Financial statements of the EnBW Group

Income statement

in € million	Notes	2022	2021	Change in %
Revenue including electricity and energy taxes		56,524.0	32,695.0	72.9
Electricity and energy taxes		-521.4	-547.1	-4.7
Revenue	**(1)**	**56,002.6**	**32,147.9**	**74.2**
Changes in inventories		51.9	56.6	-8.3
Other own work capitalized		305.3	220.3	38.6
Other operating income	(2)	7,348.0	2,256.1	–
Cost of materials	(3)	-51,148.4	-25,951.0	97.1
Personnel expenses	(4)	-2,591.8	-2,457.5	5.5
Impairment losses [1]	(26)	-112.3	-53.4	110.3
Other operating expenses	(5)	-5,382.1	-3,415.5	57.6
EBITDA		**4,473.2**	**2,803.5**	**59.6**
Amortization and depreciation	(6)	-2,332.0	-2,644.7	-11.8
Earnings before interest and taxes (EBIT)		**2,141.2**	**158.8**	**–**
Investment result	(7)	276.8	180.0	53.8
of which net profit/loss from entities accounted for using the equity method		(23.9)	(59.0)	(-59.5)
of which other profit/loss from investments		(252.9)	(121.0)	(109.0)
Financial result	(8)	-22.6	174.5	–
of which finance income		(1,039.2)	(661.1)	(57.2)
of which finance costs		(-1,061.8)	(-486.6)	(118.2)
Earnings before tax (EBT)		**2,395.4**	**513.3**	**–**
Income tax	(9)	-551.5	-72.1	–
Group net profit		**1,843.9**	**441.2**	**–**
of which profit/loss shares attributable to non-controlling interests		(105.9)	(78.0)	(35.8)
of which profit/loss shares attributable to the shareholders of EnBW AG		(1,738.0)	(363.2)	–
EnBW AG shares outstanding (million), weighted average		**270.855**	**270.855**	**0.0**
Earnings per share from Group net profit (€) [2]	**(25)**	**6.42**	**1.34**	**–**

1 According to IFRS 9.
2 Diluted and basic; in relation to profit/loss attributable to the shareholders of EnBW AG.

Statement of comprehensive income

in € million [1]	Notes	2022	2021	Change in %
Group net profit		**1,843.9**	**441.2**	**–**
Revaluation of pensions and similar obligations	(21)	2,388.9	645.1	–
Entities accounted for using the equity method	(13)	-0.1	1.0	–
Income taxes on other comprehensive income	(9)	-610.0	-268.9	126.9
Total of other comprehensive income and expenses without future reclassifications impacting earnings		**1,778.8**	**377.2**	**–**
Currency translation differences		66.1	86.1	-23.2
Cash flow hedge	(26)	1,548.4	438.7	–
Financial assets at fair value in equity	(14)	-232.4	-31.7	–
Entities accounted for using the equity method	(13)	2.8	1.8	55.6
Income taxes on other comprehensive income	(9)	-400.7	-101.3	–
Total of other comprehensive income and expenses with future reclassifications impacting earnings		**984.2**	**393.6**	**–**
Total other comprehensive income		**2,763.0**	**770.8**	**–**
Total comprehensive income		**4,606.9**	**1,212.0**	**–**
of which profit/loss shares attributable to non-controlling interests		(83.8)	(221.4)	-62.1
of which profit/loss shares attributable to the shareholders of EnBW AG		(4,523.1)	(990.6)	–

1 Further information is available in the notes under (20) "Equity."

Balance sheet

in € million	Notes	31/12/2022	31/12/2021
Assets			
Non-current assets			
Intangible assets	(10)	3,218.2	3,417.0
Property, plant and equipment	(11), (12)	22,705.3	20,364.4
Entities accounted for using the equity method	(13)	1,134.0	1,017.9
Other financial assets	(14)	6,560.1	6,744.3
Trade receivables	(15)	329.4	330.2
Other non-current assets	(16)	2,957.6	2,243.5
Deferred taxes	(22)	79.4	1,115.2
		36,984.0	**35,232.5**
Current assets			
Inventories	(17)	3,835.7	2,290.3
Financial assets	(18)	1,348.3	1,174.1
Trade receivables	(15)	5,591.3	5,952.5
Other current assets	(16)	15,261.0	19,916.7
Cash and cash equivalents	(19)	6,475.6	6,653.1
		32,511.9	**35,986.7**
Assets held for sale	(24)	7.8	54.0
		32,519.7	**36,040.7**
		69,503.7	**71,273.2**
Equity and liabilities			
Equity	(20)		
Shares of the shareholders of EnBW AG			
Subscribed capital		708.1	708.1
Capital reserve		774.2	774.2
Revenue reserves		7,272.7	5,742.1
Treasury shares		-204.1	-204.1
Other comprehensive income		412.1	-2,372.9
		8,963.0	**4,647.4**
Non-controlling interests		3,806.3	3,851.9
		12,769.3	**8,499.3**
Non-current liabilities			
Provisions	(21)	10,483.9	14,089.5
Deferred taxes	(22)	958.1	1,018.3
Financial liabilities	(23)	11,927.3	9,182.5
Other liabilities and subsidies	(23)	4,695.2	4,240.7
		28,064.5	**28,531.0**
Current liabilities			
Provisions	(21)	3,346.8	2,676.5
Financial liabilities	(23)	963.9	2,067.9
Trade payables	(23)	8,443.3	6,475.8
Other liabilities and subsidies	(23)	15,915.9	23,022.7
		28,669.9	**34,242.9**
		69,503.7	**71,273.2**

Cash flow statement

in € million [1]	Notes	2022	2021
1. Operating activities			
Group net profit		1,843.9	441.2
Income tax	(9)	551.5	72.1
Investment and financial result	(7), (8)	-254.2	-354.5
Amortization and depreciation	(6)	2,332.0	2,644.7
Change in provisions	(21)	36.2	-103.9
Result from disposals of assets	(2), (5)	-3.4	5.8
Other non-cash-relevant expenses/income	(2), (3), (5)	-1,248.3	-402.1
Change in assets and liabilities from operating activities		-1,224.9	5,495.1
Inventories		(-2,624.8)	(867.6)
Net balance of trade receivables and payables	(15), (23)	(2,470.9)	(1,246.7)
Net balance of other assets and liabilities	(16), (23)	(-1,071.0)	(3,380.8)
Income tax paid	(9), (16), (23)	-227.9	-200.6
Cash flow from operating activities		**1,804.8**	**7,597.8**
2. Investing activities			
Capital expenditure on intangible assets and property, plant and equipment	(10), (11)	-2,770.7	-2,361.9
Disposals of intangible assets and property, plant and equipment	(10), (11)	57.9	73.1
Cash received from subsidies for construction cost and investments	(23)	106.4	94.8
Cash paid for the acquisition of companies and interests in entities accounted for using the equity method as well as in joint operations	(13)	-110.4	-287.0
Cash received from the sale of companies and interests in entities accounted for using the equity method as well as in joint operations	(13)	24.7	0.9
Cash paid for investments in other financial assets [2]	(14), (18)	-2,450.5	-729.2
Cash received from the sale of other financial assets [2]	(14), (18)	1,788.3	164.1
Change in securities and financial investments [2]	(18), (23)	192.4	-186.5
Interest received	(8)	122.4	148.7
Dividends received	(7)	304.6	209.3
Cash flow from investing activities [2]		**-2,734.9**	**-2,873.7**
3. Financing activities			
Interest paid	(8)	-318.8	-314.5
Dividends paid [2]	(20)	-399.4	-356.4
Cash received for changes in ownership interest without loss of control	(20)	303.3	229.1
Cash paid for changes in ownership interest without loss of control		-1.6	-5.1
Increase in financial liabilities	(23)	12,898.1	3,523.5
Repayment of financial liabilities	(23)	-11,219.8	-2,025.7
Repayment of lease liabilities	(23)	-183.3	-185.4
Cash received for capital increases in non-controlling interests	(20)	43.0	11.5
Cash paid for capital reductions in non-controlling interests	(20)	-42.8	-16.4
Other cash paid at non-controlling interests [2]	(18)	-344.1	-245.9
Cash flow from financing activities [2]		**734.6**	**614.7**
Net change in cash and cash equivalents	**(19)**	**-195.5**	**5,338.8**
Change in cash and cash equivalents due to changes in the consolidated companies	(19)	0.3	29.0
Net foreign exchange difference	(19)	17.8	32.4
Change in cash and cash equivalents due to risk provisions	(19)	-0.1	0.1
Change in cash and cash equivalents	**(19)**	**-177.5**	**5,400.4**
Cash and cash equivalents at the beginning of the period	(19)	6,653.1	1,252.7
Cash and cash equivalents at the end of the period	**(19)**	**6,475.6**	**6,653.1**

1 Further information is available in the notes under (33) "Notes to the cash flow statement."
2 The figures for the previous year have been restated. Further information is available in the notes under (33) "Notes to the cash flow statement."

Statement of changes in equity

in € million[1]				Other comprehensive income							
	Subscribed capital and capital reserve[2]	Revenue reserves	Treasury shares	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Financial assets at fair value in equity	Entities accounted for using the equity method	Shares of the shareholders of EnBW AG	Non-controlling interests	Total
Notes				(20), (21)		(20), (26)	(14), (20)	(13), (20)			
As of 01/01/2021	**1,482.3**	**5,629.7**	**-204.1**	**-2,922.9**	**-23.7**	**-78.5**	**29.5**	**-4.7**	**3,907.6**	**3,861.2**	**7,768.8**
Total other comprehensive income				363.6	66.7	214.5	-20.2	2.8	627.4	143.4	770.8
Group net profit		363.2							363.2	78.0	441.2
Total comprehensive income	**0.0**	**363.2**	**0.0**	**363.6**	**66.7**	**214.5**	**-20.2**	**2.8**	**990.6**	**221.4**	**1,212.0**
Dividends		-270.9							-270.9	-258.2	-529.1
Acquisition of subsidiaries with non-controlling interests									0.0	1.6	1.6
Change in non-controlling interests due to the sale of shares		20.6							20.6	93.3	113.9
Change in non-controlling interests due to the acquisition of shares		-0.5							-0.5	-3.3	-3.8
Other changes[3]									0.0	-64.1	-64.1
As of 31/12/2021	**1,482.3**	**5,742.1**	**-204.1**	**-2,559.3**	**43.0**	**136.0**	**9.3**	**-1.9**	**4,647.4**	**3,851.9**	**8,499.3**
Total other comprehensive income				1,759.8	51.6	1,134.8	-163.9	2.7	2,785.0	-22.1	2,762.9
Group net profit		1,738.0							1,738.0	105.9	1,843.9
Total comprehensive income	**0.0**	**1,738.0**	**0.0**	**1,759.8**	**51.6**	**1,134.8**	**-163.9**	**2.7**	**4,523.0**	**83.8**	**4,606.8**
Dividends		-297.9							-297.9	-193.2	-491.1
Change in non-controlling interests due to the sale of shares		90.8							90.8	197.9	288.7
Change in non-controlling interests due to the acquisition of shares									0.0	-1.8	-1.8
Other changes[3]		-0.3							-0.3	-132.3	-132.6
As of 31/12/2022	**1,482.3**	**7,272.7**	**-204.1**	**-799.5**	**94.6**	**1,270.8**	**-154.6**	**0.8**	**8,963.0**	**3,806.3**	**12,769.3**

1 Further information is available in the notes under (20) "Equity."
2 Of which subscribed capital €708.1 million (31/12/2021: €708.1 million, 01/01/2021: €708.1 million) and capital reserve €774.2 million (31/12/2021: €774.2 million, 01/01/2021: €774.2 million).
3 Of which capital increases by minority shareholders of €43.0 million (previous year: €11.5 million). Of which capital reductions by minority shareholders of €177.3 million (previous year: €86.1 million).

Notes to the 2022 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.

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 13 March 2023.

Consolidation principles

The financial statements of the domestic and foreign companies included in the consolidation were prepared in a standardized manner in accordance with the accounting policies that 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 recognized through profit or loss.

A change in the ownership interest in an entity that 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 recognized at cost and subsequently recognized according to the amortized 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 recognized 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 that, in the Group's opinion, are of minor significance, or which are not controlled due to their participation structure, are recognized at amortized cost. Indicators for determining the materiality of subsidiaries are the revenue, earnings and equity of these companies. Investments of <20% are recognized at fair value.

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	31/12/2022	31/12/2021
Fully consolidated companies	235	231
Entities accounted for using the equity method	26	25
Joint operations	3	3

Changes in the consolidated companies

Of the companies included in the consolidated financial statements by way of full consolidation, 8 (previous year: 10) domestic companies and 1 (previous year: 11) foreign companies were consolidated for the first time in the reporting year. No domestic companies were deconsolidated as in the previous year and 2 (previous year: 3) foreign companies were deconsolidated. Gains and losses on deconsolidation were immaterial in both the reporting year and the previous year. In addition, 2 (previous year: 1) domestic companies and 1 (previous year: 3) foreign company were merged.

Changes in the shareholdings in fully consolidated companies 2022

Sale of interest in SunInvest GmbH & Co. KG

EnBW sold 49.9% of its shareholding in SunInvest GmbH & Co. KG, Stuttgart, to Windpark Uetze Ost GmbH & Co. KG, Munich, on 30 September 2022. Our shareholding in SunInvest GmbH & Co. KG fell to 50.1% as a result of this transaction. SunInvest GmbH & Co. KG will continue to be included as a fully consolidated company in the consolidated financial statements of EnBW. The proceeds from the disposal of the shares were €301.5 million and were paid to EnBW in cash and cash equivalents. Transaction costs of €7.5 million were incurred. The value transferred to the non-controlling interest was €195.7 million. The difference between the disposal proceeds (after transaction costs and taxes) and the value transferred to the non-controlling interest of €91.3 million was recognized in equity under revenue reserves.

in € million	2022
Consideration received (less costs to sell and taxes)	287.0
Shares allocated to non-controlling interests	195.7
Non-operating amount recognized under revenue reserves	91.3

Changes in the shareholdings in fully consolidated companies 2021

Sale of interest in WindInvest GmbH & Co. KG

EnBW sold 49.9% of its shareholding in WindInvest GmbH & Co. KG, Stuttgart, to Akunalux S.à r.l., Luxembourg, on 31 March 2021. Our shareholding in WindInvest GmbH & Co. KG fell to 50.1% as a result of this transaction. WindInvest GmbH & Co. KG will continue to be included as a fully consolidated company in the consolidated financial statements of EnBW. The proceeds from the disposal of the shares were €127.3 million and were paid to EnBW in cash and cash equivalents. Transaction costs of €3.1 million were incurred. The value transferred to the non-controlling interest was €93.2 million. The difference between the disposal proceeds (after transaction costs and taxes) and the value transferred to the non-controlling interest of €20.6 million was recognized in equity under revenue reserves.

in € million	2021
Consideration received (less costs to sell and taxes)	113.8
Shares allocated to non-controlling interests	93.2
Non-operating amount recognized under revenue reserves	20.6

Changes in accounting policies

First-time adoption of amended accounting standards

The International Accounting Standards Board (IASB) and the IFRS Interpretation Committee (IFRIC) have adopted the following new standards, amendments to existing standards, and interpretations:

First-time adoption of amended accounting standards

Announcement	Title	Mandatory adoption for the EnBW Group	Expected impact on the EnBW consolidated financial statements
Amendments to IAS 16	Property, plant and equipment	1/1/2022	No material impact.
Amendments to IAS 37	Provisions, Contingent Liabilities and Contingent Assets	1/1/2022	No material impact.
Amendments to IFRS 3	Reference to the Conceptual Framework	1/1/2022	No material impact.
Amendments to IFRS 16	Covid-19-Related Rent Concessions beyond 30 June 2021	1/1/2022	No material impact.
Collective standard for the amendment of various IFRS	Improvements to the IFRS Cycle 2018–2020	1/1/2022	No material impact.

Effects of new accounting standards that are not yet mandatory

The IASB and IFRIC have published the following standards and interpretations. Their application in the future is subject to their endorsement by the EU into European law.

Effects of new accounting standards that are not yet mandatory

Announcement	Title	Mandatory adoption for the EnBW Group	Expected impact on the EnBW consolidated financial statements
Amendments to IAS 1	Classification of Liabilities as Current or Non-current	1/1/2024	No material impact.
Amendments to IAS 1	Disclosure of Accounting Policies	1/1/2024	No material impact.
Amendments to IAS 1	Non-current Liabilities with Covenants	1/1/2024	No material impact.
Amendments to IAS 8	Definition of Accounting Estimates	1/1/2023	No material impact.
Amendments to IAS 12	Income Taxes: Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction	1/1/2023	No material impact.
Amendments to IFRS 16	Lease Liability in a Sale and Leaseback	1/1/2024	No material impact.
Amendments to IFRS 17	Insurance Contracts and Amendments to IFRS 17	1/1/2023	No material impact.
Amendments to IFRS 17	Initial Application of IFRS 17 and IFRS 9 – Comparative Information	1/1/2023	No material impact.

Significant accounting policies

Intangible assets

Intangible assets acquired for a consideration are carried at amortized cost and, except for goodwill, are amortized using the straight-line method over their useful life. The amortization period of purchased software ranges from 3 to 5 years; the amortization period of concessions for power plants is between 15 and 65 years. Customer relationships are amortized over their expected useful life of between 4 and 30 years. Concession agreements in the areas of electricity, gas, district heating and water are in place between individual entities in the EnBW Group and the municipalities. Concession agreements are amortized over their term (generally 20 years).

Internally generated intangible assets are recognized at cost if it is probable that a future economic benefit from the use of the assets will flow to the company 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 programs that are amortized on a straight-line basis over a useful life of five years.

The useful lives and amortization methods are reviewed regularly.

In accordance with the provisions of the IFRS, goodwill from business combinations is not amortized, 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 capitalized.

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 recognized 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	5–55
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 amortization methods are reviewed regularly.

Property, plant and equipment are derecognized 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 derecognized.

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 capitalized as part of the respective asset. Where there are specific debt financing arrangements, the respective borrowing costs incurred are recognized. Where the debt financing arrangements are not specific, borrowing costs are capitalized using a uniform rate within the Group of 1.5% (previous year: 1.9%). Borrowing costs totaling €26.1 million were capitalized in the current financial year (previous year: €24.1 million).

Leases

For more information, please refer to note (12) "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. The rights of use to the leased assets must, in general, be reported for all leases in which the EnBW Group is the lessee. These are recognized 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 recognized 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 power purchase agreements (PPA), the EnBW Group purchases generated electricity and the associated guarantees of origin from a renewable energy power plant that belongs to the supplier. This arrangement is considered to be a lease according to IFRS 16 if EnBW substantially all of the output produced by the power plant and can also direct the use of the power plant.

In the case of short-term leases and leases involving low-value assets, the option of using the simplified approach is utilized and the lease payments are recognized as an expense in the income statement. Moreover, the option not to separate lease and non-lease components is utilized, except in the case of leases for vehicles, real estate and gas caverns.

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 recognized 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 recognized 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 recognized as income on a straight-line basis over the term of the lease.

Impairment losses/reversals of impairment losses

The carrying amounts of intangible assets, property, plant and equipment and investment properties are tested for impairment when circumstances or events indicate that there could be an impairment or increase in value. If such indications exist, the recoverable amount of the asset concerned is determined 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 business valuation models utilize cash flow plans approved by the Board of Management that are based on, among other things, the medium-term plans valid as of the date of the impairment test. The three-year medium-term plans are created at the level of the individual business units and consolidated to form plans for the Group. These plans are based on past experience and on estimates concerning future market developments, in general, as well as in specific sectors. A longer detailed planning period is utilized if necessitated by commercial or regulatory requirements, or in the case of finite evaluations especially in the Sustainable Generation Infrastructure segment.

For further information on the scenarios, please refer to the section "Disclosures on climate change."

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. In the case of extended detailed planning periods, the future development of the European electricity and gas markets is modeled using different scenarios. All of the assumptions described above are based on internal and external estimates and also take climate-related effects into account. For example, the impact of the German climate targets and the company's own climate targets are taken into account in the scenarios for determining expected long-term commodity prices.

Discounting is carried out based on the weighted average cost of capital (WACC). The cost of equity is determined from the expected return on a long-term risk-free federal bond plus a company-specific risk premium. Borrowing costs are derived using the basic interest rate plus a risk premium. The risk premium takes into account an adequate risk premium for a peer group, while the discount rates used for the individual cash-generating units take into account the equity structures of a peer group and a country-specific risk.

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. In order to take account of expected price-related and volume-related growth, constant growth rates of 0.0% to 1.5% (as in the previous year) are used to extrapolate the cash flows beyond the detailed planning period for all cash-generating units that have an unlimited time period as a basis.

For more information, please refer to note (10) "Intangible assets."

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.

If the recoverable amount of an asset falls short of its carrying amount, an impairment loss is recognized in profit or loss immediately. For 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 recognized 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 recognized in previous years (amortized cost).

An impairment loss recognized 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 amortized cost" measurement category. Trade receivables mainly comprise contracts with customers. Receivables are recognized 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. As in the previous year, loans subject to market interest rates are recognized 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 do not 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 utilized.

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 or the multiplier 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. Financial assets are derecognized when the contractual claims to the cash flows expire or have been effectively transferred. In order to give proper consideration to the growing importance of climate risks, our fund managers use sustainability principles, including the UN Principles for Responsible Investment (UN PRI), when selecting each individual investment. Especially climate risks are generally taken into account in the respective investment processes. At the same time, transition of investments in compliance with the regulations in the Sustainable Finance Disclosure Regulation (SFDR) will significantly increase transparency in the future.

Impairment of financial assets

The impairment model according to IFRS 9 incorporates forward-looking expectations and is based on expected credit losses. Financial assets that belong to the "measured at amortized cost" or "measured at fair value in equity" measurement categories are impaired using the 3-stage impairment model according to IFRS 9. For financial assets in the "measured at amortized 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 (12-month PD) **(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).**

The default risk has significantly increased/deteriorated resulting in a **transfer** to **risk provision stage 2** when the following criteria are met:

- A payment is more than 30 days past due, whereby an earlier transfer based on findings from the claims management process is also fundamentally possible.
- There has been a significant deterioration in the credit rating. 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 fulfills 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 also examined, taking into account, among 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

If the credit rating has deteriorated so much as to jeopardize 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 to the previous stages, any interest income is now recognized 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.

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).

The expected credit loss is determined by multiplying the credit risk parameters "Exposure at Default" (EaD), "Probability of Default" (PD) and "Loss Given Default" (LGD). The probability of default over a given time horizon is based on external ratings (if available). Due to the low number of defaults with respect to financial assets, the loss given default is calculated based on a weighted estimate by experts.

For trade receivables, receivables from investments and lease receivables with no significant financing component according to IFRS 15, 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 as the risk provision (risk provision stage 2).

When using the simplified approach, the expected loss is determined using default rates. Portfolios with the same risk characteristics are defined and then used to derive historical credit default rates. The following criteria are used to form the portfolios: the same type of contractual conditions for the assets, comparable counterparty characteristics and similar credit ratings for the assets in the portfolio. The expected loss rates are calculated based on historical defaults for each customer group. The historical loss rates are adjusted to reflect the current economic environment and forward-looking information on macroeconomic factors that could have an impact on the payment behavior 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. If there is objective evidence that the credit rating for the asset has deteriorated, it is transferred to risk provision stage 3.

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 utilization. Borrowing costs are not capitalized as a component of costs of conversion. Appropriate allowance is made for risks relating to reduced usability. Where necessary, the lower net realizable value compared to the carrying amount is recognized. Reversals of impairment losses on inventories are deducted from the cost of materials.

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

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

Emission allowances

Emission allowances acquired for production purposes are recognized at cost as inventories. Emission allowances acquired for trading purposes are recognized as other assets at fair value through profit or loss, and any fluctuation in fair value is recognized 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 recognized in the income statement on the purchase, sale, issue or cancellation of the Group's own equity instruments.

Non-controlling interests

Non-controlling interests comprise the positions within net assets attributable to minority shareholders and the gains or losses and other components of the overall result attributable to these shareholders.

The value of non-controlling interests is calculated pro rata based on the identifiable net assets. Non-controlling interests are presented separately from the equity of the shareholders of the parent company within Group equity.

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 recognized as personnel expenses.

Provisions relating to nuclear power

The Act for the Reorganization 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 proper 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 recognized 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 recognized 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.

When measuring the value of provisions related to the windfall profit levy, the option of applying the forward market correction according to section 17 StromPBG was utilized.

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 recognized separately. Deferred tax assets are recognized 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 utilization. A tax rate of 29.7% was applied for German Group companies (previous year: 29.4%). 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 amortized cost. Lease liabilities are recognized under other liabilities at the present value of the outstanding lease payments.

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. Financial liabilities are derecognized when the contractual obligations have been fulfilled or extinguished.

Trade payables and other liabilities

Trade payables and other liabilities are recognized 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 subsidized 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 subsidized assets. The reversal is offset openly against depreciation.

Other liabilities includes lease liabilities that are recognized at the present value of the outstanding lease payments.

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

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

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

Derivatives

Derivatives are measured at fair value in accordance with IFRS 9. Both the counterparty's credit default risk and that of the company itself are taken into account in the calculation of fair value. Default risk with respect to an individual counterparty is calculated on the basis of the net risk position. In the case of derivatives for which net recording is not permitted, the credit default risk calculated on the basis of the net position is recorded in proportion to the fair value before the value adjustment. In accordance with the net approach, this involves allocating the value adjustment solely to the derivatives' asset or liability surplus that arises. The derivatives are recognized 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 recognized 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 unrealized gains and losses are initially recognized 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 recognized 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. Unrealized exchange rate differences are initially recognized 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 (26) "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 realize 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 recognized.

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 amortized cost and the best estimate of the present obligation as of the reporting date.

Revenue recognition

Please refer to note (1) "Revenue" for more details on the accounting policies.

According to IFRS 15, revenue is recognized when control over a good or service has been transferred to the customer. 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 recognized net of VAT and after the elimination of intercompany sales. Costs for obtaining contracts are immediately recognized as an expense when they arise, insofar as the amortization period for the assets is one year or less. If the amortization period is longer, they are capitalized. The amortization template works in line with the transfer of the good or service to the customers and is based on the average customer-retention period. An adjustment to the transaction price to take account of a significant financing component is not required because no contracts have currently 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, or such contracts fall under the scope of IFRS 15.62.

Exercise of judgment and estimates when applying accounting policies

Please refer to note (21) "Provisions" for more information on provisions.

The preparation of the consolidated financial statements requires judgments 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 coronavirus pandemic and the material uncertainties associated with it were taken into account where relevant when exercising judgment and making estimates. In the 2022 financial year, as in the previous year, there were no material adjustments to the carrying amounts of assets and liabilities due to the coronavirus pandemic.

We refer you to the note (2) "Other operating income" and note (6) "Amortization and depreciation" for more information.

In the second quarter, EnBW revised its expectations with respect to the medium and long-term price trends in the relevant procurement and sales markets. EnBW also revised its expectations with respect to energy industry conditions and anticipated price trends on relevant markets in response to the clearly defined and accelerated climate protection policies introduced by the new German government elected in 2021, the implementation of the EU Green Deal through effective regulations and the changes in the gas market as a result of the war between Russia and Ukraine. The anticipated prices for gas, coal, CO_2 and electricity have increased as a result. It is possible that climate protection policies could further reduce the service lives of conventional power plants. This would have an impact on the valuation of the power plants and the impending losses from long-term electricity procurement agreements. For further information on the impact of climate change, please refer to the section "Disclosures on climate change." The exercise of judgment and estimates when assessing the impact of the war between Russia and Ukraine and the associated substantial uncertainties are explained further in the section "Impact of the war between Russia and Ukraine."

Judgment must be exercised, in particular, in the process of applying the accounting policies:

- Whether certain commodity futures contracts should be accounted for as derivatives as defined by IFRS 9 or executory contracts in accordance with the provisions of IAS 37.
- Financial assets must be allocated to the "measured at amortized cost," "measured at fair value through profit or loss" or "measured at fair value in equity" measurement categories according to IFRS 9.
- Judgment is required for determining the transaction price for the transfer of goods and services. In particular, this includes the existence of any variable considerations (e.g., discounts), which are subtracted from the transaction price. Judgment is also required for measuring the level of any variable considerations. These estimates are based, in particular, on the contractual conditions and past empirical values. Judgments made about the recognition of revenues over time are based on the selection of a suitable measure of progress for services, in particular. As the customer generally benefits from the service evenly over time, the revenue is recognized on a straight-line basis.
- Judgment must be exercised when including companies in the consolidated companies for the EnBW Group.

Please refer to the full list of shareholdings in note (38) "Additional disclosures" for more information on the consolidated companies.

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: A review is carried out on every reporting date to identify whether there are any indications of impairment and goodwill is tested for impairment at least once a year. The impairment test involves estimates that concern, above all, future payment surpluses. The underlying assumptions are described in the section "Significant accounting policies" under "Impairment losses/reversals of impairment losses." To determine the recoverable amount, an appropriate discount rate must be chosen. Future changes in the overall economic, industry or company situation may reduce payment surpluses or the discount rate, and thus potentially lead to an impairment of goodwill.

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 their reversal. The underlying assumptions are described in the section "Significant accounting policies" under "Impairment losses/reversals of impairment losses." A suitable interest rate must 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.

Contracts for the purchase and sale of LNG: It is necessary to assess whether contracts for the purchase and sale of LNG fulfill the criteria for a financial instrument according to IFRS 9. Based on the development of the global LNG market, it must be determined whether a sufficiently liquid market exists for the fulfillment of LNG contracts on a net basis. Even in view of the latest developments on the LNG market, we still believe in line with our previous assessments that there is no active market. Therefore, the contracts do not fall under the scope of IFRS 9 and are instead recognized in the respective reporting period.

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. A change in the expected market prices on the procurement or sales side or in the discount rates may lead to an adjustment of the provisions for onerous contracts. The underlying assumptions for determining the expected market price are described in the section "Significant accounting policies."

Acquisition accounting: For acquisition accounting purposes, all identifiable assets, liabilities and contingent liabilities acquired in a share purchase are recognized 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 recognized 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 capitalize 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. Capitalization of tax assets and the setting up of tax liabilities are fundamentally only recognized if the relevant payments are likely. Deferred tax assets or liabilities are recognized on temporary differences. Deferred tax assets are, in principle, only recognized when the future tax advantages will probably be realized or where deferred tax liabilities exist. Deferred tax assets are recognized 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 utilized. The judgment 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 recognized. If considered material, changes to climate-relevant matters are also taken into account when determining future taxable profit. In December 2021, the OECD published guidance on the new, global minimum tax rate and the German government intends to implement it in 2023. We are still waiting for the precise legislation and detailed regulations so that we will be able to assess the overall consequences more accurately.

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 increase in value. The impairment test involves estimates that concern, above all, future payment 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 payment surpluses or the discount rate, and thus potentially lead to an impairment of the investments.

Potential effects due to changes in estimates in other areas are explained in the respective sections.

Impact of the war between Russia and Ukraine

The war between Russia and Ukraine is continuing to cause uncertainty on the energy market. This has resulted in, among other things, rising prices on the gas and electricity markets and higher procurement costs. In addition, it has resulted in interruptions to the supply chain and rising inflation rates.

Due to the looming threat of a gas shortage, our coal-fired power plants have been deployed more frequently to ensure the security of supply. In combination with the current price trends, their profitability will improve in the short to medium-term. The described effects would have a particular impact on the items revenue, cost of materials and other operating expenses, as well as on income.

The ongoing developments are being continuously analyzed and evaluated with respect to their potential impact on the EnBW Group using various different scenarios.

VNG Handel & Vertrieb (VNG H&V) had two natural gas supply contracts with a total annual volume of 100 TWh that were affected by the restrictions in supply. The replacement volumes of gas had to be procured at massively higher prices on the gas markets. Negotiations with the suppliers and the Federal Republic of Germany resulted in a settlement and a compensation payment of €460.0 million. Overall, a negative impact on earnings of €1.1 billion was accounted for in the annual financial statements. The supply relationships ended with effect from 31 December 2022.

In addition, an investment of VNG Gasspeicher GmbH and the Russian company Gazprom export LLC was impaired by €84.6 million. The investment operates a natural gas storage facility. The partners ceased payment of the storage fees for the facility during the course of the year due to the sanctions on Russia. Furthermore, loans to this entity (accounted for using the equity method) of €105.5 million were written off.

Please refer to the management report for more information.

In order to adequately reflect the indirect consequences of the war between Russia and Ukraine and the expected losses on financial instruments as a result, we have amended the impairment model for financial instruments to include an additional risk premium. Despite the volatile market conditions, we remain committed to our strategic alignment.

Disclosures on climate change

EnBW is transforming itself from an energy supply company into a sustainable and innovative infrastructure partner. Sustainability is an important element of our business model and acts as a compass for our strategic alignment. As an energy company, EnBW can make a particularly effective contribution to climate protection. The Group aspires to reduce its greenhouse gas emissions by 70% by 2030 and become climate neutral with respect to own emissions (Scope 1 and 2) by the end of 2035 at the latest. In October 2021, EnBW announced its intention to set science-based targets according to the Science Based Targets initiative (SBTi). This process is due to be concluded in spring 2023. We aim to follow a 1.5 degree-aligned path for decarbonizing Scope 1 and 2 emissions and a well below 2 degrees-aligned path for Scope 3 emissions. Further information can be found in the management report under "Our climate protection goals."

In view of the growing importance of climate-related risks, EnBW's strategic considerations take into account the requirements of the energy transition and the profound changes that will take place due to the transformation towards climate neutrality with the effects they will have on all business sectors and private households. We place particular focus on the expansion of renewable energies, electricity consumption, the expansion of the grids, grid stability and the security of supply. The main focus of these investments will be the expansion of the grids, especially the central SuedLink and ULTRANET projects of our grid subsidiary TransnetBW for the future energy supply in Germany, the expansion of renewable energies, such as the planned realization of the EnBW He Dreiht offshore wind farm and the construction of H2-ready gas power plants in Altbach/Deizisau, Stuttgart-Münster and Heilbronn, and further developments in the Smart Infrastructure for Customers segment: for example, in the areas of broadband, telecommunications and electromobility. We will use sustainability criteria as the benchmark for our future decisions even more resolutely than before and align our growth accordingly. In this context, we examine the requirements with respect to climate protection, possible implementation paths and the implications for the business model. This acts as an important basis for assessing the opportunities and risks for our business that will arise due to climate change and the dynamic regulatory environment associated with it.

In order to evaluate these opportunities and risks, we use real developments to derive four realistic future scenarios that take into account all of the different aspects of the energy transition. These scenarios are primarily characterized by two dimensions: climate protection and the sustainable economic growth that is achievable in the long term. In this context, climate protection means the transformation towards a climate-neutral company. The economic growth that can be sustainably achieved is a key variable influencing, e.g., the demand for electricity or commodity prices.

The scenarios that are relevant to EnBW differ according to the rate of transformation towards a climate-neutral company. Scenarios 1 and 2 assume "normal" economic growth within the scope of so-called potential growth. In scenario 1, there will be a slight delay in achieving the goal of climate neutrality because it will not be possible to comprehensively solve the practical challenges associated with the implementation of the energy transition. In scenario 2, the climate targets defined in the EU Green Deal will be largely achieved up to the middle of the century. In scenario 3, it is assumed that there will be higher growth because climate protection has been given a lower priority. In scenario 4, weaker economic growth is assumed. In this scenario, the transformation to climate neutrality will be achieved at the slowest pace.

Based on the assumptions made for specific variables, possible paths for how the energy markets (especially electricity and gas) will develop in the long term are derived for the four scenarios. In the process, we predict the wholesale market prices for electricity in simulated calculations using computer models. These simulations also take into account physical risks, such as the influence meteorological fluctuations may have on the electricity market due to the availability of wind and sunlight, and thus make it possible to incorporate potential changes to the physical environment due to climate change into the calculations. The scenarios can thus provide us with quantitative descriptions that serve as the basis for assessing the business of EnBW and, in particular, also allow us to evaluate the opportunities and risks associated with climate change.

