes (EBIT)	**596.7**	**875.8**
Investment result	401.3	100.9
Financial result	-95.8	-380.4
Earnings before tax (EBT)	**902.2**	**596.3**

The components of non-operating EBITDA can be found on the income statement, in particular, in income to the amount of €200.0 million (previous year: €265.6 million), as well as in expenses to the amount of €387.4 million (previous year: €333.5 million).

Segment reporting is based on internal reporting.

Sales of electricity and gas, energy industry services and energy solutions and activities in the area of energy supply, energy saving contracting and telecommunications are summarised in the Sales segment. The Grids segment encompasses the value-added stages of transmission and distribution of electricity and gas. In addition, the expansion of the HVDC connections in the transmission grid, the provision of grid-related services and the supply of water is reported in the Grids segment. Activities in the area of power generation using renewable energies are presented in their own segment. These activities include project development and the construction and operation of power plants based on renewable energies. The Generation and Trading segment encompasses conventional electricity generation and the trading of gas and electricity, the provision of system services and the operation of reserve power plants for the transmission grids. In addition, the gas midstream business with storage, the dismantling of power plants, district heating and waste management/environmental services are reported in this segment. All activities which cannot be attributed to the separately presented activities of the segments are disclosed together with eliminations between the segments under "Other/Consolidation".

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

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

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

Capital employed is calculated as follows:

in € million[1]	31/12/2019	31/12/2018
Intangible assets	3,347.4	1,748.7
Property, plant and equipment	18,552.7	15,867.5
Investment properties	30.3	31.6
Investments[2]	1,694.7	2,002.7
Loans	187.7	133.0
Inventories	1,066.1	1,192.0
Trade receivables[3]	3,886.8	4,450.4
Other assets[4]	5,185.2	4,198.6
of which income tax refund claims	(157.5)	(103.0)
of which other tax refund claims	(134.1)	(127.7)
of which derivatives	(3,810.1)	(2,736.1)
of which payments on account	(45.3)	(75.5)
of which prepaid expenses	(139.2)	(114.5)
of which miscellaneous assets	(1,230.4)	(1,292.3)
of which assets held for sale	(0.9)	(43.4)
of which components attributable to net debt	(-332.3)	(-293.9)
Other provisions	-2,349.1	-2,396.8
Trade payables and other liabilities[5]	-10,027.8	-10,550.9
of which trade payables	(-4,001.0)	(-5,013.4)
of which other deferred income	(-205.4)	(-200.5)
of which derivatives	(-3,459.3)	(-2,523.0)
of which income tax liabilities	(-155.4)	(-459.4)
of which contract liabilities	(-932.0)	(-909.7)
of which other liabilities	(-1,277.6)	(-1,490.6)
of which liabilities directly associated with the assets classified as held for sale	(0.0)	(-21.2)
of which components attributable to net debt	(2.9)	(66.9)
Subsidies	-14.6	-15.8
Deferred taxes[6]	324.0	284.5
Capital employed	**21,883.4**	**16,945.5**
Average capital employed[7]	**19,315.1**	**16,053.3**

1 The figures for the previous year have been restated.
2 Including entities accounted for using the equity method, shares in affiliated entities and other investments allocable to operating activities.
3 Excluding affiliated entities, excluding receivables associated with nuclear provisions.
4 Excluding net profit from CTA, excluding valuation effects from interest-induced hedging transactions.
5 Excluding affiliated entities, excluding non-controlling interests in fully consolidated partnerships recognised as liabilities.
6 Deferred tax assets and liabilities netted.
7 Average calculation based on the relevant quarterly values for the reporting year and the year-end value for the previous year.

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

External revenue by region

in € million[1]	2019	2018
Germany	15,687.8	17,899.3
European currency zone excluding Germany	1,618.2	1,627.1
Rest of Europe	1,458.6	1,288.9
Rest of world	0.5	0.1
	18,765.0	20,815.4

1 The figures for the previous year have been restated.

External revenue by product

in € million[1]	2019	2018
Electricity	10,938.8	11,284.4
Gas	6,440.2	8,277.0
Energy and environmental services/other	1,385.9	1,254.0
	18,765.0	20,815.4

1 The figures for the previous year have been restated.

Intangible assets and property, plant and equipment by region

in € million	31/12/2019	31/12/2018
Germany	19,374.5	15,783.8
European currency zone excluding Germany	560.7	0.6
Rest of Europe	1,964.9	1,831.8
	21,900.1	17,616.2

(35) Related parties (entities)

Related parties include, above all, the Federal State of Baden-Württemberg and Zweckverband Oberschwäbische Elektrizitätswerke (OEW) as indirect major shareholders of EnBW AG. As of 31 December 2019, the Federal State of Baden-Württemberg and its wholly owned subsidiary NECKARPRI GmbH indirectly, and NECKARPRI-Beteiligungsgesellschaft mbH directly held 46.75% of the shares in EnBW AG (unchanged). NECKARPRI-Beteiligungsgesellschaft mbH is a wholly owned subsidiary of NECKARPRI GmbH. OEW indirectly, and its wholly owned subsidiary OEW Energie-Beteiligungs GmbH (OEW GmbH) directly held 46.75% of the shares in EnBW AG (also unchanged). This means that the related parties of EnBW AG include, in particular, the Federal State, NECKARPRI GmbH, OEW, OEW GmbH and entities controlled or jointly controlled by them, or over which they have a significant influence.

The transactions concluded with the Federal State and entities controlled or jointly controlled by it, or over which it has significant influence, essentially relate to supplying public entities such as universities, government authorities, zoos and clinics with electricity, gas and district heating. The revenue from these transactions was immaterial in the reporting period; most of the receivables had been settled as of 31 December 2019. All business transactions with the Federal State were based on customary market terms and conditions. There are no contingent liabilities or financial commitments to the Federal State.

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

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

in € million	2019		2018	
	Joint ventures accounted for using the equity method	Associated companies accounted for using the equity method	Joint ventures accounted for using the equity method	Associated companies accounted for using the equity method
Income	157.4	191.6	62.7	351.8
Expenses	-58.0	-166.1	-30.3	-298.9
Assets	114.5	37.7	110.9	46.7
Liabilities	41.9	393.8	43.3	372.3
Other obligations	684.1	341.6	2,431.8	150.1

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

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

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

(36) Related parties (individuals)

The EnBW Group has not entered into any significant transactions with individuals that are related parties.

The basic principles of the remuneration system and amount of remuneration for the Board of Management, the Supervisory Board and former members of the Board of Management are presented in the remuneration report, which is part of the combined management report.

Total remuneration paid to the Board of Management for the 2019 financial year amounts to €10.4 million (previous year: €9.2 million). This includes short-term benefits of €6.0 million (previous year: €4.7 million), long-term benefits of €3.2 million (previous year: €3.2 million) and the service and interest costs for defined benefit obligations of €1.2 million (previous year: €1.3 million). As of 1 January 2016, the defined benefit obligations for the serving members of the Board of Management were transferred to the new defined contribution system. The resulting pension contributions are €1.0 million (previous year: €0.9 million). There are defined benefit obligations in accordance with IFRS of €19.9 million for the current members of the Board of Management (previous year: €16.6 million).

Former members of the Board of Management and their surviving dependants received €5.2 million (previous year: €4.8 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €0.7 million (previous year: €0.6 million). There are defined benefit obligations to former members of the Board of Management and their surviving dependants in accordance with IFRS of €114.8 million (previous year: €99.0 million), of which to former members of boards of management, and their surviving dependants, from formerly independent companies €32.1 million (previous year: €27.8 million).

As in the previous year, no loans or advances to members of the Board of Management existed at the end of the financial year.

The remuneration system of the Supervisory Board is also presented in the remuneration report, which is part of the combined management report. The members of the Supervisory Board will receive total remuneration of €1.2 million for the 2019 financial year (previous year: €1.3 million). In addition to fixed components, the remuneration includes attendance fees and board remuneration from subsidiaries.

As in the previous year, there were no loans or advances to members of the Supervisory Board in the 2019 financial year.

(37) Additional disclosures

List of shareholdings pursuant to section 313 (2) HGB as of 31 December 2019

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
Sales segment					
Fully consolidated companies					
1	bmp greengas GmbH, Munich	3	100.00	5,697	–
2	BroadNet Deutschland GmbH, Cologne	3	100.00	3,757	–
3	ED GrünSelect GmbH, Rheinfelden	6	100.00	498	1
4	EnBW Energy Factory GmbH, Stuttgart (formerly Watt Synergia GmbH, Frankfurt am Main)	3	100.00	250	–
5	EnBW Mainfrankenpark GmbH, Dettelbach	3	100.00	3,759	–
6	EnBW Telekommunikation GmbH, Karlsruhe (formerly EnBW Omega Zweiundfünfzigste Verwaltungsgesellschaft mbH, Karlsruhe)	3	100.00	273,334	–
7	EnBW Vertriebsbeteiligungen GmbH, Stuttgart		100.00	13,707	-2
8	energieNRW GmbH, Düsseldorf	5	100.00	272	-4
9	ESD Energie Service Deutschland GmbH, Offenburg		100.00	4,745	1,485
10	eYello CZ k.s., Prague/Czech Republic	5, 14	100.00	267	1
11	G.EN. Gaz Energia Sp. z o.o., Tarnowo Podgórne/Republic of Poland		100.00	47,535	4,055
12	GasVersorgung Süddeutschland GmbH, Stuttgart	3	100.00	65,000	–
13	Gasversorgung Unterland GmbH, Heilbronn	3	100.00	15,764	–
14	goldgas GmbH, Vienna/Austria		100.00	1,429	986
15	goldgas GmbH, Eschborn		100.00	28,721	5,531
16	NaturEnergie+ Deutschland GmbH, Mühlacker		100.00	0	2,089
17	Plusnet GmbH, Cologne	3	100.00	186,930	–
18	Plusnet Infrastruktur GmbH & Co. KG, Cologne		100.00	3,779	0
19	PREservisní, s.r.o., Prague/Czech Republic (formerly KORMAK nemovitosti s.r.o., Prague/Czech Republic)	5	100.00	865	42
20	PREzakaznicka a.s., Prague/Czech Republic	5	100.00	1,186	799
21	Sales & Solutions GmbH, Stuttgart	3	100.00	75,618	–
22	SENEC GmbH, Leipzig		100.00	7,211	-4,979
23	Ventelo GmbH, Cologne	3	100.00	142,238	–
24	VNG-Erdgascommerz GmbH, Leipzig	3	100.00	162,101	–
25	VOLTCOM spol. s r.o., Prague/Czech Republic	5	100.00	1,546	423
26	winpoint AG, Steg-Hohtenn/Switzerland	6	100.00	83	40
27	Yello Strom GmbH, Cologne	3	100.00	1,100	–
28	ZEAG Immobilien GmbH & Co. KG, Heilbronn		100.00	3,153	1,212
29	Erdgas Südwest GmbH, Karlsruhe		79.00	73,933	6,633
30	NetCom BW GmbH, Ellwangen		74.90	24,449	-336
31	Messerschmid Energiesysteme GmbH, Bonndorf	5	60.00	856	325
32	TRITEC AG, Aarberg/Switzerland	6	60.00	-785	-1,686
33	winsun AG, Steg-Hohtenn/Switzerland	6	51.00	646	-1,399
34	Pražská energetika a.s., Prague/Czech Republic	5, 13	41.40	463,849	91,080
Non-consolidated affiliated entities[15]					
35	010052 Telecom GmbH, Cologne	3, 5	100.00	25	–
36	010088 Telecom GmbH, Cologne	3, 5	100.00	25	–
37	010090 GmbH, Cologne	3, 5	100.00	156	–
38	01012 Telecom GmbH, Cologne	3, 5	100.00	27	–
39	01052 Communication GmbH, Cologne	3, 5	100.00	25	–

