


A peek into the future

A photograph of a woman with voluminous curly brown hair and a young child with curly dark hair, both smiling and looking towards the left. They are wearing matching bright blue button-down shirts. The child is holding a small, light blue rectangular object. The background is a blurred industrial or exhibition space with blue structural beams and a screen displaying the EnBW logo.

Integrated
Annual Report 2021



The creativeness and inventiveness of people lie at the heart of all progress. Motivated employees, satisfied customers and sources of inspiration from science, politics and society are thus a company's real secrets to success.

This is why we listen, draw inspiration, pick up on new ideas and transform them into products and strategies fit for the future. And that is how we take a peek into the future.

Performance indicators of the EnBW Group

Financial and strategic performance indicators

in € million	2021	2020	Change in %
External revenue	32,147.9	19,694.3	63.2
TOP Adjusted EBITDA	2,959.3	2,781.2	6.4
TOP Share of adjusted EBITDA accounted for by Smart Infrastructure for Customers in € million/in %	323.1/10.9	335.0/12.0	-3.6/-
TOP Share of adjusted EBITDA accounted for by System Critical Infrastructure in € million/in %	1,288.5/43.5	1,346.6/48.4	-4.3/-
TOP Share of adjusted EBITDA accounted for by Sustainable Generation Infrastructure in € million/in %	1,535.1/51.9	1,277.8/45.9	20.1/-
Share of adjusted EBITDA accounted for by Other/Consolidation in € million/in %	-187.4/-6.3	-178.2/-6.3	-5.2/-
EBITDA	2,803.5	2,663.3	5.3
Adjusted EBIT	1,402.9	1,391.5	0.8
EBIT	158.8	1,102.7	-85.6
Adjusted Group net profit ¹	1,203.2	682.8	76.2
Group net profit ¹	363.2	596.1	-39.1
EnBW share price as of 31/12	76.00	56.00	35.7
Earnings per share from Group net profit (€) ¹	1.34	2.20	-39.1
Dividend per share/dividend payout ratio in % ^{2,3}	1.10/36	1.00/40	-/-
Retained cash flow	1,783.8	1,638.5	8.9
TOP Debt repayment potential in % ⁴	20.3	11.4	-
Net cash investment	2,471.2	1,826.9	35.3
Net debt ⁴	8,786.1	14,406.5	-39.0
Net financial debt ⁴	2,901.1	7,231.9	-59.9
TOP Return on capital employed (ROCE) in %	7.0	6.3	-
Weighted average cost of capital before tax in %	4.9	5.2	-
Average capital employed	21,711.5	23,025.6	-5.7
Value added	455.9	253.3	80.0

Non-financial performance indicators

	2021	2020	Change in %
Customers and society goal dimension			
TOP Reputation Index	55	56	-1.8
TOP EnBW/Yello Customer Satisfaction Index	127/159	132/159	-3.8/-
TOP SAIDI (electricity) in min./year	16	15	6.7
Environment goal dimension			
TOP Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE in %	5.1/40.1	4.9/39.0	4.1/-
TOP CO ₂ intensity in g/kWh ^{5,6}	478	342	39.8
Employees goal dimension			
TOP People Engagement Index (PEI) ⁷	82	83	-1.2
TOP LTIF for companies controlled by the Group ^{8,9} / LTIF overall ⁸	2.3/3.3	2.1/3.6	9.5/-8.3
Employees ¹⁰			
	31/12/2021	31/12/2020	Change in %
Employees	26,064	24,655	5.7
Employee equivalents ¹¹	24,519	23,078	6.2

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

² For 2021, subject to approval from the ordinary Annual General Meeting on 05/05/2022.

³ Adjusted for the valuation effects of IFRS 9 in 2021.

⁴ For the calculation of the adjusted net debt and adjusted debt repayment potential, please refer to the section "The EnBW Group" of the management report.

⁵ The figures for the previous year have been restated.

⁶ The calculation method for the key performance indicator CO₂ intensity will be restricted in future to include only factors that can be controlled by the company. In contrast to previous years, the share related to redispatch that cannot be controlled by EnBW is no longer included. Using the previous calculation method, the CO₂ intensity for the 2021 financial year would have been 492 g/kWh. This performance indicator still excludes nuclear generation. The CO₂ intensity including nuclear generation for the reporting year was 386 g/kWh (previous year: 268 g/kWh). We publish a five-year comparison of the performance indicators in our "Multi-year overview" on p. 289 ².

⁷ Variations in the group of consolidated companies (all companies with more than 100 employees are considered [except ITOs]). Companies that were fully consolidated for the first time in the fourth quarter of 2021 were not included in the employee surveys for the PEI.

⁸ Variations in the group of consolidated companies (all companies with more than 100 employees, excluding external agency workers and contractors, are considered). Companies that were fully consolidated for the first time during the 2021 financial year were not included in the calculations for the LTIF performance indicators.

⁹ Except for companies in the area of waste management.

¹⁰ Number of employees excluding apprentices/trainees and inactive employees.

¹¹ Converted into full-time equivalents.

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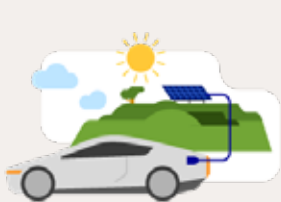
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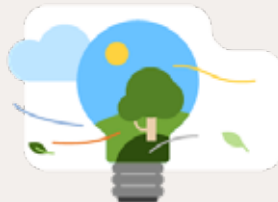
A peek into the future



Sustainable mobility

Powered by the sun

page 19 [↗](#)



Sustainable ideas

Dare to shape the future

page 21 [↗](#)



Sustainable living

Let's move to a new type of district!

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Sustainable working

Making time for what's important

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Sustainable business practices

Earn money with climate protection

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About this report

Further information on **integrated reporting** at EnBW can be found on our website.

[Online ↗](#)

Further information on our **experiences with applying the EU sustainable finance taxonomy** can be found here.

[Online ↗](#)

Further information on the **GRI Content Index** can be found here.

[Online ↗](#)

Integrated reporting

We have been publishing an Integrated Annual Report based on the recommendations of the “International Reporting Framework” since 2014, which combines the traditional contents of a financial report with a sustainability report. We do this in order to provide a holistic representation of the performance of the company. The dimensions of ecology, economy and social aspects are firmly embedded in the EnBW 2025 strategy, reflecting the highly integrated nature of our corporate management system. An important element is measuring the achievement of our goals using key performance indicators.

Important aspects of reporting

The key performance indicators relating to taxonomy-eligible business activities have to be published for the 2021 financial year. We are also voluntarily publishing additional information on the proportion of taxonomy-aligned revenue, capex and opex, as well as other data on adjusted EBITDA and on capex including the proportion for companies accounted for using the equity method. The formulations and terms found in the [EU taxonomy](#) ² are still subject to some uncertainty and need further clarification. We have used our own interpretation for this management report. We already voluntarily published details on environmentally sustainable revenue, capex and opex, as well as the adjusted EBITDA, for selected business activities in the 2020 financial year in line with the Taxonomy Regulation in the version of 18 June 2020 and the technical screening criteria in the draft delegated act for the environmental objective of climate change mitigation of 20 November 2020. Due to the first-time application of the final delegated act for the Taxonomy Regulation and the expansion of the taxonomy to all EnBW business activities in the 2021 financial year, the information given this year on the EU taxonomy is only comparable with the data for the 2020 financial year to a limited extent. The figures for the previous year have been restated.

The reporting period comprises the 2021 financial year. We took into account all relevant information up to 9 March 2022. The identification of key themes for our reporting is anchored in the materiality analysis process [\(p. 53⁷\)](#).

We are constantly active in supporting further developments in reporting. For example, our reporting is based on the “International Reporting Framework” and the recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD) ⁸ [\(p. 145⁷\)](#). The reporting of sustainability-related themes is based on the GRI Standards, including the Electric Utilities Sector Supplement. This report was created in accordance with the GRI Standards – “Core” option. An audit will be carried out in the second quarter of 2022 as part of the GRI content index service. Our sustainability reporting also complies with the Communication on Progress (COP) requirements for the UN Global Compact and is based to an increasing extent on the UN Sustainable Development Goals.

Presentation and auditing

The information about the net assets, financial position and results of operations of the EnBW Group is based on the requirements of the International Financial Reporting Standards (IFRS), and, where applicable, the German Commercial Code (HGB) and German Accounting Standards (GAS). On the basis of our integrated reporting, the non-financial declaration [\(p. 144f.⁷\)](#) pursuant to sections 315b and 289b HGB is fully integrated into the combined management report of the EnBW Group and EnBW AG and was audited with reasonable assurance by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft. Any differences between statements made for the EnBW Group and for EnBW AG are clearly identified in the text.

In the 2021 financial year, KPMG AG Wirtschaftsprüfungsgesellschaft completed the audit of our Tax Compliance Management System (Tax CMS) in accordance with the IDW auditing standard “Generally accepted standards for the auditing of compliance management systems” (IDW PS 980) with respect to electricity and energy tax and payroll tax. The audit examined the appropriateness, implementation and effectiveness of the Tax CMS at EnBW Energie Baden-Württemberg AG. The audit of the Tax CMS with respect to income taxes and VAT was already completed by KPMG AG Wirtschaftsprüfungsgesellschaft in the 2020 financial year.



Visit our Integrated Annual Report online. There you can find detailed articles and interviews with interesting people on the theme of sustainability and much more.

[Online ↗](#)

A brief explanation of our Integrated Annual Report

How to read this report:

Link ↗ Jump marks are linked to content within the PDF.

Online ↗ The "Online" button links you to additional content on the Internet.

? The interactive glossary directly provides you with an immediate explanation of a term.

TOP Key performance indicators

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

The business model

The three segments at EnBW with a focus on infrastructure:



Smart Infrastructure for Customers



System Critical Infrastructure



Sustainable Generation Infrastructure

The target dimensions used for corporate management

The integrated corporate management of EnBW comprises financial and non-financial key performance indicators in the target dimensions:



Finance



Strategy



Customers and society



Environment



Employees

Overview of the 2021 financial publications



Integrated Annual Report 2021

The report includes the combined management report of the EnBW Group and EnBW AG, the declaration of corporate management and the financial statements of the EnBW Group.



Declaration of corporate management 2021

This document is included in the Integrated Annual Report and is also available as a separate document.



These and other documents such as tables and diagrams can be found in our download center.



Financial statements of EnBW AG 2021



Remuneration report of EnBW AG 2021

[Online ↗](#)

All publications are available exclusively online.

EnBW at a glance

Around

€3 billion

adjusted EBITDA in 2021 –
which increased once again
for the fifth year in a row.

Climate-neutral by

2035

Over

26,000

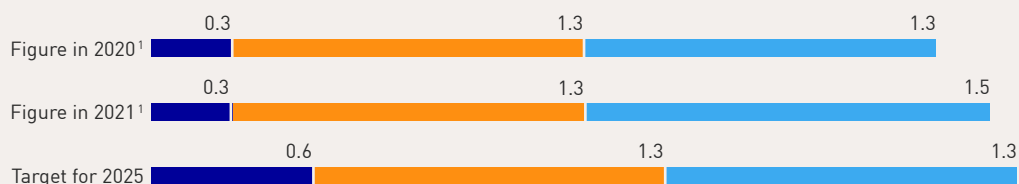
employees

Around

€12 billion

net investment

Sustainable growth Adjusted EBITDA in € billion



● Smart Infrastructure
for Customers



● System Critical
Infrastructure



● Sustainable Genera-
tion Infrastructure

¹ The sum of the three segments does not correspond to the adjusted EBITDA for the EnBW Group. €-187.4 million is attributable to Other/Consolidation in the 2021 financial year (previous year: €-178.2 million).

Sustainability as a guiding principle

- Target: climate neutral with respect to our own CO₂ emissions by 2035
- Our subsidiary Netze BW has been climate neutral since 2021, while Energiedienst has already been climate neutral since 2020
- 25-point sustainability program transferred to a comprehensive and strategically oriented sustainability agenda

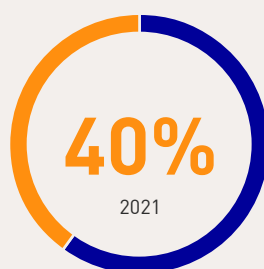
Ability to change as a core competence

- Transformation of our company from an integrated energy supply company into a sustainable and innovative infrastructure partner
- The creativeness and ideas of more than 26,000 people at EnBW contribute to the success of the company

Investment in the future

- We are planning total net investment of around €12 billion between 2021 and 2025

Share of the generation capacity accounted for by renewable energies has doubled since 2012



in MW	2012	2021
● Thermal power plants	10,873	7,622
● Renewable energies	2,527	5,100
Installed output	13,400	12,722



Expansion of the transmission grid, continued progress in the ULTRA-NET and SuedLink projects

Expansion of the distribution grids, above all for the integration of electromobility and decentralized feed-in of energy



We are working intensively on switching over our coal power plants to natural gas (fuel switch) and then to climate-neutral gases such as biogas or green hydrogen in the long term

We implement and deliver



Other **highlights** can be found in the online report.

[Online](#) [↗](#)

Our EnBW HyperNetwork covers more than 200,000 charging points in nine countries

We are expanding our quick-charging infrastructure to 2,500 sites by 2025



Bids accepted for two offshore wind farms in Great Britain with a total output of up to 3 GW and for another 2.9 GW offshore wind farm off the east coast of Scotland

Weesow-Willmersdorf solar park with a total capacity of 187 MW fully connected to the grid, the two solar parks Gottesgabe and Alttrebbin, each with a capacity of 150 MW, will be gradually placed into operation by the end of March 2022



We are expanding the broadband infrastructure and have already started the self-financed expansion of the fiber-optic network



Frank Mastiaux
Chairman of the Board of Management

Dear Readers,

Following a successful financial year, I would have liked to have begun this letter to our shareholders in a more positive mood. Unfortunately, I find this impossible due to the fact that there is currently a war of aggression being waged on a sovereign country and its people in Europe. I am stunned and saddened by current events. I feel for the Ukrainian people and hope that adversity and fear will soon be a thing of the past for them. As an energy company, it is of course important for us to also make provisions for the possible impacts of this war on our country and our own role in society. We have thus formed a task force to examine the situation from all conceivable perspectives. We are aware of our responsibility for the security of supply and will do everything we can to ensure that energy supplies remain unaffected and stable.

Implementing and delivering instead of talking and procrastinating. This sentiment has shaped the successful transformation of our company over the past ten years. Energy policy now also has to implement and deliver. The target of climate neutrality has been set and has been met with broad consensus within society. The challenge now is to work backwards from this goal and implement the required measures. It will be necessary to significantly accelerate the restructuring of the energy industry, especially in view of current developments. This will mean, on the one hand, cutting the red tape associated with the approval processes for the expansion of renewable energies and, on the other hand, reforming CO₂ pricing to bring market forces more into play. I believe that another important aspect is the total restructuring of the tax, duty and levy system to account for the CO₂ intensity of different energy sources. The list is long and time is short. Against this background, I welcome the ambitious targets set by the German government and the priority must now be to rigorously implement them. We can deliver what the political agenda asks of us – across all areas of the energy supply sector, as well as for the mobility of the future and for highly efficient telecommunications. Something that is frequently forgotten is that there are also huge opportunities associated with the ongoing transformation towards climate neutrality – for companies, for Germany as a place for business, and for the employees and citizens of this country.

5

is the number of years in a row that we have increased our **adjusted EBITDA**.

EnBW 2021: On track for growth

We achieved an operating result of almost €3.0 billion in 2021, which meant we were able to increase adjusted EBITDA for the fifth year in a row. EnBW aims to forge a link between economic success and ensuring that we act responsibly on behalf of customers and society, the environment and employees. We took another step on this path in the 2021 financial year, despite the substantial

40.1%

share of our generation capacity accounted for by renewable energies, which has thus **doubled since 2012**.