During the course of 2022, EnBW revised its expectations with respect to energy industry conditions and the medium and long-term price trends in the relevant procurement and sales markets, especially in response to the clearly defined and accelerated climate protection policies introduced by the German government and the detailed implementation of the EU Green Deal.

We refer you to the sections "Significant accounting policies" and "Exercise of judgment and estimates when applying accounting policies" as well as note (34) "Additional disclosures on capital management" for more information.

The EnBW consolidated financial statements as of 31 December 2022 were prepared taking into consideration the opportunities and risks related climate change and to the goals for our strategy, sustainability and climate protection, including climate neutrality. Material and foreseeable effects with an impact on assets, liabilities, income and expenses were taken into account in the financial statements.

The underlying assumptions are consistent with the assumptions for assessing the robustness of the business model and the assumptions made in the risk management system.

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. Translation differences from monetary items that are allocable to operating activities are recognized 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 translation differences between the income statement and the balance sheet, are recognized 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, among others:

€1	Closing rate		Average rate	
	31/12/2022	31/12/2021	2022	2021
Swiss franc	0.98	1.03	1.01	1.08
Pound sterling	0.89	0.84	0.85	0.86
US dollar	0.94	1.13	1.05	1.18
Czech koruna	24.12	24.86	24.56	25.65
Japanese yen	140.66	130.38	138.00	129.85
Danish krone	7.44	7.44	7.44	7.44
Polish zloty	4.68	4.60	4.68	4.56
Swedish krona	11.12	10.25	10.63	10.15

Notes to the income statement and the balance sheet

(1) Revenue

Revenue from contracts with customers is recognized 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 2022 financial year, the net energy trading revenue amounted to €273,779.5 million (previous year: €136,941.7 million).

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

in € million	2022	2021
Revenue from contracts with customers	55,657.0	31,777.0
Other revenue	345.6	370.9
Total	**56,002.6**	**32,147.9**

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 section "Impact of the war between Russia and Ukraine" describes the effects of the war on revenue.

The following table shows a breakdown of revenue by region and products for the different segments of the EnBW Group.

External revenue by region

2022 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by region	18,772.8	6,335.7	30,541.0	7.5	55,657.0
Germany	(15,009.1)	(6,171.2)	(19,410.9)	(7.5)	(40,598.7)
European currency zone excluding Germany	(638.3)	(3.7)	(10,691.6)	(0.0)	(11,333.6)
Rest of Europe	(3,119.3)	(160.8)	(437.8)	(0.0)	(3,717.9)
Rest of world	(6.1)	(0.0)	(0.7)	(0.0)	(6.8)
Other revenue	0.0	343.4	2.2	0.0	345.6
Total	**18,772.8**	**6,679.1**	**30,543.2**	**7.5**	**56,002.6**

External revenue by region

2021 in € million[1]	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by region	13,918.3	4,049.2	13,801.9	7.7	31,777.1
Germany	(12,056.9)	(3,888.7)	(10,776.8)	(7.7)	(26,730.1)
European currency zone excluding Germany	(205.5)	(3.8)	(2,856.3)	(0.0)	(3,065.6)
Rest of Europe	(1,654.9)	(156.7)	(168.8)	(0.0)	(1,980.4)
Rest of world	(1.0)	(0.0)	(0.0)	(0.0)	(1.0)
Other revenue	5.3	363.4	2.1	0.0	370.8
Total	**13,923.6**	**4,412.6**	**13,804.0**	**7.7**	**32,147.9**

1 The figures for the previous year have been restated.

External revenue by product

2022 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by product	18,772.8	6,335.7	30,541.0	7.5	55,657.0
Electricity	(6,836.0)	(4,661.3)	(11,221.0)	(0.0)	(22,718.3)
Gas	(10,746.4)	(729.0)	(18,629.0)	(0.0)	(30,104.4)
Energy and environmental services/ other	(1,190.4)	(945.4)	(691.0)	(7.5)	(2,834.3)
Other revenue	0.0	343.4	2.2	0.0	345.6
Total	**18,772.8**	**6,679.1**	**30,543.2**	**7.5**	**56,002.6**

External revenue by product

2021 in € million[1]	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by product	13,918.4	4,049.1	13,801.9	7.7	31,777.1
Electricity	(5,757.1)	(2,698.7)	(6,455.8)	(0.0)	(14,911.6)
Gas	(7,359.9)	(695.6)	(6,854.9)	(0.0)	(14,910.4)
Energy and environmental services/ other	(801.3)	(654.8)	(491.2)	(7.7)	(1,955.0)
Other revenue	5.3	363.5	2.1	0.0	370.9
Total	**13,923.6**	**4,412.6**	**13,804.0**	**7.7**	**32,147.9**

1 The figures for the previous year have been restated.

The restatement of the figures for the previous year relates to a change in the allocation of business activities to the different Board of Management remits, which has changed the composition of our segments as a result. This change has no effect on the result of the Group.

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. Customers could be trading partners, redistributors or end customers. Sales made via the trading markets are realized when control is transferred to the purchaser. Many contracts with end customers do not specify a fixed purchase volume. In these cases, the performance obligation consists of providing an energy supply that can be accessed at all times, in particular, so that the revenue is recognized 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, however, the performance obligation consists of transferring the energy volumes, which is why the revenue is recognized when control 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 recognized at the time of delivery and measured at the relative individual sales price. Monthly advance payments are generally agreed.

Distribution of electricity and gas: EnBW offers its customers use of the electricity and gas grids. EnBW recognizes 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, the supply of water, waste management and telecommunications. The majority of the contracts include services for which customers pay while they are being rendered and the revenue is thus recognized 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.

The total amount of the expected revenues for performance obligations that have not been fulfilled, either partially or fully, as of 31 December 2022 is €38,322.0 million (previous year: €12,297.3 million). Most of these performance obligations will be fulfilled as expected within the next five years. Revenues for performance obligations totaling €23,078.9 million (previous year: €3,730.4 million) are expected to be fulfilled within the next financial year. This does not include any remaining performance obligations from customer contracts which originally had an expected maximum term of one year.

As of 31 December 2022, contract liabilities amounted to €1,082.3 million (previous year: €986.5 million). From the contract liabilities contained in the opening balance of €986.5 million (previous year: €956.6 million), €67.3 million (previous year: €73.2 million) was recognized 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.

Please refer to note (26) "Accounting for financial instruments" for the development of receivables connected to customer contracts.

In the reporting period, revenues of €239.3 million (previous year: €358.0 million) were recognized for performance obligations that were fulfilled either fully or partially in preceding periods.

(2) Other operating income

in € million	2022	2021
Income from derivatives	3,971.4	1,491.5
Income from reversals of impairment losses on non-financial assets	1,499.2	96.4
Income from the reversals of provisions	671.3	256.5
Income from disposals of assets	24.1	17.3
Rent and lease income	18.7	17.3
Miscellaneous	1,163.3	377.1
Total	**7,348.0**	**2,256.1**

Income from derivatives increased mainly due to valuation effects.

The reversals of impairment losses included €1,254.2 million for one of the cash-generating units for conventional power plants in the Sustainable Generation Infrastructure segment. The recoverable amount is around €–391 million. The reversals of impairment losses were mainly due to improved medium-term income forecasts as a result of the high gas and electricity prices at the present time. The discount rates used in the valuations were between 6.7% and 7.0% after tax and between 9.6% and 9.9% before tax (previous year: between 4.4% and 5.7% after tax and between 7.0% and 8.1% before tax).

In addition, there was a reversal of impairment losses of €102.2 million for a second cash-generating unit for conventional power plants in the Sustainable Generation Infrastructure segment. The recoverable amount is around €713 million. The reversals of impairment losses were mainly due to improved medium-term income forecasts as a result of the high gas and electricity prices at the present time. The discount rates used in the valuations were between 6.5% and 6.7% after tax and between 9.4% and 9.8% before tax (previous year: between 4.8% and 5.4% after tax and between 7.0% and 7.8% before tax).

The reversals of impairment losses in the previous year were mainly due to the increase in value of a gas grid in the System Critical Infrastructure segment. The recoverable amount was around €0.5 billion. The discount rate used in the valuation was 2.3%. The main reason for the reversal of impairment losses was an extension to the area covered by the grid as a result of the merger with another gas grid that had a positive effect on the regulatory parameters for the entire grid.

For information on the determination of fair value, please refer to the explanations of impairment losses/reversals of impairment losses in the section "Significant accounting policies" and the section "Disclosures on climate change."

All of the recoverable amounts were calculated on the basis of the fair value less costs to sell and correspond to Level 3 of the IFRS 13 fair value hierarchy.

There was an increase in miscellaneous other operating income, which was primarily due to a settlement payment from the German federal government to a subsidiary, of €460.0 million (previous year: €0.0 million), higher income from currency exchange rate gains of €157.7 million (previous year: €37.6 million) and increased income from CO_2 allowances. Miscellaneous other operating income also includes income from the reversal of accruals.

(3) Cost of materials

in € million	2022	2021
Cost of materials and supplies and of purchased merchandise	46,983.4	22,460.7
Cost of purchased services	4,165.0	3,490.2
Total	**51,148.4**	**25,950.9**

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 procurement agreements. In addition, it includes the necessary additions to the provisions for the decommissioning of nuclear power plants, unless these are required to be recognized 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 for the consumption of nuclear fuel rods and nuclear fuels. Fuel costs for conventional power plants, costs for the procurement of CO_2 allowances and the net result from energy trading transactions for the rolling procurement of emission allowances are also disclosed 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	2022	2021
Wages and salaries	2,119.3	1,942.7
Social security	205.6	193.8
Expenses for post-employment benefits	266.9	321.0
Total	**2,591.8**	**2,457.5**

Employees as an annual average

Number	2022	2021
Smart Infrastructure for Customers	5,182	4,986
System Critical Infrastructure	11,211	10,259
Sustainable Generation Infrastructure	7,168	7,072
Other	2,936	2,889
Employees	**26,497**	**25,206**
Apprentices and trainees including DH students in the Group	1,154	1,109

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

(5) Other operating expenses

in € million	2022	2021
Expenses from derivatives	3,495.0	1,991.7
Administrative and selling costs and other overheads	700.5	507.3
Audit, legal and consulting fees	175.1	140.6
Dues and levies	123.9	44.9
Rent and lease expenses	115.7	87.1
Insurance	96.5	78.5
Other personnel expenses	89.2	75.0
Advertising expenses	82.1	78.6
Other taxes	55.7	32.4
Costs from disposals of assets	20.3	23.2
Miscellaneous	428.1	356.2
Total	**5,382.1**	**3,415.5**

The increase in other operating expenses was mainly attributable to higher expenses from derivatives due to valuation effects as a result of the volatile market environment and higher market prices.

Miscellaneous other operating expenses mainly increased due to higher expenses from currency exchange rate losses amounting to €182.0 million (previous year: €30.1 million). This was offset to some extent by lower expenses for CO_2 allowances. In addition, miscellaneous other operating expenses contain, among other things, expenses for commissions.

(6) Amortization and depreciation

in € million	2022	2021
Amortization of intangible assets	527.1	296.1
Depreciation of property, plant and equipment	1,629.7	2,177.2
Depreciation of investment properties	5.5	0.7
Depreciation of right-of-use assets from leases	170.6	171.9
Reversals of investment cost subsidies	-0.8	-1.3
Total	**2,332.1**	**2,644.6**
of which scheduled depreciation	(1,615.3)	(1,556.3)
of which impairment losses	(716.8)	(1,088.3)

Please refer to note (10) "Intangible assets" for information on the impairment of goodwill.

Impairment losses totaling €336.1 million (previous year: €117.8 million) were recognized on intangible assets and €376.2 million (previous year: €970.5 million) on property, plant and equipment.

In the current financial year, impairment losses were mainly recognized on two offshore wind farms in the Sustainable Generation Infrastructure segment in the amount of €414.2 million. The main reasons for the impairment were higher capital costs, the fewer remaining operating years with EEG funding and new findings with respect to offshore wind conditions. The recoverable amount was around €2.4 billion. The discount rates used in the valuations were between 5.1% and 6.8% after tax and between 7.3% and 9.8% before tax (previous year: between 3.0% and 5.2% after tax and between 4.3% and 7.4% before tax).

In the previous year, impairment losses were mainly recognized on the cash-generating unit conventional power plants and the associated intangible assets in the Sustainable Generation Infrastructure segment. The recoverable amount was around €-0.3 billion and this resulted in impairment losses of €0.6 billion.

In the Sustainable Generation Infrastructure segment, impairment losses totaling €0.3 billion were also recognized on offshore wind farms and thus also on the associated intangible assets. The recoverable amounts were around €3.2 billion.

For information on the determination of fair value, please refer to the explanations of impairment losses/reversals of impairment losses in the section "Significant accounting policies" and the section "Disclosures on climate change."

In addition, it was necessary to recognize an impairment loss of €0.1 billion on a recoverable amount of around €0.3 billion for a gas power plant in the Sustainable Generation Infrastructure segment.

All of the recoverable amounts were calculated on the basis of the fair value less costs to sell and correspond to Level 3 of the IFRS 13 fair value hierarchy.

(7) Investment result

in € million	2022	2021
Share of profit/loss of entities accounted for using the equity method	62.5	56.3
Write-downs on entities accounted for using the equity method	-122.1	-2.1
Write-ups of entities accounted for using the equity method	83.4	4.8
Net profit/loss from entities accounted for using the equity method	**23.8**	**59.0**
Result from investments	250.9	173.4
Write-downs on investments	-29.7	-61.7
Write-ups of investments	24.4	0.3
Result from the sale of equity investments	7.5	9.0
Other profit/loss from investments	**253.1**	**121.0**
Investment result (+ income/- expense)	**276.9**	**180.0**

The write-downs at entities accounted for using the equity method include €84.6 million for a gas storage company in the Sustainable Generation Infrastructure segment. This write-down was attributable to a deterioration in the earnings potential as a result of the sanctions on Russia and the suspension of all fee payments. The recoverable amount is around €–42 million. The discount rate used in the valuation was 6.6% after tax and 9.4% before tax.

There were also write-downs in the amount of €21.4 million and write-ups in the amount of €25.7 million related to a joint venture in Turkey operated in US dollars in the Sustainable Generation Infrastructure segment. The main reasons for the write-down in the first half of 2022 were the increase in capital costs and negative development of the US dollar exchange rate. In the second half of the year, there was a write-up due to an improvement in the long-term income forecasts as a result of the high electricity prices at the moment and the positive development of the US dollar exchange rate. The recoverable amount is around €257 million. The discount rates used in the valuations were between 10.6% and 11.7% after tax and between 13.3% and 14.6% before tax (previous year: between 8.9% and 9.8% after tax and between 11.1% and 12.3% before tax).

Other write-ups of entities accounted for using the equity method of €57.7 million relate to a conventional power plant in the Sustainable Generation Infrastructure segment. This write-up was mainly due to improved medium-term income forecasts as a result of the high gas and electricity prices at the present time.

Other profit/loss from investments contains income of €0.7 million (previous year: €12.4 million) from the market valuation of the "measured at fair value through profit or loss" measurement category.

The write-ups on investments mainly relate to non-consolidated affiliated entities. The main reason for a write-up on investments in companies related to the project business in the area of Renewable Energies was an improved, medium to long-term income forecast as a result of the high electricity prices at the moment. The discount rates used in the valuation were between 4.8% and 6.8% after tax and 6.4% and 9.2% before tax (previous year: 2.4% and 5.3% after tax and 3.3% and 7.2% before tax). The income is allocated to the Sustainable Generation Infrastructure segment in the segment reporting.

The write-downs on investments mainly relate to a write-down of €11.9 million on a non-consolidated affiliated entity in the Sustainable Generation Infrastructure segment. The main reason for this write-down was the cessation of operations at a subsidiary that had previously made a contribution to the value of the entity. The recoverable amount is around €20 million.

There were other write-downs that also mainly relate to non-consolidated affiliated entities. The main reasons for write-downs on investments in companies related to the project business in the area of Renewable Energies were project delays and project cancellations. The discount rates used in the valuation were between 4.8% and 6.7% after tax and 6.4% and 9.0% before tax (previous year: 2.4% and 5.3% after tax and 3.3% and 7.2% before tax). The expense is allocated to the Sustainable Generation Infrastructure segment in the segment reporting.

In the comparative period, write-downs on investments mainly related to non-consolidated affiliated entities. The main reason for write-downs on investments in companies related to the project business in the area of Renewable Energies was a fall in the probabilities of realization. In the previous year, the discount rates used in the valuation were between 2.4% and 5.3% after tax and 3.3% and 7.2% before tax. The expense was allocated to the Sustainable Generation Infrastructure segment in the segment reporting.

For information on the determination of fair value, please refer to the explanations of impairment losses/reversals of impairment losses in the section "Significant accounting policies" and the section "Disclosures on climate change."

All of the recoverable amounts were calculated on the basis of the fair value less costs to sell and correspond to Level 3 of the IFRS 13 fair value hierarchy.

(8) Financial result

in € million	2022	2021
Interest and similar income	126.5	108.8
Interest portion on the reversal of liabilities	615.3	7.1
Other finance income	297.5	545.2
Finance income	**1,039.3**	**661.1**
Borrowing costs	-290.9	-253.8
Other interest and similar expenses	-15.9	-12.1
Interest portion of increases in liabilities	-99.6	-65.9
Personnel provisions	(-94.7)	(-61.0)
Provisions relating to nuclear power	(-0.5)	(0.0)
Other non-current provisions	(-4.4)	(-3.9)
Other liabilities	(0.0)	(-0.9)
Other finance costs	-655.6	-154.7
Finance costs	**-1,062.0**	**-486.5**
Financial result (+ income/- costs)	**-22.7**	**174.6**

Interest and similar income mainly comprises interest income from interest-bearing securities and loans, as well as dividends and shares in profits. The income from the interest portion on the reversal of liabilities was primarily attributable to the increase in the discount rate for long-term provisions. In the 2022 financial year, interest income of €9.9 million (previous year: €8.4 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 €182.6 million (previous year: €460.9 million). This decrease in comparison to the previous year was due to uncertainty on the stock markets in the reporting year.

Borrowing costs are composed as follows:

in € million	2022	2021
Expenses incurred for bank interest and bonds	192.7	195.1
Interest portion of lease liabilities	16.2	14.3
Other borrowing costs	82.0	44.4
Borrowing costs	**290.9**	**253.8**

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

In the reporting period, other finance costs mainly included costs from the "measured at fair value through profit or loss" measurement category of €337.3 million (previous year: €111.9 million). The increase in comparison to the previous year is attributable to weaker markets in the previous year. In addition, they also contained market price losses on the sale of securities amounting to €75.2 million (previous year: €9.5 million).

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 [1]	2022	2021
Total interest income	74.3	70.0
Total interest expenses	-241.6	-215.9

1 The figures for the previous year have been restated.

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 amortized 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 amortized cost" measurement category of €39.9 million (previous year restated: €42.0 million) and the interest income from the "measured at fair value in equity" measurement category of €34.4 million (previous year: €28.0 million). In the reporting period, the interest expenses for the financial assets measured at amortized cost totaling €241.6 million (previous year: €215.9 million) were incurred particularly on bonds, bank liabilities and lease liabilities, as in the previous year.

(9) Income tax

in € million	2022	2021
Actual income tax		
Domestic corporate income tax	317.1	45.1
Domestic trade tax	165.6	55.7
Foreign income taxes	108.2	37.6
Total (- income/+ expense)	**591.0**	**138.4**
Deferred taxes		
Germany	55.2	-64.2
Abroad	-94.7	-2.1
Total (- income/+ expense)	**-39.5**	**-66.3**
Income tax (- income/+ expense)	**551.5**	**72.1**

The actual income tax amounting to €591.0 million (previous year: €138.4 million) concerns income tax expenses from the current financial year of €548.2 million (previous year: €136.6 million) and income tax expenses for past periods of €42.8 million (previous year: €1.8 million).

Deferred tax income of €39.5 million (previous year: income of €66.3 million) consists of the deferred tax expense from the current financial year of €115.1 million (previous year: €63.6 million income) and deferred tax income for past periods of €154.6 million (previous year: €2.7 million).

The change in the actual income tax expense and deferred tax income for past periods was mainly due to tax audits and changes in the tax assessments. The balance from deferred taxes contains income of €2.2 million (previous year: €0.0 million) related to a change in tax rates.

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 13.9% (previous year: 13.6%). This represents a tax rate on income of 29.7% (previous year: 29.4%). This change was due to the increase in the trade tax rate as a result of the rise in the average weighted assessment rate for trade tax in the consolidated tax group for income tax for EnBW AG. For the foreign entities, the tax rate applicable in the country in which they are based of between 19.0% and 25.8% (as in the previous year) is used to calculate income taxes. Deferred tax assets and liabilities are measured at the tax rates expected to apply when the asset is realized or the liability is settled.

Deferred taxes comprise the following:

in € million	2022	2021
Origination or reversal of temporary differences	-149.4	36.7
Origination of carryforwards of unused tax losses	-26.7	-109.1
Utilization of carryforwards of unused tax losses	136.6	6.1
Deferred taxes (- income/+ expense)	**-39.5**	**-66.3**

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

in € million	2022	in %	2021	in %
Earnings before tax	**2,395.3**		**513.3**	
Expected tax rate		29.7		29.4
Expected income tax (- income/+ expense)	**711.4**		**150.9**	
Tax effects				
Differences in foreign tax rates and tax rate differences	-48.9	-2.0	-48.6	-9.5
Tax-free income	-113.8	-4.7	-124.0	-24.2
Non-deductible expenses	87.3	3.6	115.4	22.5
Depreciation of losses on goodwill	55.5	2.3	6.6	1.3
Add-backs and reductions for trade tax purposes	-49.7	-2.1	-29.1	-5.7
Accounting for joint ventures and associates using the equity method	-4.8	-0.2	-16.3	-3.2
Adjustment/valuation/non-recognition of carryforwards of unused tax losses and temporary differences	28.7	1.2	32.6	6.4
Zero-rated disposals of investments	-2.4	-0.1	-14.5	-2.8
Taxes relating to other periods	-111.7	-4.7	-0.9	-0.2
Other	0.1	0.0	0.0	0.0
Current income tax (- income/+ expense)	**551.5**		**72.1**	
Current tax rate		**23.0**		**14.0**

(10) Intangible assets

in € million	Concessions, industrial property rights and similar rights and assets	Internally generated intangible assets	Goodwill	Other	Total
Cost					
As of 01/01/2022	3,643.2	106.3	1,364.2	54.4	5,168.1
Increase/decrease due to changes in the consolidated companies	3.6	0.0	13.9	0.0	17.5
Additions	131.4	24.4	0.0	45.5	201.3
Reclassifications	22.8	5.5	0.0	-26.9	1.4
Currency adjustments	21.9	0.0	8.5	0.0	30.4
Disposals	-5.8	-0.1	0.0	-0.7	-6.6
As of 31/12/2022	3,817.1	136.1	1,386.6	72.3	5,412.1
Accumulated amortization					
As of 01/01/2022	1,610.5	70.1	70.5	0.0	1,751.1
Decrease due to changes in the consolidated companies	-0.2	0.0	0.0	0.0	-0.2
Additions	168.1	22.9	0.0	0.0	191.0
Currency adjustments	11.1	0.0	0.0	0.0	11.1
Disposals	-4.7	0.0	0.0	0.0	-4.7
Impairment	148.9	0.0	186.8	0.3	336.0
Reversal of impairment losses [1]	-90.5	0.0	0.0	0.0	-90.5
As of 31/12/2022	1,843.2	93.0	257.3	0.3	2,193.8
Carrying amounts					
As of 31/12/2022	1,973.9	43.1	1,129.3	72.0	3,218.3

1 The reversals of impairment losses primarily relate to one of the cash-generating units for conventional power plants in the Sustainable Generation Infrastructure segment.

in € million	Concessions, industrial property rights and similar rights and assets	Internally generated intangible assets	Goodwill	Other	Total
Cost					
As of 01/01/2021	3,491.4	102.9	1,329.8	51.1	4,975.2
Increase/decrease due to changes in the consolidated companies	21.7	0.0	19.8	0.0	41.5
Additions	93.4	17.7	0.0	37.9	149.0
Reclassifications	34.7	1.4	0.0	-32.6	3.5
Currency adjustments	25.5	0.0	14.6	0.0	40.1
Disposals	-23.5	-15.7	0.0	-2.0	-41.2
As of 31/12/2021	3,643.2	106.3	1,364.2	54.4	5,168.1
Accumulated amortization					
As of 01/01/2021	1,360.1	68.5	48.0	0.0	1,476.6
Additions	161.1	17.3	0.0	0.0	178.4
Reclassifications	0.3	0.0	0.0	0.0	0.3
Currency adjustments	13.5	0.0	0.0	0.0	13.5
Disposals	-19.8	-15.7	0.0	0.0	-35.5
Impairment	95.3	0.0	22.5	0.0	117.8
As of 31/12/2021	1,610.5	70.1	70.5	0.0	1,751.1
Carrying amounts					
As of 31/12/2021	2,032.7	36.2	1,293.7	54.4	3,417.0

The carrying amount of the intangible assets includes concessions to operate power plants amounting to €1,387.3 million (previous year: €1,449.9 million) and customer relationships amounting to €74.3 million (previous year: €83.8 million).

In the 2022 financial year, a total of €28.1 million (previous year: €38.6 million) was spent on research and development. The criteria for recognition under IFRS were not satisfied.

The following table shows the main amounts for goodwill allocated to the cash-generating units / groups of cash-generating units in the business segments:

Cash-generating units/groups of cash-generating units

	Goodwill in € million		Discount rates after tax in %	
	2022	2021	2022	2021
Smart Infrastructure for Customers	**213.2**	**218.8**		
Plusnet subgroup	81.6	78.0	4.8	2.3
Senec subgroup	50.2	40.9	6.8	5.7
PRE	45.8	42.2	7.4	6.5
Other CGU	35.6	57.7	–	–
System Critical Infrastructure	**410.2**	**572.3**		
PRE	196.0	194.4	4.6	3.0
Netze BW GmbH	87.9	87.9	3.9 – 4.2	2.3 – 2.6
Stadtwerke Düsseldorf AG	51.4	54.1	3.8	2.3
ONTRAS Gastransport GmbH	45.3	127.2	3.7	2.3
Other CGU	29.5	108.5	–	–
Sustainable Generation Infrastructure	**505.9**	**502.6**		
Valeco subgroup	250.5	250.5	3.9 – 6.5	2.4 – 5.3
Energiedienst AG	83.7	83.7	3.9 – 6.6	2.3 – 5.7
Stadtwerke Düsseldorf AG	63.2	63.2	5.6 – 6.3	2.1 – 5.4
EnBW AG conventional generation	60.3	60.3	4.4 – 6.6	3.2 – 5.7
Other CGU	48.2	44.9	–	–
Total [1]	**1,129.3**	**1,293.7**	**3.9 – 7.4**	**2.3 – 6.5**

1 The discount rate before tax was 5.5% – 9.2% (previous year: 3.3% – 8.0%).

The goodwill allocated to the other cash-generating units or groups of cash-generating units accounted for less than 4.3% (previous year: 8.4%) of total goodwill in each case. Its aggregate total was €113.3 million (previous year: €211.2 million).

Goodwill at the level of each cash-generating unit or group of cash-generating units (CGU) is tested for impairment on 30 September of every financial year. In the current financial year, additional impairment tests were also carried out on 31 December 2022 in some cases due to the sharp increase in capital costs.

In the 2022 financial year, there were impairment losses on goodwill of €186.8 million (previous year: €22.5 million), of which €174.0 million (previous year: €0.0 million) were in the System Critical Infrastructure segment. The impairments in the System Critical Infrastructure segment mainly related to goodwill at Ontras Gastransport GmbH in the amount of €81.9 million (recoverable amount: €1,669.4 million), at Energiedienst AG in the amount of €35.9 million (recoverable amount: €407.1 million) and at ZEAG Energie AG in the amount of €31.1 million (recoverable amount: €175.2 million). The reason for these impairment losses were sharp increases in capital costs in this segment, which amounted to 3.9% to 6.8% after tax when calculating the impairment losses on 31 December 2022.

In the previous financial year, there were impairment losses of €22.0 million in the onshore maintenance CGU in the Sustainable Generation Infrastructure segment. The recoverable amount was €-1.8 million. This impairment was caused by a deterioration in the yield forecasts.

For information on the determination of fair value, please refer to the explanations of impairment losses/reversals of impairment losses in the section “Significant accounting policies” and the section “Disclosures on climate change.”

All of the recoverable amounts were calculated on the basis of the fair value less costs to sell and correspond to Level 3 of the IFRS 13 fair value hierarchy.

As part of the impairment tests, sensitivity analyses were carried out to investigate the impact of a decrease in the growth discount and an increase in the discount rate.

For partial impairments of goodwill that were carried out in the current financial year in the System Critical Infrastructure segment, any increase in the discount rate or any decrease in the growth discount to that which was applied – with otherwise identical parameters – resulted in a further need for impairment. The growth discount actually applied was 0.4%.

The recoverable amount of goodwill for PRE Smart Infrastructure for Customers exceeded the carrying amount on 31 December 2022 by around €26 million (discount rate after tax: 7.4%). If the capital costs had risen in isolation by around 0.5%, the recoverable amount would have corresponded to the carrying amount. If the growth discount had risen in isolation, however, there would have been no effect on the recoverable amount of this goodwill.

(11) Property, plant and equipment

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2022	4,366.1	21,963.2	19,058.0	2,064.2	2,766.5	50,218.0
Increase/decrease due to changes in the consolidated companies	0.4	9.0	0.7	0.3	6.9	17.3
Additions	64.9	185.6	626.0	74.8	1,756.3	2,707.6
Reclassifications	39.8	232.0	238.5	32.1	-474.6	67.8
Reclassification to assets held for sale	0.0	-63.8	0.0	0.0	0.0	-63.8
Currency adjustments	5.0	12.3	51.6	0.7	0.7	70.3
Disposals	-10.9	-172.2	-62.8	-25.1	-11.0	-282.0
As of 31/12/2022	4,465.3	22,166.1	19,912.0	2,147.0	4,044.8	52,735.2
Accumulated amortization						
As of 01/01/2022	2,561.5	16,278.7	10,326.9	1,464.1	11.7	30,642.9
Additions	63.3	603.6	479.1	109.1	0.0	1,255.1
Reclassifications	0.0	75.9	2.1	0.0	0.0	78.0
Reclassification to assets held for sale	0.0	-56.0	0.0	0.0	0.0	-56.0
Currency adjustments	2.4	10.9	25.7	0.6	0.0	39.6
Disposals	-4.7	-7.1	-37.3	-18.0	-1.6	-68.7
Impairment	1.4	365.5	3.2	2.2	2.3	374.6
Reversal of impairment losses	-297.8	-1,050.5	-40.8	-5.0	0.0	-1,394.1
As of 31/12/2022	2,326.1	16,221.0	10,758.9	1,553.0	12.4	30,871.4
Carrying amounts						
As of 31/12/2022	2,139.2	5,945.1	9,153.1	594.0	4,032.4	21,863.8

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2021	4,263.9	21,333.2	17,769.1	1,988.0	2,415.9	47,770.1
Increase/decrease due to changes in the consolidated companies	8.5	74.6	3.1	3.3	27.7	117.2
Additions	59.9	236.4	714.1	100.2	1,235.0	2,345.6
Reclassifications	34.8	321.2	537.9	-5.2	-896.1	-7.4
Reclassification to assets held for sale	-2.5	0.0	0.0	0.0	0.0	-2.5
Currency adjustments	7.7	15.6	88.4	0.6	2.1	114.4
Disposals	-6.2	-17.8	-54.6	-22.7	-18.1	-119.4
As of 31/12/2021	4,366.1	21,963.2	19,058.0	2,064.2	2,766.5	50,218.0
Accumulated amortization						
As of 01/01/2021	2,354.6	14,909.2	9,857.7	1,427.4	6.1	28,555.0
Additions	65.3	594.7	448.1	103.4	0.0	1,211.5
Reclassifications	11.2	4.4	50.5	-50.5	0.0	15.6
Currency adjustments	3.9	12.0	42.5	0.5	0.0	58.9
Disposals	-2.5	-7.4	-41.9	-19.4	0.0	-71.2
Impairment	130.7	792.1	33.4	4.0	5.6	965.8
Reversal of impairment losses	-1.7	-26.3	-63.4	-1.3	0.0	-92.7
As of 31/12/2021	2,561.5	16,278.7	10,326.9	1,464.1	11.7	30,642.9
Carrying amounts						
As of 31/12/2021	1,804.6	5,684.5	8,731.1	600.1	2,754.8	19,575.1

Items of property, plant and equipment amounting to €164.6 million (previous year: €196.0 million) serve as collateral for liabilities to banks, of which real estate liens account for €0.1 million (previous year: €0.1 million).

The Group's capital expenditure on intangible assets and property, plant and equipment totaling €2,770.7 million (previous year: €2,361.9 million) can be derived from the statement of changes in non-current assets as follows:

in € million	2022	2021
Additions to intangible assets, property, plant and equipment and right-of-use assets according to the statement of changes in non-current assets	3,136.1	2,674.9
Less non-cash-relevant additions to intangible assets and property, plant and equipment	-44.2	–
Less additions to assets recognized as right-of-use assets under leases	-227.2	-180.4
Less additions to the provision recognized for the decommissioning and dismantling of property, plant and equipment	-94.0	-132.6
Cash-relevant capital expenditure on intangible assets and property, plant and equipment	**2,770.7**	**2,361.9**

(12) Leases

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 01/01/2022	357.2	202.9	593.4	112.7	1,266.2
Increase/decrease due to changes in the consolidated companies	0.3	0.0	0.0	-0.1	0.2
Additions	69.7	2.2	129.3	26.0	227.2
Currency adjustments	0.0	0.0	2.2	0.2	2.4
Disposals	-10.6	-16.9	-2.2	-5.7	-35.4
As of 31/12/2022	416.6	188.2	722.7	133.1	1,460.6
Accumulated amortization					
As of 01/01/2022	87.9	111.6	230.5	46.5	476.5
Decrease due to changes in the consolidated companies	-0.1	0.0	0.0	0.0	-0.1
Additions	38.1	18.4	89.0	23.6	169.1
Currency adjustments	0.1	0.0	0.4	0.1	0.6
Disposals	-6.6	0.0	-1.9	-5.3	-13.8
Impairment	0.0	1.6	0.0	0.0	1.6
Reversal of impairment losses	-1.5	-13.0	0.0	-0.1	-14.6
As of 31/12/2022	117.9	118.6	318.0	64.8	619.3
Carrying amounts					
As of 31/12/2022	298.7	69.6	404.7	68.3	841.3

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Total
Right-of-use assets					
As of 01/01/2021	296.5	205.4	504.2	88.7	1,094.8
Increase/decrease due to changes in the consolidated companies	1.1	0.0	0.0	0.0	1.1
Additions	60.0	-6.9	93.2	34.1	180.4
Reclassifications	1.7	4.3	0.0	0.3	6.3
Reclassification to assets held for sale	0.2	0.0	0.0	0.0	0.2
Currency adjustments	0.3	0.1	3.3	0.4	4.1
Disposals	-2.6	0.0	-7.3	-10.8	-20.7
As of 31/12/2021	357.2	202.9	593.4	112.7	1,266.2
Accumulated amortization					
As of 01/01/2021	51.3	83.6	150.4	33.6	318.9
Additions	35.2	23.5	85.4	23.0	167.1
Reclassifications	0.3	5.3	0.0	0.1	5.7
Reclassification to assets held for sale	0.2	0.0	0.0	0.0	0.2
Currency adjustments	0.1	0.0	0.5	0.2	0.8
Disposals	-1.1	0.0	-5.9	-10.4	-17.4
Impairment	1.9	2.8	0.1	0.0	4.8
Reversal of impairment losses	0.0	-3.6	0.0	0.0	-3.6
As of 31/12/2021	87.9	111.6	230.5	46.5	476.5
Carrying amounts					
As of 31/12/2021	269.3	91.3	362.9	66.2	789.7

The lease liabilities are due as follows:

in € million	31/12/2022		31/12/2021	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	170.8	157.7	172.2	161.4
Due in 1 to 5 years	417.9	378.0	403.0	378.9
Due in more than 5 years	456.8	376.8	432.4	344.1
Total	**1,045.5**	**912.5**	**1,007.6**	**884.4**

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

in € million	2022	2021
Expenses from short-term leases	2.1	7.4
of which other operating expenses	(2.1)	(7.4)
Expenses from leases involving low-value assets	4.2	8.3
of which cost of materials	(0.1)	(0.7)
of which other operating expenses	(4.1)	(7.6)
Variable lease payments	2.4	2.1
of which cost of materials	(2.0)	(2.0)
of which other operating expenses	(0.4)	(0.1)
Depreciation of right-of-use assets	170.7	171.9
Interest portion of lease liability	16.2	14.3

The cash flow statement is impacted as follows:

in € million	2022	2021
Repayment portion of the lease liabilities	183.3	185.4
Interest portion of lease liabilities	16.2	14.3
Expenses from short-term leases, leases involving low-value assets and variable lease payments	8.7	17.8
Total	**208.2**	**217.5**

The repayment and interest portions of the lease liabilities are recognized 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.