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
40	01098 Telecom GmbH, Cologne	3, 5	100.00	25	–
41	Broadnet Services GmbH, Cologne	3, 5	100.00	25	–
42	F&Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	36	2
43	NatürlichEnergie Swiss NES GmbH, Laufenburg/Switzerland	5	100.00	-283	-85
44	Plusnet Verwaltungs GmbH, Cologne	5	100.00	27	1
45	Q-DSL home GmbH, Cologne	3, 5	100.00	1,293	–
46	SENEC Cloud s.r.l., Rome/Italy	5	100.00	50	-49
47	SENEC Italia s.r.l., Rome/Italy	5	100.00	10	-564
48	T & Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	25	619
49	VNG ViertelEnergie GmbH, Leipzig	3, 5	100.00	98	–
50	VNG-Erdgastankstellen GmbH, Leipzig	3, 5	100.00	25	–
51	Yello Solar GmbH, Karlsruhe	5	100.00	-3,980	-2,827
52	ZEAG Immobilien Verwaltungsgesellschaft mbH, Heilbronn	5	100.00	36	2
53	WTT CampusONE GmbH, Ludwigsburg	5	80.00	-1,423	-937
54	fonial GmbH, Cologne	5	74.90	-3,108	-962
55	LIV-T GmbH, Munich	5	72.00	2,873	-2,739
56	Senec Australia PTY Ltd., Mount Claremont/Australia (formerly Thinking Beyond Pty Ltd, Mount Claremont)	5	70.00	614	-211
57	BEN Fleet Services GmbH, Karlsruhe	5	65.40	25	0
58	Energieversum GmbH & Co. KG, Gütersloh	5, 6	51.41	2	0
59	grünES GmbH, Esslingen am Neckar	5	51.00	306	148
60	Stromvertrieb Backnang Verwaltungs GmbH, Backnang	5	51.00	28	1
61	Energie- und Medienversorgung Sandhofer Straße Verwaltungs GmbH, Mannheim i.L.		50.00	–	–
62	Energie- und Medienversorgung Sandhofer Straße GmbH & Co. KG, Mannheim i.L.		49.91	–	–
Entities accounted for using the equity method					
63	MITGAS Mitteldeutsche Gasversorgung GmbH, Halle (Saale)	5	24.60	129,988	38,032
Investments[15]					
64	effizienzcloud GmbH, Leipzig	5	74.99	469	-352
65	AutenSys GmbH, Karlsruhe	5	65.00	89	-147
66	backnangstrom GmbH & Co. KG, Backnang	5	51.00	0	7
67	my-e-car GmbH, Lörrach	5	50.00	41	35
68	Regionah Energie GmbH, Munderkingen	5	50.00	51	-73
69	Tender365 GmbH, Leipzig	5	50.00	1,239	-284
70	Einhorn Energie GmbH & Co. KG, Giengen an der Brenz	5	49.90	733	315
71	Einhorn Energie Verwaltungsgesellschaft mbH, Giengen an der Brenz	5	49.90	33	1
72	Stadtwerke Freiberg a.N. GmbH, Freiberg am Neckar	5	49.90	6,703	203
73	Gasversorgung Pforzheim Land GmbH, Pforzheim	5	49.00	14,976	1,314
74	Sautter PE GmbH, Ellhofen	5	49.00	0	-326
75	Silphienergie GmbH, Ostrach	5	40.00	149	8
76	caplog-x GmbH, Leipzig	5	37.34	2,046	921
77	apio AG i.L., Wallisellen/Switzerland		33.33	–	–
78	espot GmbH, Stuttgart	5	32.60	539	9
79	Tempus s.r.l., Torri di Quartesolo/Italy	5	30.43	15	9
80	Korbacher Energiezentrum GmbH & Co. KG, Korbach	5	30.00	4	314
81	Gemeinschaft für Energieeffizienz GmbH, Düsseldorf	5	26.40	-134	-425
82	Energieagentur Heilbronn GmbH, Heilbronn	5	25.00	51	-101

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
83	Stadt- und Überlandwerke GmbH Luckau-Lübbenau, Luckau	5	23.38	29,672	2,083
84	EDSR Energiedienste Staldenried AG, Staldenried/Switzerland	5	20.00	200	11
Grids segment					
Fully consolidated companies					
85	ED Netze GmbH, Rheinfelden	3, 6	100.00	65,165	–
86	EnBW Kommunale Beteiligungen GmbH, Stuttgart	3	100.00	995,226	–
87	EnBW Netze BW Beteiligungsgesellschaft mbH, Stuttgart (formerly EnBW Omega Siebzigste Verwaltungsgesellschaft mbH, Stuttgart)	3	100.00	1,643,228	–
88	EnBW REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	405,649	–
89	EVGA Grundstücks- und Gebäudemanagement GmbH & Co. KG, Obrigheim		100.00	91,621	10,840
90	FRONTIER TECHNOLOGIES, s.r.o., Prague/Czech Republic	5	100.00	629	63
91	KORMAK Praha a.s., Prague/Czech Republic	5	100.00	894	866
92	Netze BW GmbH, Stuttgart	3	100.00	1,130,861	–
93	Netze BW Omega 1 GmbH, Stuttgart	11	100.00	25	0
94	Netze BW Wasser GmbH, Stuttgart	3	100.00	32,894	–
95	Netze-Gesellschaft Südwest mbH, Karlsruhe	3	100.00	71,139	–
96	Netzgesellschaft Düsseldorf mbH, Düsseldorf	3, 5	100.00	1,000	–
97	Netzgesellschaft Ostwürttemberg DonauRies GmbH, Ellwangen (Jagst)	3	100.00	135	–
98	NHF Netzgesellschaft Heilbronn-Franken mbH, Heilbronn	3	100.00	4,000	–
99	NHL Netzgesellschaft Heilbronner Land GmbH & Co. KG, Heilbronn		100.00	1,524	0
100	NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim		100.00	320,933	45,468
101	NWS REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	79,988	–
102	ONTRAS Gastransport GmbH, Leipzig	3	100.00	460,000	–
103	PREdistribuce a.s., Prague/Czech Republic	5	100.00	764,579	55,724
104	PREmereni a.s., Prague/Czech Republic	5	100.00	33,265	7,288
105	PREnetcom a.s., Prague/Czech Republic	5	100.00	124	47
106	RBS wave GmbH, Stuttgart	3	100.00	503	–
107	terranets bw GmbH, Stuttgart	3	100.00	20,000	–
108	TransnetBW GmbH, Stuttgart	3	100.00	728,141	–
109	ZEAG Engineering GmbH, Heilbronn		100.00	3,514	-165
110	EnBW Ostwürttemberg DonauRies AG, Ellwangen	3	99.73	115,439	–
111	ZEAG Energie AG, Heilbronn		98.65	198,940	6,432
112	Stadtwerke Düsseldorf AG, Düsseldorf	5	54.95	563,434	76,845
113	Stromnetzgesellschaft Heilbronn GmbH & Co. KG, Heilbronn	8	49.90	36,771	1,579
114	Neckar Netze GmbH & Co. KG, Esslingen am Neckar	8	49.00	24,829	4,723
Non-consolidated affiliated entities[15]					
115	Elektrizitätswerk Aach GmbH, Aach	5	100.00	3,387	653
116	Energieversorgung Gaildorf OHG der EnBW Kommunale Beteiligungen GmbH und NWS REG Beteiligungsgesellschaft mbH, Gaildorf	5	100.00	3,526	1,013
117	Energieversorgung Raum Friedrichshafen Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	27	1
118	Energieversorgung Rheinfelden/Grenzach-Wyhlen Verwaltungs GmbH, Rheinfelden	11	100.00	–	–
119	GDMcom GmbH, Leipzig (formerly GDMcom Gesellschaft für Dokumentation und Telekommunikation mbH, Leipzig)	3, 5	100.00	304	–
120	GEOMAGIC GmbH, Leipzig	5	100.00	2,216	995
121	HEV Hohenloher Energie Versorgung GmbH, Ilshofen-Obersteinach	3, 5	100.00	10,219	–
122	MoviaTec GmbH, Leipzig	5	100.00	177	123
123	Neckar Netze Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	100.00	121	4