By 2035

we aim to be **climate neutral** with respect to our own CO₂ emissions.

changes on the raw materials and energy markets. At the same time, EnBW once again proved itself to be a reliable partner in the second year of the coronavirus pandemic. Electricity from renewable sources has now become the standard in the product portfolio of EnBW and Yello: 96% of new customers in 2021 decided on green electricity. The expansion of our quick-charging network for e-mobility is progressing rapidly. In 2021, Belgium, Luxembourg and Liechtenstein were added to our EnBW HyperNetwork. In the telecommunications business, we bundled together our main telecommunications activities in 2021 and expanded them to include the self-financed expansion of the fiber-optic network. In our "EnBW connects" participation model, 214 local authorities have now invested in our distribution grid subsidiary Netze BW with a total shareholding of almost 14%, shaping the future of the electricity and gas grids together with us. Some important milestones reached in our growth and climate neutrality strategy were the acceptance of our bid for two offshore wind projects in the Irish Sea with a total output of up to 3 GW at the beginning of 2021 and a second successful bid in an auction at the beginning of 2022 to develop a 2.9 GW offshore wind farm off the east coast of Scotland – we aim to realize these three wind farms in cooperation with bp. We were also successful in another offshore wind auction in the USA in 2022. As our main focus will be the European market in the future, however, we are selling our portfolio of activities in the USA to our former partner TotalEnergies. At the same time, we are making progress with the development of solar parks: The Weesow-Willmersdorf solar park with a total capacity of 187 MW was fully connected to the grid in March 2021 and the two solar parks Gottesgabe and Alttrebbin, each with a capacity of 150 MW, will be gradually placed into operation by the end of March 2022. The share of our generation capacity accounted for by renewable energies stood at 40.1% at the end of 2021 and will increase further over the coming years.

Sustainable and innovative infrastructure partner

Following the successful conclusion of our EnBW 2020 strategy, the next strategic planning horizon is 2025. We are increasingly placing the company's focus onto the infrastructure aspects of existing energy-related business fields and exploiting new growth opportunities above and beyond the energy sector. The aim is to make EnBW even more profitable and stable by 2025 than it is today, while being even more agile and sustainable at the same time. Our list of projects for the future includes the expansion of renewable energies, such as offshore wind power, the expansion of the quick-charging infrastructure for e-mobility, the development of the telecommunications and broadband business, the expansion of the transmission grids for electricity and gas, the upgrading of the electricity distribution grids and much more. EnBW is planning total net investments of around €12 billion between 2021 and 2025. In parallel to our business expansion, we aim to continuously improve our sustainability performance. We have transferred our 25-point sustainability program into a comprehensive and strategically oriented sustainability agenda, which we will start to implement in our operating business in 2022. Its central aim is to make the company climate neutral with respect to our own CO₂ emissions by 2035. Our subsidiary Netze BW has been climate neutral since 2021, while Energie-dienst has already been climate neutral since 2020. The path to achieving this goal will be marked by the switch from coal to gas, from gas to hydrogen and from hydrogen to green hydrogen – alongside the further expansion and multifaceted use of renewable energies. In our view, some of the current requirements in the EU taxonomy for gas power plants are, however, too ambitious from a technological and economic perspective to enable the transition to a hydrogen economy.

What is really needed

People are key to the success of a company and we have more than 26,000 employees at EnBW. They have been asked over the past few years to help shape the realignment of their company with their ideas, commitment and perseverance. For this, I would like to thank you both personally and also on behalf of my colleagues on the Board of Management. The pace of change will accelerate even further over the next few years and companies must be ready to deal with major uncertainties, as the current situation clearly demonstrates. There will be huge expansion and restructuring of the infrastructure in Germany and around the world, and EnBW wants to play a vital role in this process. Our aim is to generate economic, ecological and social value for all of our stakeholders – by implementing and delivering. That is exactly what is needed.

Yours sincerely,



Frank Mastiaux
Chairman of the Board of Management

**Lutz Feldmann**

- Born 1957
- Chairman of the Supervisory Board since May 2016
- Lives in Bochum

[Curriculum vitae ↗](#)

Report of the Supervisory Board

The Supervisory Board dutifully and comprehensively performed all of the tasks incumbent on it in the 2021 financial year as required by law and the Articles of Association. It regularly advised the Board of Management on its management of the company and continuously accompanied and monitored all important management measures for the Group. In the process, the Supervisory Board was involved in all decisions of fundamental importance to the company and the Group.

The Board of Management regularly, comprehensively and promptly informed the Supervisory Board about all relevant aspects of intended business policies and other fundamental issues relating to business planning, and also provided reasons for any discrepancies between the actual development of business and the plans and targets reported at an earlier date. In the reporting period, this also included discussions on questions relating to the coronavirus pandemic and its impact on the company in particular. In addition, the Board of Management informed the Supervisory Board about the economic position of the company and the Group including, among other things, the profitability of the company (especially the equity), the development of business (especially the revenue and earnings, the net assets, financial position and results of operations, as well as HR development at the company) and those business transactions that could be of significant importance for the profitability or liquidity of the company. Furthermore, the Board of Management informed the Supervisory Board about the risk situation of the Group and of individual areas of the Group, corporate strategy and planning, risk management, the internal control system and compliance.

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

In the 2021 financial year, the Supervisory Board dealt extensively with verbal and written reports and proposals for resolutions issued by the Board of Management at eight ordinary meetings – primarily held online due to the pandemic – on 19 February, 19 March, 4 May, 5 May, 15 July, 30 September, 4 November and 8 December 2021 and one extraordinary meeting on 18 January 2021, and through one written resolution procedure. Furthermore, it requested reports and information from the Board of Management on individual topics, which were comprehensively provided in a timely manner in each case. The discussions and resolutions at the plenary meetings of the Supervisory Board focused on the following key issues:

- In-depth consultations and discussions with the Board of Management about the coronavirus crisis management system and the latest developments with respect to the coronavirus pandemic
- In-depth consultations on the economic impact of the coronavirus pandemic on the company and the Group
- Defining the level of the short-term, single-year variable remuneration for the Board of Management for 2020 and the long-term variable remuneration for the Board of Management for 2018 (performance period 2018 to 2020)
- Selection of the sustainability criteria for the performance period 2022 to 2024
- Defining the targets for the variable remuneration for the Board of Management for 2022
- Approval for the submission of a binding bid for offshore wind rights for the construction of an offshore wind farm in Great Britain
- Approval for external financing related to the offshore wind rights for the construction of an offshore wind farm off the coast of Great Britain
- Approval for the submission of applications for other wind rights for offshore wind farms
- Approval for the issuing of bonds
- Approval for the sale of 49.9% of the shares in an onshore wind portfolio to the infrastructure investment company Commerz Real
- Approval for the conclusion of a public law contract related to the phaseout of brown coal
- Consultation on the annual compliance and data protection report and the agenda for the subsequent period
- Joint decision with the Board of Management to hold the ordinary Annual General Meeting 2021 as a virtual event without the physical attendance of shareholders and their proxies due to the coronavirus pandemic, as well as approval to pay out an advance dividend from retained earnings to shareholders for the 2020 financial year because of the later date of the Annual General Meeting delayed due to the pandemic
- Endorsement of the annual financial statements and consolidated financial statements as of 31 December 2020 presented by the Board of Management
- Approval of the proposals to be made at the ordinary Annual General Meeting 2021, including on the appropriation of retained earnings for the 2020 financial year, the election of the auditor for the 2021 financial year, approval of the Board of Management remuneration system, resolutions for the remuneration for members of the Supervisory Board and approval of the domination and profit and loss transfer agreements with seven subsidiaries
- Resolution on the conclusion of a settlement agreement between EnBW Energie Baden-Württemberg AG, EnBW Kernkraft GmbH, Dr. Hans-Josef Zimmer and D&O-Versicherung AIG Europe S.A., as well as approval of the proposal to be made at the ordinary Annual General Meeting 2021 to accept the settlement
- Approval of the proposals to be made at the ordinary Annual General Meeting 2021 for the regular election of shareholder representatives on the Supervisory Board
- Election of the Chairman and Deputy Chairman of the Supervisory Board and appointment of the members of the committees of the Supervisory Board due to the new periods of office for members of the Supervisory Board
- Replacement and reassignment of members on the committees of the Supervisory Board due to members leaving the Supervisory Board
- Reappointment of Colette Rückert-Hennen as a member of the Board of Management
- Approval for a change to the allocation of responsibilities on the Board of Management
- In-depth consultations and discussions with the Board of Management about long-term strategic planning (with a focus on the energy industry, digitalization, sustainability and climate protection)

- Comprehensive discussions on the further development of the central theme of sustainability at EnBW
- Regular consultation on the development of the financial ratings of EnBW AG
- Regular reporting on the operation, safety and, where relevant, dismantling of the nuclear power plants
- Approval for the collaborative projects for quick-charging stations in Germany
- Approval for the commissioning of building security services
- Consultation on the reputation of EnBW, especially with respect to its enhancement and the associated communication measures
- Portfolio discussion on the business fields of EnBW with respect to long-term strategic planning
- Regular reporting on the development of market prices for electricity, fuels and CO₂
- Regular consultation on the development of the markets relevant to EnBW
- Approval for the conclusion of a framework agreement for energy industry transactions
- Consultation on the self-assessment of the Supervisory Board
- Regular reporting on the development of business activities in Turkey
- Approval for the final decommissioning of a hard coal unit at the site in Karlsruhe
- Consultation on post completion audits for acquired companies
- Revision of the Board of Management remuneration system
- Reporting on the status of the HR strategy
- Consultation on the post-contractual non-competition agreement with Dr. Hans-Josef Zimmer who stepped down from the Board of Management on 31 May 2021
- Approval for the issuing of the annual declaration of compliance and declaration of corporate management
- Approval of the budget for the 2022 financial year and acknowledgment of the medium-term planning for the period 2022 to 2024, consisting of the plans for Group earnings, finance, investment and HR, as well as the result (HGB) and liquidity of EnBW AG
- Approval for covering the financing needs of TransnetBW GmbH
- Consultation on amending the product development process in the offshore sector
- Approval for the conclusion of an electricity supply contract
- Joint decision with the Board of Management to also hold the ordinary Annual General Meeting 2022 as a virtual Annual General Meeting without the physical presence of shareholders and their proxies due to the ongoing situation with the coronavirus pandemic

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

There was a consistently very high attendance rate at the individual meetings of the Supervisory Board. The majority of the members of the Supervisory Board attended all meetings of the Supervisory Board. No member of the Supervisory Board participated in less than half of the meetings, except for Volker Hüsken whose mandate was suspended for the period in 2021 until he left the Supervisory Board on 5 May 2021.

Work of the committees

The committees set up by the Supervisory Board once again met regularly in the 2021 financial year so that the Supervisory Board could perform its functions efficiently. The respective members of the committees are listed on [p. 283](#) of the Integrated Annual Report 2021. The Chairpersons of the committees regularly reported in detail on the work of the committees at each subsequent plenary meeting of the Supervisory Board.

Corporate governance

The Supervisory Board also paid close attention to the various issues relating to corporate governance in the 2021 financial year and discussed the declaration of compliance in accordance with section 161 AktG. These topics are explained in detail in the declaration of corporate management ([p. 151 ff.](#)). The company also published the declaration of corporate management in accordance with section 289f (1) sentence 2 and section 315d sentence 2 German Commercial Code (HGB) on its website.

The **declaration of corporate management** can also be found on our website as a separate document.

[Corporate governance ↗](#)

Audit of the annual and consolidated financial statements

Following a thorough examination by the audit committee, the Supervisory Board undertook a detailed review of the annual financial statements and consolidated financial statements as of 31 December 2021 that were audited and issued with an unqualified audit opinion by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, and of the combined management report including the non-financial declaration for the 2021 financial year. The final results of its own reviews did not lead to any reservations on behalf of the Supervisory Board. It approved the audit results of the independent auditor and endorsed the annual financial statements prepared by the Board of Management as of 31 December 2021 – which have thus been ratified – and the consolidated financial statements as of 31 December 2021, as well as the combined management report including the non-financial declaration for the 2021 financial year.

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

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

The full version of the **Report of the Supervisory Board** can be found here.

[Corporate governance ↗](#)

Karlsruhe, 22 March 2022

The Supervisory Board



Lutz Feldmann
Chairman

The Board of Management



"We have to break down administrative hurdles in order to achieve the climate targets."

Dr. Frank Mastiaux

- Born 1964 in Essen
- Chairman of the Board of Management
- Chief Executive Officer since 1 October 2012
- Appointed until 30 September 2022
- Lives in Stuttgart

[Curriculum vitae ↗](#)

"Digitalization and the Energiewende will only succeed in cooperation with cities and local authorities."

Dirk Güsewell

- Born 1970 in Radolfzell am Bodensee
- Member of the Board of Management
- Chief Operating Officer System Critical Infrastructure since 1 June 2021
- Appointed until 31 May 2024
- Lives in Tamm

[Curriculum vitae ↗](#)



"All success is based on treating each other with respect. We embody this value at EnBW."

Colette Rückert-Hennen

- Born in 1961 in Leverkusen-Opladen
- Member of the Board of Management and Director of Personnel
- Chief Human Resources Officer since 1 March 2019
- Appointed until 28 February 2027
- Lives in Karlsruhe

[Curriculum vitae ↗](#)



"We are always guided by sustainability as our compass – even when it comes to financing."

Thomas Kusterer

- Born 1968 in Pforzheim
- Member of the Board of Management
- Chief Financial Officer since 1 April 2011
- Appointed until 31 March 2024
- Lives in Ettlingen

[Curriculum vitae ↗](#)



"We are working with all of our strength to expand renewables and will be climate neutral by 2035."

Dr. Georg Stamatelopoulos

- Born 1970 in Athens, Greece
- Member of the Board of Management
- Chief Operating Officer Sustainable Generation Infrastructure since 1 June 2021
- Appointed until 31 May 2024
- Lives in Ostfildern

[Curriculum vitae ↗](#)



A peek into the future



We are already busy developing climate-neutral residential districts and green business ideas – doing things today that will become standard in the future. Now we are excited by something new, switching to a car that cruises along with as few emissions as a sailing boat. So what's the appeal of electromobility?

We ask the people who are leading the way in this sector. A village mayor who has established a sustainable residential area. An industrial mechanic and an agile coach who are championing sustainable working environments ... The worlds of science and business used to argue about the “either or” question: Earn money or protect the climate? The solution is simple: Earn money by protecting the climate!

You can also take a peek into the future online!

Detailed articles, interviews, portraits of interesting people and lots more on the theme of sustainability.

Online ↗



Powered by the sun

E-cars are an integral building block for climate-friendly mobility. They are lots of fun to drive and new charging points are being added on a daily basis. EnBW plans to install 2,500 new quick-charging stations by 2025, where drivers can charge their cars in just five minutes with enough electricity to travel 100 km. This is just one of the reasons why the number of newly registered e-vehicles is growing.

Energy from nature

What are electric cars all about? Are they just fun to drive or also practical?

Andreas Schuster lives in the countryside and drives using his own solar electricity. He explains how it works – and also what is still lacking.

[To the article ↗](#)



Heiko Luft
Head of Corporate
Mobility at EnBW

Corporate mobility at EnBW

"Bring e-cars to the people! That will be enough to inspire them."

In his role as fleet manager, Heiko Luft is currently switching over the EnBW fleet to e-cars. The last combustion engine should be taken out of service by 2025. Heiko Luft is a real fan of electromobility. He and his wife both drive electric cars, his son loves the irresistible e-kick ignition... But how do companies incentivize the switch to electric mobility, Mr. Luft?

[To the article ↗](#)



ChargeHere is an EnBW innovation and designs smart, centrally installed charging solutions for car parks, companies and apartment buildings.

chargehere.de ↗



The EnBW subsidiary **SENEC** offers an ecosystem consisting of a solar power plant, electricity storage system, electricity cloud and wall box, which makes it possible for households to cover all of their energy needs with solar electricity.

senec.com ↗



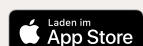
We charge Germany

"The climate transition originated in industry."

The former Formula 1 world champion and sustainability investor Nico Rosberg is the face of the EnBW campaign "We charge Germany." Rosberg believes in the ingenuity of German engineering and calls for us to have a positive attitude, because what works for your own inner drive will also work for the climate transition. Nico, what is your vision of a clean and cool mobile future?

[To the article ↗](#)

The **EnBW Mobility+ app** helps you find the nearest charging point no matter where you are. The EnBW HyperNetz already provides drivers of e-vehicles with access to more than **200,000 charging points**.



Gen Z entrepreneurs

Fynn von Kutzschenbach knew early on that he didn't fit the mold. He always had a mind of his own whether it was at school or as an apprentice. And he even went to court to secure the legal capacity to start a business as a minor. Fynn, how did you manage to become the successful entrepreneur that you are today?

[To the article ↗](#)

Dare to shape the future

Do you have a good idea? Then be brave and don't give up. Even if things go wrong. Here are the stories of some people who believed in their ideas and successfully started their own companies. Let's take a peek at how they are developing solutions for the future.