The financial commitments from short-term leases and leases involving low-value assets are included in note (27) "Contingent liabilities and other financial commitments."

In the EnBW Group, there are agreements for variable lease payments totaling €502.9 million (previous year: €460.8 million), which mainly relate to long-term electricity procurement agreements. Alongside leases that have not yet begun totaling €90.9 million (previous year: €151.2 million), which relate to electricity procurement agreements, there are other leases that have not yet begun totaling €202.3 million, which relate mainly to energy industry lease relationships, vehicles and office space (previous year: €87.2 million). Furthermore, the EnBW Group has leases with extension and termination options totaling €258.6 million (previous year: €185.6 million), which could not be taken into account initially in the rights-of-use assets and corresponding lease liabilities because they were assessed as being not reasonably certain.

Lessor disclosures

The finance lease receivables of €43.8 million (previous year: €32.8 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	31/12/2022	31/12/2021
Due within 1 year	6.6	4.9
Due in 1 to 2 years	5.6	4.5
Due in 2 to 3 years	5.4	4.3
Due in 3 to 4 years	5.3	4.1
Due in 4 to 5 years	4.6	4.0
Due in more than 5 years	16.3	11.0
Total	**43.8**	**32.8**

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

in € million	31/12/2022	31/12/2021
Nominal value of lease payments	43.8	32.8
Gross investment	**43.8**	**32.8**
Finance income not yet realized	-11.2	-7.2
Net investment	**32.6**	**25.6**

The outstanding receivables from finance leases in the 2022 financial year include impairment losses of €0.3 million (previous year: €0.1 million). The loss rate (weighted average) is 0.8% (previous year: 0.5%). No lease receivables are overdue.

The finance income on net investment in finance leases was €2.2 million (previous year: €2.2 million).

The claims due to the EnBW Group from operating leases of €134.3 million (previous year restated: €138.4 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 to rent them again. For contracting agreements, there is a reutilization risk, should the agreement be terminated, due to the high level of customization in some cases.

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

in € million[1]	2022	2021
Due within 1 year	25.4	26.6
Due in 1 to 2 years	11.0	12.1
Due in 2 to 3 years	9.2	8.0
Due in 3 to 4 years	7.8	8.8
Due in 4 to 5 years	7.1	8.3
Due in more than 5 years	73.8	74.6
Total	**134.3**	**138.4**

1 The figures for the previous year have been restated.

For materiality reasons, operating leases are not reported separately under property, plant and equipment. Income from operating leases in the 2022 financial year was €27.2 million (previous year: €27.8 million).

(13) Entities accounted for using the equity method

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

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

Financial data (EnBW's interest)

in € million	2022		2021	
	Associates	Joint ventures	Associates	Joint ventures
Carrying amount of entities accounted for using the equity method	648.0	485.9	556.7	460.9
Net profit/loss for the year from continuing operations	33.1	29.4	32.1	24.2
Other income	1.7	10.9	1.5	18.5
Total comprehensive income	**34.8**	**40.3**	**33.6**	**42.7**

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 2022.

(14) Other financial assets

in € million	Shares in affiliated entities	Other investments[1]	Non-current securities	Investment properties	Loans	Total
Cost						
As of 01/01/2022	267.5	2,511.9	3,946.1	56.3	141.6	6,923.4
Increase/decrease due to changes in the consolidated companies	54.2	-18.9	0.0	0.0	-4.1	31.2
Additions	46.6	478.8	2,096.7	0.0	190.4	2,812.5
Reclassifications	0.0	0.0	-77.1	0.2	92.9	16.0
Currency adjustments	0.0	2.0	0.0	0.0	0.2	2.2
Disposals	-0.2	-224.1	-2,667.8	-0.1	-2.5	-2,894.7
As of 31/12/2022	368.1	2,749.7	3,297.9	56.4	418.5	6,890.6
Accumulated amortization						
As of 01/01/2022	71.6	91.5	0.0	10.7	5.2	179.0
Decrease due to changes in the consolidated companies	31.4	0.0	0.0	0.0	0.0	31.4
Additions	0.0	0.0	0.0	0.9	1.5	2.4
Impairment	20.6	9.1	0.0	4.6	108.7	143.0
Reclassifications	0.0	0.9	0.0	0.2	-0.4	0.7
Disposals	-0.1	0.0	0.0	-0.1	-0.3	-0.5
Reversal of impairment losses	-23.0	-1.4	0.0	0.0	-1.0	-25.4
As of 31/12/2022	100.5	100.1	0.0	16.3	113.7	330.6
Carrying amounts						
As of 31/12/2022	267.6	2,649.6	3,297.9	40.1	304.8	6,560.0

1 The carrying amounts include €2,345.3 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 01/01/2021	338.2	2,070.5	3,606.5	47.6	274.1	6,336.9
Increase/decrease due to changes in the consolidated companies	-46.7	0.1	0.0	0.0	-87.0	-133.6
Additions	53.7	561.8	3,394.2	0.4	64.8	4,074.9
Reclassifications	-39.4	39.5	-99.6	8.4	-108.8	-199.9
Reclassification to assets held for sale	-35.6	-26.7	0.0	0.0	0.0	-62.3
Currency adjustments	0.0	2.5	0.0	0.0	0.2	2.7
Disposals	-2.7	-135.8	-2,955.0	-0.1	-1.7	-3,095.3
As of 31/12/2021	267.5	2,511.9	3,946.1	56.3	141.6	6,923.4
Accumulated amortization						
As of 01/01/2021	61.9	66.6	0.0	19.7	3.5	151.7
Additions	0.0	0.0	0.0	0.7	2.8	3.5
Impairment	42.3	19.5	0.0	0.0	0.0	61.8
Reclassifications	-23.1	23.6	0.0	-9.7	-0.5	-9.7
Reclassification to assets held for sale	-6.9	-15.6	0.0	0.0	0.0	-22.5
Disposals	-2.6	-2.3	0.0	0.0	0.2	-4.7
Reversal of impairment losses	0.0	-0.3	0.0	0.0	-0.8	-1.1
As of 31/12/2021	71.6	91.5	0.0	10.7	5.2	179.0
Carrying amounts						
As of 31/12/2021	195.9	2,420.3	3,946.1	45.6	136.4	6,744.4

1 The carrying amounts include €2,105.1 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 €5,642.1 million (previous year: €6,053.4 million). Of the loans, €303.5 million (previous year: €132.0 million) is allocated to capital employed.

The loans consist of loans to affiliated entities amounting to €258.4 million (previous year: €99.7 million), loans to entities accounted for using the equity method of €21.6 million (previous year: €16.5 million), loans to investments held as financial assets of €1.3 million (previous year: €4.4 million) and to operative investments allocated to capital employed of €15.9 million (previous year: €9.6 million) and other loans allocated to capital employed of €7.5 million (previous year: €6.2 million).

(15) Trade receivables

in € million	31/12/2022			31/12/2021		
	Current	Non-current	Total	Current	Non-current	Total
Trade receivables	5,591.3	329.4	5,920.7	5,952.5	330.2	6,282.7
of which receivables from affiliated entities	(56.6)	(0.0)	(56.6)	(52.2)	(0.0)	(52.2)
of which receivables from other investees and investors	(78.4)	(0.0)	(78.4)	(95.4)	(0.0)	(95.4)
of which receivables from entities accounted for using the equity method	(28.9)	(0.0)	(28.9)	(26.0)	(0.0)	(26.0)

Further details on loss allowances and default risks can be found in note (26) "Accounting for financial instruments."

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

(16) Other assets

in € million	31/12/2022			31/12/2021		
	Current	Non-current	Total	Current	Non-current	Total
Income tax refund claims	192.9	0.0	192.9	241.8	0.3	242.1
Other tax refund claims	297.7	0.1	297.8	135.4	0.1	135.5
Interest from tax refunds	5.6	0.0	5.6	0.0	0.0	0.0
Derivatives	10,734.7	2,662.5	13,397.2	15,292.7	1,900.3	17,193.0
of which without hedges	(10,530.2)	(2,362.4)	(12,892.6)	(14,733.2)	(1,653.8)	(16,387.0)
of which cash flow hedge	(202.0)	(279.5)	(481.5)	(559.5)	(191.8)	(751.3)
of which fair value hedge	(2.5)	(20.6)	(23.1)	(0.0)	(54.7)	(54.7)
Finance lease receivables	4.4	27.9	32.3	2.4	23.1	25.5
Payments on account	147.7	11.5	159.2	57.5	8.1	65.6
Prepaid expenses	386.9	97.3	484.2	150.6	87.5	238.1
Costs for obtaining contracts [1]	(11.2)	(7.9)	(19.1)	(15.2)	(11.4)	(26.6)
Miscellaneous assets	3,491.1	158.3	3,649.4	4,036.3	224.1	4,260.4
Total	15,261.0	2,957.6	18,218.6	**19,916.7**	**2,243.5**	**22,160.2**

1 According to IFRS 15.

Current and non-current income tax refund claims mainly include deductible tax on investment income and tax overpayments from the 2021 financial year.

As a result of the high volatility and slight fall in prices on the energy trading markets, EnBW recorded a fall in derivatives.

Payments on account contain prepayments for electricity procurement agreements amounting to €16.0 million (previous year: €13.2 million).

Miscellaneous assets contain collateral for exchange-based and over-the-counter trading business amounting to €2,700.8 million (previous year: €3,217.2 million) as well as variation margins of €4.6 million (previous year: €257.3 million). A market interest rate is applied to the collateral provided for exchange-based trading business. 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 €106.0 million (previous year: €121.5 million).

(17) Inventories

in € million	31/12/2022	31/12/2021
Materials and supplies	969.4	556.7
Nuclear fuel rods	7.0	32.3
Work in progress	198.3	137.3
Finished goods and merchandise	2,634.4	1,543.2
Payments on account	26.6	20.8
Total	**3,835.7**	**2,290.3**

The increase in inventories was due to an increase in merchandise as a result of the significant price increases on the energy trading markets, and to larger coal stocks for the operation of the power plants.

In the reporting year, impairment losses of €10.2 million (previous year: €9.4 million) were recognized on inventories. There were also reversals of impairment losses of €8.5 million (previous year: €1.8 million).

Expenses recognized for inventories are mainly included in the cost of materials.

Inventories of €2,461.9 million (previous year: €1,482.8 million) are measured at fair value.

(18) Financial assets

in € million	31/12/2022	31/12/2021
Securities and financial investments	945.2	777.9
Other current financial assets	403.1	396.2
Total	**1,348.3**	**1,174.1**

Securities and financial investments mainly comprise fixed deposits from EEG funds of €625.0 million (previous year: €350.0 million) and investment funds. They also comprise fixed-income and floating rate interest securities. Other current financial assets in the 2022 financial year and the previous year mainly relate to loans. The current financial assets are available to the operative business in the amount of €1,225.3 million (previous year: €934.6 million) and to cover pension and nuclear provisions in the amount of €75.7 million (previous year: €97.2 million). Of the loans allocated to the current financial assets, €47.3 million (previous year: €142.3 million) is assigned to capital employed.

(19) 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 original term is less than three months and that are only subject to an immaterial risk of fluctuation in value. Cash and cash equivalents of €1,667.3 million (previous year: €1,251.0 million) are subject to restrictions on disposal. This includes €1,665.0 million (previous year: €1,215.2 million) in EEG funds that may only be used for EEG payments.

Cash and cash equivalents are available to the operative business in the amount of €6,290.6 million (previous year: €6,466.5 million) and to cover pension and nuclear provisions in the amount of €185.0 million (previous year: €186.5 million).

(20) 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 2022 (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.

We will propose to the Annual General Meeting that a dividend of €1.10 (previous year: €1.10) per share be distributed from the retained earnings of EnBW AG. As of 31 December 2022, a total of 270,855,027 shares were entitled to dividends, as in the previous year. If the Annual General Meeting approves this proposal, the total amount distributed by EnBW AG for the 2022 financial year will be €297.9 million (previous year: €297.9 million).

Treasury shares

As of 31 December 2022, EnBW AG holds 5,749,677 treasury shares, as in the previous year. 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 remains unchanged at €14,719,173.12. This corresponds to 2.1% of the subscribed capital, as in the previous year. The treasury shares were acquired on 28 and 29 December 1998 based on the authorization 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 from directly held treasury shares; they are not entitled to dividends. In accordance with the rulings of IFRS, the treasury shares are not recognized as securities, but are offset in one sum against equity in the balance sheet.

Other comprehensive income

For details on the changes recognized directly in equity on financial assets in the category “measured at fair value in equity” and on cash flow hedges, please refer to note (26) “Accounting for financial instruments.”

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 recognized 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.

Presentation of the components of other comprehensive income:

2022 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
Unrealized changes in market value in the current period	2,364.7	54.5	1,390.5	-287.7	2.7	3,524.7	107.3	3,632.0
Reclassification adjustments included in the income statement	0.0	0.0	855.1	55.2	0.0	910.3	-145.9	764.4
Reclassification to cost of hedged items	0.0	0.0	-622.9	0.0	0.0	-622.9	0.0	-622.9
Total other comprehensive income before tax	**2,364.7**	**54.5**	**1,622.7**	**-232.5**	**2.7**	**3,812.1**	**-38.6**	**3,773.5**
Income tax	-604.9	-2.8	-487.9	68.6	0.0	-1,027.0	16.5	-1,010.5
Total other comprehensive income	**1,759.8**	**51.7**	**1,134.8**	**-163.9**	**2.7**	**2,785.1**	**-22.1**	**2,763.0**

2021 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
Unrealized changes in market value in the current period	629.0	69.2	86.0	-28.3	2.7	758.6	260.9	1,019.5
Reclassification adjustments included in the income statement	0.0	-2.5	301.6	-3.4	0.0	295.7	-67.4	228.3
Reclassification to cost of hedged items	0.0	0.0	-107.0	0.0	0.0	-107.0	0.0	-107.0
Total other comprehensive income before tax	**629.0**	**66.7**	**280.6**	**-31.7**	**2.7**	**947.3**	**193.5**	**1,140.8**
Income tax	-265.4	0.0	-66.0	11.3	0.0	-320.1	-50.2	-370.3
Total other comprehensive income	**363.6**	**66.7**	**214.6**	**-20.4**	**2.7**	**627.2**	**143.3**	**770.5**

Presentation of the tax effects relating to unrealized expenses and income in equity:

in € million	2022			2021		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Revaluation of pensions and similar obligations	2,388.9	-610.0	1,778.9	645.1	-268.9	376.2
Currency translation differences	66.2	-2.8	63.4	88.3	0.0	88.3
Cash flow hedge	1,461.9	-551.2	910.7	311.7	-127.9	183.8
Financial assets measured at fair value in equity	-287.7	85.4	-202.3	-28.3	8.1	-20.2
Entities accounted for using the equity method	2.7	0.0	2.7	2.7	0.0	2.7
Total other comprehensive income	**3,632.0**	**-1,078.6**	**2,553.4**	**1,019.5**	**-388.7**	**630.8**

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

in € million	2022			2021		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Currency translation differences	0.0	0.0	0.0	-2.5	0.0	-2.5
Cash flow hedge	86.3	84.9	171.2	127.2	15.2	142.4
Financial assets measured at fair value in equity	55.2	-16.8	38.4	-3.4	3.2	-0.2
Total other comprehensive income	**141.5**	**68.1**	**209.6**	**121.3**	**18.4**	**139.7**

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., each with their subsidiaries, EnBW Hohe See GmbH & Co. KG, EnBW Albatros GmbH & Co. KG, EnBW Baltic 2 GmbH & Co. KG, EnBW WindInvest GmbH & Co. KG and, in the reporting year, EnBW SunInvest GmbH & Co. KG and its subsidiaries.

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

in € million	2022			
	Capital share in % of non-controlling interests	Annual net profit/loss from non-controlling interests	Dividends from non-controlling interests	Carrying amount of non-controlling interests
Energiedienst Holding AG	33.3	49.6	9.6	476.3
VNG AG	20.2	-94.2	0.0	389.0
Stadtwerke Düsseldorf AG	45.1	99.3	45.4	449.2
Pražská energetika a.s.	30.2	36.2	20.6	306.4
EnBW Hohe See GmbH & Co. KG	49.9	-60.4	88.3	1,026.7
EnBW Albatros GmbH & Co. KG	49.9	12.3	23.1	268.8
EnBW Baltic 2 GmbH & Co. KG	49.9	62.0	0.0	426.7
EnBW WindInvest GmbH & Co. KG	49.9	13.7	0.7	113.5
EnBW SunInvest GmbH & Co. KG	49.9	7.5	0.0	205.5

Balance sheet data

in € million	2022							
	Non-current assets	Current assets	Non-current liabilities	Of which non-current financial liabilities	Current liabilities	Of which current financial liabilities	Funds from operations (FFO)	Cash flow from operating activities
Energiedienst Holding AG	1,621.1	461.8	381.7	(29.3)	308.5	(8.0)	99.4	-51.4
VNG AG	5,134.1	9,218.8	3,543.0	(427.8)	8,804.7	(6.8)	-378.1	13.5
Stadtwerke Düsseldorf AG	1,742.3	1,314.5	951.0	(418.2)	1,150.2	(12.4)	245.0	393.6
Pražská energetika a.s.	1,343.8	571.8	406.1	(128.5)	468.9	(2.8)	194.9	217.1
EnBW Hohe See GmbH & Co. KG	1,992.7	394.9	201.1	(0.0)	26.5	(0.0)	322.7	294.7
EnBW Albatros GmbH & Co. KG	534.4	104.5	72.3	(0.0)	5.7	(0.0)	85.0	77.9
EnBW Baltic 2 GmbH & Co. KG	829.3	220.7	126.6	(0.0)	18.2	(0.0)	183.5	161.6
EnBW WindInvest GmbH & Co. KG	190.4	42.5	35.7	(0.0)	8.6	(0.0)	42.9	34.9
EnBW SunInvest GmbH & Co. KG	324.6	134.3	30.1	(0.0)	21.3	(0.0)	105.5	-46.9

Earnings data

in € million	Revenue	Adjusted EBITDA	Annual net profit/loss	Other income	Total comprehensive income
					2022
Energiedienst Holding AG	1,380.4	95.2	148.8	39.6	188.4
VNG AG	20,109.0	-161.9	-365.3	9.3	-356.0
Stadtwerke Düsseldorf AG	4,640.4	518.5	220.4	-85.1	135.3
Pražská energetika a.s.	1,824.2	223.5	120.0	9.7	129.7
EnBW Hohe See GmbH & Co. KG	401.3	355.6	-121.1	0.0	-121.1
EnBW Albatros GmbH & Co. KG	101.3	92.7	24.7	0.0	24.7
EnBW Baltic 2 GmbH & Co. KG	220.6	188.5	124.3	0.0	124.3
EnBW WindInvest GmbH & Co. KG	49.8	43.4	27.5	0.0	27.5
EnBW SunInvest GmbH & Co. KG	123.9	117.1	97.0	0.0	97.0

in € million [1]	Capital share in % of non-controlling interests	Annual net profit/loss from non-controlling interests	Dividends from non-controlling interests	Carrying amount of non-controlling interests
				2021
Energiedienst Holding AG	33.3	14.6	7.7	421.0
VNG AG	25.8	29.9	5.2	446.2
Stadtwerke Düsseldorf AG	45.1	7.1	29.2	432.1
Pražská energetika a.s.	30.2	25.0	18.9	296.8
EnBW Hohe See GmbH & Co. KG	49.9	13.3	119.3	1,237.5
EnBW Albatros GmbH & Co. KG	49.9	14.8	27.4	296.1
EnBW Baltic 2 GmbH & Co. KG	49.9	-49.7	44.0	439.0
EnBW WindInvest GmbH & Co. KG	49.9	15.0	0.4	107.8

1 The figures for the previous year have been restated.

Balance sheet data

in € million [1]	Non-current assets	Current assets	Non-current liabilities	Of which non-current financial liabilities	Current liabilities	Of which current financial liabilities	Funds from operations (FFO)	Cash flow from operating activities
								2021
Energiedienst Holding AG	1,586.6	535.4	488.8	(18.5)	388.1	(5.2)	89.9	194.9
VNG AG	4,106.6	12,227.7	2,978.9	(430.2)	11,589.4	(300.7)	195.8	183.9
Stadtwerke Düsseldorf AG	1,653.9	2,470.4	991.4	(370.7)	2,234.5	(79.9)	223.2	231.1
Pražská energetika a.s.	1,311.4	414.9	410.8	(124.7)	327.3	(49.7)	152.1	124.8
EnBW Hohe See GmbH & Co. KG	2,527.1	349.8	273.3	(0.0)	52.9	(0.0)	273.6	262.1
EnBW Albatros GmbH & Co. KG	613.3	92.3	87.1	(0.0)	11.2	(0.0)	72.4	65.7
EnBW Baltic 2 GmbH & Co. KG	897.5	189.0	142.0	(0.0)	17.0	(0.0)	137.6	165.2
EnBW WindInvest GmbH & Co. KG	204.5	17.8	39.0	(0.0)	6.6	(0.0)	17.1	6.8

1 The figures for the previous year have been restated.

Earnings data

in € million [1]	Revenue	Adjusted EBITDA	Annual net profit/loss	Other income	Total comprehensive income
					2021
Energiedienst Holding AG	973.5	93.0	43.8	41.2	85.0
VNG AG	10,006.5	297.2	115.9	10.8	126.7
Stadtwerke Düsseldorf AG	2,907.0	230.1	15.8	204.1	219.9
Pražská energetika a.s.	1,004.0	177.1	82.9	121.7	204.6
EnBW Hohe See GmbH & Co. KG	322.3	281.0	26.7	0.0	26.7
EnBW Albatros GmbH & Co. KG	81.7	73.9	29.7	0.0	29.7
EnBW Baltic 2 GmbH & Co. KG	189.6	155.4	-99.6	0.0	-99.6
EnBW WindInvest GmbH & Co. KG	24.8	20.6	30.1	0.0	30.1

1 The figures for the previous year have been restated.

(21) Provisions

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

in € million	31/12/2022			31/12/2021		
	Current	Non-current	Total	Current	Non-current	Total
Provisions for pensions and similar obligations	209.5	5,216.5	5,426.0	190.2	7,582.2	7,772.4
Provisions relating to nuclear power	629.6	3,984.7	4,614.3	543.8	4,411.7	4,955.5
Other provisions	2,507.7	1,282.6	3,790.3	1,942.5	2,095.5	4,038.0
Other dismantling obligations	(12.5)	(767.7)	(780.2)	(28.4)	(912.3)	(940.7)
Provisions for onerous contracts	(478.3)	(49.4)	(527.7)	(153.4)	(682.2)	(835.6)
Other electricity and gas provisions	(1,726.9)	(48.2)	(1,775.1)	(1,458.2)	(48.3)	(1,506.5)
Personnel provisions	(107.3)	(165.7)	(273.0)	(109.8)	(153.9)	(263.7)
Miscellaneous provisions	(182.7)	(251.6)	(434.3)	(192.7)	(298.8)	(491.5)
Total	**3,346.8**	**10,483.8**	**13,830.6**	**2,676.5**	**14,089.4**	**16,765.9**

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 dependents. 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 reorganization. The amount of the provisions for pensions and similar obligations accounted for by these final salary-based systems as of 31 December 2022 was €4,728.4 million (previous year: €6,581.4 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 €556.0 million (previous year: €1,024.2 million). In addition, the employees are granted energy-price reductions for the period in which they receive their pensions. Other commitments amounted to €35.6 million (previous year: €45.4 million). These mainly comprise fixed-sum commitments.

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

Number of employees	31/12/2022		31/12/2021	
	Staff with prospective pension entitlements	Pensioners	Staff with prospective pension entitlements	Pensioners
Closed systems dependent on final salary	6,137	12,868	6,530	12,974
Pension component systems	13,309	665	12,470	577
Other commitments	874	643	842	631

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 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 are to be achieved with a minimum of risk. As of 31 December 2022, the dedicated financial assets for pension and nuclear provisions totaled approximately €6.0 billion (previous year: €6.5 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-optimized performance in line with the market is targeted.
- The risk was minimized 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 minimized.
- 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	2022	2023-2027[1]	2028-2032[1]	2033-2037[1]	2038-2042[1]	2043-2047[1]	2048-2052[1]	2053-2057[1]
Closed systems dependent on final salary	198.6	216.4	252.7	270.2	261.8	231.4	190.1	144.8
Pension component systems	2.6	5.1	12.8	24.2	42.3	55.6	75.8	95.9
Other commitments	1.6	2.1	2.3	2.3	1.9	1.5	1.1	0.8
Total	**202.8**	**223.6**	**267.9**	**296.7**	**306.0**	**288.5**	**267.0**	**241.5**

1 Average values for five years.

The calculations are based on a duration of 14.4 years (previous year: 18.3 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	Pension component systems	Closed pension systems dependent on final salary	Pension component systems	Closed pension systems dependent on final salary
Discount rate +/- 0.5%	-95.0/109.3	-358.5/400.9	-176.8/211.0	-569.3/646.6
Salary trend +/- 0.5%	19.9/-18.6	121.1/-110.7	28.2/-26.1	142.2/-126.2
Pension trend +/- 0.5%	5.1/-4.7	327.8/-306.7	7.1/-6.0	474.9/-432.2
Life expectancy +/- 1 year	24.0/-24.1	236.7/-229.9	38.8/-38.8	322.5/-315.4

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 %	31/12/2022	31/12/2021
Actuarial interest rate	3.70	1.15
Future expected wage and salary increases	3.10	2.60
Future expected pension increase	2.35	1.85

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	2022	2021
Current service cost	111.3	176.0
Past service costs	0.7	0.0
Interest income from plan assets	-9.9	-8.4
Interest costs	103.6	69.1
Recording in the income statement	**205.7**	**236.7**
Income from plan assets excluding interest income	97.0	-20.6
Actuarial gains (-)/losses (+) from changes in demographic assumptions	0.0	-3.5
Actuarial gains (-)/losses (+) from changes in financial assumptions	-2,567.0	-696.3
Actuarial gains (-)/losses (+) from experience-based restatements	80.9	75.3
Recording in the statement of comprehensive income	**-2,389.1**	**-645.1**
Total	**-2,183.4**	**-408.4**

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

in € million	31/12/2022	31/12/2021
Defined benefit obligation at the beginning of the financial year	8,642.3	9,288.4
Current service cost	111.3	176.0
Interest costs	103.6	69.2
Benefits paid	-285.3	-288.2
Actuarial gains (-)/losses (+)	-2,486.2	-624.5
Actuarial gains (-)/losses (+) from changes in demographic assumptions	(0.0)	(-3.5)
Actuarial gains (-)/losses (+) from changes in financial assumptions	(-2,567.1)	(-696.3)
Actuarial gains (-)/losses (+) from experience-based restatements	(80.9)	(75.3)
Past service costs	0.7	0.0
Changes in the consolidated companies and currency adjustments	-8.6	6.6
Reclassifications	62.6	14.8
Present value of the defined benefit obligation at the end of the financial year	**6,140.4**	**8,642.3**
Fair value of plan assets at the beginning of the financial year	991.3	1,257.5
Interest income	9.9	8.4
Appropriations to (+)/transfers from (-) plan assets [1]	6.7	-205.1
Benefits paid	-82.5	-96.4
Income from plan assets excluding interest income	-97.0	20.6
Changes in the consolidated companies, currency adjustments and reclassifications	-8.0	6.3
Fair value of plan assets at the end of the financial year	**820.4**	**991.3**
Surplus cover from benefit entitlements	106.0	121.5
Provisions for pensions and similar obligations	**5,426.0**	**7,772.5**

1 Applies almost exclusively to the employer's contributions.

Payments into the plan assets in the amount of €10.3 million (previous year: €9.7 million) are planned in the subsequent period.

The plan assets consist of the following asset classes:

in %	31/12/2022	31/12/2021
Shares	15.3	12.8
Share-based investment funds	12.1	19.0
Fixed-income funds	51.3	48.6
Fixed-income securities	13.4	12.5
Land and buildings	3.5	2.6
Current financial assets	0.5	1.8
Other	3.9	2.7
	100.0	100.0

The plan assets are invested almost entirely within the EU. The plan assets 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.

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 €11.7 million (previous year: €16.6 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 2022 amounted to €135.4 million (previous year: €123.9 million).

Provisions relating to nuclear power

The provisions relating to nuclear power as of 31 December 2022 were formed for the conditioning and proper 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 recognized at the discounted settlement amount at the time they originated.

in € million	31/12/2022	31/12/2021
Remaining operation and post-operation	1,920.3	1,987.7
Dismantling including preparation	1,106.4	1,178.2
Treatment of residual material, packaging of radioactive waste	1,263.8	1,403.4
Other	323.9	386.2
Total	**4,614.4**	**4,955.5**

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 2.13% (previous year: 0.01%). A corresponding rate of increase of costs of 2.6% (previous year: 2.4%) is applied. This results in a net interest (spread) of around -0.5% (previous year: -2.4%), which generally corresponds to the real interest rate. The change in this parameter led overall to a decrease in the nuclear power provisions of €504.2 million (previous year: decrease of €1.9 million).

A reduction or increase of 0.1 percentage points in the real interest rate would increase the present value of the provisions by €31.6 million (previous year: €48.3 million) or reduce it by €31.3 million (previous year: €30.0 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 2022 was €4,368.9 million (previous year: €4,159.1 million).

The provisions for the decommissioning and dismantling of contaminated plants, as well as for fuel rods, are recognized 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 recognized without effect on profit or loss by adjusting the appropriate balance sheet items by €52.9 million upwards (previous year restated: €77.6 million). Changes in estimates relating to decommissioned power plants were recognized 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 €372.9 million (previous year: €365.8 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 wind and hydroelectric power plants, gas storage facilities and grids.

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

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 01/01/2022	Increases	Reversals	Accretion	Changes recognized in equity	Changes in consolidated companies, currency adjustments, reclassifications	Utilization	As of 31/12/2022
Provisions relating to nuclear power[1]	4,955.7	651.3	615.1	0.5	52.9	-58.3	372.4	**4,614.6**
Other provisions	4,037.9	2,454.7	671.5	5.4	-128.4	-130.0	1,778.0	**3,790.1**
Other dismantling obligations	(940.7)	(0.1)	(17.0)	(2.3)	(-128.4)	(-0.3)	(17.2)	**(780.2)**
Provisions for onerous contracts	(835.6)	(498.9)	(599.0)	(0.0)	(0.0)	(-100.0)	(107.8)	**(527.7)**
Other electricity and gas provisions	(1,506.5)	(1,735.6)	(8.5)	(2.0)	(0.0)	(11.3)	(1,472.0)	**(1,774.9)**
Personnel provisions	(263.6)	(123.6)	(13.4)	(1.0)	(0.0)	(-29.2)	(72.5)	**(273.1)**
Miscellaneous provisions	(491.5)	(96.5)	(33.6)	(0.1)	(0.0)	(-11.8)	(108.5)	**(434.2)**
Total	**8,993.6**	**3,106.0**	**1,286.6**	**5.9**	**-75.5**	**-188.3**	**2,150.4**	**8,404.7**

1 Utilization breaks down into decommissioning and dismantling totaling €340.8 million, disposal of spent fuel rods totaling €29.6 million and waste totaling €2.0 million.

(22) Deferred taxes

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

in € million	31/12/2022		31/12/2021	
	Deferred tax assets [1]	Deferred tax liabilities [1]	Deferred tax assets [1]	Deferred tax liabilities [1]
Intangible assets	49.1	284.3	60.6	330.6
Property, plant and equipment	200.5	1,868.8	126.6	1,669.0
Financial assets	203.3	108.3	135.0	217.9
Other assets	233.2	22.5	90.8	52.5
Derivative financial instruments	1.7	835.4	1.4	583.6
Non-current assets	**687.8**	**3,119.3**	**414.3**	**2,853.6**
Inventories	134.9	18.5	1.5	287.1
Financial assets	9.4	85.4	0.2	0.1
Other assets	4,244.0	6,391.4	5,078.3	8,033.2
Current assets	**4,388.3**	**6,495.3**	**5,080.0**	**8,320.4**
Provisions	1,039.8	207.8	1,730.4	82.4
Liabilities and subsidies	955.7	227.8	857.9	165.6
Non-current liabilities	**1,995.5**	**435.6**	**2,588.3**	**247.9**
Provisions	232.1	37.1	253.2	42.7
Liabilities and subsidies	5,614.6	3,753.8	7,889.7	4,816.8
Current liabilities	**5,846.7**	**3,790.9**	**8,142.9**	**4,859.5**
Carryforwards of unused tax losses	44.1	0.0	152.7	0.0
Deferred taxes before netting	**12,962.4**	**13,841.1**	**16,378.2**	**16,281.4**
Netting	-12,883.0	-12,883.0	-15,263.1	-15,263.1
Deferred taxes after netting	**79.4**	**958.1**	**1,115.2**	**1,018.3**

1 Deferred tax assets and liabilities prior to netting.

In the 2022 financial year, €12,883.0 million (previous year: €15,263.1 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 €28.9 million (previous year: €10.2 million) is taken into account.

In addition, deferred tax assets on measurement differences compared to the tax accounts contain €68.9 million (previous year: €0.4 million) in non-current financial assets, €347.7 million (previous year: €957.7 million) in non-current provisions and €160.4 million (previous year: €616.6 million) in current liabilities and subsidies that were offset against equity.

The deferred tax liabilities on measurement differences compared to the tax accounts contain no deferred tax liabilities in respect to non-current financial assets (as in the previous year) and €703.9 million (previous year: €690.9 million) in respect to current liabilities and subsidies that were offset against equity.

Deferred tax liabilities totaling €126.9 million (previous year: €883.8 million deferred tax assets) were offset directly against equity under other comprehensive income as of 31 December 2022.

The deferred tax assets contain an amount of €95.2 million (previous year: €83.6 million) that was formed in connection with risks related to the 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.

During this process, it was possible to prove with sufficient certainty that for EnBW and the main Group companies, there would be adequate taxable income available in the planning horizon used as the basis for the tax planning forecast for the full capitalization of deferred tax assets both from deductible temporary differences in assets and from carryforwards of unused tax losses.

As of 31 December 2022, a previous value adjustment and previous non-recognition of deferred tax assets from deductible temporary differences in assets and carryforwards of unused tax losses totaling €6.6 million were reversed.

In the previous reporting period, deferred tax assets from deductible temporary differences in assets and carryforwards of unused tax losses were only capitalized if there was reasonable certainty that there would be adequate taxable income available in the respective planning horizon. In the previous reporting period, this meant that a total of €114.6 million in deferred tax assets from deductible temporary differences in assets and carryforwards of unused tax losses were adjusted or not recognized. The value adjustment or non-recognition of the deferred tax assets was expensed in the amount of €31.6 million through profit and loss and €83.0 million was offset against equity without any impact on earnings.