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
124	NHL Verwaltungs-GmbH, Heilbronn	5	100.00	24	0
125	OSG ONTRAS Servicegesellschaft mbH, Leipzig	5	100.00	25	0
126	Transnet BW SuedLink Verwaltungsgesellschaft mbH, Stuttgart (formerly Konverter Ultranet Verwaltungsgesellschaft mbH, Stuttgart)	5	100.00	24	0
127	TransnetBW SuedLink GmbH & Co. KG, Stuttgart (formerly Konverter Ultranet GmbH & Co. KG, Stuttgart)	5	100.00	0	0
128	INFRACON Infrastruktur Service GmbH & Co. KG, Leipzig	5	99.50	716	616
129	Rieger GmbH & Co. KG, Lichtenstein, Kreis Reutlingen	5	74.28	883	614
130	Rieger Beteiligungs-GmbH, Lichtenstein, Kreis Reutlingen	5	74.24	48	1
131	Elektrizitätswerk Weißenhorn AG, Weißenhorn	5	63.24	3,782	303
132	Netze Pforzheim-Region GmbH & Co. KG, Pforzheim	5	60.00	19,100	1,151
133	Gasnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	3,590	160
134	Gasnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	27	1
135	Netzgesellschaft Elz-Neckar GmbH & Co. KG, Obrigheim	5	50.10	1,193	36
136	Netzgesellschaft Elz-Neckar Verwaltungs GmbH, Obrigheim	5	50.10	32	1
137	Stromnetzgesellschaft Albershausen GmbH & Co. KG, Albershausen	5	50.10	817	29
138	Stromnetzgesellschaft Albershausen Verwaltungs GmbH, Albershausen	5	50.10	30	1
139	Stromnetzgesellschaft Heilbronn Verwaltungs-GmbH, Heilbronn	5	50.10	26	0
140	Stromnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	2,306	119
141	Stromnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	27	1
Entities accounted for using the equity method					
142	Stadtwerke Esslingen am Neckar GmbH & Co. KG, Esslingen am Neckar	5	49.98	61,660	5,138
143	Pražská energetika Holding a.s., Prague/Czech Republic	5, 9	49.00	274,930	77,427
144	Zweckverband Landeswasserversorgung, Stuttgart	5	27.20	112,751	0
145	Heilbronner Versorgungs GmbH, Heilbronn	4, 5	25.10	51,750	–
146	Stuttgart Netze GmbH, Stuttgart	4, 5, 9	25.10	206,148	–
147	FairEnergie GmbH, Reutlingen	4, 5	24.90	114,766	–
148	Stadtwerke Hilden GmbH, Hilden	3, 4, 5	24.90	18,038	–
149	GasLINE Telekommunikationsnetzgesellschaft deutscher Gasversorgungsunternehmen mbH & Co. Kommanditgesellschaft, Straelen	5	23.39	76,403	35,403
150	Zweckverband Bodensee-Wasserversorgung, Stuttgart	5	21.43	153,918	1,000
151	Stadtwerke Karlsruhe GmbH, Karlsruhe	4, 5	20.00	178,710	–
Investments[15]					
152	Netzgesellschaft Sontheim GmbH & Co. KG, Sontheim an der Brenz	5	74.90	1,542	281
153	Netzgesellschaft Sontheim Verwaltungsgesellschaft mbH, Sontheim an der Brenz	5	74.90	25	0
154	Netzgesellschaft Steinheim GmbH & Co. KG, Steinheim am Albuch	5	74.90	256	83
155	Netzgesellschaft Steinheim Verwaltungsgesellschaft mbH, Steinheim am Albuch	5	74.90	25	0
156	Stromnetz Herrenberg Verwaltungsgesellschaft mbH, Herrenberg	5	74.90	32	1
157	Stromnetzgesellschaft Herrenberg mbH & Co. KG, Herrenberg	5	74.90	4,404	539
158	Stadtwerke Sinsheim Versorgungs GmbH & Co. KG, Sinsheim	5	60.00	14,158	443
159	Stadtwerke Sinsheim Verwaltungs GmbH, Sinsheim	5	60.00	30	1
160	Stromnetz Langenau GmbH & Co. KG, Langenau	5	50.10	2,610	106
161	Stromnetz Langenau Verwaltungs-GmbH, Langenau	5	50.10	34	1
162	e.wa riss GmbH & Co. KG, Biberach	5	50.00	31,084	4,476
163	e.wa riss Verwaltungsgesellschaft mbH, Biberach	5	50.00	51	1
164	Fränkische Wasser Service GmbH, Crailsheim	5	50.00	58	8
165	HDRegioNet GmbH i.L., Düsseldorf		50.00	–	–

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
166	Niederrheinisch-Bergisches Gemeinschaftswasserwerk GmbH, Düsseldorf	5	50.00	3,102	85
167	Ostalbwasser Ost GmbH, Ellwangen	5	50.00	39	2
168	Ostalbwasser Service GmbH, Aalen	5	50.00	36	11
169	Ostalbwasser West GmbH, Schwäbisch Gmünd	5	50.00	41	2
170	regioaqua Gesellschaft für Wasser und Abwasser mbH, Rheinfelden	5	50.00	81	17
171	Stadtwerke Schramberg GmbH & Co. KG, Schramberg	5	50.00	16,050	2,909
172	Stadtwerke Schramberg Verwaltungsgesellschaft mbH, Schramberg	5	50.00	38	3
173	Stromnetzgesellschaft Hechingen GmbH & Co. KG, Hechingen	5	50.00	1,721	-670
174	Stromnetzgesellschaft Hechingen Verwaltungs GmbH, Hechingen	5	50.00	25	0
175	Wasserübernahme Neuss-Wahlscheid GmbH, Neuss	5	50.00	419	15
176	Stadtwerke Emmendingen GmbH, Emmendingen	5	49.90	17,741	1,408
177	Stromnetz Blaubeuren GmbH, Blaubeuren	5	49.90	2,047	72
178	Stadtwerke Esslingen-Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	49.80	43	1
179	Energie Sachsenheim GmbH & Co. KG, Sachsenheim	5	49.00	4,781	277
180	Energie Sachsenheim Verwaltungs-GmbH, Sachsenheim	5	49.00	33	1
181	Energieversorgung Strohgäu GmbH & Co. KG, Gerlingen	5	49.00	8,666	570
182	Energieversorgung Strohgäu Verwaltungs GmbH, Gerlingen	5	49.00	26	1
183	Gemeindewerke Bodanrück GmbH & Co. KG, Allensbach	5	49.00	4,800	258
184	Gemeindewerke Bodanrück Verwaltungs-GmbH, Allensbach	5	49.00	28	1
185	LEO Energie GmbH & Co. KG, Leonberg	5	49.00	8,667	712
186	Netzgesellschaft Marbach GmbH & Co. KG, Marbach am Neckar	5	49.00	2,270	155
187	Rems-Murr Telekommunikation GmbH, Waiblingen	11	49.00	–	–
188	Stadtwerke Backnang GmbH, Backnang	4, 5	49.00	14,215	–
189	Stadtwerke Bad Wildbad GmbH & Co. KG, Bad Wildbad	5	49.00	6,594	657
190	Stadtwerke Bad Wildbad Verwaltungs-GmbH, Bad Wildbad	5	49.00	43	-2
191	Stadtwerke Eppingen GmbH & Co. KG, Eppingen	5	49.00	7,874	157
192	Energie Calw GmbH, Calw	4, 5	48.82	15,301	–
193	Stadtwerke Münsingen GmbH, Münsingen	5	45.00	6,225	688
194	Stadtwerke Böblingen GmbH & Co. KG, Böblingen	5	41.10	37,325	2,305
195	Stadtwerke Böblingen Verwaltungs GmbH, Böblingen	5	41.10	6	0
196	Energieversorgung Südbaar GmbH & Co. KG, Blumberg	5	40.00	6,925	1,043
197	SUEnergie GmbH & Co. KG, Süßen	5	40.00	2,172	40
198	SUEnergie Verwaltungs GmbH, Süßen	5	40.00	32	1
199	Stadtwerke Weinheim GmbH, Weinheim	5	39.32	29,316	2,767
200	Energieversorgung Rottenburg am Neckar GmbH, Rottenburg am Neckar	4, 5	38.00	7,160	–
201	EVG Grächen AG, Grächen/Switzerland	5	35.00	4,641	95
202	EVN Energieversorgung Nikolai AG, St. Niklaus/Switzerland	5, 7	35.00	1,573	99
203	EVR Energieversorgung Raron AG, Raron/Switzerland	5, 7	35.00	868	78
204	EVWR Energiedienste Visp - Westlich Raron AG, Visp/Switzerland	5	35.00	4,244	346
205	Valgrid SA, Sion/Switzerland	5	35.00	20,096	1,379
206	VED Visp Energie Dienste AG, Visp/Switzerland	5, 7	35.00	3,274	378
207	Seeallianz GmbH & Co. KG, Markdorf	5	33.00	7,060	415
208	Taubernetze GmbH & Co. KG, Tauberbischofsheim	5	33.00	1,831	81
209	Taubernetze Verwaltungs-GmbH, Tauberbischofsheim	5	33.00	26	1
210	ErmstalEnergie Dettingen an der Erms GmbH & Co. KG, Dettingen an der Erms	5	32.60	3,646	385