Sustainability as a business model



Jürgen Stein
Head of
EnBW Innovation

**"I believe in teamwork.
No one can know everything."**

Ecological sustainability forms the basis for all new business models at EnBW. EnBW Innovation provides start-ups with financial support and individual coaching from experienced mentors. We help them with networking, sales channels and by sharing expertise. This is where ideas grow wings but also where things are allowed to go wrong now and again – before it all goes right in the end.

[To the article ↗](#)

**Start me up!**

Good ideas can be found everywhere. And at the beginning they need support – which is why we offer EnBW start-up grants. Students and prospective entrepreneurs are given the opportunity to work on their business idea together with EnBW to develop a viable business model ready for investment. Simply submit a pitch deck and description to apply: incubator@enbw.com

[EnBW Innovation ↗](#)

Digitalization for sustainability

"Our work indirectly influences the Energiewende."

What makes an entrepreneur happy when their start-up achieves success?
"Inspiring developers with my idea – and then being able to recruit them!"
Estefania Hofmann founded the company Switchboard with Nico Bovelette. They produce IT interfaces that are used billions of times per day ... Estefania, please take over and tell us more!

[To the article ↗](#)



Let's move to a new type of district!

Nature and a house with a garden are good reasons to move to the countryside. Now there are a few more. We visited a climate-neutral residential area in Upper Swabia. Living in this district means green electricity for everyone, geothermal heating, e-charging stations on your doorstep ... Not what you would usually expect from provincial life!

Pioneering work in the local district

Mayor Katja Liebmann enjoys new challenges. This is why the first new climate-neutral housing development in Germany has been built in Schlier. Politics can shape the world, but can also shape it on a small scale, in a rural village. Mrs. Liebmann, how did you achieve it?

[To the article ↗](#)



Stefanie von Andrian
Head of Urban
Infrastructure at EnBW

Creative solutions for climate protection

"Geothermal heating is charming because there are no more chimneys."

Stefanie von Andrian, who is responsible for urban infrastructure at EnBW, gets to the heart of the matter, and always finds a solution. What if geothermal heating is not available on tap? She extracts the heat from a hydraulic power plant. But what about the wastewater? Click here and find out how Stefanie von Andrian works.

[To the article ↗](#)



EnBW supports local authorities in the development of districts, from the initial idea for the project and its construction through to operation of the entire infrastructure.

[EnBW districts of the future ↗](#)

International Building Exhibition 2027

"We are creating a new heart."

Andreas Hofer, architect and Artistic Director of the International Building Exhibition 2027 for the Stuttgart city region, is surprised at how EnBW is transforming itself from a traditional supply company into a designer of urban living spaces. We met up at a former EnBW site. Mr. Hofer, how would you design an area covering 60,000 m²?

[To the article ↗](#)



New forms of working

Social scientist Prof. Simone Kauffeld believes that it is important to find the right balance between the interests of the individual and what is best for the team. Individuals are being asked to actively and personally shape their working world. The important question for managers: How do I support the development of each person? – But why do we have so little time for everything, Prof. Kauffeld?

[To the article ↗](#)

Making time for what's important

Employees will decide whether they want to work on a mobile basis or in an agile team. Managers will also become coaches. Teams will become more international, diverse... EnBW is relying on its "Best Work" program as we are fully aware of the fact that companies have to do more to meet the needs of their people.

Employee development

"Strict hierarchical structures are no longer in keeping with the times."

EnBW manager Jacqueline Lange believes in flat hierarchies. Everyone who takes a job now wants to be more involved in decisions. That is certainly welcome – but not everyone who can do a good job is a born leader. Mrs. Lange speaks openly about forging a career without a set plan and women who believe in their own capabilities.

[To the article ↗](#)

Change begins in the mind

"Traditional or agile working – we find a solution for everyone."

Maureen Burgstahler has achieved some amazing things in her time: She completed her training part-time at EnBW as a single mother, she made the leap from administrative assistant to agile coach and now she convinces old-school managers to delegate responsibilities to others. – A strong personality and a fascinating read.

[To the article ↗](#)

We have the energy for change. Apply now!

[EnBW careers ↗](#)

A clear career path

"You won't achieve any success without a goal."

He fled Syria, found casual work in Dubai and Egypt but wasn't really satisfied: "I wanted to learn something," says Amer Alenklizi. He was a salesman by profession and a craftsman in his spare time, but is now an industrial mechanic at EnBW who plans to also complete an apprenticeship as a power plant operator on top. Amer is a good example of how to make something of your life.

[To the article ↗](#)

Earn money with climate protection

When climate researcher Brigitte Knopf talks with the Head of EnBW Sustainability Katharina Klein, they develop a common vision of our carbon-neutral future. The worlds of science and industry are now not so far apart when it comes to the issue of climate protection.

Editorial team ► How has the energy industry's role in climate protection changed over the last ten years?

Knopf ► I would describe it like this: from phase-out to phase-in. For a long time, the energy industry has stood for the phaseout of nuclear energy and then coal-fired generation. Now it is focusing on the phase-in of a renewable energy supply.

Editorial team ► How has EnBW's role in climate protection changed over the last ten years?

Klein ► It used to be a case of earn money or protect the climate. Today, we are able to earn money by protecting the climate. I remember the discussions at a time when, on the one hand, large corporations were portrayed as old dinosaurs and, on the other hand, idealistic activists were using all kinds of radical ideas to demand climate protection. A turning point was the Paris Agreement. Now it's no longer a question of whether we protect the climate but rather how we can protect the climate together. The energy industry and EnBW have been resolutely pushing forward the gradual transition from an energy supply system that focused on a few centralized power plants to a decentralized, renewable energy world. Today, it is more important than ever to actively seek out contact with citizens and enable them to participate in this change.



Dr. Brigitte Knopf
Secretary General of the Mercator Research Institute
on Global Commons and Climate Change (MCC)

"There are now many who want to support this transition, not just companies but also individual citizens."

"It used to be a case of earn money or protect the climate. Today, we are able to earn money by protecting the climate."



Katharina Klein
Head of EnBW Sustainability



2035

is the year in which EnBW aims to achieve its goal of climate neutrality in line with the requirements and targets of the Paris Agreement.

Editorial team ▶ Many people worry that climate protection will cost a lot of money and will cripple our economic prosperity.

Knopf ▶ The costliest mistake would be to ignore the issue of climate protection because then our prosperity really would be ruined by the damage caused to the climate. And climate protection is part of a historical modernization process, similar to digitalization, which always brings opportunities with it, not just costs. Of course, this process must be as cost-effective as possible. An important tool in this context will be socially balanced CO₂ pricing. The CO₂ pricing system should generate income that can be redistributed to those with lower incomes so that the burden is shared fairly.

Editorial team ▶ What is more important for EnBW on the path to climate neutrality: large infrastructure solutions or small household products?

Klein ▶ We have a wealth of expertise in the development of system-relevant generation systems. We were the first company to build an offshore wind farm without state funding. And we have now also achieved this with our photovoltaic park in Brandenburg. But we don't just have a narrow focus on generation, we also know how to provide the infrastructure for the electricity and gas grids. It is important

to understand that the Energiewende will not succeed if we try to integrate new energy sources into an old system. Therefore, the entire system must be based around the needs of people and companies who require energy.

Editorial team ▶ Mrs. Knopf, what are the prospects for a climate-neutral Europe with a strong economy in 2045?

Knopf ▶ Achieving climate neutrality in Germany by 2045 or in Europe by 2050 will be a mammoth task. We have factored in several different scenarios. It will be necessary, for example, to install many millions of heat pumps. At the same time, we lack craftsmen and a comprehensive charging infrastructure. It is more productive for us to initially focus on the near future and taking the first steps on the path towards change. The developments over the last two to three years give me cause for hope. There is a different spirit and there are now many who want to support this transition, not just companies but also individual citizens.

Read the full interview to find out how confident Brigitte Knopf and Katharina Klein are about the success of the climate transition.

[To the full interview ↗](#)

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of the EnBW Group and EnBW AG

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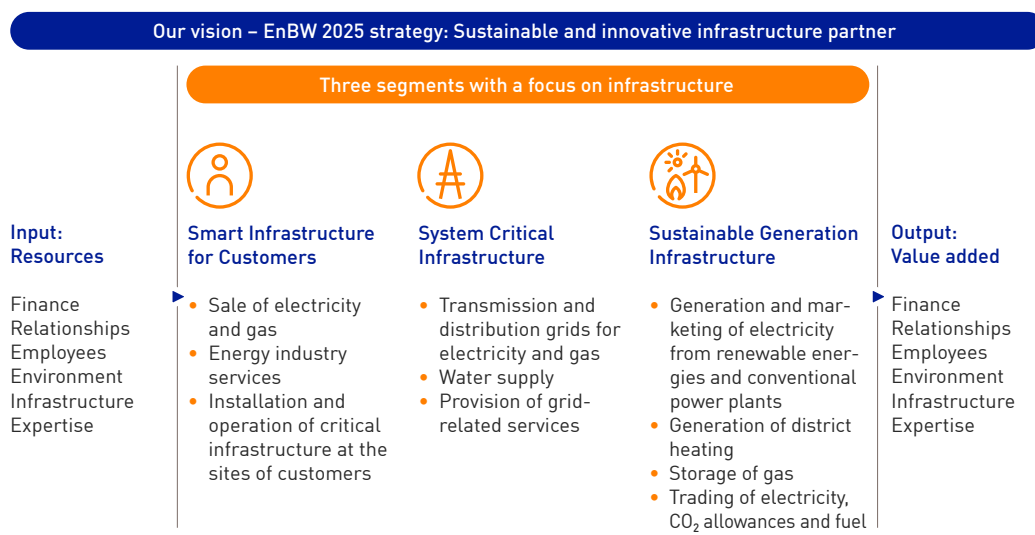
150 Declaration of the legal representatives

Fundamentals of the Group

Business model

Business principles

Business model



Our company is transforming itself from an integrated energy supply company into a sustainable and innovative infrastructure partner, also outside of the energy sector. Sustainability is an important element of our business model and acts as a compass for our strategic alignment. We draw on a variety of resources – from finances through to expertise – for our corporate activities. As a result of the efficient application of these resources, we create value for ourselves and our stakeholders.

Since the start of 2021, our business portfolio has been split into **three segments** that encompass the **following activities**:

- The **Smart Infrastructure for Customers** segment comprises the sale of electricity and gas, energy industry services and energy solutions, provision and expansion of quick-charging infrastructure and digital solutions for electromobility, broadband activities ⁷ in the telecommunications business and static storage systems in conjunction with photovoltaics.
- The transmission and distribution of electricity and gas are the main components of the **System Critical Infrastructure segment**. Our activities in this segment are designed to guarantee the security of supply and system stability. The provision of grid-related services and the supply of water are other activities in this segment.
- The **Sustainable Generation Infrastructure** segment encompasses our activities in the areas of renewable energies and conventional generation, district heating and waste management/environmental services. In order to guarantee the security of supply, we maintain the power plants that have been transferred to the grid reserve. In addition, this segment includes the storage of gas and trading of electricity, CO₂ allowances and fuels, as well as the direct distribution of renewable energy power plants.

The main goal of our **EnBW 2025 strategy** is to develop a balanced and diversified business portfolio along the entire value added chain via these three growth fields. Our portfolio is also characterized by a high proportion of stable, regulated business and an attractive risk-return profile. In addition, we are using our core expertise to exploit new business areas – also outside of the energy sector and in selected markets abroad. You can find more about the EnBW 2025 strategy in the chapter “Strategy, goals and performance management system” from p. 40⁷.

The themes of **sustainability and climate protection** are becoming increasingly important issues at the center of public attention and will also influence social acceptance for our business activities to a greater extent in future. We have set ourselves the goal of continuing to develop our business

According to the infront study “Champions of the Digital Transformation 2021,” EnBW has one of the best digital transformation programs of all Germany companies.

Online [↗](#)

model in line with the economic, ecological and social dimensions of sustainability. As an energy company, we can make a particularly effective contribution to climate protection. As a Group, we aspire to halve our greenhouse gas emissions by 2030 and become climate neutral with respect to our own emissions (Scope 1 and 2 [↗](#)) (p. 43⁷) by the end of 2035 at the latest.

We believe that digitalization is an important basis for sustainable growth, profitability and competitiveness. In our digitalization agenda 2030, we are intensifying our activities in this area and developing other initiatives, some of which reach across the whole Group. Our focus will be placed on the digital evolution of the business, developing skills and supporting our sustainability activities (examples can be found on p. 52⁷, 60⁷, 63⁷, 80⁷, 84⁷, 94⁷, 102⁷ and 106⁷).

Our company’s business model has proved itself to be robust and flexible during the **coronavirus pandemic**. Our integrated approach has proved its worth and is ensuring stability. The reliable supply of electricity, gas, water and heating to our customers was not at risk at any time. Furthermore, the huge importance of reliable infrastructure has become firmly entrenched in the social consciousness. The pandemic did not have any significant negative effect on the Group operating result in 2021.

Assessment of the robustness of our business model against the background of climate change

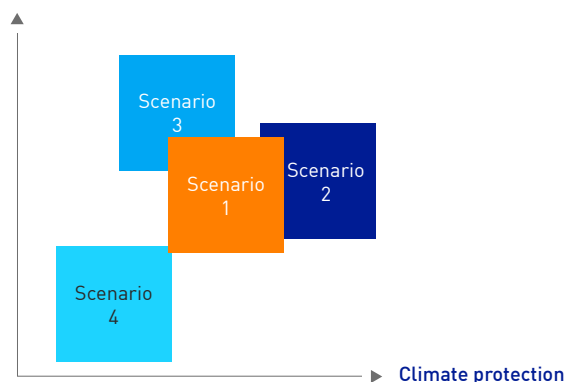
We have been analyzing the robustness of our business model with an increasing focus on climate change over the last few years, due to the growing importance of climate-related risks and the recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD) [↗](#). Our strategic considerations take into account the requirements of the Energiewende 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 a particular focus on the expansion of renewable energies, electricity consumption, the expansion of the grids, grid stability and the security of supply. In this context, we examine the requirements with respect to climate protection, possible implementation paths and the implications for the EnBW business. Accordingly, a main component of our market analyses is **evaluating the different ways in which the Energiewende and the transformation to climate neutrality could possibly develop**. This acts as an important basis for assessing the opportunities and risks for our business (p. 133⁷), which 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 **realistic future scenarios that take into account all of the different aspects of the Energiewende**. These scenarios are primarily characterized by two dimensions. The **first dimension** is climate protection and encompasses our transformation to a climate-neutral company with its impact on all of the variables influencing the energy industry. It is thus of crucial importance for our business, as well as for the opportunities and risks along the entire value added chain. The sustainable economic growth that is achievable in the long term is the **second dimension**. The amount of growth that can be achieved in the long term will also have an impact on key variables such as the demand for electricity or commodity prices.

In the space defined by these dimensions, we describe **four scenarios that are particularly relevant to EnBW**. Two scenarios assume “normal” economic growth within the scope of so-called potential growth (scenarios 1 and 2). In the first scenario, the climate targets defined in the EU Green Deal [↗](#) are fully achieved. In the second scenario, these targets are not fully achieved because it is not possible to comprehensively solve the practical challenges associated with the implementation of the Energiewende. In addition, we describe two other scenarios in which there is a long-term, permanent deviation in economic development that lies outside the scope of potential growth. In one of these scenarios (scenario 3), it is assumed that a higher priority is assigned to economic development than to climate protection in society and politics, and greater growth is thus achieved during the period under consideration. In contrast, a period characterized by ongoing crises and weaker economic growth is assumed in the other scenario (scenario 4).