Carryforwards of unused tax losses are composed as follows:

in € million	31/12/2022		31/12/2021	
	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 recognized in the balance sheet	380.8	412.3	399.3	437.9
Deferred taxes on the non-valued carryforwards of unused tax losses that would theoretically have to be formed	60.3	57.2	63.2	59.5
Unlimited ability to carry forward the existing unused tax losses for which deferred tax assets were formed [1]	141.3	129.8	340.4	711.9

1 Mainly concerns German companies.

Carryforwards of unused tax losses reduced the actual tax burden by €136.6 million (previous year: €6.1 million).

As of the reporting date, deferred tax assets of €23.8 million (previous year: €1,025.3 million) were recognized 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	31/12/2022	31/12/2021
Corporate income tax (or comparable foreign tax)	24.0	55.3
Trade tax	20.1	97.4
Total	**44.1**	**152.7**

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

in € million	31/12/2022	31/12/2021
Opening balance	152.7	49.1
Utilization of tax losses	-136.6	-6.1
Origination of tax losses (addition)	26.7	109.1
Change in consolidated companies	1.3	0.6
Closing balance	**44.1**	**152.7**

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

No deferred tax liabilities were recognized on temporary differences of €16.7 million (previous year: €13.0 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.

(23) Liabilities and subsidies

Financial liabilities

Financial liabilities break down as of 31 December 2022 compared to the previous year as follows:

in € million[1]	31/12/2022			31/12/2021		
	Current	Non-current	Total	Current	Non-current	Total
Subordinated bonds	0.0	2,488.7	2,488.7	989.7	2,485.9	3,475.6
Bonds	101.5	6,381.1	6,482.6	0.0	4,685.3	4,685.3
Commercial papers	712.5	0.0	712.5	240.0	0.0	240.0
Liabilities to banks	128.9	1,840.7	1,969.6	735.1	1,332.3	2,067.4
Other financial liabilities	21.1	1,216.9	1,238.0	103.1	678.9	782.0
Financial liabilities	**964.0**	**11,927.4**	**12,891.4**	**2,067.9**	**9,182.4**	**11,250.3**

1 Please refer to note (26) "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

Of the non-current financial liabilities, €5,907.2 million (previous year: €3,820.4 million) have a term of between one year and five years, and €6,020.2 million (previous year: €5,362.1 million) have a term of more than five years.

Overview of the subordinated bonds

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
EnBW AG[1]	€500 million	€497.5 million	2.125%	31/08/2081
Green bond				
EnBW AG[2]	€500 million	€498.2 million	1.625%	05/08/2079
EnBW AG[3]	€500 million	€498.9 million	1.125%	05/11/2079
EnBW AG[4]	€500 million	€496.3 million	1.875%	29/06/2080
EnBW AG[5]	€500 million	€497.8 million	1.375%	31/08/2081
		€2,488.7 million		

1 Option for EnBW to redeem in the three-month period before 31 August 2032, then on every coupon date.
2 Option for EnBW to redeem in the three-month period before 5 August 2027, then on every coupon date.
3 Option for EnBW to redeem in the three-month period before 5 November 2024, then on every coupon date.
4 Option for EnBW to redeem in the three-month period before 29 June 2026, then on every coupon date.
5 Option for EnBW to redeem in the three-month period before 31 August 2028, then on every coupon date.

A euro subordinated bond with a volume of €725 million and a US dollar subordinated bond with a volume of US$300 million were redeemed on 5 January 2022, at the earliest possible date stipulated in their terms at their principal amounts plus interest accrued.

All outstanding subordinated 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.

Overview of the senior bonds of EnBW

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
Public bonds				
EnBW International Finance B.V.	CHF100 million	€101.5 million	2.250%	12/07/2023
EnBW International Finance B.V.	€500 million	€500.8 million [1]	4.875%	16/01/2025
EnBW International Finance B.V.	€500 million	€498.3 million	0.625%	17/04/2025
EnBW International Finance B.V.	€500 million	€499.3 million	2.500%	04/06/2026
EnBW International Finance B.V.	€500 million	€498.8 million	0.125%	01/03/2028
EnBW International Finance B.V.	€500 million	€498.4 million	0.250%	19/10/2030
EnBW International Finance B.V.	€500 million	€496.7 million	0.500%	01/03/2033
EnBW International Finance B.V.	€600 million	€590.9 million	6.125%	07/07/2039
Green bond				
EnBW International Finance B.V.	€500 million	€497.2 million	3.625%	22/11/2026
EnBW International Finance B.V.	€500 million	€498.7 million	4.049%	22/11/2029
EnBW International Finance B.V.	€500 million	€497.3 million	1.875%	31/10/2033
Private placements				
EnBW International Finance B.V.	€100 million	€98.8 million	2.875%	13/06/2034
EnBW International Finance B.V.	JPY20 billion	€142.2 million	5.460% [2]	16/12/2038
EnBW International Finance B.V.	€100 million	€99.3 million	3.080%	16/06/2039
EnBW International Finance B.V.	€75 million	€74.8 million	2.080%	21/01/2041
EnBW International Finance B.V.	€50 million	€49.6 million	2.900%	01/08/2044
		€5,642.6 million [3]		

1 Adjusted for valuation effects from interest-induced hedging transactions.
2 After the swap into euros.
3 We also have a US private placement of bonds with a carrying amount of €840.0 million as of 31/12/2022.

In November 2022, EnBW International Finance B.V. issued two green bonds with a total volume of €1 billion and terms of four and seven years. They have been given an initial coupon of 3.625% and 4.049%, respectively. The funds from the bonds will be exclusively used for climate-friendly projects in the areas of wind power, photovoltaics, electromobility and the electricity distribution grid.

US private placement (USPP)

In November 2022, EnBW AG signed a private placement of bonds in the USA (USPP) with a nominal value of around US$850.0 million. The transaction covers tranches in euros, US dollars and pounds sterling with terms of three to twelve years.

Commercial paper program

Under the commercial paper program set up by EnBW and EnBW International Finance B.V. for short-term financing purposes, €712.5 million had been drawn as of 31 December 2022 (previous year: €240.0 million).

Liabilities to banks

Liabilities to banks decreased in the 2022 financial year due to scheduled repayments and also the repayment of short-term money market loans taken out by EnBW and its subsidiaries. New bilateral redemption loans at banks were taken out by EnBW in the reporting period. The majority of the outstanding liabilities to banks are bilateral loan agreements.

On 24 June 2020, EnBW concluded a new sustainability-linked syndicated credit line with a bank consortium that has a volume of €1.5 billion. The bank consortium agreed the second extension option for an additional year in June 2021. The new term for the syndicated credit line ends on 24 June 2027. The credit line remained undrawn as of 31 December 2022.

In addition, the Group had other committed credit lines of €4.6 billion (previous year: €1.3 billion), of which €0.2 billion (previous year: €0.1 billion) had been drawn as of 31 December 2022. This includes the credit line that was concluded with KfW by VNG on 5 April 2022, with a volume of €660 million and a term until April 2023. The credit line was terminated prematurely. Furthermore, there are uncommitted credit lines totaling around €1.3 billion that can be utilized in agreement with our banks. These credit lines were undrawn as of 31 December 2022. The credit lines are not subject to any restrictions as regards their utilization.

In December 2022, EnBW agreed a bank loan of €600 million with the European Investment Bank to finance the He Dreiht offshore wind farm. The loan will be drawn in March 2023, at the earliest.

Liabilities to banks are collateralized with real estate liens in the amount of €0.1 million (previous year: €0.1 million). Liabilities to banks to the amount of €218.4 million are collateralized with other types of securities (previous year: €250.3 million). These are mainly allocable to the Valeco Group.

Other financial liabilities

The item "other financial liabilities" primarily includes promissory notes, other loans and other contractual obligations.

EnBW issued its first promissory notes on 6 July 2022. The total volume of €500 million was split over six tranches, some with fixed coupons and some with floating-rate coupons.

Other liabilities and subsidies

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

in € million	31/12/2022	31/12/2021
Non-current liabilities	4,679.3	4,229.8
Current liabilities	24,358.0	29,497.2
Liabilities	**29,037.3**	**33,727.0**
Non-current subsidies	16.0	11.0
Current subsidies	1.2	1.2
Subsidies	**17.2**	**12.2**
Non-current liabilities and subsidies	4,695.3	4,240.7
Current liabilities and subsidies	24,359.2	29,498.4
Liabilities and subsidies	**29,054.5**	**33,739.1**

Other liabilities as of 31 December 2022 break down as follows compared to the previous year:

in € million[1]	31/12/2022 Current	Non-current	Total	31/12/2021 Current	Non-current	Total
Trade payables	8,443.3	0.6	8,443.9	6,475.8	1.3	6,477.1
of which liabilities to affiliated entities	(32.0)	(0.0)	(32.0)	(46.6)	(0.0)	(46.6)
of which liabilities to other investees and investors	(166.4)	(0.0)	(166.4)	(103.6)	(0.0)	(103.6)
of which liabilities to entities accounted for using the equity method	(158.6)	(0.0)	(158.6)	(146.6)	(0.0)	(146.6)
Other deferred income	280.8	227.1	507.9	117.1	205.7	322.8
Liabilities from derivatives	8,674.9	2,457.0	11,131.9	16,934.3	2,200.6	19,134.9
of which without hedges	(8,487.3)	(2,348.8)	(10,836.1)	(16,543.8)	(2,108.3)	(18,652.1)
of which cash flow hedge	(187.6)	(108.1)	(295.7)	(390.5)	(92.3)	(482.8)
Income tax liabilities	380.4	121.3	501.7	84.0	96.3	180.3
of which liabilities for audit risks	(0.3)	(121.3)	(121.6)	(32.5)	(96.2)	(128.7)
Contract liabilities	102.8	979.5	1,082.3	83.4	903.1	986.5
Miscellaneous liabilities	6,475.8	893.8	7,369.6	5,802.6	822.7	6,625.3
of which lease liabilities	(157.7)	(754.8)	(912.5)	(161.4)	(723.0)	(884.4)
of which from other taxes	(331.5)	(0.0)	(331.5)	(495.5)	(4.3)	(499.8)
of which relating to social security	(16.2)	(0.0)	(16.2)	(16.7)	(0.0)	(16.7)
Other liabilities	**24,358.0**	**4,679.3**	**29,037.3**	**29,497.2**	**4,229.7**	**33,726.9**

1 Please refer to note (26) "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

Of the non-current other liabilities (excluding deferred income and contract liabilities), €2,969.1 million (previous year: €2,623.5 million) has a remaining term of between one year and five years, and €503.6 million (previous year: €497.4 million) has a remaining term of more than five years.

Trade payables include obligations for outstanding invoices amounting to €908.1 million (previous year: €846.0 million).

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

Other liabilities include construction cost subsidies and other subsidies from private sources totaling €991.8 million (previous year: €967.0 million).

Miscellaneous liabilities mainly concern collateral for over-the-counter trading business (OTC margins) amounting to €3,095.2 million (previous year: €2,944.4 million), as well as variation margins of €1,488.8 million (previous year: €1,413.6 million), interest obligations from bonds amounting to €88.1 million (previous year: €104.7 million) and non-controlling interests in fully consolidated partnerships recorded as liabilities to the amount of €111.8 million (previous year: €88.8 million).

Subsidies break down as of 31 December 2022 compared to the previous year as follows:

in € million	31/12/2022	31/12/2021
Investment cost subsidies	8.8	3.8
Other subsidies from public authorities	8.4	8.4
Total	**17.2**	**12.2**

(24) Assets held for sale

Assets held for sale

in € million	31/12/2022	31/12/2021
Property, plant and equipment	7.8	2.5
Other financial assets	0.0	51.5
Total	**7.8**	**54.0**

Property, plant and equipment held for sale in the reporting year refers primarily to generation plants held for sale due to concessions that are set to expire. This is allocated to the Sustainable Generation Infrastructure segment in the segment reporting. In the previous year, the property, plant and equipment held for sale mainly referred to pieces of land held for sale. This was allocated to the System Critical Infrastructure segment in the segment reporting.

In the previous year, other financial assets held for sale comprised investments held for sale. They were allocated to the Sustainable Generation Infrastructure and System Critical Infrastructure segments in the segment reporting.

There were no liabilities directly associated with assets classified as held for sale (as in the previous year).

Other disclosures

(25) 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		2022	2021
Earnings from continuing operations	in € million	1,843.9	441.2
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(1,738.0)	(363.2)
Group net profit	in € million	1,843.9	441.2
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(1,738.0)	(363.2)
Number of shares outstanding (weighted average)	thousands	270,855	270,855
Earnings per share from continuing operations [1]	in €	6.42	1.34
Earnings per share from Group net profit [1]	in €	6.42	1.34
Dividend per share for the 2021 financial year of EnBW AG	in €	–	1.10
Proposed dividend per share for the EnBW AG 2022 financial year	in €	1.10	–

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

(26) 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.

31/12/2022			Hierarchy of input data				
in € million	Fair value	Level 1	Level 2	Level 3	Measured at amortized cost	Not in IFRS 7's field of application	Carrying amount
Financial assets	7,268.1	2,698.1	932.4	2,304.7	1,332.9	640.3	7,908.4
Measured at fair value through profit or loss	(4,160.6)	(1,251.7)	(604.2)	(2,304.7)			(4,160.6)
Measured at fair value in equity	(1,774.6)	(1,446.4)	(328.2)				(1,774.6)
Measured at amortized cost	(1,332.9)				(1,332.9)		(1,332.9)
Trade receivables [1]	5,920.7				5,920.7		5,920.7
Other assets	16,253.0	0.1	13,397.1		2,855.8	1,965.6	18,218.6
Measured at fair value through profit or loss	(12,892.6)	(0.0)	(12,892.6)				(12,892.6)
Measured at amortized cost	(2,823.5)				(2,823.5)		(2,823.5)
Derivatives designated as hedging instruments	(504.6)	(0.1)	(504.5)				(504.6)
Lease receivables	(32.3)				(32.3)		(32.3)
Cash and cash equivalents	6,475.6				6,475.6		6,475.6
Assets held for sale [2]	0.0				0.0	7.8	7.8
Total assets	**35,917.4**	**2,698.2**	**14,329.5**	**2,304.7**	**16,585.0**	**2,613.7**	**38,531.1**
Financial liabilities [3]	12,001.3				12,891.2		12,891.2
Trade payables	3,380.5				3,380.5	5,062.8	8,443.3
Other liabilities and subsidies	17,123.9	0.0	11,131.8		5,992.1	3,487.2	20,611.1
Held for trading	(10,836.1)	(0.0)	(10,836.1)				(10,836.1)
Measured at amortized cost	(5,079.6)				(5,079.6)		(5,079.6)
Derivatives designated as hedging instruments	(295.7)	(0.0)	(295.7)				(295.7)
Lease liabilities	(912.5)				(912.5)		(912.5)
Total liabilities	**32,505.7**	**0.0**	**11,131.8**	**0.0**	**22,263.8**	**8,550.0**	**41,945.6**

1 Due to the impact of the war between Russia and Ukraine, the amount of expected credit losses on trade receivables was increased moderately on the basis of internal forecasts.
2 This refers mainly to a non-recurring measurement of the fair value due to the application of IFRS 5.
3 The fair value of bonds and liabilities to banks must be allocated to hierarchical level 1 (€7,820.5 million) and hierarchical level 2 (€4,180.8 million), respectively. €301.7 million of the bonds are involved in fair value hedging relationships.

31/12/2021

in € million	Fair value	Level 1	Level 2	Level 3	Measured at amortized cost	Not in IFRS 7's field of application	Carrying amount
		Hierarchy of input data					
Financial assets	7,323.4	3,145.2	1,582.0	2,063.4	532.7	595.0	7,918.4
Measured at fair value through profit or loss	(4,542.6)	(1,279.0)	(1,200.2)	(2,063.4)			(4,542.6)
Measured at fair value in equity	(2,248.1)	(1,866.2)	(381.8)				(2,248.1)
Measured at amortized cost	(532.7)				(532.7)		(532.7)
Trade receivables	6,282.7				6,282.7		6,282.7
Other assets	20,919.5	186.6	17,006.4		3,726.5	1,240.7	22,160.2
Measured at fair value through profit or loss	(16,387.0)	(0.5)	(16,386.5)				(16,387.0)
Measured at amortized cost	(3,701.0)				(3,701.0)		(3,701.0)
Derivatives designated as hedging instruments	(806.0)	(186.1)	(619.9)				(806.0)
Lease receivables	(25.5)				(25.5)		(25.5)
Cash and cash equivalents	6,653.1				6,653.1		6,653.1
Assets held for sale [1]	31.2				31.2	22.8	54.0
Total assets	**41,209.9**	**3,331.8**	**18,588.4**	**2,063.4**	**17,226.2**	**1,858.5**	**43,068.4**
Financial liabilities [2, 3]	12,023.0				11,250.4		11,250.4
Trade payables	2,403.1				2,403.1	4,072.7	6,475.8
Other liabilities and subsidies	24,692.1	191.2	18,943.7		5,557.2	2,571.3	27,263.4
Held for trading	(18,652.1)	(3.3)	(18,648.8)				(18,652.1)
Measured at amortized cost	(4,672.8)				(4,672.8)		(4,672.8)
Derivatives designated as hedging instruments	(482.8)	(187.9)	(294.9)				(482.8)
Lease liabilities	(884.4)				(884.4)		(884.4)
Total liabilities	**39,118.2**	**191.2**	**18,943.7**	**0.0**	**19,210.7**	**6,644.0**	**44,989.6**

1 This refers to a non-recurring measurement of the fair value due to the application of IFRS 5, which must be allocated to hierarchical level 3.
2 The fair value of bonds and liabilities to banks must be allocated to hierarchical level 1 (€8,588.1 million) and hierarchical level 2 (€3,434.9 million), respectively. €336.5 million of the bonds are involved in fair value hedging relationships.
3 The figures for the previous year have been restated.

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: Methods for which all input parameters that have a significant effect on the recorded fair value are observable, either directly or indirectly
- Level 3: Methods 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 method for measuring fair value is changed and the input factors with significance for the valuation will result in allocation to a different level. Due to the fact that prices quoted by brokers are used, securities with a fair value of €200.5 million (previous year: €10.2 million) were reclassified from Level 1 to Level 2 and securities with a fair value of €19.7 million (previous year: €18.7 million) were reclassified from Level 2 to Level 1 in the 2022 financial year.

The fair value of the assets in the "measured at fair value through profit or loss" measurement category amounts to €17,053.2 million (previous year: €20,929.6 million), of which €1,251.7 million (previous year: €1,279.5 million) is allocated to the first hierarchical level, €13,496.8 million (previous year: €17,586.7 million) to the second hierarchical level and €2,304.7 million (previous year: €2,063.4 million) to the third hierarchical level. The assets in the "measured at fair value in equity" measurement category have a fair value of €1,774.6 million (previous year: €2,248.1 million), of which €1,446.4 million (previous year: €1,866.2 million) is allocated to the first hierarchical level and €328.2 million (previous year: €381.8 million) to the second hierarchical level. Assets in the "measured at amortized cost" measurement category amount to €16,585.0 million (previous year: €17,226.2 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 01/01/2022	Changes in consolidated companies, currency adjustments, other	Changes recognized through profit or loss	Changes recognized in equity	Additions	Disposals	As of 31/12/2022
Financial assets	2,063.4	7.5	108.3	-1.7	293.2	-166.0	2,304.7

The changes recognized through profit or loss of €108.3 million (previous year: €202.3 million) were recognized in the financial result. In the financial year, gains and losses from Level 3 financial instruments were recognized in the investment result in the amount of €238.8 million (previous year adjusted: €121.8 million), of which €238.4 million (previous year adjusted: €121.8 million) is accounted for by financial instruments still held on the reporting date.

We refer you to the Six-Monthly Financial Report January to June 2022 for more detailed information on the interim valuation of the derivatives, which was adjusted on the basis of unobservable input parameters against the background of possible restrictions in gas supply.

The premises for determining the price risks associated with the financial instruments measured at fair value in accordance with Level 3 were 1.0% for investments in real estate and infrastructure funds (previous year: 1.0%) and 10.0% for other financial instruments (previous year: 10.0%). In the risk scenario in question, the net profit/loss for the year would improve by €102.9 million (previous year: €100.0 million). A decrease of the same amount would have an opposite effect.

In the Six-Monthly Financial Report January to June 2022, derivatives in the "held for trading" measurement category of €351.4 million (31 December 2021: €0.0 million) in other liabilities were reclassified from Level 2 to Level 3. The affected contracts expired at the end of 2022.

Financial liabilities as of 31 December 2022 include bonds with a fair value of €8,834.7 million (previous year: €8,924.6 million) and liabilities to banks with a fair value of €1,928.6 million (previous year: €2,076.4 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.

31/12/2022				Non-netted amounts		
in € million	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/ paid	Net amount
Trade receivables	9,005.2	-7,033.2	1,972.0	0.0	0.0	1,972.0
Other assets	80,023.2	-66,783.9	13,239.3	-6,629.5	-3,063.6	3,546.2
Measured at fair value through profit or loss	(77,902.5)	(-65,009.9)	(12,892.6)	(-6,618.0)	(-3,063.6)	(3,211.0)
Measured at amortized cost	(612.5)	(-608.0)	(4.5)	(0.0)	(0.0)	(4.5)
Derivatives designated as hedging instruments	(1,508.2)	(-1,166.0)	(342.2)	(-11.5)	(0.0)	(330.7)
Trade payables	8,019.1	-7,033.2	985.9	0.0	0.0	985.9
Other liabilities and subsidies	79,188.9	-66,783.9	12,405.0	-6,629.5	-2,464.0	3,311.6
Held for trading	(74,979.2)	(-64,269.4)	(10,709.8)	(-6,618.0)	(-2,460.2)	(1,631.6)
Measured at amortized cost	(2,987.9)	(-1,500.5)	(1,487.4)	(0.0)	(0.0)	(1,487.4)
Derivatives designated as hedging instruments	(1,221.8)	(-1,014.0)	(207.8)	(-11.5)	(-3.8)	(192.5)

31/12/2021				Non-netted amounts		
in € million [1]	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/ paid	Net amount
Trade receivables	6,813.2	-4,720.1	2,093.1	0.0	0.0	2,093.1
Other assets	109,264.5	-93,560.9	15,703.6	-8,261.8	-2,927.3	4,514.5
Measured at fair value through profit or loss	(107,244.2)	(-92,468.1)	(14,776.1)	(-7,975.5)	(-2,927.3)	(3,873.3)
Measured at amortized cost	(256.8)	(0.0)	(256.8)	(0.0)	(0.0)	(256.8)
Derivatives designated as hedging instruments	(1,763.5)	(-1,092.8)	(670.7)	(-286.3)	(0.0)	(384.4)
Trade payables	5,186.3	-4,720.1	466.2	0.0	0.0	466.2
Other liabilities and subsidies	113,319.4	-93,560.9	19,758.5	-8,261.8	-3,105.8	8,390.9
Held for trading	(108,437.2)	(-90,455.2)	(17,982.0)	(-7,975.5)	(-3,105.7)	(6,900.8)
Measured at amortized cost	(4,005.1)	(-2,593.8)	(1,411.3)	(0.0)	(0.0)	(1,411.3)
Derivatives designated as hedging instruments	(877.1)	(-511.9)	(365.2)	(-286.3)	(-0.1)	(78.8)

1 The figures for the previous year have been restated.

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

Net gains or losses by measurement category

in € million [1]	2022	2021
Financial assets and liabilities measured at fair value through profit or loss	798.9	13.1
Financial assets measured at fair value in equity	-39.3	-18.4
Financial assets measured at amortized cost	-270.2	-40.1
Financial liabilities measured at amortized cost	-56.6	14.0

1 The figures for the previous year have been restated.

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 amortized cost.

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.

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

In the reporting year, the net loss in the “financial assets measured at fair value in equity” measurement category was mainly due to effects arising from the sale of financial instruments, currency effects and loss allowances/reversals of loss allowances as in the previous year.

The net loss in the “financial assets measured at amortized cost” measurement category was mainly due to loss allowances and negative currency effects as in the previous year.

In the reporting year, the net loss in the “financial liabilities measured at amortized cost” measurement category was mainly due to dividends and currency effects as in the previous year.

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

In the 2022 financial year, results from changes in the market value of financial assets measured at fair value in equity were recognized in equity with a negative impact of €202.3 million (previous year: €20.2 million). Of the changes in market values posted with no impact on income, €47.8 million was transferred with a negative impact on earnings to the income statement (previous year: €2.4 million).

Derivative financial instruments and hedging

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

Date of the reclassification of the result that was directly recognized in equity to the 2022 income statement

in € million	Fair value	2023	2024 – 2027	> 2027
Currency-related cash flow hedges	-33.4	-31.9	10.8	-12.3
Commodity cash flow hedges	287.4	139.3	166.8	-18.7
Interest-related cash flow hedges	32.8	6.4	14.0	12.4

Date of the reclassification of the result that was directly recognized in equity to the 2021 income statement

in € million	Fair value	2022	2023 – 2026	> 2026
Currency-related cash flow hedges	**-42.6**	7.2	4.6	-54.4
Commodity cash flow hedges	**893.7**	783.8	128.6	-18.7
Interest-related cash flow hedges	**-1.7**	1.5	1.1	-4.3

As of 31 December 2022, unrealized gains from derivatives amounted to €1,880.0 million (previous year: €332.0 million). In the reporting period, the effective portion of the cash flow hedges was recognized directly in equity with a positive impact of €1,461.7 million (previous year: €311.6 million). From the ineffective portion of the cash flow hedges in the 2022 financial year, there were expenses of €4.6 million (previous year: €6.4 million income) as well as expenses from reclassifications from other comprehensive income in the amount of €709.2 million (previous year: €234.3 million) to the income statement. The reclassifications were made to revenue (decrease of €1,378.6 million, previous year: €515.6 million), cost of materials (decrease of €623.8 million, previous year: €193.1 million), other operating income (increase of €52.0 million, previous year: €69.4 million) and the financial result (decrease of €6.5 million, previous year: increase of €18.9 million). An amount of €622.9 million (previous year: €107.0 million) was reclassified from other comprehensive income to inventories. In the reporting year and the previous year, this led to a decrease in acquisition costs.

The amounts reclassified also included the de-designation of cash flow hedges of €91.9 million. It was necessary to reduce the expected highly probable generated volumes of electricity and the expected highly probable requirements for coal and emission allowances for the 2023 financial year.

As of 31 December 2022, existing hedged transactions that are covered by cash flow hedges with terms of up to around 15 years (previous year: up to 55 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 optimization purposes, hedging relationships are regularly redesignated as is customary in the industry.

Hedges of a net investment in a foreign operation are used to hedge foreign currency risks from investments with a foreign functional currency. As of 31 December 2022, the item "financial liabilities" contained three bonds in US dollars with a volume of US$148 million to hedge the net investment in the joint venture in Turkey and thus to hedge the Group's foreign currency risk with respect to the US dollar exchange rate arising from this investment. Gains and losses from the translation of bonds in foreign currencies are recognized under other comprehensive income and netted against any gains or losses from the currency translation at the entity accounted for using the equity method.

There is an economic relationship between the hedged transaction and the hedging instrument because there is a translation risk associated with the net investment that corresponds to the foreign currency risk associated with the bonds taken out in US dollars. The underlying risk associated with the hedging instrument is identical to the hedged risk component. Therefore, the Group has defined a hedge ratio of 1 : 1 for this hedging relationship. A hedge will be ineffective if the value of the investment in the entity accounted for using the equity method falls below the value of the bond in the foreign currency.

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 €31.6 million was recognized in the income statement with a negative impact on earnings in the reporting year (previous year: €17.7 million). For hedged liabilities, the fluctuation in market values arising from the hedged risk is also recognized in profit or loss. In the reporting year, the fluctuations in market values totaling €34.9 million that resulted from the underlying transactions were measured through profit or loss with a positive impact on earnings (previous year: €17.8 million).

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 recognized as of the settlement date at fair value taking into account the transaction costs. Derivative financial assets are recognized as of the trading date. Derivative and primary financial instruments are recognized 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 analyzed 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. Collateral is deposited or has been provided for derivatives that are traded on the stock exchange.

31/12/2022	Nominal amount of the hedging instrument	Carrying amount of the hedging instrument		Balance sheet items containing the hedging instrument	Change in the fair value for the reporting period
in € million		**Assets**	**Liabilities**		
Cash flow hedges	**13,023.4**	**481.5**	**295.7**		**1,979.1**
Commodity price risks	**9,897.7**	415.9	229.4	Other assets/ Other liabilities	**1,934.8**
Currency risk [1]	**2,558.9**	32.1	65.6	Other assets/ Other liabilities	**11.2**
Interest rate risk [2]	**566.8**	33.5	0.7	Other liabilities	**33.1**
Fair value hedges	**308.9**	**23.1**	**0.0**		**-31.6**
Commodity price risks	**8.9**	5.0		Other assets	**5.0**
Interest rate risk [3]	**300.0**	18.1	0.0	Other assets	**-36.6**
Hedges of a net investment in a foreign operation [4]	**138.8**	**0.0**	**138.8**	**Financial liabilities**	**9.3**

1 The hedging instruments have a term of up to 5 years (€2,332.8 million) and more than 5 years (€142.2 million).
2 The hedging instruments have a term of up to 5 years (€133.0 million) and more than 5 years (€134.0 million).
3 The hedging instruments have a term of up to 5 years.
4 The hedging instruments have a nominal value of US$148 million, of which US$55.0 million has a term of up to 5 years and US$93.0 million a term of more than 5 years.

31/12/2021	Nominal amount of the hedging instrument	Carrying amount of the hedging instrument		Balance sheet items containing the hedging instrument	Change in the fair value for the reporting period
in € million		Assets	Liabilities		
Cash flow hedges	**7,719.9**	**751.3**	**482.8**		**895.0**
Commodity price risks	6,409.5	724.8	412.1	Other assets/ Other liabilities	831.2
Currency risk [1]	1,015.7	18.1	60.6	Other assets/ Other liabilities	45.9
Interest rate risk [2]	294.7	8.4	10.1	Other liabilities	17.9
Fair value hedges	**300.0**	**54.7**	**0.0**		**-17.7**
Interest rate risk [3]	300.0	54.7	0.0	Other assets	-17.7

1 The hedging instruments have a term of up to 5 years (€862.6 million) and more than 5 years (€153.1 million).
2 The hedging instruments have a term of up to 5 years (€218.0 million) and more than 5 years (€76.7 million).
3 The hedging instruments have a term of up to 5 years.

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

31/12/2022	Carrying amount of the hedged item	Change in value of the hedged item that is contained in the carrying amount of the recognized transaction	Balance sheet items containing the hedged item	Change in the fair value for the reporting period	Cash flow hedge reserve
in € million	Liabilities	Liabilities			
Cash flow hedges [1]	–	–		**-1,961.9**	**1,880.1**
Commodity price risks	–	–		-1,914.5	1,843.5
Currency risk	–	–		-14.3	-6.5
Interest rate risk	–	–		-33.1	43.1
Fair value hedges	**305.7**	**1.7**		**29.9**	–
Commodity price risks	4.0		Inventories	-5.0	
Interest rate risk	301.7	1.7	Financial liabilities	34.9	–
Hedges of net investments in foreign operations	–	–		**-9.3**	**9.3**

1 The hedged items are expected transactions and fixed obligations.

31/12/2021	Carrying amount of the hedged item	Change in value of the hedged item that is contained in the carrying amount of the recognized transaction	Balance sheet items containing the hedged item	Change in the fair value for the reporting period	Cash flow hedge reserve
in € million	Liabilities	Liabilities			
Cash flow hedges [1]	–	–		**-900.3**	**332.0**
Commodity price risks	–	–		-836.0	354.2
Currency risk	–	–		-46.4	-33.1
Interest rate risk	–	–		-17.9	10.9
Fair value hedges	**336.5**	**36.5**		**17.8**	–
Interest rate risk	336.5	36.5	Financial liabilities	17.8	–

1 The hedged items are expected transactions.

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

2022	Hedging gains or losses in the reporting period recognized under other comprehensive income	Ineffectiveness of the hedging relationship recognized in profit or loss	Items on the statement of comprehensive income that contain the recognized 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	**1,390.2**	**-4.6**		**-232.4**	
Commodity price risks	1,300.0	1.7	Other operating income	-225.9	Cost of materials/ revenue/other operating expenses
Interest rate risk	26.9	0.0		0.2	Financial result
Currency risk	63.3	-6.3	Other operating expenses	-6.7	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.

2021	Hedging gains or losses in the reporting period recognized under other comprehensive income	Ineffectiveness of the hedging relationship recognized in profit or loss	Items on the statement of comprehensive income that contain the recognized 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	**86.0**	**6.4**		**-194.6**	
Commodity price risks	-10.4	4.1	Other operating expenses	-213.5	Cost of materials/ revenue/other operating expenses
Interest rate risk	64.8	0.0		0.0	Financial result
Currency risk	31.6	2.3	Other operating expenses	18.9	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 hedges) as follows:

in € million [1]	31/12/2022	31/12/2021	Change
Derivatives used in cash flow hedges with a positive fair value	755.9	1,520.1	-764.2
Derivatives used in cash flow hedges with a negative fair value	469.3	670.7	-201.4
	286.6	**849.4**	**-562.8**
Deferred tax on change recognized directly in equity in derivatives used in cash flow hedges	-552.4	-85.0	-467.4
Hedge ineffectiveness	4.6	-6.4	11.0
Cascading effects	649.2	-1,049.8	1,699.0
Effects realized from hedging transactions [2]	965.8	585.0	380.8
Non-controlling interests	-82.8	-157.1	74.3
Cash flow hedge (recognized in equity)	**1,271.0**	**136.1**	**1,134.9**

1 Before offsetting financial assets and financial liabilities according to IAS 32.
2 Of which €900.6 million (previous year: €496.1 million) will be reclassified to the income statement in the period 2024–2030 (previous year: 2024–2030).

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	31/12/2022		31/12/2021	
	< 1 year	1 – 5 years	< 1 year	1 – 5 years
up to A1	870.5	293.7	1,122.1	429.9
up to A3	237.0	126.8	1,477.6	561.9
Baa1	1,014.0	725.0	970.4	173.7
up to Baa3	1,163.3	575.9	303.2	389.2
below Baa3	25.3	9.2	562.1	133.5
Total	**3,310.1**	**1,730.6**	**4,435.4**	**1,688.2**

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 through 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.

Default risk

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

A detailed description of the model can be found in the explanations of the "Impairment of financial assets" in the section "Significant accounting policies."

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 counterparties and within the investment limits 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 amortized cost developed as follows:

in € million	Financial assets measured at fair value in equity		Financial assets measured at fair value in equity		
	Carrying amount	Expected 12-month credit loss	Carrying amount	Expected 12-month credit loss	Expected credit loss over the term – impaired creditworthiness
As of 01/01/2021	**1,860.8**	**-2.6**	**2,340.3**	**-3.2**	**-33.7**
Net revaluation of the loss allowances	–	0.0	–	2.0	-1.8
Newly acquired financial assets	–	-7.4	–	-0.2	-0.2
Repaid financial assets	–	0.6	–	0.0	–
As of 31/12/2021	**2,248.1**	**-9.4**	**7,395.3**	**-1.4**	**-35.7**
Net revaluation of the loss allowances	–	3.0	–	0.0	-105.8
Newly acquired financial assets	–	-1.8	–	-0.6	-0.4
Repaid financial assets	–	0.4	–	0.5	0.4
Reclassification in expected credit loss over the term – impaired creditworthiness	–	–	–	0.4	-4.7
As of 31/12/2022	**1,774.6**	**-7.8**	**8,625.2**	**-1.1**	**-146.2**

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

Trade receivables	31/12/2022			31/12/2021		
in € million	Carrying amount	Loss allowance	Loss rate (weighted average)	Carrying amount	Loss allowance	Loss rate (weighted average)
Not past due	5,689.9	-33.0	0.6%	6,145.3	-50.5	0.8%
Past due	230.8	-222.0		137.4	-119.0	
Due within 3 months	(136.7)	(-31.9)	18.9%	(58.6)	(-4.4)	6.9%
Due in between 3 and 6 months	(39.4)	(-39.1)	49.8%	(18.2)	(-9.4)	34.1%
Due in between 6 months and 1 year	(30.0)	(-31.2)	51.0%	(20.4)	(-9.0)	30.7%
Due in more than 1 year	(24.6)	(-119.8)	82.9%	(40.2)	(-96.2)	70.5%

In the financial year, income from the recovery of trade receivables that had been written off was €10.1 million (previous year: €8.2 million). Expenses for trade receivables and other assets that had been written off stood at €63.3 million in the financial year (previous year: €73.3 million).