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
211	Versorgungsbetriebe Dettingen an der Erms Verwaltungs-GmbH, Dettingen an der Erms	5	32.60	30	1
212	eneREGIO GmbH, Muggensturm	5	32.00	9,624	979
213	Regionalnetze Linzgau GmbH, Pfullendorf	4, 5	31.64	6,462	–
214	Elektrizitätswerk Mittelbaden AG & Co. KG, Lahr	5	31.00	63,795	10,094
215	Elektrizitätswerk Mittelbaden Verwaltungsaktiengesellschaft, Lahr	5	31.00	131	7
216	Stadtwerke Bad Herrenalb GmbH, Bad Herrenalb	5	30.00	11,315	-286
217	Energie- und Wasserversorgung Bruchsal GmbH, Bruchsal	4, 5	27.41	23,002	–
218	Stadtwerke Bad Säckingen GmbH, Bad Säckingen	3, 5	26.30	8,673	–
219	tktVivax GmbH, Backnang	5, 7	25.21	927	174
220	Albwerk GmbH & Co. KG, Geislingen an der Steige	5	25.10	19,994	3,549
221	Albwerk Verwaltungsgesellschaft mbH, Geislingen an der Steige	5	25.10	78	3
222	Energie Kirchheim unter Teck GmbH & Co. KG, Kirchheim unter Teck	5	25.10	9,459	618
223	Energie Kirchheim unter Teck Verwaltungs-GmbH, Kirchheim unter Teck	5	25.10	30	1
224	Energieversorgung Immenstaad GmbH & Co. KG, Immenstaad am Bodensee	5	25.10	879	34
225	Filderstadt Netze GmbH, Filderstadt	5	25.10	87	-4
226	Gasnetzgesellschaft Schorndorf GmbH & Co. KG, Schorndorf	5	25.10	4,096	228
227	Gasnetzgesellschaft Winnenden mbH, Winnenden	4, 5	25.10	2,275	–
228	Gasnetzverwaltungsgesellschaft Schorndorf GmbH, Schorndorf	5	25.10	33	1
229	Gemeindewerke Brühl GmbH & Co. KG, Brühl	5	25.10	1,297	68
230	Gemeindewerke Brühl Verwaltungs-GmbH, Brühl	5	25.10	31	1
231	Gemeindewerke Plüderhausen GmbH, Plüderhausen	5	25.10	1,666	68
232	Infrastrukturgesellschaft Plochingen GmbH & Co. KG, Plochingen	5	25.10	2,860	189
233	Netzgesellschaft Besigheim GmbH & Co. KG, Besigheim	5	25.10	4,755	273
234	Netzgesellschaft Besigheim Verwaltungs GmbH, Besigheim	5	25.10	31	1
235	Netzgesellschaft Leinfelden-Echterdingen GmbH, Leinfelden-Echterdingen	5	25.10	9,735	443
236	Netzgesellschaft Salach GmbH & Co. KG, Salach	5	25.10	1,312	57
237	Netzgesellschaft Salach Verwaltungs GmbH, Salach	5	25.10	30	1
238	Netzgesellschaft Schwetzingen GmbH & Co. KG, Schwetzingen	5	25.10	2,036	115
239	Netzgesellschaft Schwetzingen Verwaltungs GmbH, Schwetzingen	5	25.10	28	1
240	Netzgesellschaft Vaihingen GmbH & Co. KG, Vaihingen an der Enz	5	25.10	7,802	541
241	Netzgesellschaft Vaihingen Verwaltungs-GmbH, Vaihingen an der Enz	5	25.10	30	1
242	Stadtwerke Ellwangen GmbH, Ellwangen	4, 5	25.10	8,402	–
243	Stadtwerke Giengen GmbH, Giengen	5	25.10	13,118	696
244	Stadtwerke Schwäbisch Gmünd GmbH, Schwäbisch Gmünd	4, 5	25.10	30,751	–
245	Stadtwerke Stockach GmbH, Stockach	5	25.10	11,409	1,378
246	Stadtwerke Weinstadt Energieversorgung GmbH, Weinstadt	4, 5	25.10	6,153	–
247	Stadtwerke Wiesloch - Strom - GmbH & Co. KG, Wiesloch	5	25.10	2,396	151
248	Stromgesellschaft March GmbH & Co. KG, March	5	25.10	832	11
249	Stromnetzgesellschaft Ebersbach GmbH & Co. KG, Ebersbach an der Fils	5	25.10	3,515	211
250	Stromnetzgesellschaft Ebersbach Verwaltungs GmbH, Ebersbach an der Fils	5	25.10	31	1
251	Stromnetzgesellschaft Östlicher Schurwald GmbH & Co. KG, Rechberghausen	5	25.10	2,982	157
252	Stromnetzgesellschaft Östlicher Schurwald Verwaltungs GmbH, Rechberghausen	5	25.10	30	1
253	Technische Werke Schussental GmbH & Co. KG, Ravensburg	5	25.10	53,487	3,322
254	Technische Werke Schussental Verwaltungsgesellschaft mbH, Ravensburg	5	25.10	28	-3
255	Stromversorgung Sulz am Neckar GmbH, Sulz am Neckar	5	24.90	4,229	323

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
256	Netzeigentumsgesellschaft Rheinstetten GmbH & Co. KG, Rheinstetten	5	24.50	4,448	171
257	Stadtwerke Schopfheim GmbH, Schopfheim	5	24.50	188	-12
258	Stadtwerke Wehr GmbH & Co. KG, Wehr	5	24.50	2,390	139
259	Stadtwerke Wehr Verwaltungs-GmbH, Wehr	5	24.50	21	0
260	Energieversorgung Oberes Wiesental GmbH, Todtnau	5	24.00	4,087	205
261	Netzgesellschaft Edingen-Neckarhausen GmbH & Co. KG, Edingen-Neckarhausen	5	24.00	861	59
262	ENRW Energieversorgung Rottweil GmbH & Co. KG, Rottweil	5	20.00	19,180	4,050
263	ENRW Verwaltungs-GmbH, Rottweil	5	20.00	14	0
264	GASPOOL Balancing Services GmbH, Berlin	5	20.00	4,709	463
265	Stadtwerke Sindelfingen GmbH, Sindelfingen	5	20.00	40,160	3,904
Renewable Energies segment					
Fully consolidated companies					
266	Aletsch AG, Mörel/Switzerland	6	100.00	22,500	0
267	BALANCE Erneuerbare Energien GmbH, Leipzig		100.00	18,615	3,155
268	Barre Energie SARL, Montpellier/France		100.00	-16	-4
269	Bliekevare Nät AB, Falkenberg/Sweden		100.00	64	54
270	Centrale Solaire des Terres Rouges SARL, Montpellier/France		100.00	-799	55
271	Centrale Solaire du Sycala SARL, Montpellier/France		100.00	921	920
272	Connected Wind Services A/S, Balle/Denmark		100.00	1,465	-7,079
273	Connected Wind Services Danmark A/S, Balle/Denmark	5	100.00	741	-491
274	Connected Wind Services Deutschland GmbH, Rantrum	5	100.00	832	-907
275	Connected Wind Services Refurbishment A/S, Balle/Denmark	5	100.00	-2,136	-4,492
276	Couffrau Energie SARL, Montpellier/France		100.00	-352	194
277	EnAlpin AG, Visp/Switzerland	6	100.00	179,234	3,667
278	EnBW Biogas GmbH, Stuttgart	3	100.00	52	–
279	EnBW France GmbH, Stuttgart	3	100.00	605,747	–
280	EnBW Gnosjö Vind AB, Falkenberg/Sweden (formerly Gnosjö Energi AB, Rabbalshede/Sweden)		100.00	5,501	244
281	EnBW He Dreiht GmbH, Varel	3	100.00	26,016	–
282	EnBW Holding A.S., Gümüssuyu-Istanbul/Turkey		100.00	233,210	-530
283	EnBW NAG-Beteiligungsgesellschaft mbH, Stuttgart		100.00	23	0
284	EnBW Offshore 1 GmbH, Stuttgart	3	100.00	28,737	–
285	EnBW Offshore 2 GmbH, Stuttgart	3	100.00	690,453	–
286	EnBW Offshore 3 GmbH, Stuttgart	3	100.00	799,436	–
287	EnBW Offshore Service GmbH, Klausdorf	3	100.00	25	–
288	EnBW Renewables International GmbH, Stuttgart	3	100.00	83,909	–
289	EnBW Solar GmbH, Stuttgart	3	100.00	51	–
290	EnBW Solarpark Tuningen GmbH, Stuttgart	3	100.00	3,680	–
291	EnBW Solarpark Weesow-Willmersdorf GmbH, Stuttgart (formerly EnBW Solarpark Weesow-Willmersdorf GmbH, Cottbus)		100.00	16	-414
292	EnBW Sverige AB, Falkenberg/Sweden		100.00	78,447	-569
293	EnBW Sverige Vind AB, Falkenberg/Sweden (formerly Power Wind Partners AB, Rabbalshede/Sweden)		100.00	67,087	3,180
294	EnBW Wind Onshore 1 GmbH, Stuttgart	3	100.00	25	–
295	EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe	3	100.00	14,415	–
296	EnBW Windkraftprojekte GmbH, Stuttgart		100.00	17,062	-8,940
297	EnBW Windpark Eisenach II GmbH, Stuttgart		100.00	25,937	943
298	Energiedienst AG, Rheinfelden	6	100.00	174,996	9,688