Energy industry scenarios for EnBW

Economic growth



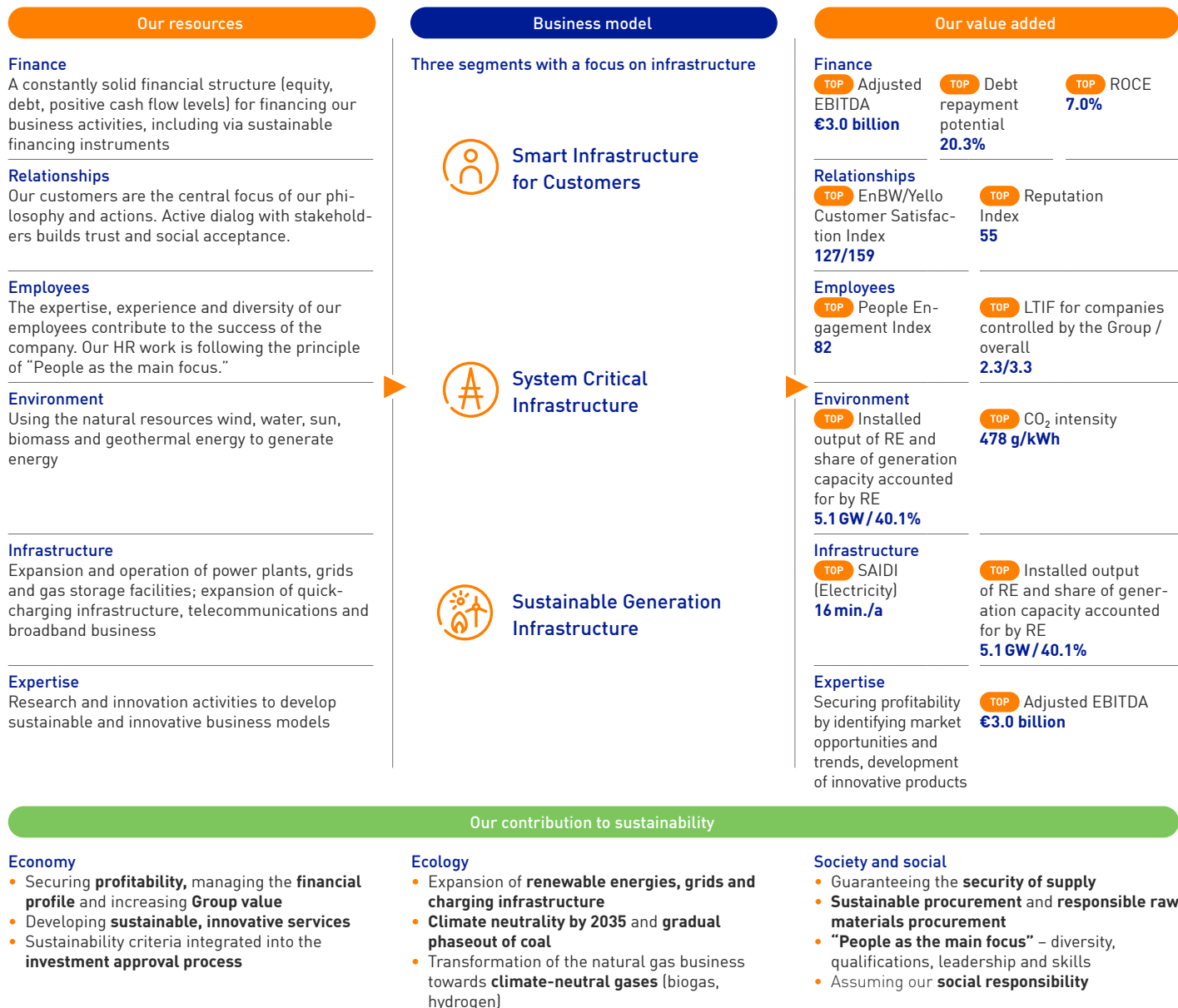
Within the scenarios, **variables** that have different characteristics depending on the scenario in question determine how the energy market develops. These include assumptions on the development of demand, the restructuring of the power plants as part of the phaseout of coal and the full decarbonization of electricity generation (scenario 1), the development of the transmission grids, and the prices and pricing structures for fuels. In addition, estimates about relevant market trends, such as in the area of renewable energies, electromobility or the development of a hydrogen market, play an important role. 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. The scenarios can thus provide us with quantitative descriptions that serve as the basis for assessing our business and, in particular, also allow us to evaluate the opportunities and risks associated with climate change.

Value added

Value added for EnBW and its stakeholders

The aim of our corporate activities is to add value in the short, medium and long term. This reflects corporate success, as well as competitiveness and future viability, and does not only depend on the company itself but also on the business environment, relationships with stakeholders ([p. 53 ff.](#)) and the application of a variety of different resources. As a result of the efficient application of these resources, we create value for ourselves and our stakeholders. We associate the concept of sustainable economic development with our aspiration to conduct all of our business activities in a responsible way. In the 2021 financial year, we revised the presentation of our value added to make it more meaningful and have added some information to the end of the diagram. Information on the interdependencies can be found on [p. 47 f.](#)

Value added 2021 for EnBW and its stakeholders



Value added statement, [page 35](#) ⁷ | Overview of the segments, [page 36](#) ⁷ | In dialog with our stakeholders, [page 53](#) ff. ⁷ | Research, development and innovation, [page 58](#) ff. ⁷ | The EnBW Group, [page 76](#) ff. ⁷

We primarily measure the value added at EnBW using our key performance indicators (p. 45 ff. ⁷). Furthermore, we generate value for ourselves and our stakeholders in many other areas.

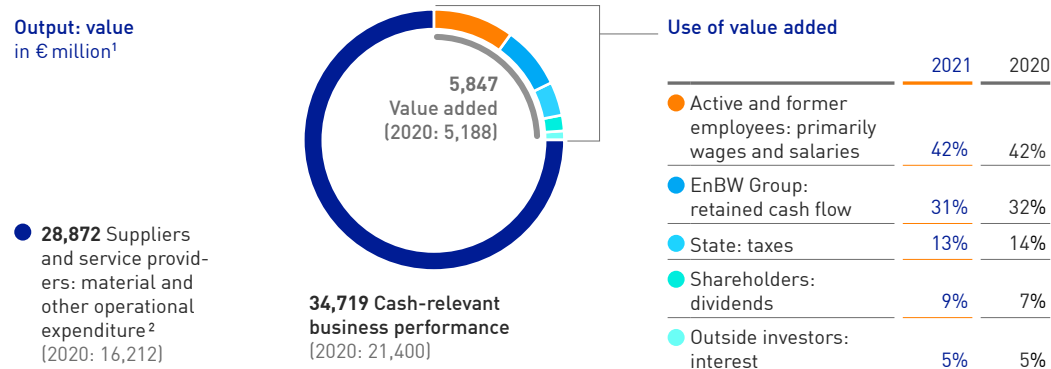
The value added statement shows the value we generate for important stakeholders using the resource **finances** (p. 35 ⁷). An important factor for the resource **relationships** is building customer loyalty to strengthen trust in EnBW as a partner and supplier. In addition, we generate value by engaging in social issues through activities for our target groups of end customers, business partners, local authorities and citizens. Always having the right **employees** with the right skills in the right place is a key focus of the HR policy. We also create room for personal development, offer apprenticeships and courses for students, run a multistage career integration program for refugees and migrants and are active in the area of diversity. We create value with the resource **environment** by improving our carbon footprint and safely dismantling the nuclear power plants. In addition, we generate value by expanding and integrating renewable energy power plants, developing energy efficient products and engaging in sustainable and responsible procurement. EnBW mainly generates value in relation to **infrastructure** by pushing forward the Energiewende and mobility transition. We operate the largest quick-charging network in Germany and invest in the expansion of renewable

energies. We use our **expertise** to generate value by creating innovative products for the benefit of our customers, developing new, resource-friendly concepts in the areas of energy, mobility and urban infrastructure, and providing venture capital for young companies.

Value added statement

The value added statement indicates the degree to which we contribute to the continuing economic development of the company and our stakeholders using our financial resources. Further information on the dialog with our stakeholders is summarized in the chapter “In dialog with our stakeholders” (p. 53 ff.⁷).

Value added of the EnBW Group



¹ The figures for the previous year have been restated.

² Includes interest and dividends received, as well as the dedicated financial assets contribution.

We define value added as our cash-relevant business performance in the past financial year less cash-relevant expenses (suppliers and service providers). The value added is derived from the cash flow statement and corrected based on the use of funds. In the reporting year, we generated value added of 16.8% (previous year restated: 24.2%). This decrease was mainly attributable to the change in the cash-relevant business performance and in cash-relevant expenses. As well as being used in the form of wages, salaries and pension payments for active and former employees, a further share is dedicated to payments to the state in the form of income taxes and electricity and energy taxes. After consideration of other stakeholder groups, the retained cash flow⁸ is available to the company for future investments without the need to raise additional debt (p. 87⁷).

Our operating segments

Using the materiality analysis process that we described in detail on [p. 53⁷](#), we identified the material events in the 2021 financial year. These are shown in the following diagram allocated to our three segments.

Overview of the segments



Smart Infrastructure for Customers

Significant events in 2021

- Commissioning of one of the largest quick-charging parks in Germany at the Kamener Kreuz interchange ([p. 94⁷](#))
- EnBW mobility+ starts cooperation with Bauhaus DIY stores and Rewe Group to expand charging infrastructure ([p. 94⁷](#))
- New EnBW HyperNetwork advertising campaign launched in the summer ([p. 94⁷](#))



System Critical Infrastructure

Significant events in 2021

- Netze BW becomes climate neutral ([p. 41⁷](#))
- Continued progress in the ULTRANET and SuedLink projects ([p. 71⁷](#))
- Joint venture from the energy industry including NetzeBW has bid accepted for the 450 MHz frequencies ([p. 71⁷](#))
- Bid accepted to equip 170 sites in Baden-Württemberg with 450 MHz communication network
- Start of construction of a gas compressor station in Rheinstetten by terranets bw
- A further 98 local authorities invest in Netze BW in the second subscription phase as part of the participation model "EnBW connects" ([p. 95⁷](#))



Sustainable Generation Infrastructure

Significant events in 2021

- Bid accepted for two sites in Great Britain for the development of offshore wind farms with a total capacity of 3 GW in cooperation with bp ([p. 40⁷](#) and [73⁷](#))
- Start of construction for the two solar parks Gottesgabe and Alttrebbin in Brandenburg with an output of around 150 MWp each ([p. 97⁷](#))
- Conclusion of long-term contracts with Fraport and Covestro for the supply of electricity from the He Dreiht offshore wind farm that requires no state funding and Germany's largest solar park Weesow-Willmersdorf
- Contract signed for the phaseout of brown coal ([p. 42⁷](#) and [44⁷](#))
- Plans presented for fuel switch projects at the power plant sites in Heilbronn, Stuttgart-Münster and Altbach-Deizisau ([p. 56⁷](#))

Sales in 2021



Number of B2C and B2B customers in 2021

Around **5.5** million

Key figures in 2021

5,407 employees (as of 31/12/2021)
€323.1 million adjusted EBITDA
€274.1 million investment
10.9% share of adjusted EBITDA

Development of adjusted EBITDA in € billion

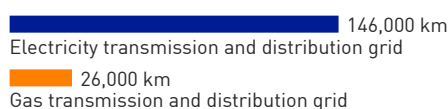
0.3

2021

0.6

Target 2025

Grid lengths in 2021



Transmission volumes in 2021

Electricity	60.3 billion kWh
Gas	35.8 billion kWh

Key figures in 2021

10,686 employees (as of 31/12/2021)
€1,288.5 million adjusted EBITDA
€1,647.0 million investment
43.5% share of adjusted EBITDA

Development of adjusted EBITDA in € billion

1.3

2021

1.3

Target 2025

Installed output 2021



Generation portfolio in 2021¹

Electricity generation	42,220 GWh
Installed output	12,647 MW

Key figures in 2021

7,051 employees (as of 31/12/2021)
€1,535.1 million adjusted EBITDA
€837.0 million investment
51.9% share of adjusted EBITDA

Development of adjusted EBITDA in € billion

1.5

2021

1.3

Target 2025

¹ The values stated for electricity generation and installed output are not identical to the totals for the EnBW Group. Several power plants are allocated to the other two segments. The total generation of the EnBW Group is 42,399 GWh (excluding redispatch volumes), of which 11,692 GWh is generated from renewable energy sources. The total installed output of the EnBW Group is 12,722 MW, of which 5,100 MW is from renewable energy power plants. The totals for generation and installed output for the Group are shown in detail on [p. 98⁷](#).

Group structure and business radius

EnBW is organized according to the model of an integrated company. EnBW AG is managed through business units and functional units: Core operating activities along the entire energy industry value chain are concentrated in the business units. The functional units carry out Group-wide support and governance tasks. The EnBW Group consists of EnBW AG as the parent company and 231 fully consolidated companies, 25 companies accounted for using the equity method and 3 joint operations. Further information on the organizational structure can be found in the chapter “Corporate governance” under “Management and supervision” on [p. 49 f.](#)¹.

Baden-Württemberg, Germany and Europe

Further information on **selected companies of EnBW AG** can be found under the following link.

[Online ↗](#)

Selected EnBW companies

● Baden-Württemberg

EnBW Energie Baden-Württemberg AG, Karlsruhe
 EnBW mobility+ AG & Co. KG, Karlsruhe
 EnBW Ostwürttemberg DonauRies AG, Ellwangen
 Erdgas Südwest GmbH, Karlsruhe
 GasVersorgung Süddeutschland GmbH, Stuttgart
 NetCom BW GmbH, Ellwangen
 Netze BW GmbH, Stuttgart
 terranets bw GmbH, Stuttgart
 TransnetBW GmbH, Stuttgart
 ZEAG Energie AG, Heilbronn

● Germany

ONTRAS Gastransport GmbH, Leipzig
 Plusnet GmbH, Cologne
 SENEK GmbH, Leipzig
 Stadtwerke Düsseldorf AG, Düsseldorf
 VNG AG, Leipzig
 Yello Strom GmbH, Cologne

● Denmark

Connected Wind Services A/S, Balle

● France

Valeco SAS, Montpellier

● Great Britain

Mona Offshore Wind Holdings Limited,
 Sunbury-On-Thames¹
 Morgan Offshore Wind Holdings Limited,
 Sunbury-On-Thames¹

● Austria

SMATRICS EnBW GmbH, Vienna

● Sweden

EnBW Sverige AB, Falkenberg

● Switzerland

Energiedienst Holding AG, Laufenburg

● Czech Republic

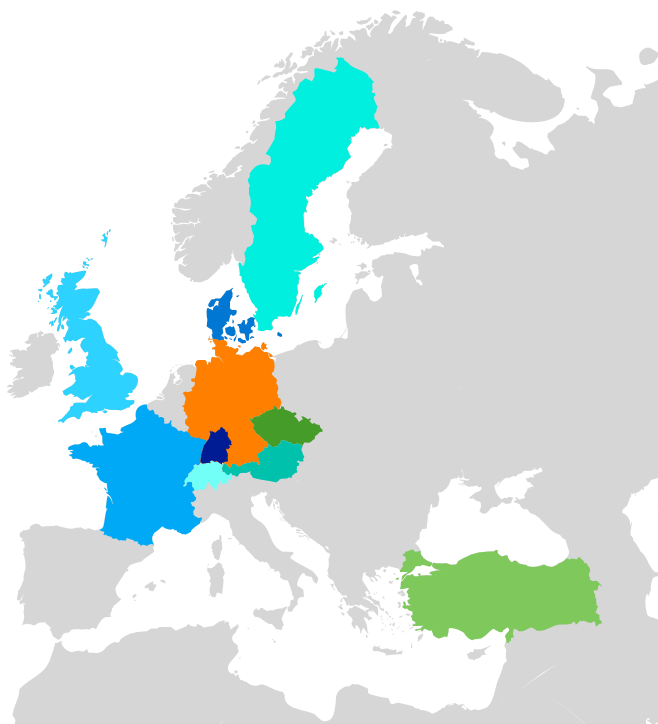
Pražská energetika a.s., Prague

● Turkey

Borusan EnBW Enerji yatırımları ve Üretim A.S., Istanbul¹

Other activities

USA and Taiwan



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

The full list of shareholdings can be found in the notes to the consolidated financial statements under [37] “Additional disclosures.”

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

We also operate throughout the rest of Germany and in selected markets abroad via our various subsidiaries. We are pushing forward the **expansion of renewable energies** through Valeco, the French project developer and operator of wind farms and solar parks. In Denmark and Sweden, we are represented by our subsidiaries Connected Wind Services (CWS) and EnBW Sverige, respectively. In Turkey, we work together in the renewable energies sector with our partner Borusan. In Great Britain, we secured the offshore wind rights for the construction of offshore wind farms together with our partner bp in the first quarter of 2021. The companies Energiedienst (ED) in Switzerland and Pražská energetika (PRE) in the Czech Republic, in both of which EnBW has held participating interests for many years, also have a strong focus on renewable energies. We are actively engaged in **the operation of the charging infrastructure and provide a range of products and services necessary for electromobility** in many European countries through our subsidiary EnBW mobility+. We are the market leader for quick charging in Germany and are now expanding onto the Austrian market with our joint venture SMATRICS EnBW. Our subsidiary SENEK, based in Leipzig, offers holistic energy solutions for customers to meet their own energy needs using solar electricity and home storage. We further expanded our portfolio in the **broadband business** ⁸ across Germany with the telecommunications company Plusnet. Our subsidiary NetCom BW has its main focus in this sector in Baden-Württemberg. Following our success in the auction for offshore wind rights off the coast of New York at the end of February 2022, we are selling our offshore activities in the USA to our former partner TotalEnergies. Our main focus will now be placed on growth opportunities in Europe. Future engagement in this area will be regularly examined and evaluated against this background.