The maximum default risk for financial assets (including derivatives with positive market value) is equivalent to the carrying amounts recognized in the balance sheet. As of the reporting date of 31 December 2022, the maximum default risk amounts to €35.9 billion (previous year: €41.2 billion). The maximum default risk for financial guarantees corresponds to the undiscounted cash flows for financial guarantees stated for the liquidity risk.

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 netting is carried out by cash pooling. Cash management has implemented standardized processes and systems to manage bank accounts and internal clearing accounts, and to perform automated payment transactions.

For further details on financial liabilities, please refer to note (23) "Liabilities and subsidies."

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 €6.1 billion (previous year: €2.7 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.

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 that are disclosed in the balance sheet as of the reporting date 31 December 2022. 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 2022 were used.

Foreign currency financial instruments are translated at the respective spot price as of 31 December 2022.

Where derivatives are concerned, positive or negative market values are generally included, provided they give rise to a net cash outflow. Undiscounted cash flows are 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 if 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 31/12/2022

in € million	Total	2023	2024	2025	2026	Cash flows > 2026
Non-derivative financial liabilities						
Debt instruments issued	11,078.0	339.7	735.9	1,393.2	1,692.2	6,917.0
Liabilities to banks	2,118.8	158.4	407.5	302.0	410.0	840.9
Other financial liabilities	1,397.1	53.0	32.1	496.7	28.0	787.2
Trade payables	3,380.5	3,380.5				
Lease liabilities	1,045.5	170.8	149.2	107.0	89.0	529.5
Other financial obligations	3,502.3	3,362.1	1.1	0.8	34.4	103.9
Derivatives	31,855.3	21,039.6	6,658.0	2,365.4	750.6	1,041.7
Financial guarantees [1]	248.7	248.7				
Total	**54,626.2**	**28,752.8**	**7,983.8**	**4,665.1**	**3,004.2**	**10,220.2**

1 This includes guarantees to joint ventures of €125.9 million and to associates of €5.0 million.

Undiscounted cash flows as of 31/12/2021

in € million	Total	2022	2023	2024	2025	Cash flows > 2025
Non-derivative financial liabilities						
Debt instruments issued	9,692.8	1,133.4	245.0	646.0	1,140.4	6,528.0
Liabilities to banks	2,118.2	738.0	114.3	375.4	90.2	800.3
Other financial liabilities	820.6	125.4	40.1	22.3	494.5	138.3
Trade payables	2,403.1	2,403.1				
Lease liabilities	1,007.6	172.2	137.8	113.8	84.2	499.6
Other financial obligations	3,154.5	3,061.4	2.0	2.0	2.2	86.9
Derivatives	35,530.8	18,703.1	6,033.1	3,344.9	1,886.8	5,562.9
Financial guarantees [1]	211.4	211.4				
Total	**54,939.0**	**26,548.0**	**6,572.3**	**4,504.3**	**3,698.3**	**13,616.0**

1 This includes guarantees to joint ventures of €126.8 million and to associates of €10.7 million.

The liquidity risk for derivatives only refers to those contracts that give rise to a cash outflow. To better illustrate the liquidity risk from derivatives, the netting agreements concluded as part of our risk management activities are also taken into account when determining the liquidity risk. The cash outflows from derivatives are offset by cash inflows from corresponding sales transactions.

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 arise from shares, share-based investment funds, fixed-income securities and investments in private equity companies. The currency risk is hedged with the help of appropriate standardized 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 fluctuations only in exceptional cases.

The effects of changes in exchange rates on the net profit/loss for the year and on equity are analyzed below. The analysis was made assuming that all other parameters, such as interest rates, remain unchanged. The analysis includes financial instruments of €5,058.3 million (previous year: €2,611.9 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 mainly comprise investments in securities (bonds, shares), private equity investments, hedging instruments from cash flow hedges, stand-alone derivatives, and receivables and liabilities denominated in foreign currency.

Currency risk

in € million			31/12/2022	31/12/2021
Euros against all currencies	Appreciation (previous year: appreciation)	Profit for the year	**-240.4**	-115.9
	Depreciation (previous year: appreciation)	Equity	**-103.7**	-40.1
of which euro/US dollar	+10% (previous year: +10%)	Profit for the year	**(-248.3)**	(-122.7)
	-10% (previous year: +10%)	Equity	**(-103.7)**	(-40.1)
of which euro/Swiss franc	-6% (previous year: -7%)	Profit for the year	**(-6.1)**	(-6.8)

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

Interest-induced changes in the market value of interest-bearing securities in the "measured at fair value through profit or loss" and "measured at fair value in equity" measurement categories are presented under other price risks for shares, share-based investment funds, 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 €5,215.6 million (previous year: €4,680.5 million) and financial liabilities of €2,259.6 million (previous year: €2,027.0 million), whose interest rate exposure might affect equity or the net profit/loss for the year.

The effects of changes in interest rates on the net profit/loss for the year and on equity on the reporting date are analyzed 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		31/12/2022	31/12/2021
Increase in interest rate +50 basis points (previous year: +25 basis points)	Profit for the year	**14.7**	6.7
of which cash at banks with a floating interest rate	Profit for the year	**(24.4)**	(10.9)
of which floating-rate securities	Profit for the year	**(1.6)**	(0.8)
of which interest rate derivatives	Profit for the year	**(-1.5)**	(-0.8)
of which primary financial debt with a floating interest rate	Profit for the year	**(-9.8)**	(-4.2)
Decrease in interest rate -50 basis points (previous year: -25 basis points)	Profit for the year	**-14.7**	-6.5
of which cash at banks with a floating interest rate	Profit for the year	**(-24.4)**	(-10.9)
of which floating-rate securities	Profit for the year	**(-1.6)**	(-0.8)
of which interest rate derivatives	Profit for the year	**(1.5)**	(0.8)
of which primary financial debt with a floating interest rate	Profit for the year	**(9.8)**	(4.4)

In the context of our energy trading activities, EnBW enters into energy trading contracts for the purpose of price risk management, optimization of power stations, load equalization and optimization 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 analyzed below. The analysis was made assuming that all other parameters remain unchanged. It includes only derivatives whose changes in market value affect equity or the net profit/loss for the year. These are derivatives that are accounted for as stand-alone derivatives as well as derivatives used as hedging instruments in cash flow hedges. For all commodities, typical volatilities were determined and rounded on the basis of the front year. These volatilities give the percentage rate by which the market price is shifted on the evaluation date. For all commodities, the resulting changes in market prices are multiplied by the sensitivities and aggregated for each commodity.

The analysis does not include any derivatives that are intended for the purpose of receipt or delivery of a non-financial item in accordance with the entity's expected purchase, sale or usage requirements (own use), and hence 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 negative effects on the net profit/loss for the year and on equity for the given change in prices. An opposite change in prices would have positive effects of the same amount on the net profit/loss for the year and on equity.

Price risks

in € million [1]			31/12/2022	31/12/2021
Electricity	+80% (previous year: +60%)	Profit for the year	-924.4	-407.8
	+80% (previous year: +60%)	Equity	-1,750.9	-1,477.1
Coal	+90% (previous year: -60%)	Profit for the year	-809.3	-204.9
	-90% (previous year: -60%)	Equity	-855.5	-248.1
Oil	-30% (previous year: -25%)	Profit for the year	-24.6	-6.6
	-30% (previous year: -25%)	Equity	-4.5	0.0
Gas	+90% (previous year: +65%)	Profit for the year	-34.8	-41.4
	-90% (previous year: -65%)	Equity	-530.7	-343.0
Emission allowances	-50% (previous year: -50%)	Profit for the year	-314.0	-917.9
	-50% (previous year: -50%)	Equity	-1,373.3	-1,213.2

1 The figures for the previous year have been restated.

EnBW has investments in shares, share-based investment funds, fixed-income securities and investments in private equity companies that pose price risks for the company, which include, among 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 of 31 December 2022, shares, share-based investment funds, fixed-income securities and investments in private equity companies totaling €5,415.7 million (previous year: €6,311.5 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 analyzed 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 analyzed 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 €153.1 million (previous year: €175.1 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 €15.2 million (previous year: €20.1 million). Of the hypothetical change in equity, €15.2 million (previous year: €20.1 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.

(27) Contingent liabilities and other financial commitments

The disclosures on contingent liabilities and other financial commitments relate to 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 fulfill 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 17 November, 29 November, 2 December and 6 December 2021, 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 AG has to bear a 17.796% share of the liability coverage, plus 5% costs to settle any claims for damages, for the period from 1 January 2022 until 31 December 2029 in accordance with annex 2 of the solidarity agreement. Sufficient provisions have been made to ensure this liquidity and are taken into account in the liquidity plan.

Following the full ratification of the Paris Convention on Nuclear Liability, AtG of 28 August 2008 and AtDeckV of 21 January 2022 were amended to update the liability legislation in Germany. In particular, the minimum coverage provision for decommissioned power plants without fuel rods was increased to €70.0 million and two or more nuclear power plants with the same owner on one site can now be treated as a single power plant according to liability law. The minimum coverage provision for plants that handle radioactive residual material and radioactive waste was also increased to €70.0 million.

As a result of the reform of the liability legislation, the coverage provision for the "Neckarwestheim, Block I and Block II" nuclear power plant was set at €2.5 billion in the notice of assessment of 5 September 2022, the coverage provision for the "Philippsburg, Block 1 and Block 2" nuclear power plant was set at €2.5 billion in the notice of assessment of 6 September 2022 and the coverage provision for the "Obrigheim" nuclear power plant (KWO) was set at €70.0 million in the notice of assessment of 18 January 2023. The Obrigheim power plant has not been included in the above-mentioned solidarity agreement since 31 December 2018. In addition, the coverage provision for the residual material treatment plant at the Neckarwestheim site (RBZ-N) was set at €70.0 million in the notice of assessment of 27 July 2022 and the coverage provision for the residual material treatment plant at the Philippsburg site (RBZ-P) was set at €70.0 million in the notice of assessment of 28 July 2022.

EnBW Energie Baden-Württemberg AG (EnBW AG) and EnBW Kernkraft GmbH (EnKK) were members of the European Mutual Association for Nuclear Insurance (EMANI) until 31 December 2022. Termination of their memberships in EMANI as of 31 December 2022 also ended any liability obligations in the event that the guarantee fund held by EMANI is exhausted, and if EMANI no longer holds the legally stipulated liquidity.

In addition, there are other contingent liabilities at the EnBW Group amounting to €421.5 million (previous year: €531.8 million). This amount includes sureties of €336.9 million (previous year: €361.3 million). The sureties include commitments to joint ventures of €50.8 million (previous year: €46.6 million). The amount also includes €57.4 million (previous year: €168.1 million) for pending litigations where no provisions were made because the counterparty is unlikely to win the case. Furthermore, 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. The total volume of these commitments amounts to €33.3 billion (previous year: €24.4 billion), of which €13.4 billion (previous year: €13.2 billion) is due within one year. Long-term commitments include commitments to associates of €232.0 million (previous year: €255.0 million).

Miscellaneous other financial commitments break down as follows:

in € million [1]	31/12/2022	Of which due in			31/12/2021
		< 1 year	1 – 5 years	> 5 years	
Financial commitments from rent and lease agreements	**261.9**	54.2	114.6	93.1	229.7
Purchase commitments	**2,008.7**	1,494.2	491.0	23.5	1,489.1
Investment obligations for intangible assets	**16.7**	12.9	3.8	0.0	7.9
Investment obligations for property, plant and equipment	**5,133.5**	2,203.0	2,793.2	137.3	2,695.9
Financial commitment related to the acquisition of associates, affiliated entities, joint ventures and investments [2, 3]	**1,552.9**	438.2	1,098.5	16.2	1,982.5
Other financial commitments	**341.2**	83.5	148.0	109.7	443.7
Total	**9,314.9**	**4,286.0**	**4,649.1**	**379.8**	**6,848.8**

1 This includes commitments to joint ventures of €1,039.0 million (previous year: €1,270.7 million) and to associates of €2.7 million (previous year: €2.7 million).
2 Previous year adjusted by €1,244.7 million. This was due to the reassessment of the commitments to joint ventures.
3 This includes commitments calculated based on underlying assumptions. Due to the uncertainty inherent in these estimates, the possibility of a significant adjustment to the amount of the commitments in the next financial year cannot be ruled out.

(28) 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 2022, the EnBW Group held a total of €5,080.0 million (previous year: €4,230.9 million) in assets restricted due to these legal regulations.

(29) Audit fees

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

in € million	2022	2021
Statutory audit	4.5	4.0
Other attestation services	0.7	0.6
Tax advisory services	0.0	0.2
Other services	0.3	0.1
Total	5.5	4.9

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft audited the annual and consolidated financial statements of EnBW AG. In addition, non-statutory attestation services were provided relating to financial information for the reviews of interim financial statements and voluntary audits of annual financial statements. Furthermore, other audits specific to the sector of the economy that are prescribed by law, such as audits according to EEG, KWKG and the Concession Fee Ordinance, were carried out. Statutory audits of systems and functions for the management and supervision of the company comprise EMIR audits. Attestation services that are not prescribed by law relating to capital market transactions comprised the issuing of comfort letters. Agreed investigative measures were also carried out.

In addition, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft advised EnBW AG on matters relating to the grids and also on other economic matters.

(30) 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 2022 financial year:

Exemptions pursuant to section 264 (3) HGB

- BroadNet Deutschland GmbH, Cologne
- EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe
- EnBW Central and Eastern Europe Holding GmbH, Stuttgart
- EnBW France GmbH, Stuttgart
- EnBW He Dreiht GmbH, Varel
- EnBW Netze BW Beteiligungsgesellschaft mbH, Stuttgart
- EnBW New Ventures GmbH, Karlsruhe
- 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
- EnBW Urbane Infrastruktur GmbH, Karlsruhe
- EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe
- EnPulse Ventures GmbH, Stuttgart
- Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim
- MSE Mobile Schlammentwässerungs GmbH, Karlsbad-Ittersbach
- Neckarwerke Stuttgart GmbH, Stuttgart
- Netze BW Wasser GmbH, Stuttgart
- NWS Finanzierung GmbH, Karlsruhe
- NWS REG Beteiligungsgesellschaft mbH, Stuttgart
- RBS wave GmbH, Stuttgart
- symbiotic services GmbH, Karlsruhe
- TPLUS GmbH, Karlsruhe
- u-plus Umweltservice GmbH, Karlsruhe
- Ventelo GmbH, Cologne

Exemptions pursuant to section 264b HGB

- Der neue Stöckach GmbH & Co. KG, Obrigheim
- EnBW City GmbH & Co. KG, Obrigheim
- EnBW mobility+ AG & Co. KG, Karlsruhe
- EnBW Übertragungsnetz Immobiliengesellschaft mbH & Co. KG, Karlsruhe
- Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim
- NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim
- Plusnet Infrastruktur GmbH & Co. KG, Cologne

(31) 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 8 December 2022 and made it permanently available to shareholders on the Internet at www.enbw.com/declaration-of-compliance.

(32) Share deals and shareholdings of key management personnel

The company did not receive any notices in the 2022 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 article 19 (1) EU Market Abuse Regulation 596/2014 (MAR).

(33) Notes to the cash flow statement

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

The 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 2022 financial year amounting to € -195.5 million (previous year: €5,338.8 million).

Cash and cash equivalents almost exclusively relate to bank deposits, largely in the form of time and day-to-day deposits whose term from the acquisition date is less than three months and that are only subject to an immaterial risk of fluctuation in value. In the 2022 financial year, operating cash flow amounted to €1,804.8 million (previous year: €7,597.8 million).

The income tax paid in the reporting year totaled €227.9 million (previous year: €200.6 million).

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

in € million	2022	2021
Income from the reversal of construction cost subsidies	-70.3	-69.9
Impairment losses	122.4	61.6
Reversal of impairment losses on property, plant and equipment and intangible assets	-1,499.2	-96.4
Expense from the reversal of capitalized costs for obtaining contracts	15.3	20.3
Write-ups/write-downs on inventories and valuations of associated derivatives	-35.6	-82.2
Result from the non-operating valuation effects from derivatives	226.6	-224.5
Other	-7.5	-11.0
Total	**-1,248.3**	**-402.1**

In the 2022 financial year, dividends of €510.8 million (previous year: €547.2 million) were declared, of which €212.9 million (previous year: €276.3 million) were to the benefit of third-party shareholders of Group companies. In the reporting year, €399.4 million (previous year: €356.4 million) of the declared dividends were distributed. €111.4 million (previous year: €190.8 million) of the dividends and €134.0 million (previous year: €69.7 million) of the capital reductions in non-controlling interests were offset against short-term receivables against third-party shareholders of Group companies. The latter was due to advance payments made in the previous year as a result of contractual regulations. The change in the presentation of the advance payments to third-party shareholders in the cash flow statement led to a restatement of the figures for the previous year. This reduced cash flow from investing activities by a total of €14.6 million and increased cash flow from financing activities by a total of €14.6 million.

In the 2022 financial year, there was a change to the presentation of the securities and financial investments eligible for netting within the cash flow from investing activities. This led to an adjustment of €233.8 million in the figures for the previous year. There was no impact on the total cash flow from investment activities as a result. The cash received and cash paid for other financial assets now mainly includes long-term financial investments with a low turnover ratio.

Capital expenditure on intangible assets and property, plant and equipment includes €157.1 million (previous year: €149.0 million) for intangible assets and €2,613.6 million (previous year: €2,212.9 million) for property, plant and equipment.

The acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations item includes €110.4 million (previous year: €287.0 million) for entities accounted for using the equity method.

In the reporting period, cash payments mainly related to the foundation of Morven Offshore Wind Holdings Ltd. and its subsidiary and the acquisition of shares in Smatrics GmbH & Co. KG. The companies will be accounted for using the equity method in the consolidated financial statements. In the reporting year, the purchase prices paid in cash for the acquisition of entities accounted for using the equity method was €16.4 million (previous year: €0.0 million).

Cash payments made in the comparative period mainly related to the foundation of Mona Offshore Wind Holdings Ltd. and Morgan Offshore Wind Holdings Ltd. and their subsidiaries, as well as the associated payments for the bids for the offshore wind rights for the construction of offshore wind farms in Great Britain. The companies are accounted for using the equity method in the consolidated financial statements. In addition, capital increases at entities accounted for using the equity method were also included in both the reporting year and the previous year.

The sale prices from the sale of subsidiaries, entities accounted for using the equity method and interests in joint operations totaled €24.3 million (previous year: €0.0 million). This resulted mainly from the sale of Stadtwerke Hilden GmbH. The company was accounted for using the equity method in the consolidated financial statements. As in the previous year, no cash and cash equivalents were relinquished as a result of the sale of shares in the reporting year. In addition, capital reductions at entities accounted for using the equity method were included.

Net investment in the section "The EnBW Group" of the management report can be reconciled as follows:

in € million[1]	2022	2021
Cash flow from investing activities	-2,734.9	-2,873.7
Interest and dividends received	-427.0	-358.0
Change in securities and financial investments	-192.4	186.5
Net investments held as financial assets	167.0	208.1
Net investments in property held as financial assets	0.0	-3.4
Net investments in other assets	268.5	226.5
Cash received/paid from alterations of capital in non-controlling interests	0.2	-4.9
Alterations of capital in non-controlling interests without cash outflows in the current period	-134.0	-69.7
Cash received/paid for changes in ownership interest without loss of control	301.7	224.0
Cash received/paid from participation models	-16.8	-6.6
Cash paid for net investments	**-2,767.7**	**-2,471.2**

1 The figures for the previous year have been restated.

The dedicated financial assets contribution of € -92.2 million (previous year: €184.8 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.

The total amount of interest paid in the reporting period breaks down as follows:

in € million	2022	2021
Interest paid for investing activities (capitalized borrowing costs)	-26.1	-24.1
Interest paid for financing activities	-318.8	-314.5
Total amount of interest paid in the reporting period	**-344.9**	**-338.6**

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

in € million	As of 01/01/2022	Cash-relevant changes	Non-cash-relevant changes					As of 31/12/2022
			Changes in the group of consolidated companies	Currency effects	Addition to leases	Accrued interest	Other changes	
Subordinated bonds	3,475.6	-1,001.0	0.0	11.3		0.0	2.8	2,488.7
Bonds	4,685.2	1,858.4	0.0	-26.2		0.0	-34.8	6,482.6
Commercial papers	240.0	472.5	0.0	0.0		0.0	0.0	712.5
Liabilities to banks	2,067.3	-125.8	2.6	10.8		14.4	0.3	1,969.6
Other financial liabilities	782.0	466.4	0.0	1.6		1.0	-13.0	1,238.0
Financial liabilities[1]	**11,250.1**	**1,670.5**	**2.6**	**-2.5**	**0.0**	**15.4**	**-44.7**	**12,891.4**
Other liabilities (interest on bonds)	104.8	-176.9	0.0	0.1		160.2	0.0	88.2
Other liabilities (leases)[2]	884.8	-199.5	0.4	2.0	210.3	0.0	14.4	912.5
Total	**12,239.7**	**1,294.1**	**3.0**	**-0.4**	**210.3**	**175.6**	**-30.3**	**13,892.1**

1 The cash-relevant changes include €7.8 million from interest payments.
2 The cash-relevant changes include €16.2 million from interest payments.

in € million	As of 01/01/2021	Cash-relevant changes	Non-cash-relevant changes					As of 31/12/2021
			Changes in the group of consolidated companies	Currency effects	Addition to leases	Accrued interest	Other changes	
Subordinated bonds	3,455.4	-5.5	0.0	20.3		0.0	5.4	3,475.6
Bonds	3,706.4	997.1	0.0	-0.5		0.0	-17.8	4,685.2
Commercial papers	0.0	237.0	0.0	3.0		0.0	0.0	240.0
Liabilities to banks	1,771.9	268.8	3.1	17.3		6.2	0.0	2,067.3
Other financial liabilities [1]	679.3	-3.8	0.0	0.1		1.7	104.7	782.0
Financial liabilities [2]	**9,613.0**	**1,493.6**	**3.1**	**40.2**	**0.0**	**7.9**	**92.3**	**11,250.1**
Other liabilities (interest on bonds)	122.5	-201.2	0.0	0.0		183.5	0.0	104.8
Other liabilities (leases) [3]	886.3	-199.7	1.1	3.6	179.7	0.0	13.8	884.8
Total	**10,621.8**	**1,092.7**	**4.2**	**43.8**	**179.7**	**191.4**	**106.1**	**12,239.7**

1 The other changes to other financial liabilities include €101.8 million from the "EnBW connects" participation model.
2 The cash-relevant changes include €4.3 million from interest payments.
3 The cash-relevant changes include €14.3 million from interest payments.

(34) Additional disclosures on capital management

For further explanations, please refer to the details given in the management report on the liquidity analysis of the EnBW Group.

Capital management at EnBW covers both the management of the net debt of €10,847.0 million (previous year restated: €10,351.3 million) and the management of 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.

EnBW has been managing its financial profile since 2021 using the key performance indicator debt repayment potential, which describes the retained cash flow in relation to net debt. A target value of 12% should enable the company to exploit growth opportunities while maintaining the creditworthiness of the company at the same time. This target value is based on the rating requirements and is reviewed on a regular basis to guarantee a solid investment-grade rating. 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 financial assets that are held to cover the pension and nuclear obligations. It allows simulations of various alternative return and provision scenarios. In order to give proper consideration to the growing importance of climate risks, the fund managers at EnBW use sustainability principles, including the UN Principles for Responsible Investment (UN PRI), when selecting each individual investment. Special climate risks are generally taken into account in the respective investment processes. At the same time, compliance with the regulations in the Sustainable Finance Disclosure Regulation (SFDR) when making investments will significantly increase transparency in future.

The impact that the utilization of the pension and nuclear obligations may have on the operating business is limited to €300.0 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 twelve months for managing liquidity. For operational liquidity management, EnBW uses tools that enable it to compare its liquidity needs and liquidity sources over particular time periods.

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 optimizing capital costs. As of 31 December 2022, the creditworthiness of EnBW was rated by the rating agencies Moody's and Standard & Poor's with Baa1 / stable and A- / negative, respectively.

(35) Segment reporting

2022 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue					
External revenue	18,772.8	6,679.1	30,543.2	7.5	56,002.6
Internal revenue	1,436.4	2,326.7	6,688.6	-10,451.7	0.0
Total revenue	20,209.2	9,005.8	37,231.8	-10,444.2	56,002.6
Earnings indicators					
Adjusted EBITDA	510.2	1,046.0	1,934.8	-205.3	3,285.7
EBITDA	232.8	1,157.8	3,087.7	-5.1	4,473.2
Adjusted EBIT	336.8	403.9	1,186.9	-257.1	1,670.5
EBIT	42.1	338.4	1,822.4	-61.7	2,141.2
Income from reversals of impairment losses	0.0	3.6	1,495.6	0.0	1,499.2
Scheduled amortization and depreciation	-173.4	-642.2	-747.9	-51.7	-1,615.2
Impairment losses	-17.3	-177.3	-517.4	-4.8	-716.8
Net profit/loss from entities accounted for using the equity method	8.7	3.8	11.4	0.0	23.9
Significant non-cash-relevant items	-107.9	-60.8	-309.3	-21.6	-499.6
Assets and liabilities					
Capital employed	1,943.5	12,347.4	10,217.9	469.6	24,978.4
of which carrying amount of entities accounted for using the equity method	(125.1)	(430.0)	(578.8)	(0.0)	(1,134.0)
Capital expenditure on intangible assets and property, plant and equipment	312.4	1,849.1	625.0	28.4	2,814.9

2021 in € million [1]	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue					
External revenue	13,923.6	4,412.6	13,804.0	7.7	32,147.9
Internal revenue	1,111.9	1,470.4	5,501.5	-8,083.8	0.0
Total revenue	15,035.5	5,883.0	19,305.5	-8,076.1	32,147.9
Earnings indicators					
Adjusted EBITDA	344.0	1,263.0	1,539.7	-187.4	2,959.3
EBITDA	278.7	1,148.7	1,375.2	0.9	2,803.5
Adjusted EBIT	186.4	661.2	794.9	-239.5	1,402.9
EBIT	118.5	543.4	-451.9	-51.2	158.8
Income from reversals of impairment losses	0.0	63.4	33.0	0.0	96.4
Scheduled amortization and depreciation	-157.6	-601.9	-744.8	-52.1	-1,556.4
Impairment losses	-2.6	-3.3	-1,082.3	0.0	-1,088.3
Net profit/loss from entities accounted for using the equity method	7.5	15.9	35.6	0.0	59.0
Significant non-cash-relevant items	-94.2	-27.3	25.9	-20.8	-116.4
Assets and liabilities					
Capital employed	1,731.8	11,777.4	6,520.4	656.0	20,685.6
of which carrying amount of entities accounted for using the equity method	(97.7)	(434.0)	(486.1)	(0.0)	(1,017.9)
Capital expenditure on intangible assets and property, plant and equipment	241.0	1,614.5	472.6	33.8	2,361.9

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.

Due to a change in the allocation of business activities to the different Board of Management remits, there has been a change in the composition of our segments. The area of contracting was previously allocated to the Smart Infrastructure for Customers segment but is now part of the Sustainable Generation Infrastructure segment. Innovation activities were previously reported under the Smart Infrastructure for Customers segment but will be presented under the System Critical Infrastructure segment from 2022 onwards. The figures for the comparative periods have been restated.

In addition, we have amended the calculation method for capital employed. Due to the level of the EEG funds held by the transmission grid operators, we are disclosing them under capital employed from 31 December 2022. Both the payments into and out of the EEG account are always considered non-interest-bearing liabilities for the EnBW Group because they are only held in custody by the transmission grid operators and cannot be used for the operating business. This adjustment will ensure that EEG payments will not impact capital employed. The capital employed for the comparative period was increased by the amount of the EEG funds on 31 December 2021, which was €1,565.2 million.

The Smart Infrastructure for Customers segment comprises the sale of electricity and gas, the provision and expansion of quick-charging infrastructure and digital solutions for electromobility, activities in the telecommunications sector and static storage systems in conjunction with photovoltaics. The System Critical Infrastructure segment encompasses the value-added stages of transmission and distribution of electricity and gas. Our activities in this segment are designed to guarantee the security of supply and system stability. In addition, the provision of grid-related services and the supply of water is reported in the System Critical Infrastructure segment. The Sustainable Generation Infrastructure segment comprises the areas of Renewable Energies and Thermal Generation and Trading. Renewable Energies includes project development, project planning and the construction and operation of power plants based on renewable energies. Thermal Generation and Trading encompasses conventional electricity generation and the trading of electricity, gas, CO_2 allowances and fuels. In order to guarantee the security of supply, we maintain the power plants that have been transferred to the grid reserve. Thermal Generation and Trading also includes the storage of gas, district heating, waste management and the provision of energy services.

Internal and total revenue reported under "Other/Consolidation" mainly refers to consolidation effects. In particular, activities that cannot be attributed to the separately presented activities of the segments are disclosed in the other performance indicators here.

Segment reporting is based on internal reporting.

The segment figures have been determined in accordance with the accounting policies used in the consolidated financial statements.

Internal revenue shows sales between Group companies. Sales between the segments were made at market prices.

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

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 amortization, 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	2022	2021
Adjusted EBITDA	3,285.7	2,959.3
Non-operating EBITDA	1,187.5	-155.8
of which income/expenses relating to nuclear power	(-591.6)	(70.5)
of which income from the reversal of other provisions	(14.8)	(8.6)
of which result from disposals	(3.8)	(-6.6)
of which reversals of/additions to the provisions for onerous contracts relating to electricity and gas procurement agreements	(393.8)	(-343.1)
of which income from reversals of impairment losses	(1,499.1)	(69.5)
of which restructuring	(-28.7)	(-42.3)
of which other non-operating result	(-103.6)	(87.6)
EBITDA	**4,473.2**	**2,803.5**
Amortization and depreciation	-2,332.0	-2,644.7
Earnings before interest and taxes (EBIT)	**2,141.2**	**158.8**
Investment result	276.8	180.0
Financial result	-22.6	174.5
Earnings before tax (EBT)	**2,395.4**	**513.3**

The components of non-operating EBITDA can be found in the income statement, in particular, in income to the amount of €2,155.2 million (previous year: €643.0 million), as well as in expenses to the amount of €967.7 million (previous year: €798.8 million). In the 2022 financial year, non-operating EBITDA contains corrections relating to previous years.

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]	31/12/2022	31/12/2021
Intangible assets	3,218.2	3,417.0
Property, plant and equipment	22,705.3	20,364.4
Investment properties	40.2	45.6
Investments [2]	1,705.8	1,529.0
Loans	350.8	274.3
Inventories	3,835.7	2,290.3
Trade receivables [3]	5,491.2	5,864.7
Other assets [4]	20,293.1	23,547.3
of which income tax refund claims	(192.9)	(242.1)
of which other tax refund claims	(297.7)	(135.4)
of which derivatives	(13,393.0)	(17,190.4)
of which payments on account	(159.2)	(65.5)
of which prepaid expenses	(484.2)	(238.1)
of which miscellaneous assets	(5,918.7)	(5,806.4)
of which assets held for sale	(7.8)	(54.0)
of which components attributable to net debt	(-160.4)	(-184.6)
Other provisions	-3,790.2	-4,038.0
Trade payables and other liabilities [5]	-27,975.8	-32,693.8
of which trade payables	(-8,411.9)	(-6,430.6)
of which other deferred income	(-507.8)	(-322.8)
of which derivatives	(-11,128.9)	(-19,134.0)
of which income tax liabilities	(-501.7)	(-180.2)
of which contract liabilities	(-1,082.3)	(-986.5)
of which other liabilities	(-6,343.8)	(-5,649.9)
of which components attributable to net debt	(0.6)	(10.2)
Subsidies	-17.2	-12.1
Deferred taxes [6]	-878.7	96.9
Capital employed	**24,978.4**	**20,685.6**
Average capital employed [7]	**22,690.5**	**22,249.9**

1 The figures for the previous year have been restated. As of 1 January 2021, capital employed was €23,395.7 million.
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 recognized 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. In the 2022 financial year, revenue of €9,241.3 million (previous year: €281.2 million) was generated in the Netherlands. 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	2022	2021
Germany	40,942.1	27,098.4
European currency zone excluding Germany	11,334.1	3,065.9
Rest of Europe	3,719.6	1,982.6
Rest of world	6.8	1.0
Total	**56,002.6**	**32,147.9**

External revenue by product

in € million	2022	2021
Electricity	23,050.1	15,268.2
Gas	30,104.4	14,910.4
Energy and environmental services/other	2,848.1	1,969.3
Total	**56,002.6**	**32,147.9**

Intangible assets and property, plant and equipment by region

in € million	31/12/2022	31/12/2021
Germany	23,215.4	21,117.7
European currency zone excluding Germany	685.6	701.5
Rest of Europe	2,022.5	1,962.2
Total	**25,923.5**	**23,781.4**

(36) Related parties (entities)

Other commitments are presented in note (27) "Contingent liabilities and other financial commitments".

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 2022, 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 2022. 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, among 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	2022		2021	
	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	196.6	614.0	164.3	213.9
Expenses	-140.4	-535.9	-105.2	-318.6
Assets	30.3	70.5	131.6	62.1
Liabilities	14.8	217.2	13.5	636.6

In business relations with joint ventures accounted for using the equity method, receivables and liabilities are almost exclusively due within one year.

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 predominantly due within one year. There are also provisions for long-term procurement agreements that are regularly adjusted to current market assessments. This is reflected in an increase in income and a decrease in liabilities in comparison to the previous year.

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

(37) Related parties (individuals)

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

Total remuneration according to IAS 24 for members of the Board of Management and Supervisory Board was €17.8 million (previous year: €7.6 million). In the reporting year, this included variable remuneration for the Short Term Incentive (STI) and Long Term Incentive (LTI) for 2021 of €0.5 million and €2.4 million, respectively, due to a resolution by the Supervisory Board on 22 March 2022.

For members of the Board of Management serving in the reporting year, there were short-term benefits of €7.0 million (previous year: €4.8 million), long-term benefits primarily for the LTI 2022–2024 of €4.4 million (previous year: €0.0 million) and service and interest costs for defined benefit obligations of €1.9 million (previous year: €1.2 million).

In addition, there were accrued obligations for short-term benefits, mainly related to the STI 2022 of €3.2 million (previous year: €2.5 million), for long-term benefits, mainly for the LTI 2022–2024, of €4.4 million (previous year: €0.0 million) and for defined benefit obligations of €10.1 million (previous year: €17.4 million).

Total remuneration for the Board of Management according to section 314 (1) no. 6 a HGB was €12.5 million (previous year: €5.4 million). This includes variable remuneration of €0.3 million paid to members of the Board of Management who have already stepped down for periods in which they were still serving members of the Board of Management (previous year: €0.6 million). It also includes variable remuneration paid in the reporting year for 2021 of €2.9 million for serving members of the Board of Management and €1.1 million for members of the Board of Management who have already stepped down for periods in which they were still serving members of the Board of Management. Total remuneration does not include any pension expenses.