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
299	Ferme Éolienne de la Bessière SARL, Montpellier/France		100.00	-2,775	525
300	Ferme Éolienne de Puech de Cambert SARL, Montpellier/France		100.00	-495	231
301	Ferme Éolienne de Puech de l'Homme SARL, Montpellier/France		100.00	1,078	898
302	Grünwerke GmbH, Düsseldorf	3, 5	100.00	38,400	–
303	Kraftwerk Lötschen AG, Steg/Switzerland	6	100.00	26,579	0
304	La Société des Monts de Lacaune SAS, Montpellier/France		100.00	546	203
305	Langenburg Infrastruktur GmbH, Stuttgart		100.00	10,367	2
306	Le Val Energie SARL, Montpellier/France		100.00	362	314
307	Leipziger Biogasgesellschaft mbH, Leipzig		100.00	1,160	193
308	Parc Éolien de la Vallée de Belleuse SARL, Montpellier/France		100.00	-153	-132
309	Parc Éolien du Mont de Maisnil SARL, Montpellier/France		100.00	-296	-214
310	PRE FVE Svetlik s.r.o., Leitnowitz/Czech Republic	5	100.00	8,046	1,040
311	PRE VTE Částkov s.r.o., Prague/Czech Republic	5	100.00	712	234
312	Röbergsfjället Nät AB, Falkenberg/Sweden		100.00	9	0
313	SCE Wind Zernitz GmbH & Co. KG, Stuttgart		100.00	5,537	3,511
314	Socpe de Champs Perdus SARL, Montpellier/France		100.00	-910	-232
315	SOLARINVEST - GREEN ENERGY s.r.o., Prague/Czech Republic	5	100.00	30	-47
316	Svenska Connected Wind Services AB, Falkenberg/Sweden	5	100.00	628	-500
317	Valeco Ingénierie SAS, Montpellier/France		100.00	25,656	7,787
318	Valeco O&M SAS, Montpellier/France		100.00	593	317
319	Valeco SAS, Montpellier/France		100.00	71,233	-912
320	Winding We North a. s., Prague/Czech Republic	5	100.00	235	-1
321	Windpark "Auf der Weißen Trisch" GmbH, Zweibrücken		100.00	426	263
322	Windpark Breitenbach GmbH, Düsseldorf		100.00	25	-167
323	Windpark Niederlinxweiler GmbH & Co. KG, Leinfelden-Echterdingen		100.00	65	-205
324	Windpark Rot am See GmbH, Ellwangen (Jagst)	3	100.00	25	–
325	EE Bürgerenergie Braunsbach GmbH & Co. KG, Braunsbach		99.99	7,600	93
326	EE BürgerEnergie Forchtenberg GmbH & Co. KG, Forchtenberg		99.99	1,500	23
327	BürgerEnergie Königheim GmbH & Co. KG, Königheim		99.97	3,000	260
328	EE BürgerEnergie Möckmühl GmbH & Co. KG, Möckmühl		95.17	1,575	8
329	EE BürgerEnergie Jagsthausen GmbH & Co. KG, Jagsthausen		95.11	4,625	73
330	Bürgerenergie Widdern GmbH & Co. KG, Widdern		95.07	7,580	133
331	EE BürgerEnergie Boxberg GmbH & Co. KG, Boxberg		90.27	14,400	1,167
332	EE Bürgerenergie Hardthausen GmbH & Co. KG, Hardthausen am Kocher		83.76	12,070	158
333	Neckar Aktiengesellschaft, Stuttgart		82.20	10,179	0
334	EE Bürgerenergie Ilshofen GmbH & Co. KG, Ilshofen		77.52	3,070	202
335	JatroSolutions GmbH, Stuttgart		75.30	372	-1,199
336	Geothermie-Gesellschaft Bruchsal GmbH, Bruchsal		74.90	1,375	-772
337	Energiedienst Holding AG, Laufenburg/Switzerland	6, 10	66.67	949,904	24,037
338	Parc Éolien de Bel Air SAS, Montpellier/France		63.40	-271	-234
339	EnBW Windpark Aalen-Waldhausen GmbH, Stuttgart (formerly EnBW Omega 109. Verwaltungsgesellschaft mbH, Stuttgart)		59.00	29,208	184
340	Rheinkraftwerk Neuhausen AG, Neuhausen/Switzerland	6	56.00	1,137	47
341	Solarpark Berghülen GmbH, Stuttgart		51.00	2,903	20
342	Solarpark Riedlingen-Zwiefaltendorf GmbH, Stuttgart		51.00	5,377	84
343	EnBW Baltic 1 GmbH & Co. KG, Stuttgart		50.32	43,958	11,733
344	EnBW Hohe See GmbH & Co. KG, Hamburg		50.11	1,667,460	88,002

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
345	EnBW Baltic 2 GmbH & Co. KG, Biberach an der Riß		50.10	1,219,724	96,174
346	EnBW Windpark Buchholz III GmbH, Stuttgart		50.10	23,079	49
347	Windenergie Tautschbuch GmbH, Riedlingen		50.10	623	-1
348	EnBW Onshore Portfolio GmbH, Stuttgart		50.02	100,823	5,489
349	Energie Renouvelable du Languedoc SARL, Montpellier/France		50.00	-483	-712
350	Joncels Energie SARL, Montpellier/France		50.00	-881	116
Joint operations					
351	Rheinkraftwerk Iffezheim GmbH, Iffezheim	9	50.00	96,813	3,185
352	Rhonewerke AG, Ernen/Switzerland	5, 9	30.00	25,557	0
Non-consolidated affiliated entities[15]					
353	BALANCE Management GmbH, Leipzig	5	100.00	25	-2
354	Biogas Produktion Altmark GmbH, Hohenberg-Krusemark	5	100.00	-4,435	-3,774
355	Biogas Trelder Berg 1 GmbH, Buchholz	3, 5	100.00	25	–
356	Biogas Trelder Berg 2 GmbH, Buchholz	3, 5	100.00	25	–
357	Biogas Trelder Berg 3 GmbH, Buchholz	3, 5	100.00	25	–
358	Biomethanproduktion Freyenstein GmbH, Hohenberg-Krusemark	5	100.00	-5	-82
359	Biosphärenwindpark Schwäbische Alb GmbH, Münsingen	5	100.00	25	-9
360	Cambert Énergie SARL, Montpellier/France	5	100.00	569	-68
361	CarbonBW (Thailand) Ltd., Bangkok/Thailand	5	100.00	9,297	666
362	Centernach Énergie SARL, Montpellier/France	5	100.00	-756	-110
363	Centrale Photovoltaïque Agroénergie SARL, Montpellier/France	5	100.00	-6	-3
364	Centrale Photovoltaïque de Bionne SARL, Montpellier/France	5	100.00	-11	-2
365	Centrale Photovoltaïque de Castelle SARL, Montpellier/France	5	100.00	0	0
366	Centrale Photovoltaïque de la demi-lune SARL, Montpellier/France	5	100.00	0	0
367	Centrale Photovoltaïque de la Forêt Baignollais SARL, Montpellier/France	5	100.00	-6	-2
368	Centrale Photovoltaïque de la ZA de Gaudet SARL, Montpellier/France	5	100.00	-8	-2
369	Centrale Photovoltaïque de Labastide SARL, Montpellier/France	5	100.00	-5	-3
370	Centrale Photovoltaïque de Pavailler SARL, Montpellier/France	5	100.00	-6	-5
371	Centrale Photovoltaïque de Saint Quentin la Tour SAS, Montpellier/France	5	100.00	-8	-3
372	Centrale Photovoltaïque de Sirius SARL, Montpellier/France	5	100.00	-6	-3
373	Centrale Photovoltaique des Coteaux de la Braye SARL, Montpellier/France	5	100.00	-7	-2
374	Centrale Photovoltaïque des Gravières SARL, Montpellier/France	5	100.00	-40	-34
375	Centrale Photovoltaïque des Quatre Vents SARL, Montpellier/France	5	100.00	-7	-4
376	Centrale Photovoltaïque du Perche Ornais SARL, Montpellier/France	5	100.00	-6	-2
377	Centrale Photovoltaïque Pont du Casse SARL, Montpellier/France	11	100.00	–	–
378	Centrale Photovoltaïque Retour sur l'Isle SARL, Montpellier/France	5	100.00	-2	-2
379	Centrale Solaire d'Aguessac SARL, Montpellier/France	5	100.00	-4	-2
380	Centrale Solaire d'Algosud SARL, Montpellier/France	5	100.00	0	0
381	Centrale Solaire de Biltagarbi SARL, Montpellier/France	5	100.00	-228	-99
382	Centrale Solaire de Bors de Montmoreau SARL, Montpellier/France	5	100.00	-17	-2
383	Centrale Solaire de Cap Delta SARL, Montpellier/France	5	100.00	-1	-2
384	Centrale Solaire de Carré Sud SARL, Montpellier/France	5	100.00	-7	-8
385	Centrale Solaire de Catreille SARL, Montpellier/France	5	100.00	-1	-1
386	Centrale Solaire de Châteauperouse SARL, Montpellier/France	5	100.00	-2	-1
387	Centrale Solaire de Colombiers SARL, Montpellier/France	5	100.00	-121	-12

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
388	Centrale Solaire de Coste Cuyère SARL, Montpellier/France	5	100.00	-20	-9
389	Centrale Solaire de Josse SARL, Montpellier/France	5	100.00	-2	-1
390	Centrale Solaire de la Tastère SARL, Montpellier/France	11	100.00	–	–
391	Centrale Solaire de Lunel SARL, Montpellier/France	5	100.00	-596	98
392	Centrale Solaire de Maine SARL, Montpellier/France	5	100.00	-14	-2
393	Centrale Solaire de Marignac SARL, Montpellier/France	5	100.00	-6	-2
394	Centrale Solaire de Massane SARL, Montpellier/France	5	100.00	0	0
395	Centrale Solaire de Montegut SARL, Montpellier/France	5	100.00	-13	-10
396	Centrale Solaire de Nohanent SARL, Montpellier/France	11	100.00	–	–
397	Centrale Solaire de Peregrine SARL, Montpellier/France	5	100.00	-4	-2
398	Centrale Solaire de Roubian SARL, Montpellier/France	5	100.00	-4	-4
399	Centrale Solaire de Saint Leger de Balson SARL, Montpellier/France	5	100.00	-15	-2
400	Centrale Solaire de Severac SARL, Montpellier/France	5	100.00	-16	-6
401	Centrale Solaire de Til Chatel SARL, Montpellier/France	5	100.00	-6	-2
402	Centrale Solaire des Calottes SARL, Montpellier/France	5	100.00	-1	-2
403	Centrale Solaire des Coëvrons SARL, Montpellier/France	5	100.00	-7	-3
404	Centrale Solaire des Crouzilloux SARL, Montpellier/France	5	100.00	-14	-2
405	Centrale Solaire des Moulins Lodevois SARL, Montpellier/France	5	100.00	-1	-2
406	Centrale Solaire d'Exideuil SARL, Montpellier/France	5	100.00	-17	-6
407	Centrale Solaire d'Odin SARL, Montpellier/France	5	100.00	-9	-9
408	Centrale Solaire du Caussanel SARL, Montpellier/France	11	100.00	–	–
409	Centrale Solaire du Lido SARL, Montpellier/France	5	100.00	-22	-2
410	Centrale Solaire du Tea Fleury-Merogis SARL, Montpellier/France	5	100.00	-7	-7
411	Centrale Solaire EMA Solar SARL, Montpellier/France	5	100.00	-26	-27
412	Centrale Solaire EuroPrimeur SARL, Montpellier/France	11	100.00	–	–
413	Centrale Solaire Gesim Beau Ciel SARL, Montpellier/France	5	100.00	-2	-2
414	Centrale Solaire la Vidalle SARL, Montpellier/France	5	100.00	-1	-2
415	Centrales Solaires de Iouanacera SARL, Montpellier/France	5	100.00	-2	-1
416	Centrales Solaires de l'Isle sur la Sorgue SAS, Montpellier/France	5	100.00	-9	-9
417	Centrales Solaires de Quirinus SARL, Montpellier/France	5	100.00	23	30
418	Centrales Solaires de Salles-la-Source SARL, Montpellier/France	5	100.00	-2	-1
419	Centrales Solaires d'Hemera SARL, Montpellier/France	5	100.00	0	-1
420	Centrales Solaires d'Hyperion SARL, Montpellier/France	5	100.00	-6	-2
421	Centrales Solaires du Languedoc SARL, Montpellier/France	5	100.00	111	107
422	Deves Énergie SARL, Montpellier/France	5	100.00	-2,058	524
423	EnBW Albatros Management GmbH, Hamburg	5	100.00	26	1
424	EnBW Asia Pacific Ltd, Taipei/Taiwan	5	100.00	142	-325
425	EnBW Baltic 1 Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	25	1
426	EnBW Baltic 2 Management GmbH, Biberach an der Riß (formerly EnBW Omega 101. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	24	-1
427	EnBW Baltic Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	34	1
428	EnBW Bürgerbeteiligung Wind 1 GmbH, Stuttgart (formerly EnBW Windpark Langenburg GmbH, Stuttgart)	3, 5	100.00	25	–
429	EnBW Danemark ApS, Balle/Denmark	5	100.00	-3,314	-3
430	EnBW France SAS, Boulogne-Billancourt/France	11	100.00	–	–
431	EnBW Hohe See Management GmbH, Hamburg	5	100.00	27	1
432	EnBW North America Inc., Wilmington, Delaware/USA	5	100.00	6,157	-526
433	EnBW Solarpark Gottesgabe GmbH, Neutrebbin	5	100.00	25	-2