Click on the respective logos to access the websites of our **most important subsidiaries**.



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

Energiedienst (ED), based in Laufenberg, Switzerland, has around 1,000 employees and is an ecologically oriented German-Swiss listed company with various subsidiaries that is active in South Baden and Switzerland. ED exclusively generates green electricity, primarily using hydropower, and has already been climate neutral since 2020. Alongside the supply of electricity, this group of companies offers its customers smart, networked products and services, including photovoltaic plants, heat pumps, electricity storage systems, electromobility and e-car sharing.



Pražská energetika (PRE), based in Prague, Czech Republic, has around 1,700 employees and its core business activities include the sale of electricity and gas, the distribution of electricity in Prague and Rožtoky, the generation of electricity from renewable energies, the operation and expansion of fiber-optic infrastructure, the expansion of the charging infrastructure for electromobility and the provision of energy services. PRE is the third-largest electricity supplier in the Czech Republic. As part of its activities, PRE promotes the use of modern technological solutions and advises on the implementation of innovative technologies and achieving energy savings.



Stadtwerke Düsseldorf (SWD) is one of the largest municipal energy supply companies in Germany. It has around 3,200 employees and SWD and the companies in which it holds a majority shareholding supply customers in Düsseldorf and the surrounding region with electricity, natural gas, district heating and drinking water, as well as being responsible for waste disposal and street cleaning services in the metropolitan area of Düsseldorf. In addition, the company's focus is placed on the needs-based development of networked urban infrastructures in the areas of energy, mobility, the circular economy and real estate. SWD is supporting the state capital of North-Rhine Westphalia to achieve its target of becoming climate neutral by 2035.



VNG is based in Leipzig and has around 1,400 employees. It is a corporate group with more than 20 companies in Germany and Europe and has a broad portfolio of services in the gas and infrastructure sectors. VNG concentrates on its four business areas of Trading and Sales, Transport, Storage and Biogas. Using this core expertise as a basis, VNG is increasingly placing its focus on new business fields, such as green gases and digital infrastructures. ONTRAS Gastransport operates and markets the second-largest German gas transmission grid as an independent transmission system operator.

Customers and sales brands

We supply **around 5.5 million customers** with energy and differentiate between two customer groups: The B2C customer group includes retail customers, small commercial enterprises, the housing industry and agriculture. The B2B customer group encompasses major commercial enterprises and industrial companies, as well as redistributors, municipal utilities, local authorities and public entities.

Through our sales brands, we stay in close proximity to our customers and remain consistently oriented to their needs. In the B2C sector, we sell green electricity, electricity, gas, district heating, energy industry services, energy solutions and drinking water under the **EnBW brand**. These products and services focus on Baden-Württemberg. We sell green electricity and gas products, as well as solutions and digital services related to energy, to retail and commercial customers throughout Germany through the **Yello brand**.

We are also represented in the B2B sector via our subsidiaries through the **GVS brand** and in the B2C and B2B sectors through the **Erdgas Südwest, ODR and ZEAG brands**.

Under the **NaturEnergie brand**, ED sells green electricity across Germany and gas to retail customers in South Baden. In addition, ED also offers many other sustainable products and services through this brand in the areas of heating, living, photovoltaics and mobility – from solar power plants and e-car sharing services through to heating concepts for districts. In Switzerland, the ED Group provides electricity to business customers. PRE sells electricity, gas, energy services and mobile communication services to retail and commercial customers in Prague and the surrounding region under the **PRE brand**. PRE also supplies electricity, gas and energy services to industrial customers across the Czech Republic under the PRE brand. Electricity and gas are sold in the Czech Republic under the **Yello brand**, primarily via online channels to households and commercial customers. SWD supplies retail and commercial customers in the B2C sector with electricity, gas, heating and drinking water under the **Stadtwerke Düsseldorf brand**. In the B2B sector, the range of services is directed at business and industrial customers with the sales focus being placed increasingly on Düsseldorf and the local region. VNG, based in Leipzig, supplies domestic and foreign trading companies, redistributors, public utilities and large customers with gas under the **VNG brand**. The company goldgas, a subsidiary of VNG, sells gas and electricity – especially to private households, commercial customers and property management companies in Germany – under the **goldgas brand**.

Strategy, goals and performance management system

Strategy

Sustainable and innovative infrastructure partner

We have successfully concluded the EnBW 2020 strategy. Our **EnBW 2025 strategy** has the motto “Making and shaping the infrastructure world of tomorrow” and is based on a holistic approach to stakeholders. It defines specific financial and non-financial targets in the dimensions finance, strategy, customers and society, environment and employees. Sustainability is an integral component of our corporate strategy, guaranteeing the creation of economic, ecological and social value for our stakeholders.

Our EnBW 2025 strategy is increasingly placing the company’s focus onto the infrastructure aspects of existing energy-related business fields and utilizing our core expertise to exploit new growth opportunities above and beyond the energy sector. Our core expertise – what we do well and do better than many others – lies in the safe and reliable construction, operation and management of critical infrastructure in the energy sector, such as the generation of energy or the distribution of energy by our grid subsidiaries. This can also be transferred to other **business fields related to infrastructure**. One example of this type of business field is our broadband business in which we have already made significant progress. We are also involved in the expansion of urban infrastructure. As we understand it, urban infrastructure concerns, for example, the smart networking of the energy and heating supplies, telecommunications and mobility. Another new business field is the development of passive mobile phone infrastructure (such as radio towers), whereby we are actively working to improve mobile phone coverage in Baden-Württemberg with, for example, 5G technology ⁸.

We are following these **strategic goals** in our three segments:

In the **Smart Infrastructure for Customers** segment, we are transferring our core skills to new, often digital business models. In the next few years, we will mainly focus on the growth areas of electromobility, telecommunications and broadband, as well as on photovoltaics and energy storage systems. We want to further expand our quick-charging infrastructure to 2,500 sites in order to promote electromobility and thus maintain our position as the market leader in this sector. In the telecommunications and broadband business, we are expanding our infrastructure, increasing our range of services and striving to secure a strong position on the German market. On the German home electricity storage market for solar electricity, we also aim to join the leading group of suppliers with our subsidiary SENEC. And in the area of B2C sales for electricity and gas, we will continue to rely on digitalization and make improvements in our cost efficiency.

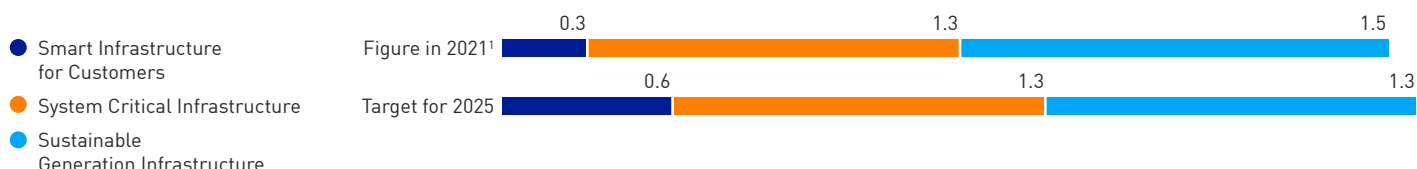
In the **System Critical Infrastructure** segment, our grid subsidiaries for electricity and gas will further expand the transmission grids into an important cornerstone of our earnings alongside the distribution grids. In addition, they will upgrade the electricity distribution grids so that they are ready to meet the challenges of the future and ensure they are optimally prepared for the demands that will be placed on them by electromobility and the decentralized feed-in of energy. We will continue our participation model for local authorities to participate in the distribution grids. As part of the decarbonization of the gas sector, our grid companies are preparing their grid infrastructure for the use of climate-neutral gas such as green hydrogen in the future.

Renewable energies will dominate the **Sustainable Generation Infrastructure** segment. The expansion of renewable energies will cover further selective internationalization and the realization of projects without state funding. The generation capacity of our wind power plants is due to increase to 4.0 GW by 2025 and our portfolio of photovoltaic projects to 1.2 GW. In addition, EnBW and bp have entered into a joint venture to build two offshore wind farms with a total capacity of 3.0 GW off the coast of Great Britain and place them into operation from 2028. In the gas business, we will further strengthen our strong position, especially in the area of climate-neutral gases. We have defined a clear phaseout plan for coal-based conventional generation by the end of 2035 at the latest and plan to switch over some of our coal power plants to gas as a more climate-friendly fuel and later to

hydrogen. The last nuclear power plant operated by EnBW will be disconnected from the grid by the end of 2022 at the latest. We are adapting our trading activities to the changes in our generation portfolio and the energy markets.

We want to use this portfolio to increase our **adjusted EBITDA** [?] to €3.2 billion by 2025. All three segments will contribute to the achievement of this target.

Sustainable growth Adjusted EBITDA in € billion



¹ The sum of the three segments does not correspond to the adjusted EBITDA for the EnBW Group. €-187.4 million is attributable to Other/Consolidation in the 2021 financial year.

EnBW is planning **net investment** of around €12 billion between 2021 and 2025. Some 80% of this investment is intended for growth projects. The main focus of this investment 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 HeDreht offshore wind farm, 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 ([p. 86](#)[↗]). Since the 2021 financial year, we now also take sustainability aspects into account, alongside economic and strategic factors, when assessing our investment projects ([p. 48](#)[↗]).

Anchoring sustainability as a strategic compass

Sustainability is closely linked to the core business at EnBW and has thus been resolutely and consistently taken into account in the development of the company for many years. The **EnBW sustainability program** comprises 25 measures and covers all areas of the Group. It addresses sustainability risks and strengthens or establishes higher level management processes, core operating processes and supporting processes in the business and functional units. We made some important **progress** with these measures in the 2021 financial year – here are some examples:

Management processes:

- We are aiming to achieve “**climate neutrality throughout the entire Group by 2035.**” The steps required to phase out coal power have now been planned and initiated, and the first measures have already been implemented ([p. 44](#)[↗]).
- “**Integration of sustainability evaluation into portfolio and investment decisions:**” We resolutely test and evaluate our decisions and investments against sustainability criteria. As a result, our future investments will make a contribution to sustainability ([p. 48](#)[↗]).
- “**Evaluation of the EnBW portfolio based on EU taxonomy** [?] :” Key performance indicators for our taxonomy-aligned business activities are published as part of our integrated reporting ([p. 110ff.](#)[↗] and [p. 146ff.](#)[↗]).

Core processes:

- Green electricity is making a contribution to “**sustainable sales.**” It has now become the standard in the product portfolio of EnBW and Yello. For example, the proportion of Yello’s total customer base that is supplied with green electricity continued to increase during the reporting year ([p. 94](#)[↗]).
- “**Sustainable Netze BW and rollout to further grid companies:**” Netze BW has been climate neutral since this reporting year ([p. 44](#)[↗]). The Smart Grid [?] competence center, in which the subsidiaries of EnBW are represented, is pushing forward key themes such as climate neutrality.
- As part of “**responsible raw materials procurement (including Gas/LNG** [?]),” the due diligence processes from the area of coal procurement have been transferred to the procurement of LNG/gas ([p. 66](#)[↗]).

Further information on our **experiences with applying the EU sustainable finance taxonomy** can be found here.

Online [↗](#)

Supporting processes:

- As part of our **“Sustainable procurement,”** we introduced the Supplier Code of Conduct in July 2021. It includes minimum sustainability requirements and establishes a shared set of values that act as the binding framework for the cooperation with our suppliers (p. 637).
- **“Sustainable real estate management”** is being achieved using specific targets (such as a 75% reduction in CO₂ emissions within the portfolio by 2030 compared to 2018) and initiatives (such as green electricity and biodiversity) (p. 1027).
- **“Paper reduction and recycling:”** We have set ourselves the goal of significantly reducing paper consumption. We have already implemented various digital initiatives for maintaining contact with customers (p. 1027).

The next level of ambition: the EnBW sustainability agenda

The measures published in the fall of 2020 in our 25-point sustainability program were either implemented or pushed forward as a priority in 2021, and will in the next stage be transferred into our EnBW sustainability agenda that we will start to implement in our operating business in 2022. The aim is to anchor sustainability in our strategic business activities and thus strengthen our competitiveness. The flagship projects and measures developed as part of the EnBW sustainability agenda will make an important contribution to the long-term success of our business and integrate sustainability in our activities and solutions. They will thus make a clear contribution to value added and to minimizing risks. We developed the EnBW sustainability agenda in a multistage process that incorporated both relevant stakeholders and also our corporate values. The **EnBW sustainability agenda defines four key strategic themes:**

Strategic themes of the EnBW sustainability agenda

1 New energy and climate neutrality EnBW is rethinking and redesigning energy generation to shape the path towards climate neutrality, without losing sight of the importance of the security of supply. Renewable energies Climate neutrality Hydrogen	2 Infrastructure transition EnBW is making a significant contribution to shaping the living environments of the future using novel, networked mobility and supply solutions. E-mobility Grids Buildings
3 Culture of sustainability EnBW is using its human resources and financing strategy to make ecological, social and economic responsibility the benchmark for its business activities. Corporate management Human resources Society	4 Protecting the natural environment EnBW is making a contribution to conserving our shared home for present and future generations through its engagement for society and the environment. Human rights Environmental protection Health

- The strategic theme **“New energy and climate neutrality”** addresses our measures to expand renewable energies and phase out coal-fired power generation in a socially responsible way in order to achieve our goal of climate neutrality. The use of green hydrogen will be gradually pushed forward in pilot projects, as will the construction of the necessary infrastructure.
- The strategic theme **“Infrastructure transition”** comprises our measures to develop climate-friendly mobility infrastructure, to develop the electricity and gas grids both for services for the public and to make them the backbone of the Energiewende, and to develop the broadband infrastructure to provide citizens with access to the Internet, especially in rural areas. The modernization and new construction of our own real estate and the development of climate-friendly districts that focus on the needs of people are the other aspects covered by this theme.
- The **“Culture of sustainability”** will anchor all of the sustainability dimensions in our internal processes and corporate culture. Sustainable human resources management will lay the foundations for the successful development of the company. At the same time, the areas of sustainable finance and sustainable bonds will be developed and expanded.
- For the strategic theme **“Protecting the natural environment,”** the measures in the sustainability agenda describe the specific negative ecological and environmental impacts that our business activities can have, which should be consistently and resolutely minimized. Human rights are not only guiding principles for all activities at EnBW but observance of them is also obligatory in our business relationships with our suppliers.

The EnBW sustainability agenda will be supported by a **comprehensive governance structure** that monitors the implementation of the agenda using clearly defined performance indicators. The measures can also be adjusted if necessary.

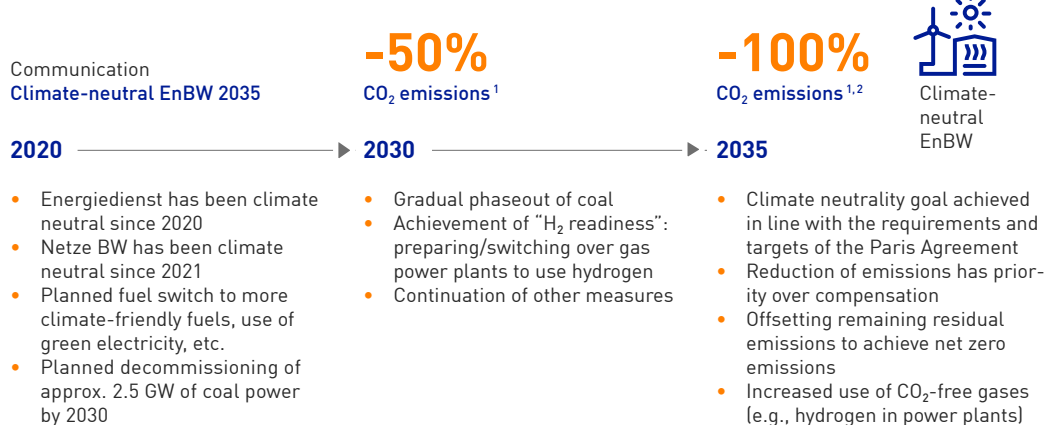
Climate neutrality by 2035 as a driver of the transformation

Climate neutrality is central to the EnBW sustainability agenda. Our targets for greenhouse gas emissions¹ in emission categories 1 and 2 are set for 2035. Scope 1 and 2² emissions include, in particular, the greenhouse gas emissions produced by our power plants as they generate electricity and heat and when energy is distributed in the grids operated by our subsidiaries. Our Scope 3 emissions are mainly influenced by the gas consumption of our customers (p. 100f.⁷). In the long term, it will only be possible to reduce Scope 3 emissions by switching to climate-neutral gases, which will probably not be available in sufficient quantities until the middle of the 2030s. The new German government's plans for an earlier phaseout of coal power will have an important influence on our goal of climate neutrality. A close examination of the energy policy issues associated with an earlier phaseout could lead, in certain circumstances, to a reassessment of our climate neutrality goal.