Former members of the Board of Management and their surviving dependents were granted total remuneration according to section 314 (1) no. 6 b HGB of €7.6 million (previous year: €6.0 million). A post-contractual non-competition agreement for a period of two years following the termination of the employment contract has been agreed with one member of the Board of Management who stepped down from the Board of Management in the reporting year and with another member who stepped down from the Board of Management in the previous year. In accordance with the legal regulations, non-competition compensation in the amount of half of the last annual remuneration for the respective member of the Board of Management was agreed for the duration of the non-competition agreement. The Supervisory Board has the right to withdraw from each of the non-competition agreements at any time with a notice period of six months. If the Supervisory Board does not make use of this right, the member of the Board of Management who stepped down from the Board of Management in the reporting year will receive total non-competition compensation of €3.2 million and the member who stepped down from the Board of Management in the previous year will receive total non-competition compensation of €1.7 million during the terms of their two-year non-competition agreements. In the reporting year, the member of the Board of Management who stepped down from the Board of Management in the reporting year received non-competition compensation of €0.4 million and the member who stepped down from the Board of Management in the previous year received €1.0 million.

There are defined benefit obligations to former members of the Board of Management and their surviving dependents of €87.7 million (previous year: €112.6 million).

For the 2022 financial year, members of the Supervisory Board were granted total remuneration according to section 314 (1) no. 6 a HGB of €1.6 million (previous year: €1.6 million). In addition to fixed components, the short-term remuneration includes attendance fees and board remuneration from subsidiaries.

(38) Additional disclosures

List of shareholdings pursuant to section 313 (2) HGB as of 31 December 2022

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
Smart Infrastructure for Customers segment					
Fully consolidated companies					
1	Alectron AG, Ruswil/Switzerland	6	100.00	1,596	585
2	bmp greengas GmbH, Munich	3	100.00	5,697	–
3	BroadNet Deutschland GmbH, Cologne	3	100.00	4,252	–
4	ED Liegenschaften GmbH, Rheinfelden (formerly ED GrünSelect GmbH, Rheinfelden)	6	100.00	506	7
5	EnBW Contracting GmbH, Stuttgart (formerly Sales & Solutions GmbH)	3	100.00	75,618	–
6	EnBW Energy Factory GmbH, Stuttgart	3	100.00	250	–
7	EnBW Telekommunikation GmbH, Karlsruhe	3	100.00	273,334	–
8	EnBW Vertriebsbeteiligungen GmbH, Stuttgart		100.00	13,746	44
9	ESD Energie Service Deutschland GmbH, Offenburg		100.00	9,633	2,212
10	eYello CZ k.s., Prague/Czech Republic	5, 13	100.00	279	1
11	G.EN. Operator Sp. z o.o., Tarnowo Podgórne/Poland (formerly G.EN. Gaz Energia Sp. z o.o., Tarnowo Podgórne/Poland)		100.00	45,445	6,013
12	GasVersorgung Süddeutschland GmbH, Stuttgart	3	100.00	65,000	–
13	Gasversorgung Unterland GmbH, Heilbronn	3	100.00	8,225	–
14	goldgas GmbH, Eschborn	3	100.00	7,312	–
15	goldgas GmbH, Vienna/Austria		100.00	6,646	3,656
16	HANDEN Sp. z o.o., Warsaw/Republic of Poland		100.00	106,829	11,705
17	HEV Hohenloher Energie Versorgung GmbH, Ilshofen	3	100.00	10,219	–
18	Messerschmid Energiesysteme GmbH, Bonndorf	5	100.00	1,967	319
19	NaturEnergie+ Deutschland GmbH, Mühlacker		100.00	2,942	75
20	NatürlichEnergie EMH GmbH, Platten		100.00	3,963	4,392
21	Plusnet GmbH, Cologne	3	100.00	186,930	–
22	Plusnet Infrastruktur GmbH & Co. KG, Cologne		100.00	2,109	-1,720
23	PREservisní, s.r.o., Prague/Czech Republic	5	100.00	2,472	590
24	PREzakaznicka a.s., Prague/Czech Republic	5	100.00	1,526	1,087
25	SENEC GmbH, Leipzig		100.00	7,137	-26,150
26	SENEC Italia s.r.l., Rome/Italy		100.00	9,101	17,491
27	tritec-winsun AG, Steg-Hohtenn/Switzerland (formerly winsun AG, Steg-Hohtenn/Switzerland)	6	100.00	3,635	1,318
28	Ventelo GmbH, Cologne	3	100.00	142,238	–
29	VNG Austria GmbH, Gleisdorf/Austria		100.00	6,196	1,576
30	VNG Energie Czech s.r.o., Prague/Czech Republic		100.00	-3,437	-1,687
31	VNG-Erdgascommerz GmbH, Leipzig	3	100.00	162,101	–
32	VOLTCOM spol. s r.o., Prague/Czech Republic	5	100.00	831	523
33	Yello Strom GmbH, Cologne	3	100.00	1,100	–
34	ZEAG Immobilien GmbH & Co. KG, Heilbronn		100.00	2,153	1,251
35	EnBW mobility+ AG & Co. KG, Karlsruhe		99.90	0	-82,845
36	fonial GmbH, Cologne		83.27	0	-160
37	Erdgas Südwest GmbH, Karlsruhe		79.00	0	-219,072
38	NetCom BW GmbH, Ellwangen		74.90	14,702	-8,851
39	Energieversum GmbH & Co. KG, Gütersloh		51.41	4,191	13,864
40	SMATRICS EnBW GmbH, Vienna/Austria		51.00	35	-1,637
41	BSH GmbH & Co. KG , Bad Königshofen i. Grabfeld		50.10	14,800	10,887
42	Solarmeisterei GmbH, Schwielowsee		50.10	1,840	866
43	Pražská energetika a.s., Prague/Czech Republic	5, 12	41.40	620,801	90,651
Non-consolidated affiliated entities[14]					
44	010052 Telecom GmbH, Cologne	3, 5	100.00	25	–
45	010088 Telecom GmbH, Cologne	3, 5	100.00	25	–
46	010090 GmbH, Cologne	3, 5	100.00	156	–
47	01012 Telecom GmbH, Cologne	3, 5	100.00	27	–
48	01052 Communication GmbH, Cologne	3, 5	100.00	25	–

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
49	01098 Telecom GmbH, Cologne	3, 5	100.00	25	–
50	Broadnet Services GmbH, Cologne	3, 5	100.00	25	–
51	EnBW Contracting Service GmbH, Stuttgart (formerly EZG Operations GmbH)	6	100.00	593	28
52	Energieversum Verwaltungs GmbH, Gütersloh	5, 6	100.00	24	-1
53	F&Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	1	0
54	G.EN. Gaz Energia Sp. z o.o., Warsaw/Poland (formerly Avant sp. z o.o, Warsaw/Poland)	5	100.00	739	-351
55	GIBY GmbH, Leipzig	5, 6	100.00	452	29
56	mobility + Beteiligungs GmbH, Karlsruhe	5	100.00	31	5
57	NatürlichEnergie Projekte GmbH, Wittlich (formerly NatürlichEnergie Projekte GmbH, Monzelfeld)	5	100.00	23	0
58	NatürlichEnergie Swiss NES GmbH, Laufenburg/Switzerland	5	100.00	9	-1
59	Plusnet Verwaltungs GmbH, Cologne	5	100.00	30	1
60	Q-DSL home GmbH, Cologne	3, 5	100.00	1,293	–
61	Q-Süd Immobilien Verwaltungs GmbH, Heilbronn	5	100.00	29	5
62	Senec Australia PTY Ltd., Sorrento/Australia	5	100.00	-2,063	-954
63	SENEC Cloud s.r.l., Rome/Italy	5	100.00	77	29
64	T & Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	95	27
65	VNG ViertelEnergie GmbH, Leipzig	3, 5	100.00	98	–
66	VNG-Erdgastankstellen GmbH, Leipzig	3, 5	100.00	25	–
67	Yello Solar GmbH, Karlsruhe	5	100.00	-13,574	-1,109
68	ZEAG Immobilien Verwaltungsgesellschaft mbH, Heilbronn	5	100.00	31	2
69	effizienzcloud GmbH, Leipzig	5	74.99	33	-2
70	Elektrizitätswerk Weißenhorn AG, Weißenhorn	5	63.24	4,399	795
71	grünES GmbH, Esslingen am Neckar	5	51.00	548	66
72	Stromvertrieb Backnang Verwaltungs GmbH, Backnang	5	51.00	30	1
73	BSH Verwaltungs-GmbH, Bad Königshofen i. Grabfeld	5, 7	50.10	15	0
Entities accounted for using the equity method					
74	Fernwärme SBH AG, Grafenhausen	5	40.00	840	84
75	SMATRICS GmbH & Co KG, Vienna/Austria	5	25.10	8,212	-2,883
76	MITGAS Mitteldeutsche Gasversorgung GmbH, Halle (Saale)	5	24.60	130,462	38,506
Investments[14]					
77	AutenSys GmbH, Karlsruhe	5	65.00	-9	-119
78	backnangstrom GmbH & Co. KG, Backnang	5	51.00	80	23
79	CleverShuttle Düsseldorf GmbH, Düsseldorf	5	50.00	-2,626	-1,157
80	Energiewerker GmbH, Östringen	9, 11	50.00	–	–
81	my-e-car GmbH, Lörrach	5	50.00	197	49
82	Regionah Energie GmbH, Munderkingen	5	50.00	-369	-409
83	Einhorn Energie GmbH & Co. KG, Giengen an der Brenz	5	49.90	661	358
84	Einhorn Energie Verwaltungsgesellschaft mbH, Giengen an der Brenz	5	49.90	36	1
85	iQ-Gesellschaft für integrierte Quartierslösungen mbH, Ravensburg	5	49.90	1,579	20
86	Stadtwerke Freiberg a.N. GmbH, Freiberg am Neckar	5	49.90	6,467	154
87	BEN Fleet Services GmbH, Karlsruhe	5	49.51	1,342	-2,656
88	Gasversorgung Pforzheim Land GmbH, Pforzheim	5	49.00	12,785	817
89	Sautter PE GmbH, Ellhofen	5	49.00	964	1,047
90	caplog-x GmbH, Leipzig	5	37.34	2,642	706
91	Visp Infra AG, Visp/Switzerland	5	35.00	5,974	25
92	IDR Infrastrukturdienste Raron AG, Raron/Switzerland	5	33.00	529	266
93	Gemeinschaft für Energieeffizienz GmbH, Düsseldorf	5	32.83	-669	-25
94	espot GmbH, Stuttgart	5	32.60	584	-29
95	Tempus s.r.l., Torri di Quartesolo/Italy	5	30.43	644	5
96	Energie 360 GmbH & Co. KG, Korbach	5, 6	30.00	1,240	1,239
97	Schön Verwaltungsgesellschaft mbH, Korbach	5, 6	30.00	26	1
98	Sungrade Photovoltaik GmbH, Günzburg	5	30.00	368	229
99	E-Mobility Provider Austria GmbH, Vienna/Austria	5	25.10	33	-4
100	ehoch7 GmbH, Schönaich (formerly e hoch 7 GmbH, Schönaich)	5	25.10	47	22
101	Energieagentur Heilbronn GmbH, Heilbronn	5	25.00	32	-73

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
102	Stadt- und Überlandwerke GmbH Luckau-Lübbenau, Luckau	5	23.38	35,168	3,267
103	EDSR Energiedienste Staldenried AG, Staldenried/Switzerland	5	20.00	221	12
System Critical Infrastructure segment					
Fully consolidated companies					
104	ED Netze GmbH, Rheinfelden	3	100.00	145,165	–
105	EnBW Kommunale Beteiligungen GmbH, Stuttgart	3	100.00	995,226	–
106	EnBW Netze BW Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	1,643,228	–
107	EnBW REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	405,649	–
108	EnBW Urbane Infrastruktur GmbH, Karlsruhe	3	100.00	25	–
109	EnBW Übertragungsnetz Immobiliengesellschaft mbH & Co. KG, Karlsruhe	6	100.00	3,201,697	34
110	EnPulse Ventures GmbH, Stuttgart (formerly EnPulse Ventures GmbH, Karlsruhe)	3	100.00	25	–
111	EVGA Grundstücks- und Gebäudemanagement GmbH & Co. KG, Obrigheim		100.00	91,621	11,020
112	FRONTIER TECHNOLOGIES, s.r.o., Prague/Czech Republic	5	100.00	1,016	158
113	GDMcom GmbH, Leipzig	3	100.00	29,629	–
114	GEOMAGIC GmbH, Leipzig		100.00	2,527	1,306
115	KORMAK Praha a.s., Prague/Czech Republic	5	100.00	1,112	1,051
116	Netze BW Wasser GmbH, Stuttgart	3	100.00	32,894	–
117	Netze ODR GmbH, Ellwangen Jagst	3	100.00	174,131	–
118	Netze-Gesellschaft Südwest mbH, Karlsruhe	3	100.00	86,139	–
119	Netzgesellschaft Düsseldorf mbH, Düsseldorf	3, 5	100.00	1,000	–
120	NHF Netzgesellschaft Heilbronn-Franken mbH, Heilbronn	3	100.00	4,000	–
121	NHL Netzgesellschaft Heilbronner Land GmbH & Co. KG, Heilbronn	3	100.00	1,232	–
122	NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim		100.00	315,333	44,210
123	NWS REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	79,988	–
124	ONTRAS Gastransport GmbH, Leipzig	3	100.00	760,000	–
125	PREdistribuce a.s., Prague/Czech Republic	5	100.00	784,373	49,081
126	PREmerení a.s., Prague/Czech Republic	5	100.00	41,164	9,456
127	PREnetcom, a.s., Prague/Czech Republic	5	100.00	1,573	623
128	Q-Süd Gewerbe GmbH & Co. KG, Heilbronn		100.00	19,455	203
129	Q-Süd Wohnen GmbH & Co. KG, Heilbronn		100.00	16,670	83
130	RBS wave GmbH, Stuttgart	3	100.00	503	–
131	SMIGHT GmbH, Karlsruhe (formerly EnBW Omega Dreiundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe)		100.00	923	899
132	terranets bw GmbH, Stuttgart	3	100.00	235,000	–
133	TransnetBW GmbH, Stuttgart	3	100.00	3,178,141	–
134	TransnetBW SuedLink GmbH & Co. KG, Stuttgart		100.00	969,165	32,955
135	ZEAG Engineering GmbH, Heilbronn		100.00	4,364	685
136	EnBW Ostwürttemberg DonauRies AG, Ellwangen	3	99.74	115,439	–
137	ZEAG Energie AG, Heilbronn		98.66	203,812	777
138	Gas-Union GmbH, Frankfurt am Main	3	98.15	62,550	–
139	FoxInsights GmbH, Munich		92.00	77	-2,178
140	Netze BW GmbH, Stuttgart	3	86.51	1,130,861	–
141	WTT CampusONE GmbH, Ludwigsburg		80.00	1,060	1,373
142	Stadtwerke Düsseldorf AG, Düsseldorf	5	54.95	558,030	71,442
143	Stromnetzgesellschaft Heilbronn GmbH & Co. KG, Heilbronn	8	49.90	36,206	1,874
144	Neckar Netze GmbH & Co. KG, Esslingen am Neckar	8	49.00	49,711	5,605
Non-consolidated affiliated entities[14]					
145	Batteriegesellschaft Kupferzell GmbH & Co. KG, Kupferzell	5	100.00	9	-1
146	CENTRALE HYDROGENE DE THENNES SAS, Montpellier/France	11	100.00	–	–
147	certflow GmbH, Stuttgart (formerly EnBW Omega 131. Verwaltungsgesellschaft mbH, Stuttgart)	11	100.00	–	–
148	ChargeHere GmbH, Karlsruhe (formerly EnBW Omega 130. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	25	0
149	Elektrizitätswerk Aach GmbH, Aach	6	100.00	3,692	958
150	EnBW Cyber Security GmbH, Karlsruhe (formerly EnBW Omega 104. Verwaltungsgesellschaft mbH, Karlsruhe)	3, 5	100.00	25	–

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
151	Energieversorgung Gaildorf OHG der EnBW Kommunale Beteiligungen GmbH und NWS REG Beteiligungsgesellschaft mbH, Gaildorf	6	100.00	2,405	778
152	Energieversorgung Raum Friedrichshafen Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	-2
153	GDMcom Netze GmbH, Leipzig	5	100.00	1,126	-133
154	GEOMAGIC Utility Solutions Inc., Houston/USA	5	100.00	114	24
155	IBZ Bau GmbH, Zeulenroda-Triebes	5	100.00	2,127	351
156	IBZ Neubauer GmbH, Zeulenroda-Triebes (formerly IBZ Neubauer Verwaltungs-GmbH, Zeulenroda-Triebes)	5, 6	100.00	493	214
157	InfraKom GmbH, Rheinfelden Baden	5	100.00	24	-1
158	InfraKom WaR GmbH, Rheinfelden Baden	11	100.00	–	–
159	MoviaTec GmbH, Leipzig	5	100.00	284	-341
160	Neckar Netze Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	100.00	133	4
161	Netze Regional GmbH, Stuttgart	6	100.00	-54	-79
162	NHL Verwaltungs-GmbH, Heilbronn	5	100.00	25	0
163	OSG ONTRAS Servicegesellschaft mbH, Leipzig	5	100.00	25	0
164	Schneider GmbH, Cavertitz	5	100.00	4,156	307
165	TransnetBW SuedLink Verwaltungsgesellschaft mbH, Stuttgart	5, 13	100.00	22	0
166	TransnetBW Ultranet GmbH & Co. KG, Stuttgart	5	100.00	9	-1
167	TransnetBW Ultranet Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	24	-1
168	Verwaltungsgesellschaft Batteriespeicher Kupferzell mbH, Kupferzell	5	100.00	24	-1
169	Weishaupt Planungen GmbH, Grimma	11	100.00	–	–
170	Wärmegesellschaft Heilbronn GmbH, Heilbronn	5	100.00	11	-7
171	INFRACON Infrastruktur Service GmbH & Co. KG, Leipzig	5	99.50	7,124	2,091
172	Rieger GmbH & Co. KG, Lichtenstein, Kreis Reutlingen	5	74.28	923	654
173	Rieger Beteiligungs-GmbH, Lichtenstein, Kreis Reutlingen	5	74.24	50	1
174	Netze Pforzheim-Region GmbH & Co. KG, Pforzheim	5	60.00	8,086	634
175	Energieversorgung Donautal GmbH, Gundelfingen an der Donau	11	50.10	–	–
176	Gasnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	3,590	181
177	Gasnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	30	2
178	Netzgesellschaft Elz-Neckar GmbH & Co. KG, Obrigheim	5	50.10	1,177	20
179	Netzgesellschaft Elz-Neckar Verwaltungs GmbH, Obrigheim	5	50.10	35	1
180	Stromnetzgesellschaft Albershausen GmbH & Co. KG, Albershausen	5	50.10	1,203	55
181	Stromnetzgesellschaft Albershausen Verwaltungs GmbH, Albershausen	5	50.10	33	1
182	Stromnetzgesellschaft Heilbronn Verwaltungs-GmbH, Heilbronn	5	50.10	27	0
183	Stromnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	3,021	142
184	Stromnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	30	2
185	Netze Krauchenwies Verwaltungs-GmbH, Krauchenwies	5	50.00	27	1
Entities accounted for using the equity method					
186	Stadtwerke Esslingen am Neckar GmbH & Co. KG, Esslingen am Neckar	5	49.98	66,244	5,904
187	Pražská energetika Holding a.s., Prague/Czech Republic	5, 9	49.00	240,605	36,701
188	GasLINE Telekommunikationsnetzgesellschaft deutscher Gasversorgungsunternehmen mbH & Co. Kommanditgesellschaft, Straelen	5	29.24	110,274	28,376
189	Zweckverband Landeswasserversorgung, Stuttgart	5	27.20	115,751	3,000
190	Heilbronner Versorgungs GmbH, Heilbronn	4, 5	25.10	51,750	–
191	Stuttgart Netze GmbH, Stuttgart	4, 5, 9	25.10	299,944	–
192	FairEnergie GmbH, Reutlingen	4, 5	24.90	116,166	–
193	Energieversorgung Rheinfelden/Grenzach-Wyhlen GmbH & Co. KG, Rheinfelden Baden	5	24.00	38	-5
194	Stadtwerke Karlsruhe GmbH, Karlsruhe	4, 5	20.00	195,530	–
195	Zweckverband Bodensee-Wasserversorgung, Stuttgart	5	19.83	160,307	2,273
Investments[14]					
196	Netzgesellschaft Sontheim GmbH & Co. KG, Sontheim an der Brenz	5	74.90	1,952	361
197	Netzgesellschaft Sontheim Verwaltungsgesellschaft mbH, Sontheim an der Brenz	5	74.90	26	1
198	Netzgesellschaft Steinheim GmbH & Co. KG, Steinheim am Albuch	5	74.90	393	54
199	Netzgesellschaft Steinheim Verwaltungsgesellschaft mbH, Steinheim am Albuch	5	74.90	26	1
200	Stromnetz Herrenberg Verwaltungsgesellschaft mbH, Herrenberg	5	74.90	35	1
201	Stromnetzgesellschaft Herrenberg mbH & Co. KG, Herrenberg	5, 6	74.90	4,274	409

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
202	Stadtwerke Sinsheim Versorgungs GmbH & Co. KG, Sinsheim	5	60.00	13,421	-1,282
203	Stadtwerke Sinsheim Verwaltungs GmbH, Sinsheim	5	60.00	34	1
204	Stromnetz Langenau GmbH & Co. KG, Langenau	5	50.10	2,605	100
205	Stromnetz Langenau Verwaltungs-GmbH, Langenau	5	50.10	38	1
206	e.wa riss GmbH & Co. KG, Biberach	5	50.00	35,333	1,900
207	e.wa riss Verwaltungsgesellschaft mbH, Biberach	5	50.00	55	2
208	Flexcess GmbH, Bayreuth	5, 9	50.00	924	-1
209	Fränkische Wasser Service GmbH, Crailsheim	5	50.00	38	4
210	lictor GmbH, Leipzig	5	50.00	378	31
211	NETFIN Infrastructure, a.s., Prague/Czech Republic	9, 11	50.00	–	–
212	Netze Krauchenwies GmbH & Co. KG, Krauchenwies	5	50.00	1,537	76
213	Niederrheinisch-Bergisches Gemeinschaftswasserwerk GmbH, Düsseldorf	5	50.00	3,115	98
214	Ostalbwasser Ost GmbH, Ellwangen	5	50.00	52	2
215	Ostalbwasser Service GmbH, Aalen	5	50.00	36	11
216	Ostalbwasser West GmbH, Schwäbisch Gmünd	5	50.00	57	8
217	regioaqua Gesellschaft für Wasser und Abwasser mbH, Rheinfelden	5	50.00	108	21
218	Stadtwerke Schramberg GmbH & Co. KG, Schramberg	5	50.00	16,556	2,358
219	Stadtwerke Schramberg Verwaltungsgesellschaft mbH, Schramberg	5	50.00	46	2
220	Wasserübernahme Neuss-Wahlscheid GmbH, Neuss	5	50.00	455	11
221	EberstadtWerke GmbH & Co. KG, Eberstadt	5	49.99	87	-12
222	Stadtwerke Emmendingen GmbH, Emmendingen	5	49.90	18,080	1,547
223	Stromnetz Blaubeuren GmbH, Blaubeuren	5	49.90	2,858	157
224	Stadtwerke Esslingen-Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	49.80	47	1
225	Energie Sachsenheim GmbH & Co. KG, Sachsenheim	5	49.00	4,759	255
226	Energie Sachsenheim Verwaltungs-GmbH, Sachsenheim	5	49.00	38	2
227	Gemeindewerke Bodanrück GmbH & Co. KG, Allensbach	5	49.00	4,693	151
228	Gemeindewerke Bodanrück Verwaltungs-GmbH, Allensbach	5	49.00	31	1
229	LEO Energie GmbH & Co. KG, Leonberg	5	49.00	10,117	365
230	Netzgesellschaft Marbach GmbH & Co. KG, Marbach am Neckar	5	49.00	2,489	76
231	Rems-Murr Telekommunikation GmbH, Waiblingen	5	49.00	3,976	-9
232	Stadtwerke Backnang GmbH, Backnang	4, 5	49.00	14,940	–
233	Stadtwerke Bad Wildbad GmbH & Co. KG, Bad Wildbad	5	49.00	6,650	714
234	Stadtwerke Bad Wildbad Verwaltungs-GmbH, Bad Wildbad	5	49.00	46	1
235	Stadtwerke Eppingen GmbH & Co. KG, Eppingen	5	49.00	8,313	538
236	Energie Calw GmbH, Calw	4, 5	48.82	19,240	–
237	KBB GmbH Kommunalberatung Infrastrukturentwicklung, Baden-Baden	5	45.00	221	61
238	Stadtwerke Münsingen GmbH, Münsingen	5	45.00	7,407	805
239	Stadtwerke Böblingen GmbH & Co. KG, Böblingen	5	41.10	37,641	2,368
240	Stadtwerke Böblingen Verwaltungs GmbH, Böblingen	5	41.10	6	0
241	Energieversorgung Südbaar GmbH & Co. KG, Blumberg	5	40.00	6,644	613
242	SUEnergie GmbH & Co. KG, Süßen	5	40.00	2,203	71
243	SUEnergie Verwaltungs GmbH, Süßen	5	40.00	35	1
244	Stadtwerke Weinheim GmbH, Weinheim	5	39.32	30,539	2,390
245	Energieversorgung Rottenburg am Neckar GmbH, Rottenburg am Neckar	4, 5	38.00	7,660	–
246	EVG Grächen AG, Grächen/Switzerland	5	35.00	5,074	93
247	EVN Energieversorgung Nikolai AG, St. Niklaus/Switzerland	5, 7	35.00	1,741	105
248	EVR Energieversorgung Raron AG, Raron/Switzerland	5, 7	35.00	978	84
249	EVWR Energiedienste Visp-Westlich Raron AG, Visp/Switzerland	5	35.00	4,742	374
250	VED Visp Energie Dienste AG, Visp/Switzerland	5, 7	35.00	3,807	372
251	Seeallianz GmbH & Co. KG, Markdorf	5	33.00	7,283	426
252	Taubernetze GmbH & Co. KG, Tauberbischofsheim	5	33.00	2,283	79
253	Taubernetze Verwaltungs-GmbH, Tauberbischofsheim	5	33.00	29	1
254	ErmstalEnergie Dettingen an der Erms GmbH & Co. KG, Dettingen an der Erms	5	32.60	4,539	432
255	Versorgungsbetriebe Dettingen an der Erms Verwaltungs-GmbH, Dettingen an der Erms	5	32.60	33	1
256	eneREGIO GmbH, Muggensturm	5	32.00	10,052	786

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
257	Regionalnetze Linzgau GmbH, Pfullendorf	4, 5	31.64	6,462	–
258	Elektrizitätswerk Mittelbaden AG & Co. KG, Lahr	5	31.00	61,727	9,694
259	Elektrizitätswerk Mittelbaden Verwaltungsaktiengesellschaft, Lahr	5	31.00	158	7
260	Stadtwerke Bad Herrenalb GmbH, Bad Herrenalb	5	30.00	11,228	-372
261	Parconomy GmbH, Stuttgart	5	29.30	-379	-422
262	Energie- und Wasserversorgung Bruchsal GmbH, Bruchsal	4, 5	27.41	23,002	–
263	Stadtwerke Bad Säckingen GmbH, Bad Säckingen	3, 5	26.30	121	–
264	Albwerk GmbH & Co. KG, Geislingen an der Steige	5	25.10	27,726	4,564
265	Albwerk Verwaltungsgesellschaft mbH, Geislingen an der Steige	5	25.10	86	3
266	Energie Kirchheim unter Teck GmbH & Co. KG, Kirchheim unter Teck	5	25.10	11,816	499
267	Energie Kirchheim unter Teck Verwaltungs-GmbH, Kirchheim unter Teck	5	25.10	33	1
268	Energieversorgung Immenstaad GmbH & Co. KG, Immenstaad am Bodensee	5	25.10	943	62
269	Energieversorgung Strohgäu GmbH & Co. KG, Gerlingen	5	25.10	8,963	467
270	Energieversorgung Strohgäu Verwaltungs GmbH, Gerlingen	5	25.10	29	1
271	Filderstadt Netze GmbH, Filderstadt	5	25.10	161	-10
272	Gasnetzgesellschaft Schorndorf GmbH & Co. KG, Schorndorf	5	25.10	4,627	289
273	Gasnetzverwaltungsgesellschaft Schorndorf GmbH, Schorndorf	5	25.10	35	1
274	Gemeindewerke Brühl GmbH & Co. KG, Brühl	5	25.10	1,477	35
275	Gemeindewerke Brühl Verwaltungs-GmbH, Brühl	5	25.10	34	1
276	Gemeindewerke Plüderhausen GmbH, Plüderhausen	4, 5	25.10	1,941	–
277	Infrastrukturgesellschaft Plochingen GmbH & Co. KG, Plochingen	5	25.10	3,995	233
278	Netzgesellschaft Besigheim GmbH & Co. KG, Besigheim	5	25.10	4,740	259
279	Netzgesellschaft Besigheim Verwaltungs GmbH, Besigheim	5	25.10	34	1
280	Netzgesellschaft Leinfelden-Echterdingen GmbH, Leinfelden-Echterdingen	5	25.10	13,066	531
281	Netzgesellschaft Salach GmbH & Co. KG, Salach	5	25.10	3,665	144
282	Netzgesellschaft Salach Verwaltungs GmbH, Salach	5	25.10	33	1
283	Netzgesellschaft Schwetzingen GmbH & Co. KG, Schwetzingen	5	25.10	2,322	98
284	Netzgesellschaft Schwetzingen Verwaltungs GmbH, Schwetzingen	5	25.10	31	1
285	Netzgesellschaft Vaihingen GmbH & Co. KG, Vaihingen an der Enz	5	25.10	8,339	578
286	Netzgesellschaft Vaihingen Verwaltungs-GmbH, Vaihingen an der Enz	5	25.10	34	1
287	Stadtwerke Ellwangen GmbH, Ellwangen	4, 5	25.10	10,652	–
288	Stadtwerke Giengen GmbH, Giengen	5	25.10	13,890	368
289	Stadtwerke Schwäbisch Gmünd GmbH, Schwäbisch Gmünd	4, 5	25.10	30,751	–
290	Stadtwerke Stockach GmbH, Stockach	5	25.10	14,199	1,572
291	Stadtwerke Weinstadt Energieversorgung GmbH, Weinstadt	4, 5	25.10	7,653	–
292	Stadtwerke Wiesloch - Strom - GmbH & Co. KG, Wiesloch	5	25.10	2,611	116
293	Stromgesellschaft March GmbH & Co. KG, March	5	25.10	2,519	7
294	Stromnetzgesellschaft Ebersbach GmbH & Co. KG, Ebersbach an der Fils	5	25.10	3,636	154
295	Stromnetzgesellschaft Ebersbach Verwaltungs GmbH, Ebersbach an der Fils	5	25.10	34	1
296	Stromnetzgesellschaft Östlicher Schurwald GmbH & Co. KG, Rechberghausen	5	25.10	3,253	156
297	Stromnetzgesellschaft Östlicher Schurwald Verwaltungs GmbH, Rechberghausen	5	25.10	33	1
298	Technische Werke Schussental GmbH & Co. KG, Ravensburg	5	25.10	60,488	1,690
299	Technische Werke Schussental Verwaltungsgesellschaft mbH, Ravensburg	5	25.10	19	-3
300	tktVivax GmbH, Backnang	5	25.06	1,233	105
301	Switchboard GmbH, Stuttgart	5	25.00	4	-21
302	Stromversorgung Sulz am Neckar GmbH, Sulz am Neckar	5	24.90	4,318	273
303	Netzeigentumsgesellschaft Rheinstetten GmbH & Co. KG, Rheinstetten	5	24.50	4,801	91
304	Stadtwerke Schopfheim GmbH, Schopfheim	5, 6	24.50	142	-17
305	Stadtwerke Wehr GmbH & Co. KG, Wehr	5	24.50	2,907	179
306	Stadtwerke Wehr Verwaltungs-GmbH, Wehr	5	24.50	23	1
307	Energieversorgung Oberes Wiesental GmbH, Todtnau	5	24.00	4,110	222
308	Netzgesellschaft Edingen-Neckarhausen GmbH & Co. KG, Edingen-Neckarhausen	5	24.00	1,021	44
309	q-bility GmbH, Gerolsbach Alberzell	11	22.50	–	–
310	ENRW Energieversorgung Rottweil GmbH & Co. KG, Rottweil	5	20.00	31,297	3,666
311	ENRW Verwaltungs-GmbH, Rottweil	5	20.00	15	1

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
312	Stadtwerke Sindelfingen GmbH, Sindelfingen	5	20.00	44,856	2,929
313	Versorger-Allianz 450 Beteiligungs GmbH & Co. KG, Bonn	5	17.63	17,941	-1,725
Sustainable Generation Infrastructure segment					
Fully consolidated companies					
314	Aletsch AG, Mörel/Switzerland	6	100.00	26,242	1,382
315	AWISTA Logistik GmbH, Düsseldorf	3, 5	100.00	3,025	–
316	BALANCE Erneuerbare Energien GmbH, Leipzig	3	100.00	49,615	–
317	Barre Energie SARL, Montpellier/France		100.00	-27	994
318	Biogas Produktion Altmark GmbH, Hohenberg-Krusemark		100.00	22,847	1,680
319	Cambert Énergie SARL, Montpellier/France		100.00	207	157
320	Centrale Photovoltaïque de Saint Quentin la Tour SAS, Montpellier/France		100.00	-128	-78
321	Centrale Solaire d'Exideuil SARL, Montpellier/France		100.00	-232	-309
322	Centrale Solaire de Châteauvert SARL, Montpellier/France		100.00	-416	263
323	Centrale Solaire de Coste Cuyère SARL, Montpellier/France		100.00	23	844
324	Centrale Solaire de Maine SARL, Montpellier/France		100.00	-97	-77
325	Centrale Solaire de Montegut SARL, Montpellier/France		100.00	-107	-93
326	Centrale Solaire de Severac SARL, Montpellier/France		100.00	-199	-186
327	Centrale Solaire des Terres Rouges SARL, Montpellier/France		100.00	-2,021	454
328	Centrale Solaire du Sycala SARL, Montpellier/France		100.00	1	1,217
329	Centrale Solaire du Tea Fleury-Merogis SARL, Montpellier/France		100.00	-460	29
330	Centrale Solaire EMA Solar SARL, Montpellier/France		100.00	-239	-90
331	Centrales Solaires de l'Isle sur la Sorgue SAS, Montpellier/France		100.00	-220	-96
332	Connected Wind Services A/S, Balle/Denmark	5	100.00	6,135	-9,576
333	Connected Wind Services Danmark A/S, Balle/Denmark	5	100.00	1,118	140
334	Connected Wind Services Deutschland GmbH, Rantrum	5	100.00	1,306	-974
335	Connected Wind Services France SAS, Dijon /France	5	100.00	548	-314
336	Connected Wind Services Refurbishment A/S, Balle/Denmark	5	100.00	-193	-23
337	Couffrau Energie SARL, Montpellier/France		100.00	99	-69
338	Deves Énergie SARL, Montpellier/France		100.00	247	640
339	EnBW Biogas GmbH, Stuttgart	3	100.00	52	–
340	EnBW Biomasse GmbH, Karlsruhe		100.00	3,087	310
341	EnBW Etzel Speicher GmbH, Karlsruhe	3	100.00	825	–
342	EnBW France GmbH, Stuttgart	3	100.00	608,417	–
343	EnBW Grundstücksverwaltung Rheinhafen GmbH, Karlsruhe		100.00	2,271	-232
344	EnBW He Dreiht GmbH, Varel	3	100.00	178,617	–
345	EnBW Holding A.S., Gümüssuyu-Istanbul/Turkey		100.00	232,618	-76
346	EnBW Kraftwerk Lippendorf Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	297,640	–
347	EnBW Mainfrankenpark GmbH, Dettelbach	3	100.00	3,759	–
348	EnBW NAG-Beteiligungsgesellschaft mbH, Stuttgart		100.00	22	-3
349	EnBW Offshore 1 GmbH, Stuttgart	3	100.00	28,737	–
350	EnBW Offshore 2 GmbH, Stuttgart	3	100.00	690,453	–
351	EnBW Offshore 3 GmbH, Stuttgart	3	100.00	799,436	–
352	EnBW Offshore Service GmbH, Klausdorf	3	100.00	3,725	–
353	EnBW Renewables International GmbH, Stuttgart	3	100.00	86,809	–
354	EnBW Rückbauservice GmbH, Stuttgart	3	100.00	25	–
355	EnBW Solar GmbH, Stuttgart	3	100.00	244,551	–
356	EnBW Solarpark Gottesgabe GmbH, Stuttgart	3	100.00	73,182	–
357	EnBW Solarpark Tuningen GmbH, Stuttgart	3	100.00	2,733	–
358	EnBW Solarpark Weesow-Willmersdorf GmbH, Stuttgart	3	100.00	81,034	–
359	EnBW Sverige AB, Falkenberg/Sweden		100.00	89,327	21,785
360	EnBW Wind Onshore 1 GmbH, Stuttgart	3	100.00	25	–
361	EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe	3	100.00	8,415	–
362	EnBW Windkraftprojekte GmbH, Stuttgart	3	100.00	65,425	–
363	EnBW Windpark Hemme GmbH, Stuttgart		100.00	118	-45
364	EnBW Windpark Prötzel GmbH, Stuttgart		100.00	4,871	1,143