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
434	EnBW Wind Onshore Portfolio 2019 GmbH, Stuttgart	5	100.00	25	0
435	EnBW Wind Onshore Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
436	EnBW Wind op Zee B.V., Amsterdam/The Netherlands	5	100.00	-51	-25
437	EnBW Windpark Kleinliebringen GmbH, Stuttgart	5	100.00	23	-2
438	Ferme Éolienne de Donzère SARL, Montpellier/France	5	100.00	516	-48
439	Ferme Éolienne de la Ferrière-de-Flée SARL, Montpellier/France	11	100.00	–	–
440	Ferme Éolienne de Saint Jean de Pourcharesse SARL, Montpellier/France	5	100.00	-14	-2
441	Grünwerke Verwaltungs GmbH, Düsseldorf	5	100.00	39	3
442	Kemberg Windpark Management GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	100.00	1,324	38
443	NatürlichEnergie EMH GmbH, Platten	5	100.00	692	-110
444	NatürlichSonne Trogen GmbH & Co. KG, Monzelfeld	5	100.00	311	27
445	NatürlichSonne Trogen Verwaltungs GmbH, Ettlingen	5	100.00	23	-1
446	Parc Éolien d'Amfreville-les-Champs SARL, Montpellier/France	11	100.00	–	–
447	Parc Éolien d'Argillières SARL, Montpellier/France	5	100.00	-12	-9
448	Parc Éolien de Barbezières-Lupsault SARL, Montpellier/France	5	100.00	-5	-3
449	Parc Éolien de Bornay 2 SARL, Montpellier/France	5	100.00	-17	-17
450	Parc Éolien de Bornay SARL, Montpellier/France	5	100.00	-18	-16
451	Parc Éolien de Boussais SARL, Montpellier/France	11	100.00	–	–
452	Parc Éolien de Breuillac SARL, Montpellier/France	5	100.00	-10	-6
453	Parc Éolien de Broquièrs SARL, Montpellier/France	5	100.00	-3	-3
454	Parc Éolien de Causses et Rivières SARL, Montpellier/France	5	100.00	-6	-2
455	Parc Éolien de Champ Serpette SARL, Montpellier/France	5	100.00	-5	-2
456	Parc Éolien de Champs Perdus 2 SARL, Montpellier/France	5	100.00	-3	-3
457	Parc Éolien de Chan des Planasses SARL, Montpellier/France	5	100.00	-3	-4
458	Parc Éolien de Combaynart SARL, Montpellier/France	5	100.00	0	0
459	Parc Éolien de Keranflech SARL, Montpellier/France	5	100.00	0	0
460	Parc Éolien de Kerimard SARL, Montpellier/France	11	100.00	–	–
461	Parc Éolien de la Bussière SARL, Montpellier/France	5	100.00	-6	-4
462	Parc Éolien de la Cressionnière SARL, Montpellier/France	5	100.00	0	0
463	Parc Éolien de la Fougère SARL, Montpellier/France	5	100.00	-17	-15
464	Parc Éolien de la Haute Charmoie SARL, Montpellier/France	5	100.00	-6	-2
465	Parc Éolien de la Pezille SARL, Montpellier/France	11	100.00	–	–
466	Parc Éolien de la Roche SARL, Montpellier/France	5	100.00	0	0
467	Parc Éolien de la Vallée Berlure SARL, Montpellier/France	5	100.00	-2	-3
468	Parc Éolien de la Vingeanne SARL, Montpellier/France	5	100.00	-6	-2
469	Parc Éolien de le Quesnel SARL, Montpellier/France	5	100.00	-6	-2
470	Parc Éolien de l'Epinette SARL, Montpellier/France	5	100.00	-3	-4
471	Parc Éolien de Lupsault SARL, Montpellier/France	5	100.00	0	0
472	Parc Éolien de Marendeuil SARL, Montpellier/France	5	100.00	-25	-18
473	Parc Éolien de Monsures SARL, Montpellier/France	5	100.00	-21	-14
474	Parc Éolien de Mouterre-Silly SARL, Montpellier/France	11	100.00	–	–
475	Parc Éolien de Nongée SARL, Montpellier/France	5	100.00	-5	-2
476	Parc Éolien de Noroy SARL, Montpellier/France	5	100.00	-6	-2
477	Parc Éolien de Picoud SARL, Montpellier/France	11	100.00	–	–
478	Parc Éolien de Pistole SARL, Montpellier/France	5	100.00	-4	-2
479	Parc Éolien de Ravery SARL, Montpellier/France	5	100.00	0	0

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
480	Parc Éolien de Revelles SARL, Montpellier/France	5	100.00	-25	-2
481	Parc Éolien de Ribemont SARL, Montpellier/France	5	100.00	-2	-3
482	Parc Éolien de Saint-Fraigne SARL, Montpellier/France	5	100.00	0	0
483	Parc Éolien de Saint-Ygeaux SARL, Montpellier/France	5	100.00	0	0
484	Parc Éolien de Sery-les-Mezières SARL, Montpellier/France	5	100.00	0	0
485	Parc Éolien de Severac d'Aveyron SARL, Montpellier/France	5	100.00	-3	-3
486	Parc Éolien de Thennes SARL, Montpellier/France	5	100.00	-2	-3
487	Parc Éolien de Vellexon SARL, Montpellier/France	5	100.00	-6	-2
488	Parc Éolien de Vervant et Lea SARL, Montpellier/France	5	100.00	-8	-9
489	Parc Éolien de Warlus SARL, Montpellier/France	5	100.00	-33	-16
490	Parc Éolien des Bouiges SARL, Montpellier/France	5	100.00	-35	-5
491	Parc Éolien des Brandes de l'Ozon Sud SARL, Montpellier/France	5	100.00	-11	-2
492	Parc Éolien des Bruyères SARL, Montpellier/France	11	100.00	–	–
493	Parc Éolien des Ecoulottes SARL, Montpellier/France	5	100.00	-59	-13
494	Parc Éolien des Gaudines SARL, Montpellier/France	5	100.00	-5	-2
495	Parc Éolien des Gours SARL, Montpellier/France	5	100.00	0	0
496	Parc Éolien des Moussières SARL, Montpellier/France	5	100.00	-6	-2
497	Parc Éolien des Navarros SARL, Montpellier/France	5	100.00	-8	-6
498	Parc Éolien des Quatre Chemins SARL, Montpellier/France	5	100.00	-6	-2
499	Parc Éolien des Rapailles SARL, Montpellier/France	5	100.00	-7	-2
500	Parc Éolien des Renouillères SARL, Montpellier/France	5	100.00	-5	-2
501	Parc Éolien des Rieux SARL, Montpellier/France	11	100.00	–	–
502	Parc Éolien des Saules SARL, Montpellier/France	5	100.00	-5	-2
503	Parc Éolien des Terres de Caumont SARL, Montpellier/France	5	100.00	-5	-2
504	Parc Éolien d'Hilvern SARL, Montpellier/France	11	100.00	–	–
505	Parc Éolien du Bel Essart SARL, Montpellier/France	5	100.00	-12	-2
506	Parc Éolien du Bois de la Motte SARL, Montpellier/France	11	100.00	–	–
507	Parc Éolien du Bois du Piné SARL, Montpellier/France	11	100.00	–	–
508	Parc Éolien du Commandeur SARL, Montpellier/France	11	100.00	–	–
509	Parc Éolien du Fresnay SARL, Montpellier/France	5	100.00	0	0
510	Parc Éolien du Frestoy SARL, Montpellier/France	5	100.00	-2	-2
511	Parc Éolien du Houarn SARL, Montpellier/France	5	100.00	-6	-2
512	Parc Éolien du Houssais SARL, Montpellier/France	5	100.00	0	0
513	Parc Éolien du Mercorbon SARL, Montpellier/France	5	100.00	-7	-2
514	Parc Éolien du Mont de l'Echelle SARL, Montpellier/France	5	100.00	-5	-3
515	Parc Éolien du Puy Peret SARL, Montpellier/France	5	100.00	-37	-8
516	SP XIV GmbH & Co. KG, Cottbus	5	100.00	4	-2
517	SP XV GmbH & Co. KG, Cottbus	5	100.00	4	-2
518	Valeco Energía México S.A. de C.V., Mexico City/Mexico	5	100.00	0	0
519	Valeco Énergie Québec Inc., Montréal/Canada	5	100.00	-886	-115
520	Valeco Engineering One Member Company Ltd., Ho Chi Minh City/Vietnam	11	100.00	–	–
521	Valeco Sea Pte. Ltd., Singapore/Singapore	5	100.00	-4	-4
522	Windpark Rot am See Infrastruktur GmbH, Stuttgart	5	100.00	28	0
523	ZEAG Erneuerbare Energien GmbH, Heilbronn	5	100.00	43	18
524	JATROSELECT-Paraguay Sociedad de Responsabilidad Limitada, Volendam/Paraguay	5	99.98	256	0
525	EE Bürgerenergie Bühlerzell GmbH & Co. KG, Bühlerzell	5	99.00	71	-6