In the 2021 financial year, we announced our intention to develop science based targets by **joining the Science Based Targets initiative (SBTi)**. We will thus be able to expand our target of climate neutrality with respect to Scope 1 and 2 emissions **to also include a target for the Scope 3 emission category**. Our commitment to developing sciencebased targets will enable us to define our target of climate neutrality much more specifically and allow us to examine, in our decision-making processes, whether our entire value added chain conforms with the goals of the Paris Agreement.

Once the science based targets have been developed, residual **greenhouse gas budgets for the Scope 1, 2 and 3 emissions at EnBW** will have been defined. Using these greenhouse gas budgets and the transparency they will bring, it will be possible to develop targeted measures to reduce our greenhouse gas emissions along the value added chain that will comply with the goals of the Paris Agreement. As an integrated energy company with its own generation portfolio – which is increasingly characterized by renewable energies – we can make an important contribution to decarbonization and thus to safeguarding the livelihoods of future generations.

Climate-neutral EnBW 2035



¹ The EnBW climate-neutrality target refers to our own emissions (Scope 1 and 2). Scope 3 is mainly influenced by the gas consumption of our customers and would require the use of climate-neutral gases in the future. The target refers to CO₂eq (CO₂, CH₄, N₂O and SF₆). The reference year is 2018.

² Includes in part the offsetting of remaining residual emissions due to the acquisition of recognized compensation certificates.

An important milestone in our climate-neutrality strategy will be **halving our CO₂ emissions by 2030, based on the reference year of 2018**. To this end, we will reduce our coal-based generation capacity of 4.6 GW (2018) by around 2.5 GW by 2030. In parallel, we are examining the possibility of a fuel switch⁸ from coal to more climate-friendly gas and then in a second stage to climate-neutral gases such as biogas or (green) hydrogen.

Coal-based energy generation will be fully phased out by the end of 2035 at the latest. We are planning to use green electricity to compensate for grid losses in the energy system. Unavoidable residual emissions will be offset by acquiring recognized compensation certificates. Our subsidiaries Energiedienst and Netze BW have already been climate neutral since 2020 and 2021, respectively.

Our approach to achieving climate neutrality by 2035, in relation to electricity generation and supply of heating, is **in harmony with the requirements and targets of the Paris Agreement**. It should also create a balance between the different expectations of our stakeholders, with whom we remain in constant dialog. Since 2013, even before the Coal Phaseout Act, we had already phased out around 40% of our particularly carbon-intensive generation capacity for ecological and economic reasons. In the social dimension, we are striving to implement a “just transition” [🔗](#) in which additional job losses caused by the transition to climate neutrality are avoided. EnBW currently has around 3,500 employees in the area of conventional generation. We have already implemented suitable human resources measures such as further training and forward-looking human resources planning. Some employees from the area of conventional generation are already bringing their technical expertise to other areas of the company, such as our offshore wind turbines.

Sustainable financing

The use of **sustainable financing instruments** underpins our corporate strategy and makes a contribution to achieving national and international sustainability targets, above all the Paris climate targets and the UN Sustainable Development Goals (SDGs) [🔗](#) (p. 82f. [↗](#)). Since 2018, we have issued several **green bonds** [🔗](#) on the capital market with a total volume of €2.5 billion. In accordance with our Green Financing Framework, the proceeds from our green bonds are exclusively used in the areas of renewable energies (offshore and onshore wind, photovoltaics) and clean transport (charging infrastructure for electromobility). We provide detailed information on the allocation of the funds every year in our Green Bond Impact Report, which is published at the same time as the Integrated Annual Report. The green bonds thus support our investment in sustainability and in turn the key non-financial performance indicators in the environment dimension. The financing conditions for the **sustainability-linked syndicated credit line** [🔗](#) are linked to selected non-financial key performance indicators. The proceeds from the **green promissory note loan of our subsidiary VNG** that was also issued in 2020 can only be used for environmentally sustainable projects: The focus in the medium to long term will be green gases, primarily biogas and sustainably produced hydrogen.

Goals and performance management system






Performance management system

The management of the company comprises financial, strategic and non-financial goals and, as well as the finance and strategy goal dimensions, includes the dimensions customers and society, environment and employees. The centerpiece of this **integrated corporate management** is the performance management system (PMS). The most important financial and non-financial Group goals have been broken down into target agreements, insofar as they are considered a sensible performance indicator for the respective area. In the quarterly performance reviews conducted at a Board of Management level, the value drivers for the most important operating performance indicators that contribute to the achievement of targets for the key performance indicators (finance, strategy and environment goal dimensions) are reported. In terms of external communication, the PMS feeds into the **integrated reporting** of the financial and non-financial performance of the company based on the “International Reporting Framework.” This Integrated Annual Report 2021 incorporates the financial and non-financial aspects of our business activities. The key performance indicators enable us to measure the degree to which goals are achieved and to manage our company.

Information on how the funds from the green bonds are used can be found in the **Green Bond Impact Report** on our website.

Online [↗](#)

TOP Financial and non-financial key performance indicators and targets

Goal dimension	Goal	Key performance indicator	2021	Target for 2025
 Finance	Securing profitability	Adjusted EBITDA in € billion	3.0	3.2
	Managing the financial profile	Debt repayment potential in %	20.3	≥ 12 ¹
	Increasing Group value	ROCE in %	7.0	– ²
		Value spread in %	–	0.5 – 1.5 ²
The EnBW Group, p. 78 ff.[↗] Forecast, p. 123 f.[↗] Report on opportunities and risks, p. 128 ff.[↗] Multi-year overview, p. 288[↗]				
 Strategy ³	Share of result accounted for by “Smart Infrastructure for Customers”	Share of overall adjusted EBITDA in € billion / in %	0.3/10.9	0.6/20.0
	Share of result accounted for by “System Critical Infrastructure”	Share of overall adjusted EBITDA in € billion / in %	1.3/43.5	1.3/40.0
	Share of result accounted for by “Sustainable Generation Infrastructure”	Share of overall adjusted EBITDA in € billion / in %	1.5/51.9	1.3/40.0
	The EnBW Group, p. 78[↗] Forecast, p. 123[↗] Report on opportunities and risks, p. 128 ff.[↗] Multi-year overview, p. 288[↗]			
 Customers and society	Reputation	Reputation Index	55	58–62
	Customer proximity	EnBW/Yello Customer Satisfaction Index	127/159	125 – 136/148 – 159
	Supply reliability	SAIDI Electricity in min./year	16	< 20
	The EnBW Group, p. 92 ff.[↗] Forecast, p. 125[↗] Report on opportunities and risks, p. 132[↗] Multi-year overview, p. 289[↗]			
 Environment	Expand renewable energies (RE)	Installed output of RE in GW and the share of the generation capacity accounted for by RE in %	5.1/40.1	6.5 – 7.5/> 50
	Climate protection	CO ₂ intensity in g/kWh ⁴	478	–15% – 30% ⁵ (reference year 2018)
	The EnBW Group, p. 97 ff.[↗] Forecast, p. 126[↗] Report on opportunities and risks, p. 132 f.[↗] Multi-year overview, p. 289[↗]			
 Employees	Employee engagement	People Engagement Index (PEI) ⁶	82	77 – 83 ⁷
	Occupational safety	LTIF for companies controlled by the Group ^{8,9}	2.3	2.1
		LTIF overall ⁸	3.3	3.5
	The EnBW Group, p. 104 ff.[↗] Forecast, p. 127[↗] Report on opportunities and risks, p. 133 f.[↗] Multi-year overview, p. 290[↗]			

- Following the transition to the growth strategy, the internal financing capability was replaced by the new key performance indicator debt repayment potential from 2021 onwards. To achieve the unchanged goal of maintaining solid investment-grade ratings, EnBW regularly checks the 2025 target value for the debt repayment potential for managing its financial profile.
- We will use value spread to measure the increase in the value of the company from 2022 onwards. This performance indicator is more meaningful and is independent of external market influences making it easier to control. It will also improve the comparability of the data. ROCE will thus be replaced by the new key performance indicator value spread. Value spread stood at 2.1% in the 2021 reporting year (p. 90[↗]).
- The sum of the three segments does not correspond to the adjusted EBITDA for the EnBW Group. €-187.4 million (+5.2%) is attributable to Other/Consolidation in the 2021 financial year (p. 78 f.[↗]).
- The calculation method for the key performance indicator CO₂ intensity will be restricted in future to include only factors that can be controlled by the company. In contrast to previous years, the share related to redispatch that cannot be controlled by EnBW is no longer included. Using the previous calculation method, the CO₂ intensity for the 2021 financial year would have been 492 g/kWh. This performance indicator still excludes nuclear generation. The CO₂ intensity including nuclear generation for the reporting year was 386 g/kWh (previous year: 268 g/kWh).
- The reference year is 2018 because the 2020 reporting year cannot be considered representative for the coming years (due to, among other things, market effects and the coronavirus pandemic).
- Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered [except ITOs]). Companies that were fully consolidated for the first time in the fourth quarter of 2021 were not included in the employee surveys for the PEI.
- Due to the extraordinary effects relating to the coronavirus pandemic in the year this key performance indicator was introduced, we may need to adjust this target value during the strategy period.
- Variations in the group of consolidated companies (all companies with more than 100 employees, excluding external agency workers and contractors, are considered). Companies that were fully consolidated for the first time during the 2021 financial year were not included in the calculations for the LTIF performance indicators.
- Excluding companies in the area of waste management.

TOP

Definition of the key performance indicators

We monitor the implementation of our strategy by means of a holistic goal and performance management system. This system strengthens integrated thinking in our company. At the same time, it underpins our comprehensive and transparent focus on performance and stakeholders. Our goal system comprises the five dimensions of finance, strategy, customers and society, environment and employees. A number of specific targets have been defined in each goal dimension, whose achievement is continuously measured using key performance indicators. Linked with this goal system and the centerpiece of our corporate management is the performance management system (PMS). Quantitative target values are currently set for the key performance indicators for the 2025 strategy horizon. The key performance indicators for the 2021 financial year were unchanged in comparison with the previous year with one exception: The internal financing capability [?] was replaced by the debt repayment potential [?] as planned.

The **financial and strategic key performance indicators** within the PMS are the adjusted EBITDA, the shares of the adjusted EBITDA accounted for by the segments, the debt repayment potential and ROCE:

- The **adjusted EBITDA** is the earnings before the investment and financial results, income taxes and amortization and adjusted for non-operating effects. Adjusted EBITDA is a key performance indicator for the finance goal dimension, while the key performance indicators for the strategy goal dimension, which describe the **shares of adjusted EBITDA accounted for by the segments** [p. 78f. and 124f.], are derived from it.
- The key performance indicator **debt repayment potential** describes the retained cash flow in relation to net debt. The debt repayment potential measures the ability of EnBW to repay its debts from its current earnings potential. This performance indicator should enable us to achieve a controlled growth in earnings within the scope of our financial targets, while maintaining a solid investment-grade rating at the same time. To manage our financial profile, we regularly check whether the debt repayment potential complies with the latest requirements of the rating agencies. As it will not be possible to exclusively finance the growth envisioned in our EnBW 2025 strategy using funds from our internal financing capability, the debt repayment potential will replace the internal financing capability from 2021 onwards [p. 88f. and 125f.].
- **ROCE (return on capital employed)** is the ratio of adjusted EBIT including the adjusted investment result to the average capital employed. It is used for determining the value added, reflecting the development of the company's value from a financial point of view. We will use value spread to measure the increase in the value of the company from the 2022 financial year onwards. This performance indicator is more meaningful and is independent of external market influences, making it easier to control. It will also improve the comparability of the data. ROCE will thus be replaced by the new key performance indicator value spread. The value spread measures the surplus return over the minimum return on capital employed before taxes in a reporting period. It is calculated by deducting the minimum return on capital employed before tax, defined by the weighted average cost of capital (WACC), from the return on capital employed before taxes that was actually achieved [p. 89f. and 125f.].

In addition to the financial key performance indicators, the PMS also includes **non-financial key performance indicators**:

The **customers and society goal dimension** comprises the Reputation Index, the Customer Satisfaction Index and the SAIDI (System Average Interruption Duration Index) Electricity:

- In order to calculate the **Reputation Index**, a total of around 5,000 people – from the stakeholder groups relevant for the EnBW brand of customers, the wider public, industrial companies, opinion leaders and investors – are asked about their impressions of the EnBW brand by an external market research institute. Results are collected for each stakeholder group about the distinctiveness of the brand and their assessment of the competence of and emotional attitude towards the EnBW brand. These are merged together to form a Reputation Index. The individual reputation indices for each stakeholder group are weighted equally to form a consolidated and reported Reputation Index [p. 92f. and 125f.].
- The key performance indicator **Customer Satisfaction Index** assesses the average satisfaction of private end consumers of electricity over the year, which is directly linked to customer loyalty. The information is compiled using customer surveys about the two brands EnBW and Yello conducted by an external service provider. The Customer Satisfaction Index allows us to draw conclusions about how well we are meeting the needs and wishes of the surveyed customers [p. 93f. and 126f.].
- **SAIDI Electricity** serves as the key performance indicator of supply reliability. It specifies the average length of supply interruption in the electricity distribution grid experienced annually by each connected customer. SAIDI Electricity includes all unscheduled interruptions to supply that last more than three minutes for the end consumer. The definition and calculation of this performance indicator is based on the guidelines issued by the Network Technology / Network Operation Forum (FNN) of the VDE (German Association for Electrical, Electronic & Information Technologies) [p. 96f. and 126f.]. The reliability of the supply in the grid areas operated by our grid subsidiaries builds on our comprehensive investment in grids and facilities as well as our system expertise.

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

- The **installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE** are measures of the expansion of renewable energies and refer to the installed output of the power plants and not to their weather-dependent contribution to electricity generation [\(p. 97⁷ and 126⁷\)](#).
- The emissions of CO₂ from own generation of electricity for the Group, as well as the volume of electricity generated by the Group without the contribution made by the nuclear power plants, form the basis for the calculation of the key performance indicator **CO₂ intensity**. This performance indicator is calculated as the ratio between the emissions and the generated volume of electricity and thus specifically describes the amount of CO₂ released per kilowatt hour. By discounting the electricity generated by nuclear power plants, the performance indicator will not be influenced by the phasing out of nuclear energy [\(p. 99⁷ and 127 f.⁷\)](#).

The People Engagement Index (PEI) and LTIF (Lost Time Injury Frequency) are utilized as performance indicators in the **employees goal dimension**:

- The **PEI** expresses how engaged employees are in their work at EnBW. It is compiled at all companies with more than 100 employees (except for the Independent Transmission Operators [ITOs] ⁸) as part of an employee survey carried out by an external, independent service provider. It is determined based on the first question of the standardized list of questions "How happy are you working for the EnBW Group / a company in the Group?" It is a question that uses a rating scale from 1 (I do not agree at all) to 5 (I agree completely). The value determined is then converted to a scale of 0 to 100 [\(p. 104⁷ and 127⁷\)](#).
- **LTIF** is calculated on the basis of LTI (Lost Time Injuries), which denotes the number of accidents during working hours which have occurred exclusively because of a work assignment from the company and result in at least one day of absence. LTIF indicates how many LTI occurred per one million working hours performed. The calculation of the LTIF overall includes all companies with more than 100 employees. For the calculation of the LTIF for companies controlled by the Group, those companies engaged in the area of waste management are excluded because the number of accidents deviates significantly from that in the core business in the energy industry. External agency workers and contractors are not taken into account in either performance indicator [\(p. 108⁷ and 127⁷\)](#).