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
365	Energiedienst AG, Rheinfelden	6	100.00	169,942	-2,425
366	ENERGIEUNION GmbH, Schwerin	3	100.00	6,223	–
367	Ferme Éolienne de la Bessière SARL, Montpellier/France		100.00	-1,751	225
368	Ferme Éolienne de Puech de Cambert SARL, Montpellier/France		100.00	2,600	-3,756
369	Ferme Éolienne de Puech de l'Homme SARL, Montpellier/France		100.00	1,063	383
370	Gemeinschaftsheizkraftwerk Fortuna GmbH, Düsseldorf	5	100.00	264,076	1,769
371	Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim	3	100.00	1,377	–
372	Gramentes Énergie SAS, Montpellier/France		100.00	-1,483	-249
373	Grünwerke GmbH, Düsseldorf	3, 5	100.00	38,400	–
374	Heizkraftwerk Stuttgart GmbH, Stuttgart		100.00	5,144	15
375	Interconnector GmbH, Karlsruhe	3	100.00	25	–
376	Kernkraftwerk Obrigheim GmbH, Obrigheim	3	100.00	51,130	–
377	Kraftwerk Lötschen AG, Steg/Switzerland	6	100.00	30,335	935
378	La Société des Monts de Lacaune SAS, Montpellier/France		100.00	2,415	-98
379	Le Val Energie SARL, Montpellier/France		100.00	485	512
380	MSE Mobile Schlammentwässerungs GmbH, Karlsbad-Ittersbach	3	100.00	1,171	–
381	Parc Éolien de la Vallée de Belleuse SARL, Montpellier/France		100.00	107	74
382	Parc Éolien de Marendeuil SARL, Montpellier/France		100.00	-565	-241
383	Parc Éolien du Mont de Maisnil SARL, Montpellier/France		100.00	-423	15
384	PRE FVE Nové Sedlo, s.r.o., Prague/Czech Republic	5	100.00	-10	-11
385	PRE FVE Svetlik s.r.o., Leitnowitz/Czech Republic	5	100.00	5,669	843
386	PRE VTE Částkov s.r.o., Prague/Czech Republic	5	100.00	-535	36
387	Socpe de Champs Perdus SARL, Montpellier/France		100.00	-973	-332
388	SOLARINVEST - GREEN ENERGY, s.r.o., Prague/Czech Republic	5	100.00	-3	1
389	Svenska Connected Wind Services AB, Falkenberg/Sweden	5	100.00	389	-221
390	TAE Thermische Abfallentsorgung Ansbach GmbH, Ansbach		100.00	59,157	197
391	TPLUS GmbH, Karlsruhe	3	100.00	18,162	–
392	TWS Kernkraft GmbH, Gemmrigheim	3	100.00	149,297	–
393	u-plus Umweltservice GmbH, Karlsruhe	3	100.00	100,302	–
394	Valeco SAS, Montpellier/France		100.00	101,988	19,792
395	VNG Gasspeicher GmbH, Leipzig	3	100.00	21,311	–
396	VNG Gasspeicher Service GmbH, Leipzig	3, 11	100.00	–	–
397	VNG Handel & Vertrieb GmbH, Leipzig	3	100.00	37,840	–
398	Windpark "Auf der Weißen Trisch" GmbH, Zweibrücken		100.00	2,130	1,047
399	Windpark Breitenbach GmbH, Düsseldorf		100.00	25	994
400	Windpark Obhausen/Nemsdorf GmbH & Co. KG, Stuttgart		100.00	12,561	7,809
401	Windpark Rot am See GmbH, Ellwangen (Jagst)	3	100.00	25	–
402	EE Bürgerenergie Braunsbach GmbH & Co. KG, Braunsbach		99.99	7,600	2,129
403	BürgerEnergie Königheim GmbH & Co. KG, Königheim		99.97	3,000	766
404	EE BürgerEnergie Forchtenberg GmbH & Co. KG, Forchtenberg		99.93	1,500	274
405	EE BürgerEnergie Krautheim GmbH & Co. KG, Krautheim		99.90	652	-348
406	EnBW Kernkraft GmbH, Obrigheim	3	99.80	10,000	–
407	EnAlpin AG, Visp/Switzerland	6	98.60	203,212	10,964
408	Valeco Solar SARL, Montpellier/France		95.20	35	1,280
409	EE BürgerEnergie Möckmühl GmbH & Co. KG, Möckmühl		95.17	1,575	260
410	EE BürgerEnergie Jagsthausen GmbH & Co. KG, Jagsthausen		95.11	4,625	926
411	Bürgerenergie Widdern GmbH & Co. KG, Widdern		95.07	7,580	2,467
412	Südwestdeutsche Nuklear-Entsorgungsgesellschaft mbH, Stuttgart		86.49	8,149	742
413	EE Bürgerenergie Hardthausen GmbH & Co. KG, Hardthausen am Kocher		84.68	12,393	2,336
414	Langenburg Infrastruktur GmbH, Stuttgart		83.33	7,702	-16
415	Neckar Aktiengesellschaft, Stuttgart		82.20	10,179	6,429
416	EE BürgerEnergie Boxberg GmbH & Co. KG, Boxberg		79.50	16,350	4,122
417	Zentraldeponie Hubbelrath GmbH, Düsseldorf		76.00	6,136	625
418	JatroSolutions GmbH, Stuttgart		75.30	0	-805
419	Geothermie-Gesellschaft Bruchsal GmbH, Bruchsal		74.90	2,151	1,176

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
420	Saint Laurent Solar SAS, Montpellier/France		72.02	888	659
421	Energiedienst Holding AG, Laufenburg/Switzerland	6, 10	66.67	1,069,576	30,729
422	Centrale Solaire de la Durance SARL, Montpellier/France		65.00	648	286
423	Parc Éolien de Bel Air SAS, Montpellier/France		63.40	-200	-257
424	EE Bürgerenergie Ilshofen GmbH & Co. KG, Ilshofen		60.25	3,950	840
425	EnBW Windpark Aalen-Waldhausen GmbH, Stuttgart		59.00	22,787	1,588
426	Rheinkraftwerk Neuhausen AG, Neuhausen/Switzerland	6	56.00	1,261	53
427	EnBW Solarpark Ingoldingen GmbH, Stuttgart		55.00	3,969	402
428	Erneuerbare Energien Neckarwestheim GmbH & Co. KG, Neckarwestheim		51.90	1,050	409
429	AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, Düsseldorf	5	51.00	56,980	24,325
430	Centrale Solaire de Saint Mamet SARL, Montpellier/France		51.00	-749	-4
431	Solarpark Berghülen GmbH, Stuttgart		51.00	2,508	203
432	Solarpark Leutkirch GmbH & Co. KG, Leutkirch im Allgäu		51.00	6,231	1,393
433	Solarpark Riedlingen-Zwiefaltendorf GmbH, Stuttgart		51.00	4,680	440
434	KNG Kraftwerks- und Netzgesellschaft mbH, Rostock		50.40	553	8
435	EnBW Baltic 1 GmbH & Co. KG, Biberach an der Riß		50.32	53,971	14,273
436	EnBW Albatros GmbH & Co. KG, Biberach an der Riß		50.11	437,949	55,783
437	EnBW Hohe See GmbH & Co. KG, Biberach an der Riß		50.11	1,756,002	211,825
438	EnBW Baltic 2 GmbH & Co. KG, Biberach an der Riß		50.10	838,785	107,306
439	EnBW SunInvest GmbH & Co. KG, Stuttgart (formerly EnBW Solarpark Alttrebbin GmbH & Co. KG, Stuttgart)		50.10	400,782	90,742
440	EnBW WindInvest GmbH & Co. KG, Stuttgart		50.10	190,211	24,254
441	EnBW Windpark Buchholz III GmbH, Stuttgart		50.10	19,016	1,498
442	Windenergie Tautschbuch GmbH, Riedlingen		50.10	620	-2
443	EnBW Onshore Portfolio GmbH, Stuttgart		50.02	58,594	7,220
444	EnBW Solarpark Birkenfeld GmbH, Stuttgart		50.00	3,700	802
445	Energie Renouvelable du Languedoc SARL, Montpellier/France		50.00	-2,342	-851
446	Joncels Energie SARL, Montpellier/France		50.00	-2,417	-555
Joint operations					
447	Friedeburger Speicherbetriebsgesellschaft mbH "Crystal", Friedeburg	9	50.00	71,174	885
448	Rheinkraftwerk Iffezheim GmbH, Iffezheim	9	50.00	84,393	2,765
449	Rhonewerke AG, Ernen/Switzerland	5, 9	30.00	29,329	1,387
Non-consolidated affiliated entities[14]					
450	BALANCE Management GmbH, Leipzig	5	100.00	18	0
451	Biogas Trelder Berg 1 GmbH, Buchholz	3, 5	100.00	1,125	–
452	Biogas Trelder Berg 2 GmbH, Buchholz	3, 5	100.00	525	–
453	Biogas Trelder Berg 3 GmbH, Buchholz	3, 5	100.00	525	–
454	Biosphärenwindpark Schwäbische Alb GmbH, Stuttgart	5	100.00	150	-1
455	Bliekevare Nät AB, Falkenberg/Sweden		100.00	60	277
456	CarbonBW (Thailand) Ltd., Bangkok/Thailand	5	100.00	13,432	1,699
457	CAS DE BROSSAC SARL, Montpellier/France (formerly Centrale Photovoltaïque du Perche Ornais SARL, Montpellier/France)	5	100.00	-33	-17
458	CAS DE CANET SAS, Montpellier/France	11	100.00	–	–
459	CAS DE CUSEY SAS, Montpellier/France	11	100.00	–	–
460	CAS de la Plaine SAS, Montpellier/France	5	100.00	1	0
461	CAS DE LIGNAC SAS, Montpellier/France	11	100.00	–	–
462	CAS DE L'ABBAYE LE CLOU SAS, Montpellier/France	11	100.00	–	–
463	CAS DE MALIGNY SARL, Montpellier/France (formerly Centrale Photovoltaïque Agroénergie SARL, Montpellier/France)	5	100.00	-19	-5
464	CAS DE MEILLANT SASU, Montpellier/France	11	100.00	–	–
465	CAS DE SOULERIS SARL, Montpellier/France (formerly Centrale Photovoltaïque de Bionne SARL, Montpellier/France)	5	100.00	-23	-5
466	CAS DE TAUROU-BAYSSIERES SARL, Montpellier/France (formerly Centrale Solaire de Cap Delta SARL, Montpellier/France)	5	100.00	-5	-1
467	Centernach Énergie SARL, Montpellier/France	5	100.00	-962	64
468	Centrale Photovoltaïque de la Forêt Baignollais SARL, Montpellier/France	5	100.00	-19	-6

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
469	Centrale Photovoltaïque de la ZA de Gaudet SARL, Montpellier/France	5	100.00	-47	-27
470	Centrale Photovoltaïque de Pavailler SARL, Montpellier/France	5	100.00	-16	-1
471	Centrale Photovoltaïque de Sirius SARL, Montpellier/France	5	100.00	-19	-3
472	Centrale Photovoltaïque des Gravières SARL, Montpellier/France	5	100.00	-52	-5
473	Centrale Photovoltaïque Domitita SAS, Montpellier/France	5	100.00	1	0
474	Centrale Photovoltaïque Retour sur l'Isle SARL, Montpellier/France	5	100.00	-16	-10
475	Centrale Sol. de la Foret au Maitre SAS, Montpellier/France	5	100.00	-5	-6
476	Centrale Solaire d'Algosud SARL, Montpellier/France	5	100.00	-5	-1
477	Centrale Solaire de Beauce SARL, Montpellier/France	5	100.00	-27	-10
478	Centrale Solaire de Biltagarbi SARL, Montpellier/France	5	100.00	-293	34
479	Centrale Solaire de Bors de Montmoreau SARL, Montpellier/France	5	100.00	-73	-45
480	Centrale Solaire de Carré Sud SARL, Montpellier/France	5	100.00	-66	-7
481	Centrale Solaire de Catreille SARL, Montpellier/France	5	100.00	-18	-5
482	Centrale Solaire de Châteauperouse SARL, Montpellier/France	5	100.00	-6	-1
483	Centrale Solaire de Clave SARL, Montpellier/France	5	100.00	-75	-6
484	Centrale Solaire de Colombiers SARL, Montpellier/France	5	100.00	-170	36
485	Centrale Solaire de la Fourchale SAS, Montpellier/France	5	100.00	-6	-6
486	Centrale Solaire de la Tastère SARL, Montpellier/France	5	100.00	-21	-10
487	Centrale Solaire de les Leches SAS, Montpellier/France	5	100.00	1	0
488	Centrale Solaire de Leyritz-Moncassin SAS, Montpellier/France	5	100.00	1	-6
489	Centrale Solaire de Lunel SARL, Montpellier/France	5	100.00	110	64
490	Centrale Solaire de MAGNAC-LAVAL SAS, Montpellier/France	5	100.00	0	0
491	Centrale Solaire de Nohanent SARL, Montpellier/France	5	100.00	-12	-5
492	Centrale Solaire de Peregrine SARL, Montpellier/France	5	100.00	-17	-5
493	Centrale Solaire de Roubian SARL, Montpellier/France	5	100.00	-69	-13
494	Centrale Solaire de Saint Leger de Balson SARL, Montpellier/France	5	100.00	-28	-6
495	Centrale Solaire de Saint-Just SAS, Montpellier/France	5	100.00	1	0
496	Centrale Solaire de Saumejan SAS, Montpellier/France	5	100.00	-6	-6
497	Centrale Solaire de Til Chatel 2 SARL, Montpellier/France	5	100.00	-7	-5
498	Centrale Solaire de Til Chatel SARL, Montpellier/France	5	100.00	-27	-13
499	Centrale Solaire des Calottes SARL, Montpellier/France	5	100.00	-19	-9
500	Centrale Solaire des Coëvrons SARL, Montpellier/France	5	100.00	-27	-5
501	Centrale Solaire des Moulins Lodevois SARL, Montpellier/France	5	100.00	-23	-8
502	Centrale Solaire du Bois Comte SARL, Montpellier/France	5	100.00	-15	-12
503	Centrale Solaire du Caussanel SARL, Montpellier/France	5	100.00	-22	-12
504	Centrale Solaire du Tertre SAS, Montpellier/France	5	100.00	-6	-6
505	Centrale Solaire d´Aguessac SAS, Montpellier/France	5	100.00	-12	-11
506	Centrale Solaire EuroPrimeur SARL, Montpellier/France	5	100.00	-3	-1
507	Centrale Solaire la Charme SARL, Montpellier/France	5	100.00	-3	-1
508	Centrales Solaires d'Hyperion SARL, Montpellier/France	5	100.00	-19	2
509	Centrales Solaires de Terreneuve SARL, Montpellier/France	5	100.00	-23	-9
510	Centrales Solaires des Terres Rouges 3 SAS, Montpellier/France	5	100.00	1	0
511	Centrales Solaires du Languedoc SARL, Montpellier/France	5	100.00	456	95
512	CP D'ORVAL SASU, Montpellier/France	5	100.00	1	0
513	CS DE CLUNDOC'H SARL, Montpellier/France (formerly Centrale Photovoltaïque Pont du Casse SARL, Montpellier/France)	5	100.00	-3	-1
514	CS DE COURTENAY SASU, Montpellier/France	5	100.00	1	0
515	CS DE DOMERAT SASU, Montpellier/France	11	100.00	–	–
516	CS DE FONTAINES SARL, Montpellier/France (formerly Centrale Photovoltaïque de Castelle SARL, Montpellier/France)	5	100.00	-3	-1
517	CS DE LA GRANDE MAIREE SARL, Montpellier/France (formerly Centrale Photovoltaïque de Labastide SARL, Montpellier/France)	5	100.00	-18	-5
518	CS DE LA GROLLE SASU, Montpellier/France	5	100.00	1	0
519	CS DE LA TOUREILLE SARL, Montpellier/France (formerly Centrale Solaire du Lido SARL, Montpellier/France)	5	100.00	-29	-5

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
520	CS DE LA VALLEE SARL, Montpellier/France (formerly Centrales Solaires de Salles-la-Source SARL, Montpellier/France)	5	100.00	-5	-1
521	CS DE LONGUYON SASU, Montpellier/France	11	100.00	–	–
522	CS DE L'ANCIENNE CARRIERE D'HAMEL SARL, Montpellier/France (formerly Centrale Solaire la Vidalle SARL, Montpellier/France)	5	100.00	-7	-1
523	CS DE MAGNY SUR TILLE SASU, Montpellier/France	5	100.00	1	0
524	CS DE MORNAY SUR ALLIER SASU, Montpellier/France	11	100.00	–	–
525	CS DE PEZENES SARL, Montpellier/France (formerly Centrale Photovoltaïque des Coteaux de la Braye SARL, Montpellier/France)	5	100.00	-33	-5
526	CS DE PIERREFITE SAS, Montpellier/France (formerly Centrale Solaires des Oceans SAS, Montpellier/France)	5	100.00	-6	-6
527	CS DE SALLAUMINES SARL, Montpellier/France (formerly Centrale Photovoltaïque de la demi-lune SARL, Montpellier/France)	5	100.00	-3	-1
528	CS DE SANCOINS SASU, Montpellier/France	11	100.00	–	–
529	CS DE TEILHEDE SAS, Montpellier/France	11	100.00	–	–
530	CS DES CHAUMES SASU, Montpellier/France	11	100.00	–	–
531	CS DES GRANDS CHAMPS SASU, Montpellier/France	11	100.00	–	–
532	CS des Roches Bleues SARL, Montpellier/France (formerly Centrale Solaire de Marignac SARL, Montpellier/France)	5	100.00	-18	-5
533	CS DES TROIS VALLEES SARL, Montpellier/France (formerly Centrale Solaire Gesim Beau Ciel SARL, Montpellier/France)	5	100.00	-20	-16
534	CS DU CAKEMPIN SARL, Montpellier/France (formerly Centrale Solaire de Josse SARL, Montpellier/France)	5	100.00	-5	-1
535	CS DU CARROI SARL, Montpellier/France (formerly Centrales Solaires de Quirinus SARL, Montpellier/France)	5	100.00	16	-4
536	CS LAS SERETTES SASU, Montpellier/France	5	100.00	1	0
537	CS VEINAZES SASU, Montpellier/France	11	100.00	–	–
538	Düsseldorfer Entsorgungs- und Stadtreinigungsgesellschaft mbH, Düsseldorf	11	100.00	–	–
539	EnBW Albatros Management GmbH, Biberach an der Riß	5	100.00	29	1
540	EnBW Baltic 1 Verwaltungsgesellschaft mbH, Biberach an der Riß	5	100.00	28	0
541	EnBW Baltic 2 Management GmbH, Biberach an der Riß	5	100.00	45	11
542	EnBW Baltic Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	36	1
543	EnBW Bürgerbeteiligung Wind 1 GmbH, Stuttgart	3, 5	100.00	25	–
544	EnBW Hohe See Management GmbH, Biberach an der Riß	5	100.00	31	1
545	EnBW Holm Vind AB, Falkenberg/Sweden		100.00	2	0
546	EnBW International Markets GmbH, Karlsruhe (formerly EnBW Omega 105. Verwaltungsgesellschaft mbH, Karlsruhe)	3, 5	100.00	25	–
547	EnBW Kusberget Vind AB, Falkenberg/Sweden	7	100.00	1,234	-3
548	EnBW Neue Energien GmbH, Stuttgart	3, 5	100.00	528	–
549	EnBW Norway AS, Oslo/Norway	5	100.00	10	0
550	EnBW Offshore Service Denmark ApS, Skødstrup/Denmark (formerly EnBW Offshore Service Denmark ApS, Balle/Denmark)	5	100.00	3,666	61
551	EnBW Okome Vind AB, Falkenberg/Sweden	7	100.00	2	0
552	EnBW Solar Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	28	2
553	EnBW Solarpark Emmingen-Liptingen GmbH & Co. KG, Stuttgart	11	100.00	–	–
554	EnBW Solarpark Gickelfeld GmbH & Co. KG, Stuttgart	5	100.00	2,523	1
555	EnBW Solarpark Groß Lübbenau GmbH & Co. KG, Stuttgart (formerly SP 25 GmbH & Co. KG, Cottbus)	5	100.00	1,250	-1,970
556	EnBW Solarpark Göritz GmbH & Co. KG, Stuttgart (formerly SP 24 GmbH & Co. KG, Cottbus)	5	100.00	1,319	-12,406
557	EnBW Solarpark Kroppen GmbH & Co. KG, Stuttgart (formerly SP 23 GmbH & Co. KG, Cottbus)	5	100.00	1,326	-8,458
558	EnBW Solarpark Lauenhagen GmbH, Stuttgart	5	100.00	11	-2
559	EnBW Solarpark Lindenau GmbH & Co. KG, Stuttgart (formerly SP 22 GmbH & Co. KG, Cottbus)	5	100.00	1,364	-20,567
560	EnBW Solarpark Rot an der Rot GmbH & Co. KG, Stuttgart	11	100.00	–	–
561	EnBW Solarpark Sonnewalde GmbH & Co. KG, Stuttgart (formerly SP 26 GmbH & Co. KG, Cottbus)	5	100.00	1,250	-1,970
562	EnBW SunInvest Management GmbH, Stuttgart (formerly EnBW Omega 129. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	23	-2
563	EnBW UK Limited, London/United Kingdom	5	100.00	60	3
564	EnBW Wind Onshore Portfolio 2019 GmbH, Stuttgart	5	100.00	24	0

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
565	EnBW Wind Onshore Verwaltungsgesellschaft mbH, Stuttgart	6	100.00	36	-2
566	EnBW WindInvest Management GmbH, Stuttgart	5	100.00	25	1
567	EnBW Windpark Kleinliebringen GmbH, Stuttgart	5	100.00	17	0
568	EnBW Windpark Ober-Ramstadt GmbH, Ober-Ramstadt	5	100.00	23	-1
569	EnergieFinanz GmbH, Schwerin	5	100.00	942	-38
570	Ferme Éolienne Beaucamps-le-Jeune SARL, Montpellier/France	5	100.00	-10	-5
571	Ferme Éolienne de Donzère SARL, Montpellier/France	5	100.00	116	-348
572	Ferme Éolienne de la Ferrière-de-Flée SARL, Montpellier/France	5	100.00	-12	-5
573	Ferme Éolienne de la Vallée de Valenne SARL, Montpellier/France	5	100.00	-11	-5
574	Ferme Éolienne de Plo d'Amoures SAS, Montpellier/France	5	100.00	-414	-27
575	Ferme Éolienne de Thalis SAS, Montpellier/France	5	100.00	-133	-11
576	Grünwerke Verwaltungs GmbH, Düsseldorf	5	100.00	46	3
577	HAUT DU VAL DE SAONE ENERGIE SASU, Montpellier/France	11	100.00	–	–
578	Mistral SAS, Aix-en-Provence/France	5	100.00	-9	-5
579	Mélagues Energie SAS, Montpellier/France	5	100.00	-225	-10
580	NatürlichSonne Trogen GmbH & Co. KG, Wittlich (formerly NatürlichSonne Trogen GmbH & Co. KG, Monzelfeld)	5	100.00	314	-11
581	NatürlichSonne Trogen Verwaltungs GmbH, Ettlingen	5	100.00	19	-1
582	Parc Éolien d'Amfreville-les-Champs SARL, Montpellier/France	5	100.00	-52	-8
583	Parc Éolien d'Argillières SARL, Montpellier/France	5	100.00	-58	-18
584	Parc Éolien d'Hilvern SARL, Montpellier/France	5	100.00	-11	-5
585	Parc Éolien de Barbezières-Lupsault SARL, Montpellier/France	5	100.00	-19	-5
586	Parc Éolien de Bellenoie SAS, Montpellier/France	5	100.00	0	-1
587	Parc Éolien de Bornay 2 SARL, Montpellier/France	5	100.00	-128	-94
588	Parc Éolien de Bornay SARL, Montpellier/France	5	100.00	-31	-5
589	Parc Éolien de Boussais SARL, Montpellier/France	5	100.00	-24	-18
590	Parc Éolien de Breuillac SARL, Montpellier/France	5	100.00	-79	-54
591	Parc Éolien de Champ Serpette SARL, Montpellier/France	5	100.00	-37	-5
592	Parc Éolien de Champs Perdus 2 SARL, Montpellier/France	5	100.00	-52	-31
593	Parc Éolien de Chan des Planasses SARL, Montpellier/France	5	100.00	-37	-17
594	Parc Éolien de Chasseneuil SARL, Montpellier/France	5	100.00	-110	-25
595	Parc Éolien de Combaynart SARL, Montpellier/France	5	100.00	-13	-5
596	Parc Éolien de Houarn SAS, Montpellier/France	5	100.00	-13	-13
597	Parc Éolien de Keranflech SARL, Montpellier/France	5	100.00	-26	-16
598	Parc Éolien de Kerimard SARL, Montpellier/France	5	100.00	-12	-5
599	Parc Éolien de l'Epinette SARL, Montpellier/France	5	100.00	-47	-24
600	Parc Éolien de la Bussière SARL, Montpellier/France	5	100.00	-72	-20
601	Parc Éolien de la Cote du Moulin SARL, Montpellier/France	5	100.00	-8	-5
602	Parc Éolien de la Cressionnière SARL, Montpellier/France	5	100.00	-30	-20
603	Parc Éolien de la Fougère SARL, Montpellier/France	5	100.00	-87	-12
604	Parc Éolien de la Lanques-sur-Rognon SARL, Montpellier/France	5	100.00	-19	-5
605	Parc Éolien de la Naulerie SARL, Montpellier/France	5	100.00	-3	-7
606	Parc Éolien de la Pezille SARL, Montpellier/France	5	100.00	-12	-5
607	Parc Éolien de la Queille SARL, Montpellier/France	5	100.00	-7	-5
608	Parc Éolien de la Roche SARL, Montpellier/France	5	100.00	-14	-5
609	Parc Éolien de la Vallée Berlure SARL, Montpellier/France	5	100.00	-27	-16
610	Parc Éolien de le Quesnel SARL, Montpellier/France	5	100.00	-108	-80
611	Parc Éolien de Lupsault SARL, Montpellier/France	5	100.00	-16	-11
612	Parc Éolien de l'Etourneau SARL, Montpellier/France	5	100.00	-16	-5
613	Parc Éolien de Mandres la Cote SAS, Montpellier/France	5	100.00	-20	-7
614	Parc Éolien de Monsures SARL, Montpellier/France	5	100.00	-124	-44
615	Parc Éolien de Mouterre-Silly SARL, Montpellier/France	5	100.00	-24	-18
616	Parc Éolien de Nongée SARL, Montpellier/France	5	100.00	-41	-9
617	Parc Éolien de Noroy SARL, Montpellier/France	5	100.00	-29	-14
618	Parc Éolien de Picoud SARL, Montpellier/France	5	100.00	-14	-6
619	Parc Éolien de Pistole SARL, Montpellier/France	5	100.00	-17	-5

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
620	Parc Éolien de Prinquies SAS, Montpellier/France	5	100.00	-31	-15
621	Parc Éolien de Pugny SARL, Montpellier/France	5	100.00	-10	-5
622	Parc Éolien de Ravery SARL, Montpellier/France	5	100.00	-13	-5
623	Parc Éolien de Revelles SAS, Montpellier/France	5	100.00	-3	-6
624	Parc Éolien de Ribemont SARL, Montpellier/France	5	100.00	-26	-17
625	Parc Éolien de Saint-Ygeaux SAS, Montpellier/France	5	100.00	-15	-8
626	Parc Éolien de Sery-les-Mezières SARL, Montpellier/France	5	100.00	-12	-5
627	Parc Éolien de Thennes SARL, Montpellier/France	5	100.00	-28	-8
628	Parc Éolien de Vellexon SARL, Montpellier/France	5	100.00	-34	-5
629	Parc Éolien de Vervant et Lea SARL, Montpellier/France	5	100.00	-46	-15
630	Parc Éolien de Warlus SARL, Montpellier/France	5	100.00	-54	-8
631	Parc Éolien des Bouiges SARL, Montpellier/France	5	100.00	-87	-9
632	Parc Éolien des Brandes de l'Ozon Sud SARL, Montpellier/France	5	100.00	-87	-28
633	Parc Éolien des Cours SAS, Montpellier/France	5	100.00	1	0
634	Parc Éolien des Ecoulottes SARL, Montpellier/France	5	100.00	-103	-15
635	Parc Éolien des Gaudines SARL, Montpellier/France	5	100.00	-18	-5
636	Parc Éolien des Gours SARL, Montpellier/France	5	100.00	-10	-5
637	Parc Éolien des Moussières SARL, Montpellier/France	5	100.00	-19	-5
638	Parc Éolien des Navarros SARL, Montpellier/France	5	100.00	-40	-8
639	Parc Éolien des Quatre Chemins SARL, Montpellier/France	5	100.00	-25	-10
640	Parc Éolien des Rapailles SARL, Montpellier/France	5	100.00	-19	-5
641	Parc Éolien des Rieux SARL, Montpellier/France	5	100.00	-11	-5
642	Parc Éolien des Saules SARL, Montpellier/France	5	100.00	-35	-12
643	Parc Éolien des Smermesnil SAS, Montpellier/France	5	100.00	1	0
644	Parc Éolien des Terres de Caumont SARL, Montpellier/France	5	100.00	-41	-13
645	Parc Éolien du Bel Essart SARL, Montpellier/France	5	100.00	-37	-6
646	Parc Éolien du Bois de la Motte SARL, Montpellier/France	5	100.00	-12	-6
647	Parc Éolien du Bois du Piné SARL, Montpellier/France	5	100.00	-12	-5
648	Parc Éolien du Bois du Raz SAS, Montpellier/France	5	100.00	1	0
649	Parc Éolien du Fresnay SARL, Montpellier/France	5	100.00	-10	-5
650	Parc Éolien du Frestoy SARL, Montpellier/France	5	100.00	-14	-5
651	Parc Éolien du Houssais SARL, Montpellier/France	5	100.00	-11	-6
652	Parc Éolien du Mecorbon SARL, Montpellier/France	5	100.00	-28	-6
653	Parc Éolien du Mont de l'Echelle SARL, Montpellier/France	5	100.00	-38	-15
654	Parc Éolien du Moulin a Vent SARL, Montpellier/France	5	100.00	-8	-5
655	Parc Éolien du Puy Peret SARL, Montpellier/France	5	100.00	-97	-17
656	Parc Éolien le Mont du Bouillet SAS, Montpellier/France	5	100.00	1	0
657	PE de Brion SAS, Montpellier/France	5	100.00	1	0
658	PE DE LA CHAPELLE SAINT ETIENNE SARL, Montpellier/France (formerly Parc Éolien de la Vingeanne SARL, Montpellier/France)	5	100.00	-19	-5
659	PE DE LA PATURELLE SAS, Montpellier/France	11	100.00	–	–
660	PE DE LAPAIROUSE SAS, Montpellier/France	11	100.00	–	–
661	PE DE ROCHE-ET-RAUCOURT SAS, Montpellier/France (formerly PE Alexandre Millerand SAS, Montpellier/France)	5	100.00	1	0
662	PE DE SAINT-GENOU SAS, Montpellier/France	11	100.00	–	–
663	PE DE TENNIE SASU, Montpellier/France	11	100.00	–	–
664	PE DES BRANDIERES SASU, Montpellier/France	11	100.00	–	–
665	PE DES BRETONNIERES SARL, Montpellier/France (formerly Parc Éolien du Vallon de Sancey SARL, Montpellier/France)	5	100.00	-57	-10
666	PE DES EPIS DE BLE SARL, Montpellier/France (formerly PARC EOLIEN DE SÉVÉRAC D`AVEYRON SARL, Montpellier/France)	5	100.00	-15	-5
667	PE DES ESSARDS SAS, Montpellier/France	11	100.00	–	–
668	PE DES LANDES DE LA GRENOUILLERE SASU, Montpellier/France	5	100.00	1	0
669	PE DES LAVIERES SAS, Montpellier/France	5	100.00	-3	-6
670	PE DES MAZOIRES SAS, Montpellier/France	11	100.00	–	–
671	PE des Paqueriès SAS, Montpellier/France	5	100.00	1	0