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
526	EE Bürgerenergie Frankenhardt GmbH & Co. KG, Frankenhardt	5	99.00	78	-3
527	EE Bürgerenergie Hardheim GmbH & Co. KG, Hardheim	5	99.00	72	-10
528	EE Bürgerenergie Höpfingen GmbH & Co. KG, Höpfingen	5	99.00	75	-9
529	EE BürgerEnergie Krautheim GmbH & Co. KG, Krautheim	5	99.00	18	-12
530	EE BürgerEnergie Neudenau GmbH & Co. KG, Neudenau	5	99.00	72	-3
531	EE Bürgerenergie Sulzbach-Laufen GmbH & Co. KG, Sulzbach-Laufen	5	99.00	80	-3
532	Valeco Solar SARL, Montpellier/France	5	95.20	820	708
533	Holzkraft Plus GmbH, Düsseldorf	5	90.00	146	-5
534	Parc Éolien de Brebières SAS, Montpellier/France	5	87.86	-11	-2
535	EnPV GmbH, Karlsruhe	5	71.30	229	-97
536	JatroGreen S.A.R.L., Antananarivo/Madagascar	5	70.00	108	-39
537	Powderis SARL, Montpellier/France	5	70.00	-581	-106
538	Centrale Solaire de la Durance SARL, Montpellier/France	5	65.00	-99	198
539	Hydro Léman SARL, Montpellier/France	5	57.00	-5	-2
540	Erneuerbare Energien Neckarwestheim GmbH & Co. KG, Neckarwestheim	5	52.80	700	28
541	Alb-Windkraft Verwaltungs GmbH, Geislingen an der Steige	5	51.00	58	33
542	Centrale Solaire de Saint Mamet SARL, Montpellier/France	5	51.00	-491	-150
543	Solarpark Leutkirch GmbH & Co. KG, Leutkirch im Allgäu	5	51.00	9,507	655
544	Solarpark Leutkirch Verwaltungsgesellschaft mbH, Leutkirch im Allgäu	5	51.00	26	1
Entities accounted for using the equity method					
545	Valeco Ren SAS, Montpellier/France	9	51.00	-2,469	-761
546	EnBW Albatros GmbH & Co. KG, Hamburg	5, 9	50.11	149,758	100
547	Borusan EnBW Enerji yatırımları ve Üretim Anonim Şirketi, Istanbul/Turkey	5, 9	50.00	208,555	-12,323
548	Elektrizitätswerk Rheinau AG, Rheinau/Switzerland	5, 7	50.00	20,934	732
549	Bayerische-Schwäbische Wasserkraftwerke Beteiligungsgesellschaft mbH, Gundremmingen	5	37.80	57,581	3,128
550	KW Ackersand I AG, Stalden/Switzerland	5	25.00	1,859	0
Investments[15]					
551	Netzanschlussgesellschaft Windparks Ostercappeln/Bohmte mbH, Kirchdorf	5	66.66	25	11
552	biogasNRW GmbH i.L., Düsseldorf		50.00	–	–
553	Centrale Electrique Rhénane de Gambsheim SA, Gambsheim/France	5	50.00	9,648	0
554	Holding de la Montagne Noire SARL, Montpellier/France	5	50.00	-146	-138
555	Kraftwerk Aegina A.G., Obergoms/Switzerland	5, 7	50.00	12,167	0
556	Kraftwerk Reckingen AG, Reckingen	5	50.00	3,203	72
557	Parc Éolien des Quintefeuilles SAS, Montpellier/France	5	50.00	1	0
558	Parc Éolien Vallée de l'Escrebieux SAS, Montpellier/France	5	50.00	0	0
559	Rheinkraftwerk Säckingen AG, Bad Säckingen	5	50.00	7,804	300
560	SwissAlpin SolarTech AG i.L., Visp/Switzerland		50.00	–	–
561	Wasserkraftwerk Hausen GbR, Hausen im Wiesental	5, 14	50.00	487	-103
562	WKM Wasserkraftwerke Maulburg GmbH, Maulburg	5	50.00	485	13
563	KW Jungbach AG, St. Niklaus/Switzerland	5	49.00	3,897	303
564	Projektentwicklung Waldeck-Frankenberg GmbH & Co. KG, Korbach	5	49.00	393	-7
565	Projektentwicklung Waldeck-Frankenberg Verwaltungs GmbH, Korbach	5	49.00	25	0
566	Centrale Solaire de la Petite Vicomté SAS, Montpellier/France	5	44.00	-12	-12
567	Obere Donau Kraftwerke AG, Munich	5	40.00	3,180	0
568	Segalasses Énergie SARL, Toulouse/France	5	40.00	0	0

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
569	TWKW Trinkwasserkraftwerke Niedergesteln AG, Niedergesteln/Switzerland	5	40.00	1,681	144
570	Kraftwerk Ryburg-Schwörstadt AG, Rheinfelden/Switzerland	5, 7	38.00	34,608	1,584
571	Haiding One International Investment Co., Ltd., Taipei/Taiwan	5	37.50	1,438	-362
572	Haiding Three International Investment Co., Ltd., Taipei/Taiwan	5	37.50	1,438	-383
573	Haiding Two International Investment Co., Ltd., Taipei/Taiwan	5	37.50	1,438	-363
574	Parc Éolien de Montelu SAS, Montpellier/France	5	34.00	0	0
575	Parc Éolien des Gassouillis SAS, Montpellier/France	5	34.00	0	0
576	GEIE Exploitation Minière de la Chaleur, Kutzenhausen/France	5, 14	33.33	0	-134
577	Windpark Prützke II GmbH & Co. KG, Düsseldorf	5	33.33	1,465	-35
578	KWT Kraftwerke Törbel-Moosalp AG, Törbel/Switzerland	5	30.00	893	42
579	Baltic Windpark Beteiligungen GmbH & Co. KG, Stuttgart	5	29.17	24,656	6,438
580	Kraftwerke Gougra AG, Sierre/Switzerland	5	27.50	51,650	1,367
581	EE Bürgerenergie Heilbronn GmbH & Co. KG, Heilbronn	5	26.00	1,000	86
582	Parc Éolien de Lavacquerié SAS, Montpellier/France	5	26.00	0	0
583	Windpark Lindtorf GmbH, Rheine	5	26.00	4,200	16
584	Alb-Windkraft GmbH & Co. KG, Geislingen an der Steige	5	25.50	582	447
585	ANOG Anergienetz Obergoms AG, Obergoms/Switzerland	5	24.50	193	11
586	KWOG Kraftwerke Obergoms AG, Obergoms/Switzerland	5	24.50	12,098	441
587	Éolienne de Murasson SARL, Montpellier/France	5	20.00	110	86
588	Erneuerbare Energien Zollern Alb GmbH i.L., Balingen		20.00	–	–
589	Ferme Éolienne de Muratel SAS, Montpellier/France	5	20.00	-325	384
590	Ferme Éolienne de Plo d'Amoures SAS, Montpellier/France	5	20.00	-300	-27
591	Ferme Éolienne de Thalis SAS, Montpellier/France	5	20.00	-96	-14
592	Kooperation Erneuerbare Energien im Landkreis Rottweil GmbH, Schramberg	5	20.00	86	-7
593	Mélagues Energie SAS, Montpellier/France	5	20.00	-186	-21
594	Montagnol Energie SAS, Montpellier/France	5	20.00	-2,144	-1,547
595	Parc Éolien de Chasseneuil SARL, Montpellier/France	5	20.00	-20	-13
596	Parc Éolien de Prinquies SARL, Montpellier/France	5	20.00	-42	-16
597	Parc Éolien du Vallon de Sancey SARL, Montpellier/France	5	20.00	-20	-10
598	Sepe de la Gare SAS, Montpellier/France	5	20.00	-183	142
599	Tauriac Energie SAS, Montpellier/France	5	20.00	-3,099	-2,105
600	Wasserkraftwerk Pfinztal GmbH & Co. KG, Pfinztal	5	20.00	234	-4
Generation and Trading segment					
Fully consolidated companies					
601	AWISTA Logistik GmbH, Düsseldorf	3, 5	100.00	3,025	–
602	EnBW Biomasse GmbH, Karlsruhe		100.00	2,012	296
603	EnBW Etzel Speicher GmbH, Karlsruhe	3	100.00	825	–
604	EnBW Grundstücksverwaltung Rheinhafen GmbH, Karlsruhe		100.00	2,384	12
605	EnBW Kraftwerk Lippendorf Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	297,640	–
606	EnBW Rückbauservice GmbH, Stuttgart	3	100.00	25	–
607	ENERGIEUNION GmbH, Schwerin	3	100.00	4,387	–
608	Gemeinschaftsheizkraftwerk Fortuna GmbH, Düsseldorf		100.00	25	3,997
609	Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim	3	100.00	117,377	–
610	HANDEN Sp. z o.o., Warsaw/Republic of Poland		100.00	58,060	2,443
611	Heizkraftwerk Stuttgart GmbH, Stuttgart		100.00	5,129	0
612	Kernkraftwerk Obrigheim GmbH, Obrigheim	3	100.00	51,130	–