Interdependencies

In order to give a comprehensive portrayal of the company, we are convinced that it is not only necessary to present economic, ecological and social aspects, but also to illustrate and provide an analysis of interdependencies between them. To further encourage the idea of a holistic corporate management approach within EnBW, we promote integrated thinking within all important company processes. In doing so, we anchor not only financial but also non-financial aspects into decision-making processes.

In the past few years, we have presented specific examples in this section to illustrate the interdependencies between the different goal dimensions. In the 2021 financial year, we will illustrate the progress we have made in anchoring integrated thinking in our company using the **investment approval process** as an example, and thus also highlight the increasingly important role played by non-financial aspects.

In the 2020 financial year, we evaluated our planned investments in the areas of generation, grids and sales using sustainability criteria as part of a comprehensive pilot project. The basis for this was the revision of our investment guidelines. Alongside economic and strategic factors, this type of sustainability evaluation has become a fixed component of the approval process followed by the EnBW investment committee and the EnBW Board of Management since the 2021 financial year, providing information relevant to the decision-making process.

The investment approval process is managed by the Board of Management. Individual projects are discussed and recommendations drawn up by the investment committee (InA). Alongside the Chief Financial Officer, the members of the InA include representatives from all remits of the EnBW Board

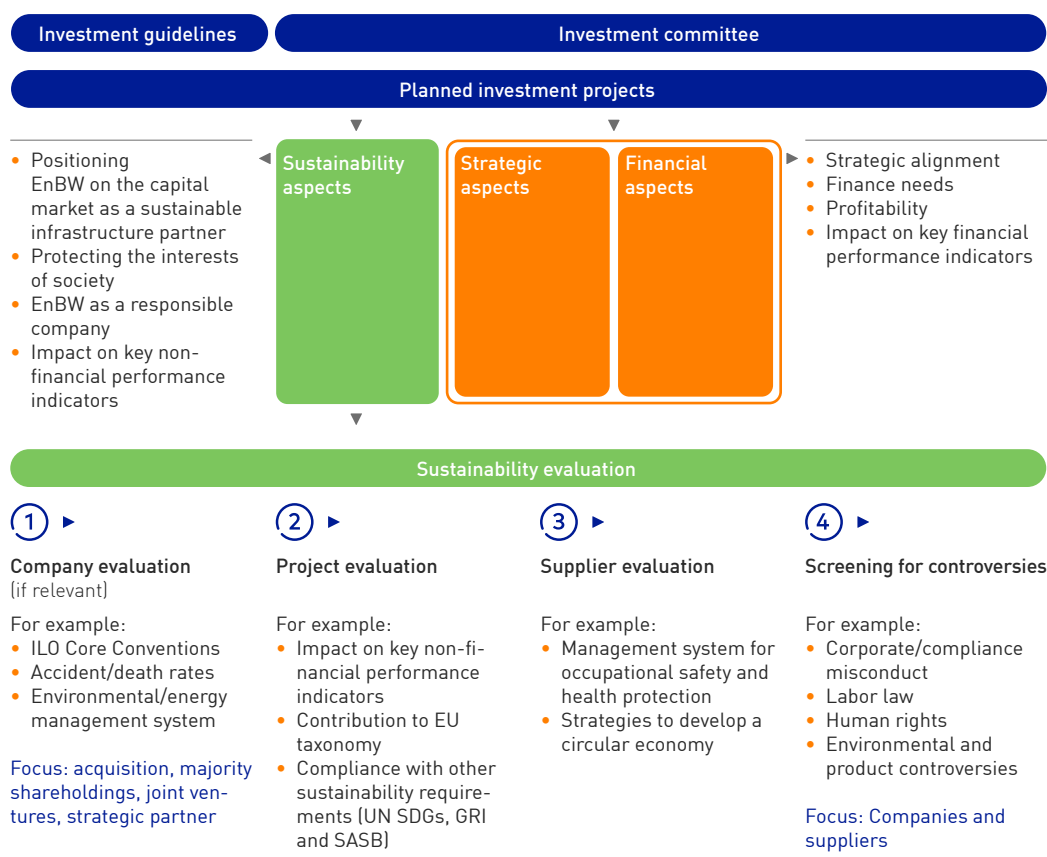
of Management and various specialist departments. The InA develops recommendations that are presented to the entire Board of Management together with the project documentation submitted by the specialist departments.

In the past, the main focus when evaluating individual investment projects was placed on the strategic alignment, funding requirements, profitability and impact of the project on the key financial performance indicators.

An investment project now undergoes additional steps to also evaluate its sustainability:

- **Company evaluation** (as part of an acquisition) with respect to its management of social and environmental sustainability. We check, for example, whether the company has guidelines for compliance with the core labor standards from the ILO (International Labour Organization), has an environmental/energy management system and publishes figures on accident and death rates.
- **Project evaluation:** Examining the planned project and/or project category with respect to sustainability. On the one hand, we evaluate the impact of the project category (e.g., wind power, solar, fuel switch, fiber-optic) on our relevant key performance indicators, and on the other hand, we check whether the project fulfills the EU taxonomy requirements and makes a contribution to selected themes from other sustainability standards (e.g., UN Sustainable Development Goals [UN SDGs], GRI and SASB).
- **Supplier evaluation:** Examining the suppliers involved in the project to assess their management of sustainability. For this purpose, we check whether the supplier has a management system for occupational safety and health protection and implements strategies or measures to develop a circular economy for the product or product components (e.g., wind power plants, solar modules).
- **Screening for controversies:** The company (from the company evaluation) and the main suppliers (from the supplier evaluation) are screened and evaluated to identify any controversies related to sustainability in the last five years with respect to corporate/compliance misconduct, labor law, human rights, environmental and product responsibility.

Investment approval process



Corporate governance

Corporate management

Good corporate governance is an essential part of the corporate culture at EnBW. We are convinced that responsible and transparent corporate governance strengthens the trust and confidence that customers, capital providers, employees and the general public place in the company, thereby contributing to its long-term success. The Board of Management and Supervisory Board have the responsibility of managing and supervising the company above and beyond merely fulfilling statutory requirements, but to do so in accordance with recognized benchmarks for good corporate governance and in harmony with the principles of a social market economy, guaranteeing the continued existence of the company and ensuring a sustainable increase in its added value. Therefore, we also predominantly meet the recommendations of the German Corporate Governance Code (DCGK) in the version from 16 December 2019.

As the member of the Board of Management responsible for corporate governance, Colette Rückert-Hennen monitored conformity with the German Corporate Governance Code at EnBW and reported extensively to the Board of Management and Supervisory Board on all current themes pertaining to corporate governance. Both boards acknowledged her report and addressed the recommendations and suggestions in the Code. They subsequently approved the company's annual declaration of compliance pursuant to section 161 German Stock Corporation Act (AktG) on 8 December 2021. The current declaration of compliance is part of the Integrated Annual Report ([p. 151 ff.](#)) and is also published at www.enbw.com/declaration-of-compliance. The remuneration report can be found in a separate report at www.enbw.com/corporate-governance.

The **declarations of compliance from previous years** are published here.

[Online ↗](#)

Management and supervision

Board of Management

As of 31 December 2021, the Board of Management of EnBW AG consisted of five members. The Board of Management is jointly responsible for managing Group business. In addition to the role of CEO, the tasks performed by the Board of Management are split into the remits of "Finance," "Human Resources," "Sustainable Generation Infrastructure" and "System Critical Infrastructure." As of 1 June 2021, the prior remit of "Technology" was split into the two new remits headed by Dr. Georg Stamatelopoulos and Dirk Güsewell, who are replacing the outgoing member of the Board of Management Dr. Hans-Josef Zimmer.

The Chief Executive Officer, Dr. Frank Mastiaux, already announced at the end of June 2021 that he will not be seeking a further term of office after the end of his second term in September 2022.

Allocation of responsibilities at Board of Management level (as of 31/12/2021)

Dr. Frank Mastiaux Chairman	Thomas Kusterer Finance	Colette Rückert-Hennen Human Resources	Dr. Georg Stamatelopoulos Sustainable Generation Infrastructure	Dirk Güsewell System Critical Infrastructure
<ul style="list-style-type: none"> Corporate development, strategy and energy economy Transformation (Next Level), IT, Digital Office and information security Sales, marketing and operations Corporate security Sustainability Communications / policy Decentralized energy services 	<ul style="list-style-type: none"> Accounting and tax Controlling and risk management / ICS Risk management for trading Digital finance and transformation Finance, M&A and Investor Relations Purchasing Equity investment management Performance in growth 	<ul style="list-style-type: none"> HR strategy and transformation Law, auditing, compliance and regulatory management HR business development and solutions Boards and shareholder relationships Occupational medicine and health management Facility and mobility management 	<ul style="list-style-type: none"> Generation operations Generation portfolio development Coordination generation infrastructure Trading Research and development Occupational safety, crisis management and environmental protection 	<ul style="list-style-type: none"> DSO¹ electricity / gas TSO² electricity / gas Gas value chain Business field development and coordination Innovation management Critical infrastructure Telecommunications

¹ Distribution system operator.

² Transmission system operator.

Supervisory Board

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

The full version of the **Report of the Supervisory Board** is published here.

[Online ↗](#)

Further information on the Board of Management and Supervisory Board can be found in the Integrated Annual Report under the section on “Corporate bodies” ([p. 280 ff. ↗](#)) and the declaration of corporate management ([p. 151 ff. ↗](#)), which is also published separately at www.enbw.com/corporate-governance, as well as on our website in the Report of the Supervisory Board.

Annual General Meeting

The Annual General Meeting offers a platform for dialog with stakeholders and it is where shareholders exercise their rights with regard to company matters. The Annual General Meeting passes resolutions on the discharge of Board of Management and Supervisory Board members, the appropriation of earnings and the selection of the auditor. Resolutions of the Annual General Meeting only require a simple majority of votes in most cases. Each bearer share is equivalent to one vote.

Further information on the **Annual General Meeting** can be found on our website.

[Online ↗](#)

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

Overall, the shareholder structure is unchanged as of 31 December 2021 when compared to the previous year.

Shareholders of EnBW

Shares in %¹

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

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

Due to the coronavirus pandemic, the ordinary Annual General Meeting on 5 May 2021 was once again held as a virtual event. At the meeting, the shareholders of EnBW AG resolved to distribute a dividend of €1.00 per entitled share. Based on the shares entitled to dividends, this corresponds to a dividend payout of €270.9 million and thus a dividend payout ratio of 40% of the adjusted Group net profit ² of €682.8 million that is attributable to shareholders. The adjusted Group net profit/loss is the Group net profit/loss adjusted for non-operating effects. The dividends were paid on 10 May 2021.

As a result of the fact that the coronavirus pandemic was still ongoing at the end of 2021, the Board of Management and Supervisory Board decided, using section 1 (1), (2) and (6) of the German law on COVID-19 measures as a basis, to also hold the ordinary Annual General Meeting 2022 in virtual form on 5 May 2022.

Compliance and data protection

Compliance management systems

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

Depending on the type of corporate control over a company, the compliance-relevant companies with employees are either directly or indirectly integrated into the compliance management system of EnBW. The CMS and thus the compliance department focus on the prevention, detection and sanctioning of corruption, the prevention of violations against competition and antitrust laws, and the prevention of money laundering in those companies directly integrated into the CMS. In the reporting year, there were 23 (previous year: 30) companies directly integrated into the CMS from a compliance perspective. The CMS is regularly examined and updated both internally and externally.

The companies that are only indirectly integrated into the CMS – VNG, Stadtwerke Düsseldorf (SWD), ZEAG, Energiedienst (ED) and Pražská energetika (PRE) as well as the ITOs (Independent Transmission Operator) ¹ TransnetBW and terranets bw – operate their own independent compliance systems. They integrate the companies in which they hold a participating interest into their preventative measures.

We aim to safeguard our commercial success by combating compliance risks – especially corruption and bribery. Preventative risk assessment methods, advisory services and training concepts have been set up at EnBW, the compliance-relevant companies and the ITOs.

Compliance activities in the reporting year

The reporting year was still characterized by the coronavirus pandemic, which meant that most employees were working from home. The preventative activities related to compliance were largely held in online formats. In 2021, we held training in sensitive areas in accordance with our plans for the year. Training courses for employees in purchasing were the main focus across the Group. New employees at EnBW are obligated to complete an e-learning course on corruption prevention. All of the indirectly integrated companies held training courses to increase awareness among employees. The companies used either the available **in-person or online training courses**. The number of participants fell in comparison to the previous year by 13.9%.

Number of participants in compliance training events ¹

	2021 ²	2020 ²	2019	2018	2017
Sensitive areas	716	839	904	746	363
New management personnel/employees	355	369	229	182	158
Management personnel	34	75	52	13	441
Total	1,105	1,283	1,185	941	962

¹ At EnBW AG and directly integrated companies.

² Live online training courses and hybrid training courses due to the coronavirus.

The annual **compliance risk assessments** at EnBW investigate the corruption, antitrust, fraud and data protection risks and form the basis for all work relating to compliance. In 2021, they were carried out using a risk-based selection process at those companies directly integrated into the CMS.

The **advisory services** offered by the EnBW compliance department are available to all subsidiaries and represent another key element of prevention. They were also utilized in 2021. These services include a compliance hotline, which can be reached in person, either by e-mail or telephone. In 2021, the hotline received around 930 inquiries. Key issues included sponsoring, donations and gifts. Advice was also provided on topics such as conflicts of interest and the auditing of business partners.

Regular and recurring audits of business partners are carried out. The advisory services dealing with compliance themes at the indirectly integrated companies have also been used to good effect.

Meetings continue to be held and information exchanged across all specialist areas even while employees are working from home. This network plays an important role in compliance work and it has been possible to keep the network intact even during times with limited in-person meetings.

Compliance breaches

EnBW AG and the directly integrated companies have established reporting channels via which internal, and also external, whistleblowers can report suspected cases while remaining anonymous. Alongside EnBW AG, the companies ED, PRE, SWD, ZEAG, VNG, terranets bw and TransnetBW have also established a whistleblower system.

In the reporting year, there were four breaches at directly integrated companies. There was one compliance breach at SWD in the reporting year. No cases of corruption were reported.

We faced neither antitrust law penalty procedures nor third-party antitrust lawsuits in the 2021 financial year. Law enforcement agency investigations of individual employees and former members of corporate bodies relating to the so-called Russian business deals and the sales tax carousel in CO₂ allowance trading ⁸ also continued throughout 2021. It is not possible to say at the present time when these proceedings will end.

Data protection

In view of the increasing digitalization of our business activities, data protection plays an important role. Our efforts to bring more and more digitalization to the Group in order to both simplify internal processes and also develop new business models are closely accompanied by the data protection department. It supports the specialist areas with advice at an early stage and regular training to raise awareness, thus working to guarantee that the rights of the data subject are respected. Regular reports are submitted to the Board of Management and supervisory bodies to ensure transparency and control. We set a standard for the processing of personal data by using internal data protection guidelines within the Group that define objectives, the principles for the processing of the data and the procedures themselves. We also have an established reporting system for reporting any data protection breaches. A network of decentralized data protection managers supports compliance with the legal and internal Group regulations. This network regularly receives information, advice and training from the central data protection department. To ensure that data flows within the Group remain transparent, an interdisciplinary body meets three times a year to discuss the framework conditions relating to data protection law, information security issues, and any activities dealing with data and digitalization.

In sensitive areas of the company, digital learning activities and online/in-person training courses are used to raise the awareness of employees in relation to this theme. We also offer special e-training courses and educational campaigns for areas of the company that work particularly closely with personal data.

In dialog with our stakeholders

Our stakeholders

Continuous dialog with our internal and external stakeholders is an important element in the design and orientation of our business activities. The most important **stakeholder groups** include (in alphabetical order) customers, employees and job applicants, environmental associations and civil society organisations, local authorities and municipal utilities, the political community and the media, shareholders and the capital market, society, and suppliers and business partners.

The **Energy & Climate Protection Foundation** provides the ideal platform for dialog on the future of energy.

Online [↗](#)

The expectations of our stakeholders are taken into account in the strategic positioning of the company and when making business decisions. At the same time, we critically and constructively discuss the necessary conditions for the development of efficient, reliable and sustainable infrastructure with relevant stakeholders on the basis of transparent information. As part of this dialog, it is also important for us to listen to critical opinions such as those expressed at events held by our Energy & Climate Protection Foundation. It is our belief that mutual understanding, social acceptance and trust are increased further through this **open and respectful exchange** of insights and perspectives. In addition, it can also help us to identify central developments and key topics at an early stage. The dialog with stakeholders thus contributes to the economic success of the company. Therefore, we will further intensify this dialog – with a special focus on the themes of the Energiewende, mobility transition, climate protection and sustainability.