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
672	PE DES POMMERAIES SARL, Montpellier/France (formerly Parc Éolien de la Haute Charmoie SARL, Montpellier/France)	5	100.00	-18	-5
673	PE DU BINGARD SARL, Montpellier/France (formerly Parc Éolien du Commandeur SARL, Montpellier/France)	5	100.00	-24	-18
674	PE du Bois Breton SAS, Montpellier/France	5	100.00	1	0
675	PE DU FOSSE PICARD SAS, Montpellier/France (formerly Parc Éolien de la Lorie SAS, Montpellier/France)	5	100.00	1	0
676	PE DU PIROUET SARL, Montpellier/France (formerly Parc Éolien de Saint-Fraigne SARL, Montpellier/France)	5	100.00	-10	-5
677	PE VENTE-BEN SARL, Montpellier/France (formerly Ferme Éolienne de Saint Jean de Pourcharesse SARL, Montpellier/France)	5	100.00	-26	-5
678	P² Plant & Pipeline Engineering GmbH, Essen	5	100.00	1,914	149
679	Röbergsfjället Nät AB, Falkenberg/Sweden		100.00	8	41
680	SENEC Solar s.r.l., Bari/Italy	11	100.00	–	–
681	Sepe de la Gare SAS, Montpellier/France	5	100.00	139	97
682	Valeco Énergie Québec Inc., Montréal/Canada	5	100.00	-799	33
683	VNG Italia S.r.l., Bologna/Italy	5	100.00	43,930	7,901
684	Windpark Wiemerstedt II GmbH & Co. KG, Stuttgart	11	100.00	–	–
685	ZEAG Erneuerbare Energien GmbH, Heilbronn	5	100.00	57	32
686	JATROSELECT-Paraguay Sociedad de Responsabilidad Limitada i.L., Volendam/Paraguay		99.98		
687	EE Bürgerenergie Bühlerzell GmbH & Co. KG, Bühlerzell	5	99.00	42	-10
688	EE Bürgerenergie Frankenhardt GmbH & Co. KG, Frankenhardt	5	99.00	68	-4
689	EE Bürgerenergie Hardheim GmbH & Co. KG, Hardheim	5	99.00	22	-16
690	EE Bürgerenergie Höpfingen GmbH & Co. KG, Höpfingen	5	99.00	37	-15
691	EE BürgerEnergie Neudenau GmbH & Co. KG, Neudenau	5	99.00	61	-4
692	EE BürgerEnergie Roigheim GmbH & Co. KG, Roigheim	5	99.00	92	-8
693	EE BürgerEnergie Rosenberg GmbH & Co. KG, Rosenberg	5	99.00	93	-7
694	EE Bürgerenergie Sulzbach-Laufen GmbH & Co. KG, Sulzbach-Laufen	5	99.00	67	-6
695	Neue Energie Billigheim GmbH & Co. KG, Billigheim	5	99.00	97	-3
696	EE BürgerEnergie Schöntal GmbH & Co. KG, Schöntal	11	98.00	–	–
697	EnBW Solarpark Gückelhirn GmbH & Co. KG, Stuttgart	11	98.00	–	–
698	Erneuerbare Energien Tauberbischofsheim GmbH & Co. KG, Tauberbischofsheim	5	98.00	90	-7
699	Parc Éolien des Bruyères SAS, Plaisance/France (formerly Parc Éolien des Bruyères SAS, Montpellier/France)	5	95.02	-20	-22
700	EnPV GmbH, Karlsruhe	5	95.00	0	-770
701	PE DE LA FONTAINE OISEAU SAS, Montpellier/France	11	91.00	–	–
702	PE DE LA JARROUE SAS, Montpellier/France	11	90.00	–	–
703	PE DES HAUTES-FAGES 2 SAS, Montpellier/France	11	90.00	–	–
704	Parc Éolien de Brebières SAS, Montpellier/France	5	87.86	-14	-7
705	Parc Éolien de la Celle Saint CYR SAS, Montpellier/France	5	87.00	-4	-4
706	PE DE LA GRANDE CHARME SAS, Montpellier/France	11	83.33	–	–
707	HOLDING DE LA VILAINE SAS, Montpellier/France	11	75.00	–	–
708	JatroGreen S.A.R.L., Antananarivo/Madagascar	5	70.00	90	7
709	Powderis SARL, Montpellier/France	5	70.00	-960	-92
710	Nahwärme Düsseldorf GmbH, Düsseldorf	5	66.00	2,671	276
711	Labruguière Énergies SAS, Montpellier/France	5	63.00	1,398	1,397
712	Hydro Léman SARL, Montpellier/France	5	57.00	-11	-2
713	Alb-Windkraft Verwaltungs GmbH, Geislingen an der Steige	5	51.00	46	9
714	Solarpark Leutkirch Verwaltungsgesellschaft mbH, Leutkirch im Allgäu	5	51.00	29	1
715	Sonnensysteme AF GmbH, Ottobrunn, Munich district	5	50.10	361	350
716	Kemberg Windpark Management GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	33.33	3,363	120
Entities accounted for using the equity method					
717	Valeco Ren SAS, Montpellier/France	5, 9	51.00	3,291	4,241
718	Borusan EnBW Enerji yatırımları ve Üretim Anonim Şirketi, Istanbul/Turkey	5, 9	50.00	213,039	4,256
719	Elektrizitätswerk Rheinau AG, Rheinau/Switzerland	5, 7	50.00	22,965	781
720	Erdgasspeicher Peissen GmbH, Halle (Saale)	5, 9	50.00	123,133	5,065

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
721	Fernwärme Ulm GmbH, Ulm	5, 7, 9	50.00	39,578	6,014
722	Mona Offshore Wind Holdings Limited, Sunbury-On-Thames/United Kingdom	5, 9	50.00	17,973	0
723	Morgan Offshore Wind Holdings Limited, Sunbury-On-Thames/United Kingdom	5, 9	50.00	17,973	0
724	Morven Offshore Wind Holdings Limited, Sunbury-On-Thames/United Kingdom	11	50.00	–	–
725	Schluchseewerk Aktiengesellschaft, Laufenburg Baden	5	50.00	73,384	2,809
726	REMONDIS Rhein-Wupper GmbH & Co. KG, Düsseldorf	5	49.00	16,619	10,142
727	Bayerische-Schwäbische Wasserkraftwerke Beteiligungsgesellschaft mbH, Gundremmingen	5	37.80	64,389	10,001
728	Grosskraftwerk Mannheim AG, Mannheim	5	32.00	147,375	6,647
729	KW Ackersand I AG, Stalden/Switzerland	5	25.00	2,339	297
Investments[14]					
730	Netzanschlussgesellschaft Windparks Ostercappeln/Bohmte mbH, Kirchdorf	5	66.66	25	11
731	UW Obhausen GmbH & Co. OHG, Stuttgart	5	58.06	47	4
732	Aranea Battery Solutions GmbH, Stuttgart	5	50.00	2,849	-2,268
733	BALANCE EnviTec Bio-LNG GmbH, Ahrensfelde	5	50.00	5,006	-19
734	biogasNRW GmbH i.L., Düsseldorf		50.00		
735	Centrale Electrique Rhénane de Gambsheim SA, Gambsheim/France	5, 9	50.00	9,165	0
736	Centrale Solaire Lac Bedorede SAS, Montpellier/France	5	50.00	-8	-4
737	EE BürgerEnergie Buchen GmbH & Co. KG, Buchen Odenwald	11	50.00	–	–
738	EnergyIncore GmbH, Schwerin	5	50.00	96	26
739	Holding de la Montagne Noire SARL, Montpellier/France	5	50.00	-1	-3
740	KDM Kompostierungs- und Vermarktungsgesellschaft für Stadt Düsseldorf/Kreis Mettmann mit beschränkter Haftung, Ratingen	5	50.00	2,246	255
741	Kraftwerk Aegina A.G., Obergoms/Switzerland	5, 7	50.00	14,085	777
742	Kraftwerk Reckingen AG, Reckingen	5	50.00	3,203	72
743	Norseman Wind AS, Oslo/Norway	5	50.00	68	-205
744	Parc Éolien des Quintefeuilles SAS, Montpellier/France	5	50.00	-413	-381
745	Parc Éolien Vallée de l'Escrebieux SAS, Montpellier/France	5	50.00	-14	-7
746	Powerment GmbH & Co. KG, Ettlingen	5	50.00	3,441	1,253
747	REEFUELERY GmbH, Bakum	5	50.00	394	-6
748	Rheinkraftwerk Säckingen AG, Bad Säckingen	5	50.00	8,404	300
749	RheinWerke GmbH, Düsseldorf	5	50.00	4,942	-57
750	Wasserkraftwerk Hausen GbR, Hausen im Wiesental	5, 13	50.00	330	-12
751	WKM Wasserkraftwerke Maulburg GmbH, Maulburg	5	50.00	523	-5
752	EE BürgerEnergie Adelsheim GmbH & Co. KG, Adelsheim	5	49.00	94	-6
753	KW Jungbach AG, St. Niklaus/Switzerland	5	49.00	4,335	324
754	"MOWA Mobile Waschanlagen GmbH", Overath (formerly MOWA Mobile Waschanlagen GmbH, Neunkirchen-Seelscheid)	5	49.00	473	439
755	Projektentwicklung Waldeck-Frankenberg GmbH & Co. KG, Korbach	5	49.00	698	-11
756	Projektentwicklung Waldeck-Frankenberg Verwaltungs GmbH, Korbach	5	49.00	28	1
757	REMONDIS Rhein-Wupper Verwaltungs GmbH, Düsseldorf	5	49.00	37	-1
758	HWM Holzwärme Müllheim GmbH, Müllheim	5	45.00	473	-5
759	Centrale Solaire de la Petite Vicomté SAS, Montpellier/France	5	44.00	-523	-261
760	Obere Donau Kraftwerke AG, Munich	5	40.00	3,180	0
761	Segalasses Énergie SARL, Toulouse/France	5	40.00	2,749	1,949
762	TWKW Trinkwasserkraftwerke Niedergesteln AG, Niedergesteln/Switzerland	5	40.00	1,880	152
763	Untergrundspeicher- und Geotechnologie-Systeme Gesellschaft mit beschränkter Haftung, Mittenwalde	5	40.00	6,708	535
764	Kraftwerk Ryburg-Schwörstadt AG, Rheinfelden/Switzerland	5, 7	38.00	37,838	1,692
765	Parc Éolien de Montelu SAS, Montpellier/France	5	34.00	-268	-215
766	Parc Éolien des Gassouillis SAS, Montpellier/France	5	34.00	-72	-6
767	GEIE Exploitation Minière de la Chaleur, Kutzenhausen/France	5, 13	33.33	2,930	-384
768	Windpark Hemme Infrastrukturgesellschaft GmbH & Co. KG, Walddorfhäslach	5	33.33	0	-5
769	Windpark Prützke II GmbH & Co. KG, Düsseldorf	5	33.33	1,231	11
770	Beteiligungsgesellschaft der EVU an der Kerntechnischen Hilfsdienst GmbH - GbR, Karlsruhe	5, 13	30.77	0	0
771	KWT Kraftwerke Törbel-Moosalp AG, Törbel/Switzerland	5	30.00	980	45
772	Baltic Windpark Beteiligungen GmbH & Co. KG, Stuttgart	5	29.17	25,644	722

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
773	Kraftwerke Gougra AG, Sierre/Switzerland	5	27.50	57,470	2,270
774	EE Bürgerenergie Heilbronn GmbH & Co. KG, Heilbronn	5	26.00	1,000	65
775	Parc Éolien de Lavacquerié SAS, Montpellier/France	5	26.00	286	100
776	Windpark Lindtorf GmbH, Rheine	5	26.00	2,703	193
777	Alb-Windkraft GmbH & Co. KG, Geislingen an der Steige	5	25.50	512	658
778	Kooperation Erneuerbare Energien im Landkreis Rottweil GmbH, Schramberg	5	25.00	62	-8
779	ANOG Anergienetz Obergoms AG, Obergoms/Switzerland	5	24.50	213	13
780	KWOG Kraftwerke Obergoms AG, Obergoms/Switzerland	5	24.10	13,727	911
781	CARDABELLE HOLDING SAS, Montpellier/France	11	20.00	–	–
782	Wasserkraftwerk Pfinztal GmbH & Co. KG, Pfinztal	5	20.00	201	-2
Other					
Fully consolidated companies					
783	Der neue Stöckach GmbH & Co KG, Obrigheim	3	100.00	53,570	–
784	ED Immobilien GmbH & Co. KG, Rheinfelden	6	100.00	0	106
785	ED Immobilien Verwaltungsgesellschaft mbH, Rheinfelden	6	100.00	32	0
786	EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe	3	100.00	25	–
787	EnBW Central and Eastern Europe Holding GmbH, Stuttgart	3	100.00	1,395,023	–
788	EnBW City GmbH & Co. KG, Obrigheim		100.00	8,885	9,398
789	EnBW Immobilienbeteiligungen GmbH, Karlsruhe		100.00	501,067	5,880
790	EnBW International Finance B.V., Amsterdam/The Netherlands		100.00	284,396	-12,888
791	EnBW New Ventures GmbH, Karlsruhe	3	100.00	58,739	–
792	EnBW Perspektiven GmbH, Karlsruhe	3	100.00	1,500	–
793	Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim		100.00	199,595	5,025
794	Neckarwerke Stuttgart GmbH, Stuttgart	3	100.00	1,880,237	–
795	NWS Finanzierung GmbH, Karlsruhe	3	100.00	1,237,605	–
796	symbiotic services GmbH, Karlsruhe	3	100.00	25	–
797	MURVA Grundstücks-Verwaltungsgesellschaft mbH & Co. KG, Grünwald	5	95.00	-5,529	1,262
798	VNG AG, Leipzig		79.83	1,079,976	596,358
799	ED Kommunal GmbH, Rheinfelden	6	73.57	37,526	1,332
800	EnBW VersicherungsVermittlung GmbH, Stuttgart		51.00	51	4,353
Non-consolidated affiliated entities[14]					
801	DZ-4 GmbH, Hamburg	5	100.00	823	-4,311
802	EnBW Bürgerbeteiligung Solar 1 GmbH, Stuttgart	3, 5	100.00	25	–
803	EnBW France SAS, Boulogne-Billancourt/France	5	100.00	4	-9
804	EnBW He Dreiht Management GmbH, Stuttgart (formerly EnBW Omega 127. Verwaltungs-gesellschaft mbH, Stuttgart)	5	100.00	25	0
805	EnBW Offshore 4 GmbH, Stuttgart (formerly EnBW Omega 103. Verwaltungsgesellschaft mbH, Karlsruhe)	3, 5	100.00	25	–
806	EnBW Omega 107. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
807	EnBW Omega 108. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
808	EnBW Omega 121. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
809	EnBW Omega 122. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
810	EnBW Omega 123. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
811	EnBW Omega 124. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
812	EnBW Omega 125. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
813	EnBW Omega 126. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	–
814	EnBW Omega 132. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
815	EnBW Omega 133. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
816	EnBW Omega 134. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
817	EnBW Omega 135. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
818	EnBW Omega 136. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
819	EnBW Omega 137. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
820	EnBW Omega 138. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
821	EnBW Omega 139. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
822	EnBW Omega 140. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	–	–
823	EnBW Omega 141. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–

		Footnote	Capital share[1] (in %)	Equity[2] (in T€)	Earnings[2] (in T€)
824	EnBW Omega 143. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
825	EnBW Omega 144. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
826	EnBW Omega 145. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	–	–
827	EnBW Omega Fünfundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
828	EnBW Omega Neunundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
829	EnBW Omega Sechsundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
830	EnBW Omega Vierundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	–
831	EnBW Real Estate GmbH, Obrigheim	6	100.00	141	10
832	EnBW Senergi Immobilien GmbH, Karlsruhe	5	100.00	73	0
833	EnBW vernetzt Beteiligungsgesellschaft mbH, Stuttgart	5	100.00	254	5
834	EnBW Übertragungsnetz Immobilien Verwaltungsgesellschaft mbH, Karlsruhe (formerly EnBW Omega 142. Verwaltungsgesellschaft mbH, Karlsruhe)	11	100.00	–	–
835	He Dreiht Investor GmbH, Karlsruhe (formerly: EnBW Omega 128. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	25	0
836	KMS Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	43	0
837	MGMTree GmbH, Leipzig	5	100.00	91	-14
838	Regionalnetze GmbH & Co. KG, Stuttgart	5	100.00	0	0
839	Regionalnetze Verwaltungs-GmbH, Stuttgart	5	100.00	23	0
840	Rheintal PE GmbH & Co. KG, Bad Homburg v. d. Höhe	5	100.00	70,567	5,059
841	VNG Innovation Consult GmbH, Leipzig	5	100.00	26	9
842	VNG Innovation GmbH, Leipzig	3, 5	100.00	2,653	–
843	GDiesel Technology GmbH, Leipzig	5	60.00	281	-254
Investments[14]					
844	ED Pflege Donau GmbH & Co. KG, Rheinfelden Baden	11	100.00	–	–
845	UnigestionFLEX SCS SICAV RAIF, Luxembourg/Luxembourg	5	100.00	362,136	78,126
846	WP Global Germany Private Equity L.P., Wilmington, Delaware/USA	5, 13	100.00	224,225	57,532
847	Sirius EcoTech Fonds Düsseldorf GmbH & Co. KG i.L., Düsseldorf		78.15		
848	ID Quadrat Verwaltungsgesellschaft mbH, Düsseldorf	5	50.00	26	1
849	Innovative Immobilien Duisburg Düsseldorf ID Quadrat GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	50.00	4,094	-13
850	Intelligent Energy System Services GmbH, Ludwigsburg	5, 9	50.00	1,456	568
851	Neuss-Düsseldorfer Häfen GmbH & Co. KG, Neuss	5	50.00	89,907	6,932
852	Neuss-Düsseldorfer Häfen Verwaltungs-GmbH, Neuss	5	50.00	63	2
853	regiodata GmbH, Lörrach	5	35.00	1,925	1,275
854	EFR Europäische Funk-Rundsteuerung GmbH, Munich	5	25.10	4,834	2,966
855	vialytics GmbH, Stuttgart	5	24.45	-192	-1,418
856	GasLINE Telekommunikationsnetz-Geschäftsführungsgesellschaft deutscher Gasversorgungsunternehmen mbH, Straelen	5	23.39	74	2

1 Shares of the respective parent company calculated in accordance with section 313 (2) HGB (as of 31/12/2022).
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 Other shareholdings included due to contractual control arrangements.
13 Companies whose shareholder with unlimited liability is a company that is included in the consolidated financial statements.
14 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 recognized instead at their acquisition costs.

(39) Significant events after the reporting date

On 17 January 2023, EnBW issued two corporate bonds with a total volume of €1.25 billion. The proceeds from the bonds will be used for implementing aspects of the company's strategy that focus on sustainability, although they are not earmarked for specific projects. The two bonds have volumes of €500 million and €750 million, terms of 5.5 years and 12 years and coupons of 3.5% and 4.0%, respectively.

On 29 January 2023, Block 7 of the Heilbronn power plant suffered significant damage to its ventilation/exhaust gas system and the entire block will be unavailable for a prolonged period as a result. The cause of the damage is currently still unknown. The initial findings on the cause of the damage, the duration of the repair work and non-availability of the power plants, and the repair costs should be available in two to three months. Initial estimates suggest that financial losses could be in the low to mid three-digit million euro range.

The credit line that was concluded with KfW by VNG on 5 April 2022 with a volume of €660 million and a term until April 2023 was terminated prematurely by VNG on 7 February 2023. This credit line was not utilized at any time. It was concluded exclusively to provide additional financial security in response to the potential risk of extreme developments on the market that could not be excluded due to the impact the war between Russia and Ukraine is having on the energy markets.

Karlsruhe, 13 March 2023

EnBW Energie Baden-Württemberg AG

Schell Güsewell Kusterer

Rückert-Hennen Dr. Stamatelopoulos

Independent auditor's report

To EnBW Energie Baden-Württemberg AG

Report on the audit of the consolidated financial statements and of the group management report

Opinions

We have audited the consolidated financial statements of EnBW Energie Baden-Württemberg AG, Karlsruhe, and its subsidiaries (the Group), which comprise the income statement and statement of comprehensive income for the fiscal year from 1 January to 31 December 2022, the balance sheet as at 31 December 2022, the cash flow statement and the statement of changes in equity for the fiscal year from 1 January to 31 December 2022, and the notes to the 2022 financial statements of the EnBW Group, including a summary of significant accounting policies. In addition, we have audited the group management report of EnBW Energie Baden-Württemberg AG, which has been combined with the management report of EnBW Energie Baden-Württemberg AG, for the fiscal year from 1 January to 31 December 2022. In accordance with the German legal requirements, we have not audited the content of the parts of the group management report specified in the appendix to the auditor's report and the company information stated therein that is provided outside of the Annual Report and is referenced in the group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2022, and of its financial performance for the fiscal year from 1 January to 31 December 2022, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not extend to the content of the components of the group management report named in the appendix to the auditor's report.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from 1 January to 31 December 2022. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

1. Valuation of the cash-generating unit conventional power plants

Reasons why the matter was determined to be a key audit matter

We classified the valuation of the cash-generating unit conventional power plants as a key audit matter because the determination of the recoverable amount is highly dependent on the assessment of future cash flows by the executive directors and in our view poses an increased risk of incorrect accounting with respect, in particular, to the regular adjustment to assumptions for the short, medium and long-term planning forecasts. In order to create these planning forecasts, it is necessary to derive scenarios that describe potential future developments as realistically as possible. The scenarios derived by the executive directors differ primarily regarding the degree of climate protection and the sustainable economic growth that is achievable in the long term. The discretionary assumptions include, in particular, the projected cash flows based on pricing assumptions for fuel, CO_2 allowances and electricity, the discount rates used and the determination of the remaining service lives of the coal power plants, which are especially influenced by the law for reducing and ending coal-fired generation and amending other laws (Coal Phaseout Act), the decision issued by the German Federal Constitutional Court on climate protection on 24 March 2021 and the implementation of the EU Green Deal into effective guidelines. In addition, the war between Russia and Ukraine has changed the energy sector framework. Joining the Science Based Targets initiative (SBTi) also provides for an ongoing identification of the goals for climate neutrality of EnBW based on remaining greenhouse gas budgets for the various emission categories, which is associated with a further reduction of the coal-fired generation capacity in the future. The assessments made by the executive directors on this basis with respect to the planned phaseout path for coal power plants at EnBW have a significant influence on the valuation.

Auditor's response

As part of our audit procedures, we analyzed the valuation process, the valuation model including the associated parameters and the accounting principles used to determine the recoverable amount of the cash-generating unit conventional power plants. The short and medium-term pricing assumptions are derived from liquidity markets, contracts for forward transactions and current market data, taking into account the exceptional situation on the energy markets in the second half of 2022, which was characterized by a sharp increase in volatility. We evaluated these pricing forecasts made on the basis of the budget prepared by the Board of Management and approved by the Supervisory Board, as well as the medium-term plans prepared by the Board of Management and acknowledged by the Supervisory Board. In addition, we assessed the plausibility of the derived pricing assumptions based on our own valuation analyses using market data. The long-term price assumptions are derived using different scenarios, whereby the key parameters are the achievement of certain climate protection targets and the development of prices for gas, coal, oil and CO_2 allowances. These pricing assumptions have a significant influence on the relative profitability of the individual generation capacities in the different scenarios. An economic market model is used to derive the assumptions for electricity prices. We discussed the key assumptions, scenarios and their weighting with those responsible for planning and analyzed them based on external market assessments and a comparison with the assumptions made in the prior year. We also involved our own energy market specialists in the process for evaluating the pricing assumptions. Other influencing factors are the costs for the power plants that depend on their planned remaining service lives and which we evaluated as part of the audit by, among other things, questioning those responsible for planning and making comparisons with the inspection plans. To assess the remaining service lives of the coal power plants applied in the valuation, we tested the approach and interpretation of the executive directors to the phaseout path taking into account the current energy policy conditions and EnBW's strategy for climate neutrality. We investigated the process for determining other key valuation assumptions such as the discount rate and the market price premium using our own valuation specialists on the basis of an analysis of market indicators. Furthermore, we tested the accuracy of the calculations in the valuation model and the calculation of the reported write-ups.

Our audit procedures did not lead to any reservations concerning the valuation of the cash-generating unit conventional power plants.

Reference to related disclosures

With regard to the recognition and measurement policies applied for the valuation of the cash-generating unit conventional power plants, we refer to the disclosures in the notes to the consolidated financial statements in the section "Significant accounting policies" under "Property, plant and equipment" and in the section "Exercise of judgment and estimates when applying accounting policies" under "Property, plant and equipment," which explain the key judgments made when evaluating the power plants. Please refer to the information in the notes to the consolidated financial statements in note (2) "Other operating income" for explanations of the reported write-ups.

2. Valuation of the individual EnBW offshore wind farms

Reasons why the matter was determined to be a key audit matter

We classified the valuation of the cash-generating units of the individual EnBW offshore wind farms as a key audit matter because the determination of the recoverable amounts is highly dependent on the assessment of future cash flows by the executive directors and in our view poses an increased risk of incorrect accounting with respect, in particular, to the regular adjustment to assumptions for the short, medium and long-term planning forecasts. In order to create these planning forecasts, it is necessary to derive scenarios that describe potential future developments as realistically as possible. The scenarios derived by the executive directors differ primarily regarding the degree of climate protection and the sustainable economic growth that is achievable in the long term. The discretionary assumptions include the projected cash flows, discount rates used and the underlying wind forecasts. In addition, the fewer and fewer operating years with the EEG ["Erneuerbare-Energien-Gesetz": German Renewable Energy Act] funding in the future has an effect on the value of the individual offshore wind farms. In addition, the war between Russia and Ukraine has changed the energy sector framework. The assessments made by the executive directors with respect to the discretionary assumptions have a significant influence on the valuation.

Auditor's response

As part of our audit, we analyzed the evaluation process, the valuation model including the associated parameters and the accounting principles used to determine the recoverable amount for the cash-generating units of the individual EnBW offshore wind farms. The short and medium-term pricing assumptions are derived from liquidity markets, contracts for forward transactions and current market data, taking into account the exceptional situation on the energy markets in the second half of 2022, which was characterized by a sharp increase in volatility. We evaluated these pricing forecasts made on the basis of the budget prepared by the Board of Management and approved by the Supervisory Board, as well as the medium-term plans prepared by the Board of Management and acknowledged by the Supervisory Board. In addition, we assessed the plausibility of the derived pricing assumptions based on our own valuation analyses using market data. The long-term price assumptions are derived using different scenarios, which differ based on the achievement of certain climate protection targets. An economic market model is used to derive the assumptions for electricity prices. We discussed the key assumptions, scenarios and their weighting with those responsible for planning and analyzed them based on external market assessments and a comparison with the assumptions made in the prior year. We also involved our own energy market specialists in the process for evaluating the pricing assumptions. In order to assess the wind forecasts on which the valuations are based, we discussed the main reasons for deviations between the forecasts and the actual wind conditions in the past fiscal year for the individual EnBW offshore wind farms and the findings from wind appraisals obtained with respect to the effects of atmospheric congestion with those responsible for planning and, using our experience in the sector, carried out a comparison using the underlying wind forecasts in the last few years. We investigated the process for determining other key valuation assumptions such as the discount rate and the market price premium using our own valuation specialists on the basis of an analysis of market indicators. Furthermore, we tested the accuracy of the calculations in the valuation model and the calculation of the reported impairment losses.

Our audit procedures did not lead to any reservations concerning the valuation of the cash-generating units of the individual EnBW offshore wind farms.

Reference to related disclosures

For information on the accounting policies and valuation methods used to evaluate the individual EnBW offshore wind farms, please refer to the information in the notes to the consolidated financial statements in the section "Significant accounting policies / Property, plant and equipment" and the section "Exercise of judgment and estimates when applying accounting policies," which explain the key judgments made when evaluating the power plants. Please refer to the information in the notes to the consolidated financial statements in note (6) "Amortization and depreciation" for explanations of the reported impairment losses.

3. Accounting and valuation methods for energy trading transactions

Reasons why the matter was determined to be a key audit matter

The energy trading business unit at EnBW is responsible for central access to the relevant markets along the value added chain for electricity, gas, fuels and emission allowances and sells the electricity generated by the renewable energy and conventional power plants. The product portfolio comprises physical and financial trading products on various stock exchanges and the over-the-counter market for electricity, gas, coal, freight, oil, LNG and CO_2 allowances, as well as structured contracts and gas storage.

We classified the accounting and valuation methods for energy trading transactions as a key audit matter because the complexity of accounting for and valuating certain energy trading transactions as derivatives according to IFRS 9 or as executory contracts according to IAS 37 is subject to uncertainties and a degree of discretionary judgment. The large trading volume and the high volatility on the energy trading markets could lead to an increased risk of incorrect accounting. As a result of the exceptional situation on the energy markets in the second half of 2022, there were also increased demands placed on liquidity management in the area of energy trading.

The contracts concluded by the energy trading business unit are derivative financial instruments, leases or contracts for the purchase or sale of non-financial items (executory contracts). The transactions accounted for as derivative financial instruments are entered into as hedges in some cases to hedge price risks from future sales and procurement transactions. Leases are accounted for according to IFRS 16. Executory contracts must be regularly assessed according to IAS 37 to determine whether they are onerous contracts. The valuation of standard products is based on forward market prices (stock markets, broker platforms), while the valuation of complex contracts is carried out using the Company's own valuation models.

Auditor's response

As part of our audit procedures, we analyzed the energy trading organization at the Company and evaluated the internal control system across all trading and valuation processes. In particular, we assessed the structure and execution of trading transactions, the processes used to evaluate standard trading products and complex derivatives, the issuing and verification of incoming and outgoing invoices and the calculation of invoicing amounts from individual transactions and, where relevant, their netting.

Furthermore, we assessed the organization of the structures and processes as well as the risk management and risk controlling processes including the trading systems used. In the process, we also assessed whether the segregation of functions was observed and evaluated the procedures relating to energy trading transactions, as well as the assessment of these procedures. During the evaluation of the effectiveness of the internal control system in the energy trading business unit, we tested the established control measures.

As part of our audit procedures for derivatives and the requirements placed on liquidity management, we obtained bank confirmations for the clearing accounts and external balance confirmations for over-the-counter transactions as audit evidence for their existence and amount. To assess the foreign currency derivatives that were entered into for the procurement of fuels (especially oil and coal), we reevaluated foreign currency derivatives on a sample basis and assessed the hedging relationship using documentation from the trading business.

To assess the accounting for transactions that are to be settled physically, which do not come under the scope of IFRS 9 in accordance with the own use exemption, we examined the implemented processes and assessed the audit evidence presented to us by those responsible for this accounting. This included, in particular, a contract analysis, the separation of portfolios and an assessment of whether a possible net settlement had been achieved. Furthermore, we tested – both for various accounting portfolios and also for individual, separately managed electricity and gas procurement contracts – the assessments of the accountants to see whether there were any onerous contracts existing on the reporting date for which it was necessary to recognize provisions for potential losses pursuant to IAS 37. We checked whether hedges that are used to hedge energy price risks from future sales and procurement transactions had been properly allocated based on documentation for the hedging relationships consisting of the hedged transaction and the hedging instrument.

In order to assess the measurement of financial instruments according to IFRS 13, we tested the price curves for standard trading products. We checked observable prices used as input parameters for the energy trading valuation model against information available externally (prices from stock markets and broker platforms). We reevaluated standard trading products and products with contract-specific components on a sample basis and evaluated whether the valuation of the transactions recognized meet our expectations. To assess complex energy trading transactions, the energy trading department uses internally developed valuation models. Complex stochastic models are necessary, for example, to assess flexibilities such as swing options and storage capacities. Our internal valuation specialists analyzed these models and also assessed them with respect to their consistency and merchantability. Our evaluation also covered whether all of the contractual components relevant to the valuation were taken into account in the respective valuation model.

Our audit procedures did not lead to any reservations concerning the accounting and valuation methods for energy trading transactions.

Reference to related disclosures

For information on the accounting policies and valuation methods used for energy trading business accounting, we refer to the information in the notes to the consolidated financial statements in the section “Significant accounting policies / Derivatives” and the section “Exercise of judgment and estimates when applying accounting policies,” which explain the key judgments made in accounting for and evaluating derivatives and executory contracts. Information on energy trading and its impact on the consolidated financial statements can be found in the notes to the consolidated financial statements in note (26) “Accounting for financial instruments.”

4. Valuation of the provisions relating to nuclear power

Reasons why the matter was determined to be a key audit matter

We classified the valuation of the provisions relating to nuclear power as a key audit matter because the recognition and the subsequent valuation highly depend on the estimates and assumptions of the executive directors. We therefore believe there is an increased risk of incorrect accounting. In particular, the decommissioning and disposal costs – including rate of increase of costs – that are primarily derived from sector-specific appraisals by external specialists belong to the assumptions subject to judgment. In addition, the calculation of the term-specific discount rates has an underlying significant impact on the valuation. There was also an effect from the temporary term extension for the nuclear power plants

Auditor's response

As part of our audit procedures, we analyzed the process implemented and the recognition and measurement policies applied for the valuation of the provisions relating to nuclear power and obtained an understanding of the processes installed by the executive directors. We also evaluated the underlying significant assumptions for the valuation and the valuation method. We examined the valuation based on external appraisals, which are used to derive significant assumptions. We also assessed the expertise and objectivity of the independent external expert for the cost estimate. We compared the specific costs used in the valuation model for selected decommissioning and disposal activities with the cost estimates of the external experts. We tested the accuracy of the calculations in the valuation models and cost increases, which were taken into account using the external appraisals and the Company's analyses based on their experience with cost increases in prior fiscal years. In addition, we verified the derivation of the interest rates for the respective terms using market data.

Our audit procedures did not lead to any reservations concerning the valuation of the provisions for nuclear power.

Reference to related disclosures

With regard to the recognition and measurement policies applied for the valuation of the provisions relating to nuclear power, we refer to the disclosures in the notes to the consolidated financial statements in the section "Significant accounting policies / Provisions relating to nuclear power." Information on the development of provisions, on significant valuation assumptions and valuation parameters and their sensitivities can be found in the section "Exercise of judgment and estimates when applying accounting policies" and under note (21) "Provisions."

Emphasis of matter – Immanent risk due to uncertainties with respect to whether the Company's interpretation of the EU Taxonomy Regulation complies with the law

We draw attention to the information provided by the executive directors in the section "EU taxonomy" of the group management report, which has been combined with the management report of EnBW Energie Baden-Württemberg AG. This section indicates that the EU Taxonomy Regulation and the associated delegated acts contain formulations and terms that are still subject to significant uncertainties in their interpretation and for which clarifications have in some cases not yet been published. The executive directors describe how they have interpreted the requirements in the EU Taxonomy Regulation and the associated delegated acts. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties. Our opinion on the group management report, which has been combined with the management report of EnBW Energie Baden-Württemberg AG, is not modified in this respect.

Other information

The Supervisory Board is responsible for the Report of the Supervisory Board. The executive directors and the Supervisory Board are responsible for the declaration of compliance with the German Corporate Governance Code pursuant to Sec. 161 AktG ["Aktiengesetz": German Stock Corporation Act], which is part of the declaration of corporate management, and for the remuneration report pursuant to Sec. 162 AktG. In all other respects, the executive directors are responsible for the other information. The other information comprises the parts of the Annual Report mentioned in the appendix.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the executive directors and the Supervisory Board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Report on the assurance on the electronic rendering of the consolidated financial statements and the group management report prepared for publication purposes in accordance with Sec. 317 (3a) HGB

Opinion

We have performed assurance work in accordance with Sec. 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in ENBW_AG_KAuKLB_ESEF-2022-12-31.zip and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained within these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the file identified above and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinions on the accompanying consolidated financial statements and the accompanying group management report for the fiscal year from 1 January to 31 December 2022 contained in the "Report on the audit of the consolidated financial statements and of the group management report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

Basis for the opinion

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file identified above in accordance with Sec. 317 (3a) HGB and the IDW Assurance Standard: Assurance on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Sec. 317 (3a) HGB (IDW AsS 410) (06.2022). Our responsibility in accordance therewith is further described in the "Group auditor's responsibilities for the assurance work on the ESEF documents" section. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the executive directors and the Supervisory Board for the ESEF documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Sec. 328 (1) Sentence 4 No. 1 HGB and for the tagging of the consolidated financial statements in accordance with Sec. 328 (1) Sentence 4 No. 2 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have determined necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB for the electronic reporting format.

The Supervisory Board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group auditor's responsibilities for the assurance work on the ESEF documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also:

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e., whether the file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, on the technical specification for this file.
- Evaluate whether the ESEF documents enable an XHTML rendering with content equivalent to the audited consolidated financial statements and to the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of Commission Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as group auditor by the Annual General Meeting on 5 May 2022. We were engaged by the Supervisory Board on 12 December 2022. We have been the group auditor of EnBW Energie Baden-Württemberg AG without interruption since fiscal year 2019.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

Other matter – Use of the auditor's report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the assured ESEF documents. The consolidated financial statements and the group management report converted to the ESEF format – including the versions to be published in the Unternehmensregister [German Company Register] – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic form.

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Prof. Dr. Steffen Kuhn.

Stuttgart, 13 March 2023

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Prof. Dr. Wollmert	Prof. Dr. Kuhn
Public Auditor	Public Auditor

Appendix to the auditor's report:

1. Parts of the group management report whose content is not audited

We did not audit the content of the following parts of the group management report that are considered "other information":

- The group declaration of corporate management made available on the website of the Group stated in the group management report.
- The declaration of the legal representatives according to Sec. 297 (2) Sentence 4 HGB contained in the group management report.
- The chapter "Appropriateness and effectiveness of the risk management system and the internal control system (iRM)" in the report on opportunities and risks of the group management report.

2. Additional other information

In addition, "Other information" includes other sections intended for the Annual Report, a version of which we received before issuing this auditor's report, especially the sections:

- "Performance indicators of the EnBW Group"
- "EnBW at a glance"
- „Service"
- „Interview"
- "Report of the Supervisory Board (condensed)"
- "The Board of Management"
- "The future in our hands"
- "Declaration of corporate management"
- "The Supervisory Board"
- "Offices held by members of the Board of Management"
- "Other offices held by members of the Supervisory Board"
- "Multi-year overview"

but not the consolidated financial statements, not the group management report disclosures whose content is audited and not our auditor's report thereon.

3. Company information outside the Annual Report referenced in the group management report

Besides the cross-reference under "1. Parts of the group management report whose content is not audited," the group management report contains other cross-references to websites of the Group. The information available via the latter cross-references is not part of the Annual Report."