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
613	MSE Mobile Schlammentwässerungs GmbH, Karlsbad-Ittersbach	3	100.00	1,171	–
614	TAE Thermische Abfallentsorgung Ansbach GmbH, Ansbach		100.00	58,802	2
615	TPLUS GmbH, Karlsruhe	3	100.00	18,162	–
616	TWS Kernkraft GmbH, Gemmrigheim	3	100.00	149,297	–
617	u-plus Umweltservice GmbH, Karlsruhe	3	100.00	99,979	–
618	VNG Austria GmbH, Gleisdorf/Austria		100.00	5,418	-2,494
619	VNG Energie Czech s.r.o., Prague/Czech Republic	6	100.00	937	-1,331
620	VNG Gasspeicher GmbH, Leipzig	3	100.00	21,311	–
621	VNG Handel & Vertrieb GmbH, Leipzig	3	100.00	37,840	–
622	VNG Italia S.r.l., Bologna/Italy		100.00	47,328	343
623	EnBW Kernkraft GmbH, Obrigheim	3	99.80	10,000	–
624	Südwestdeutsche Nuklear-Entsorgungsgesellschaft mbH, Stuttgart		86.49	10,251	2,827
625	SPIGAS S.r.l., La Spezia/Italy		80.00	37,050	585
626	Zentraldeponie Hubbelrath GmbH, Düsseldorf		76.00	26,012	140
627	VNG AG, Leipzig		74.21	867,664	163,410
628	AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, Düsseldorf	5	51.00	53,596	23,069
629	KNG Kraftwerks- und Netzgesellschaft mbH, Rostock		50.40	530	8
Joint operations					
630	Friedeburger Speicherbetriebsgesellschaft mbH "Crystal", Friedeburg	9	50.00	94,611	68
Non-consolidated affiliated entities[15]					
631	P² Plant & Pipeline Engineering GmbH, Essen	5	100.00	982	263
632	EnergieFinanz GmbH, Schwerin	5	100.00	989	37
633	EZG Operations GmbH, Wismar	5	100.00	276	113
634	Nahwärme Düsseldorf GmbH, Düsseldorf	5	66.00	2,741	346
Entities accounted for using the equity method					
635	Erdgasspeicher Peissen GmbH, Halle (Saale)	5, 9	50.00	108,560	-656
636	Fernwärme Ulm GmbH, Ulm	5, 7, 9	50.00	36,049	4,306
637	Schluchseewerk Aktiengesellschaft, Laufenburg (Baden)	5	50.00	64,957	2,809
638	REMONDIS Rhein-Wupper GmbH & Co. KG, Düsseldorf	5	49.00	15,421	8,944
639	Grosskraftwerk Mannheim AG, Mannheim	5	32.00	127,435	6,647
Investments[15]					
640	EnergyIncore GmbH, Schwerin	11	50.00	–	–
641	Fernwärme Rhein-Neckar GmbH, Mannheim	5	50.00	5,724	1,739
642	KDM Kompostierungs- und Vermarktungsgesellschaft für Stadt Düsseldorf/Kreis Mettmann mbH, Ratingen	5	50.00	2,233	262
643	Kraftwerksbatterie Heilbronn GmbH, Stuttgart	5	50.00	4,881	-140
644	MIOGAS & LUCE S.r.l., Rozzano/Italy	5	50.00	11,948	1,987
645	Powerment GmbH & Co. KG, Ettlingen	5	50.00	6,056	3,868
646	RheinWerke GmbH, Düsseldorf	5	50.00	4,366	-371
647	MOWA Mobile Waschanlagen GmbH, Neunkirchen-Seelscheid	5	49.00	227	192
648	REMONDIS Rhein-Wupper Verwaltungs GmbH, Düsseldorf	5	49.00	39	0
649	HWM Holzwärme Müllheim GmbH, Müllheim	5	45.00	484	-44
650	Fernwärme Zurich AG, Zurich/Switzerland	5	40.00	4,431	2,219
651	Untergrundspeicher- und Geotechnologie-Systeme Gesellschaft mit beschränkter Haftung, Mittenwalde	5	40.00	7,549	-524
652	SPIGAS CLIENTI S.r.L., Milan/Italy (formerly SPIGAS CLIENTI S.r.l., La Spezia/Italy)	5, 7	35.00	539	419

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
653	Nuovenergie S.p.A., Milan/Italy	5	30.00	2,604	906
654	Beteiligungsgesellschaft der EVU an der Kerntechnischen Hilfsdienst GmbH - GbR, Karlsruhe	5, 14	21.59	0	0
655	CANARBINO S.p.A., Milan/Italy (formerly CANARBINO S.p.A., Sarzana/ Italy)	5, 7	20.00	55,351	8,647
Other					
Fully consolidated companies					
656	ED Immobilien GmbH & Co. KG, Rheinfelden	6	100.00	0	153
657	ED Immobilien Verwaltungsgesellschaft mbH, Rheinfelden	6	100.00	32	0
658	ED Kommunal GmbH, Rheinfelden	6	100.00	37,526	1,332
659	EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe	3	100.00	25	–
660	EnBW City GmbH & Co. KG, Obrigheim		100.00	8,885	8,394
661	EnBW Immobilienbeteiligungen GmbH, Karlsruhe		100.00	487,235	4,324
662	EnBW International Finance B.V., Amsterdam/The Netherlands		100.00	1,164,210	32,496
663	EnBW Perspektiven GmbH, Karlsruhe	3	100.00	1,500	–
664	Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim		100.00	199,595	5,549
665	Neckarwerke Stuttgart GmbH, Stuttgart	3	100.00	1,880,237	–
666	NWS Finanzierung GmbH, Karlsruhe	3	100.00	1,237,605	–
667	symbiotic services GmbH, Karlsruhe	3	100.00	25	–
668	MURVA Grundstücks-Verwaltungsgesellschaft mbH & Co. KG, Grünwald	5	95.00	-8,797	745
669	EnBW VersicherungsVermittlung GmbH, Stuttgart		51.00	51	3,863
Non-consolidated affiliated entities[15]					
670	EnBW Bürgerbeteiligung Solar 1 GmbH, Stuttgart (formerly EnBW Omega 106. Verwaltungsgesellschaft mbH, Stuttgart)	3, 5	100.00	25	–
671	EnBW New Ventures GmbH, Karlsruhe	3, 5	100.00	15,199	–
672	EnBW Omega 103. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
673	EnBW Omega 104. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
674	EnBW Omega 105. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
675	EnBW Omega 107. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
676	EnBW Omega 108. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
677	EnBW Omega 110. Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
678	EnBW Omega 111. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
679	EnBW Omega 112. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
680	EnBW Omega 113. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
681	EnBW Omega 114. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
682	EnBW Omega 115. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
683	EnBW Omega 116. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
684	EnBW Omega 117. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
685	EnBW Omega 118. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
686	EnBW Omega 119. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
687	EnBW Omega 120. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
688	EnBW Omega Achtundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
689	EnBW Omega Achtundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	0
690	EnBW Omega Achtzigste GmbH, Mühlacker (formerly EnBW Omega Achtzigste Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	24	0
691	EnBW Omega Dreiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
692	EnBW Omega Dreiundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	24	0
693	EnBW Omega Fünfundfünfzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–

		Foot-note	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
694	EnBW Omega Fünfundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
695	EnBW Omega Hundertste Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
696	EnBW Omega Neunundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
697	EnBW Omega Sechsundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
698	EnBW Omega Siebenundneunzigste Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
699	EnBW Omega Vierundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
700	EnBW Omega Zweiundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	25	0
701	EnBW Real Estate GmbH, Obrigheim	5	100.00	107	9
702	EnBW Senergi Immobilien GmbH, Karlsruhe	5	100.00	74	0
703	Interconnector GmbH, Karlsruhe	3, 5	100.00	25	–
704	KMS Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	44	-1
705	MGMTree GmbH, Leipzig	5	100.00	107	20
706	Rheintal PE GmbH & Co. KG, Bad Homburg v. d. Höhe	5	100.00	19,278	-466
707	SSG Verwaltungsgesellschaft mbH i.L., Kornwestheim		100.00	–	–
708	VNG Innovation Consult GmbH, Leipzig	5	100.00	24	-1
709	VNG Innovation GmbH, Leipzig	3, 5	100.00	2,304	–
Investments[15]					
710	UnigestionFLEX SCS SICAV RAIF, Luxembourg/Luxembourg	5	100.00	262,701	-82
711	WP Global Germany Private Equity L.P., Wilmington, Delaware/USA	5, 14	100.00	185,730	42,400
712	Sirius EcoTech Fonds Düsseldorf GmbH & Co. KG., Düsseldorf	5	78.15	5,670	-385
713	regiodata GmbH, Lörrach	5	35.00	980	416
714	MVV Energie AG, Mannheim	5, 7, 12	28.76	1,121,574	113,985
715	EFR Europäische Funk-Rundsteuerung GmbH, Munich	5	25.10	3,609	2,860
716	GasLINE Telekommunikationsnetz-Geschäftsführungsgesellschaft deutscher Gasversorgungsunternehmen mbH, Straelen	5	23.39	69	2

1 Shares of the respective parent company calculated in accordance with section 313 (2) HGB (as of 31 December 2019).
2 In the case of separate entities, the figures stem from financial statements prepared pursuant to local principles and do not show the contributions of each entity to the consolidated financial statements.
3 Profit and loss transfer agreement and/or domination agreement and/or loss assumption agreement.
4 Profit and loss transfer agreement with third parties.
5 Previous year's figures.
6 Preliminary figures.
7 Divergent financial year.
8 Control due to contractual agreement.
9 Joint control pursuant to IFRS 11.
10 Before taking treasury shares of the company into account.
11 New company, annual financial statements not yet available.
12 No significant influence exists.
13 Other shareholdings included due to contractual control arrangements.
14 Companies whose shareholders with unlimited liability are a company that is included in the consolidated financial statements.
15 Includes non-consolidated affiliated entities and other investments that are not fully consolidated or accounted for using the equity method because of their minor importance. They are recognised instead at their acquisition costs.

(38) Disclosures concerning concessions

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

(39) Significant events after the reporting date

EnBW Albatros GmbH & Co. KG has been fully consolidated in the EnBW consolidated financial statements since 1 January 2020. For more information, please refer to the note "Full consolidation without a change in shareholding due to obtaining control in 2019".

Stuttgart, 4 March 2020

EnBW Energie Baden-Württemberg AG

Dr. Mastiaux Kusterer

Rückert-Hennen Dr. Zimmer