Materiality analysis

We have continuously expanded our processes over the last few years for identifying material topics and linking them with the development of the company's strategy. Material aspects are determined based on our non-financial declaration and on the International Reporting Framework, as well as in accordance with standards for sustainability reporting issued by the Global Reporting Initiative (GRI). In addition, current developments flow into the determination of future key issues, such as the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) [↗](#) on climate-related risk reporting.

We consider topics to be material if they have a significant influence on long-term value added and thus the performance and future viability of our company. Contributions to the strategic orientation of the company as a sustainable and innovative infrastructure partner are of particular importance in this context. Furthermore, aspects reflecting any important economic, ecological and social impacts our company may have and that significantly influence the perception of stakeholders are also taken into account.

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





The **materiality analysis process** comprises three steps: the creation of an overview of the themes relevant to strategy and communication, the development of a list of themes relevant from the perspective of sustainability and the derivation of material themes from the reputation analysis. During each step of the process, the themes identified are regularly compared to the key themes that were dealt with by the Supervisory Board in the reporting year. Every step entails a prioritization of the themes, which ultimately leads to a final list of the top themes. The **material themes** and events at EnBW in the 2021 financial year are allocated to the three segments in the overview of the segments [\(p. 37⁷\)](#) and listed in the section "Anchoring sustainability as a strategic compass" [\(p. 42ff.⁷\)](#).

Sustainable Development Goals

The Sustainable Development Goals (SDGs) [↗](#) define the global framework for building a sustainable future. These goals were published by the United Nations in 2015 as part of the Agenda 2030. The 17 overarching goals and 169 targets focus on global challenges in an economic, ecological and social context. All sectors of society – including companies – have been called on to make their contribution to achieving the SDGs.

Contribution made by EnBW to the Sustainable Development Goals (SDGs)

Four key SDGs at EnBW – activities and performance indicators (examples)

 <p>SDG 7: Affordable and clean energy</p> <ul style="list-style-type: none"> Expansion of renewable energies (RE) Climate friendly products (e.g. green electricity) <p>Performance indicators: Installed output of RE, Customer Satisfaction Index</p>	 <p>SDG 9: Industry, innovation and infrastructure</p> <ul style="list-style-type: none"> Expansion and operation of electricity and gas grids Research, development and innovation management <p>Performance indicators: SAIDI (Electricity), SAIDI (Gas)</p>	 <p>SDG 11: Sustainable cities and communities</p> <ul style="list-style-type: none"> Expansion of quick-charging infrastructure for electromobility Expansion of broadband infrastructure <p>Performance indicators: Number of quick-charging sites (EnBW HyperNetwork)</p>	 <p>SDG 13: Climate action</p> <ul style="list-style-type: none"> Climate neutrality by 2035 Biodiversity at EnBW sites <p>Performance indicators: CO₂ emissions, CO₂ intensity (generation)</p>
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Other important SDGs at EnBW



We have taken international standards and frameworks, such as the SDGs, into account in the development of the EnBW sustainability agenda (p. 43 f. 7). As a sustainable and innovative infrastructure partner, we want to contribute to the achievement of these goals through our activities while also creating value for our stakeholders. In particular, we make a contribution to **four key SDGs**, which was clearly demonstrated by the results of our materiality analysis and our material themes in the 2021 financial year.

Sustainability ratings

We maintain close contacts with leading sustainability rating agencies and take their analyses and evaluations of the corporate strategy, the company situation and its business prospects into account in our decision-making process. In the selection of agencies, the main focus is placed on, among other things, transparent and plausible evaluations and efficient working processes between the rating agencies, companies, investors and sustainability analysts. We strive to continuously improve our ratings from recognized agencies in the area of sustainability. We thus aim to strengthen our position as a responsible and sustainable company and also want to address those financial investors whose investment decisions are based wholly or partially on sustainability criteria.

Further information on **sustainability ratings** can be found on our website.

Online 7

Latest sustainability ratings

	CDP	ISS ESG	MSCI	Sustainalytics
Result	B/Management (2021)	B/Prime (2021)	A/Average (2021)	31.0/High Risk (2021)
Scale	A to D-	A+ to D-	AAA to CCC	0 to 100
Relative position	"Electric Utilities" sector worldwide: EnBW rated in the top 32%.	"Multi Utilities" sector worldwide: EnBW rated in the top 10%.	"Utilities" sector worldwide: EnBW has an average rating.	"Utilities" sector worldwide: EnBW rated in the top 32%.
Rating focus	Climate protection	Social, governance and environmental aspects	Social, governance and environmental aspects	Social, governance and environmental aspects

In 2021, we received good scores within the energy sector in important sustainability ratings. In the ISS ESG Rating in October 2021, for example, we received a score of B for the first time and thus improved from our previous score of B- (scale A+ to D-). B is currently (as of October 2021) the best score awarded in the “Multi Utilities” sector (comprising a total of 61 companies). We are thus rated in the top 10% in this sector and have once again been awarded Prime Status.

Further details on non-financial performance indicators are presented on [p. 93 ff.](#)⁷, while information on the financial ratings from the rating agencies Moody's and Standard & Poor's can be found on [p. 82 f.](#)⁷.

Social engagement

Our commitment to addressing the concerns and interests of society focuses on the target groups of end customers, business partners and local authorities. Support for superordinate social issues is concentrated on the **core areas** of popular sport, education, social issues, the environment and art and culture. We also refer you to the details provided in the “Report on opportunities and risks” ([p. 131](#)⁷).

The Group guidelines on corporate sponsoring, memberships, donations and involvement with universities govern the goals, responsibilities, standards, principles and processes for EnBW AG and all of the domestic companies in which it holds a controlling interest. Companies based outside of Germany must comply with the EnBW guidelines for foreign companies. **Donations** are documented in a donation report that is presented annually to the Board of Management. In 2021, donations made by the EnBW Group came to €3.7 million, following €3.1 million in the previous year. Donations worth €950,000 (2020: €1 million) were attributable to EnBW AG. The increase in donations by Group companies is primarily due to one-off payments to foundations belonging to VNG within the Group and the scaling up of the “postal charge” donations by Netze BW.

The EnBW Board of Management decided a number of years ago not to send Christmas gifts to business partners. Instead, we once again made donations to **social projects in Baden-Württemberg** in 2021 and supported eight charitable campaigns and campaigns initiated by readers of regional newspapers in Baden-Württemberg with total donations of €32,000. Following the **flood disaster in the Ahrtal** region, EnBW donated €100,000 in emergency aid to the Action Alliance for Disaster Relief. Our employees also launched initiatives to raise funds for the flood victims. The company doubled the amount donated by its employees and it was thus possible to make further donations of over €300,000, with half going to “Aktion Deutschland Hilft” (Germany's Relief Coalition) and the other half to the Federal Agency for Technical Relief (THW). A total of around 100 fitters from Netze BW and the grid company Ostwürttemberg DonauRies were deployed to the flooded areas to assist on a daily basis over a period of four weeks with the provisional reconstruction of the destroyed low-voltage electricity grid. The EnBW Food Truck also distributed more than 1,000 meals each day for ten days in the disaster zone. In order to **combat the coronavirus pandemic**, we supported the COVAX vaccination campaign from UNICEF through fundraising activities. We also supported social and charitable projects with the **“Making it happen bus.”** The projects this year included constructing a wheelchair swing and a “social fence.” We continue to support the **“Let's Volunteer” initiative** launched by our employees by giving two employees who volunteer in their local communities €1,000 to donate to a charitable association each month. In 2021, our subsidiary Netze BW once again donated the postage saved when customers submit their electricity meter readings electronically to numerous charitable organizations in the respective local authority areas.

Pražská energetika (PRE) supported the Charta 77 Foundation – Barriers Account, as well as other charitable organizations focusing on philanthropy, medicine, social and education activities, and environmental protection, in 2021. **Stadtwerke Düsseldorf (SWD)** participated in the “Pacemaker Düsseldorf” initiative, which is supporting the digitalization process in usually five high schools per year. In addition, the employees at SWD also launched the fundraising campaign “Together For Düsseldorf” to help those people impacted by the flooding of the Düssel river. The company supported the campaign and doubled the donations made by its employees. Through the VNG Foundation, **VNG** supports the “Network of Warmth” charitable network that promotes charitable work in Germany.

Since 2016, employees have regularly supported social and charitable projects with the EnBW “Making it happen bus.”

Online [↗](#)

Donations were made to a total of 47 projects in 2021, which marked the foundation's 20th anniversary. To aid citizens affected by the flood disaster in Germany, the VNG Foundation donated €10,000 to the "Saxony Helps" campaign. The employees of VNG also collected money for "Aktion Deutschland Hilft." The company doubled the amount collected by the employees so that €20,000 could be donated in total.

Party donations and lobbying

Transparency with regard to party donations and lobbying is part of our 25-point sustainability program [\[p. 41↗\]](#). The EnBW Code of Conduct stipulates that no donations may be made to political parties, organizations affiliated with them, civil servants, elected representatives or candidates for public office. The Code of Conduct has been valid since 2009 for EnBW AG and all companies in which it holds a controlling interest.

Our lobbying activities are coordinated in our offices in Brussels, Berlin and Stuttgart. As well as maintaining direct contact with political decision makers or their employees and participating in relevant events, we also engage in political dialog by publishing position papers and contributing to consultation processes either directly or via associations. At the same time, we hold our own specialized political events and conferences at our sites. Furthermore, we work together with sector associations and initiatives, research institutes, foundations and think tanks [?](#) at a local, regional and European level.

In dialog with citizens

Due to the coronavirus pandemic, it was once again impossible to hold many visits, tours and events in person in 2021. Instead, we used digital **formats for events to inform and enable the participation of citizens** to a much greater extent. For example, a digital event on the planned conversion of the heat and power plant in Stuttgart-Münster was held in April to present the current status of the project. Similar formats were also used during the course of the year to give information on the planned construction measures at the EnBW generation sites in Heilbronn, Altbach/Deizisau and Walheim. The closing ceremony for the "E-Mobility-Carré" grid laboratory from Netze BW was also held in digital form, while citizens were invited to participate in a total of five events focusing on "The new Stöckach" in the east of Stuttgart in 2021, two of which were held in person in the summer and three as virtual events [\[p. 95↗\]](#).

Events relating to the **dismantling of the nuclear power plants** we operate were also mainly held in digital form in 2021. A key communication event was the digital press conference in March in which we informed citizens in detail via media representatives about the progress made with the dismantling work over the last ten years. In addition, we actively participated in two events held by BGZ – a state-run company responsible for the intermediate storage in Philippsburg – that provided a forum for discussions with public officials and citizens on the return transport of radioactive waste for reprocessing in Philippsburg. We were also guests at the virtual information forum "Nuclear Safety and Radiation Protection" organized by the Ministry of the Environment Baden-Württemberg.

We plan, construct and operate wind farms and photovoltaic power plants in direct partnership with, and through the participation of, local authorities and citizens. Local citizens are able to use a **citizen participation platform** to participate financially in regional renewable energy projects. The subscription process has been fully digitalized on our platform since 2020. In 2021, we were able to successfully launch two citizen participation models in Maßbach and Welgesheim in accordance with the new Prospectus Regulation.

You will find a selection of the associations of which EnBW and its Group companies are **members** here.

Online [↗](#)

Further information on the **district development project "The new Stöckach"** can be found here.

Online [↗](#)

The **citizen participation platform** can be found here.

Online [↗](#)

In dialog with our stakeholders

Selected activities in dialog with our stakeholders

Stakeholder	Opportunity for dialog	Main themes	Further information
 Shareholders / capital market	Telephone conference with investors and analysts	Quarterly presentation and Q&A session on the development of the company	www.enbw.com/conferencecall
	Annual General Meeting	Dialog with shareholders	http://hv.enbw.com
	Investor update and road show	Meetings on corporate strategy and development	www.enbw.com/investor-update
 Society	Aid campaigns	Emergency aid, fundraising and on-site assistance for flood victims and fundraising for a coronavirus vaccination campaign	page 55 f. [↗]
	Participation in "The new Stöckach"	Continued intensive dialog with citizens in formats such as themed talks, creative workshops and participation lounge	page 56 [↗] www.der-neue-stoeckach.de
	Dialog with citizens	Events to inform and enable the participation of citizens in fuel switch projects, expansion projects for wind/PV and the dismantling of nuclear power plants	page 56 [↗]
	Events held by Junge Stiftung	Networking meetings, Energy Campus idea competition, energy reporters, partner for the Congress Lab at KongressBW 2021	www.energie-klimaschutz.de/junge-stiftung
	EnBW start-up grants and Innovation Challenge	Supporting entrepreneurs and young start-ups in the further development of business models	www.enbw.com/gruenderstipendium www.enbw.com/innovationchallenge
	Engagement in art and culture	Exhibitions "Release and Art" and "The New Leipziger are Coming!", "Energy meets Art"	www.enbw.com/kunst www.enbw.com/evbz-waldbronn
	Tours and information events	Virtual power plant tours offered to universities, schools and interested members of the public	www.enbw.com/besichtigungen
 Local authorities / public utilities	Local authority events	Local authority energy days, advice forums, regional and general advisory board meetings, trade fairs and events	www.enbw.com/kommunen
	Energy Team Baden-Württemberg	Open communication and cooperation platforms for supply companies in a competitive environment	www.energie-team.org
 Customers	Dialog and discussion with customers, networking events	Test customer panel, Netze-BW Knowledge Week, GDA Net[t]work Talk, Greentech Festival, IAA mobility, strategy dialog with automotive sector, Energy Efficiency Network, Yello Tiny House	www.enbw.com/wissenscampus www.greentechfestival.com   www.enbw.com/netzwerke
	School competition "Climate heroes wanted"	School competition in cooperation with a local authority on the theme of supplying heating via contracting	www.enbw.com/klimahelden
	Customer blog, social media channels, newsletters, campaigns, podcasts and explanatory videos	Latest information on products, offers, services and the corporate culture	www.enbw.com/blog   www.enbw.com/hypernetz www.yello.de    
 Suppliers / business partners	Dialog on managing coal and gas procurement responsibly	In-depth discussions with coal producers through virtual dialog, dialog within the Bettercoal initiative	page 64 ff. [↗] www.enbw.com/coal-procurement www.bettercoal.org
	Discussions and cooperation with suppliers	Central access to selected information and self-service access via the supplier portal	www.enbw.com/supplier-portal
 Employees and applicants	Employee communication	EnBW now, "EnBW News" app, social intranet, Yammer, BestWork, EnBW InnoWeeks, Barcamp #sustainable EnBW	page 105 [↗]
	Diversity campaigns	Diversity Day, Girls' Day, themed week to mark International Women's Day, Christopher Street Day Stuttgart, Pride Network	www.csd-stuttgart.de
	Social engagement of employees	Support for "Let's Volunteer" initiative and the EnBW "Making it happen" bus	page 55 [↗] www.enbw.com/macherbus
	Opportunity for dialog with potential employees	Company trips, company contact fairs such as TalKIT, konaktiv, target group-specific recruitment campaigns, etc.	www.enbw.com/career Instagram channel "EnBW Careers" 
 Politics / media	Discussion events held by the Energy & Climate Protection Foundation	Urban Digital Talks and Urban Home Talks, five debate evenings on climate protection and sustainability	www.energie-klimaschutz.de
	Events and opportunities for dialog	Events held by the EnBW Energy and Business Club (EWC), discussion format and exchange of ideas with politicians from the German Bundestag, state parliament and EU, local authority forum	
	Assessment of reform options for the EU ETS	Study commissioned by EnBW on the reform of the European emissions trading system and charges for CO ₂ emissions	PDF download study 
	Active and transparent communication via the media	EnBW Newsroom, major articles in daily newspapers and magazines such as Handelsblatt or Süddeutsche Zeitung and via social channels, press conference for the annual results	www.enbw.com/newsroom  
 Environmental associations, civil society organizations	Biodiversity: Funding program "Stimuli for Diversity"	Support for six new funded projects to protect amphibians and reptiles	www.enbw.com/biodiversity
	Sustainability and Energiewende Days	Continued participation in numerous campaigns related to sustainability and the Energiewende	www.energiewendetage.baden-wuerttemberg.de
	Climate dialog	Event held twice a year both at a federal and state level to discuss climate protection and the Energiewende with environmental associations, unions, etc.	

Research, development and innovation

Research and development: Goals

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

Research, development and innovation also lead to inventions and patents in many cases. The portfolio of patents grew by one patent (previous year: -20) in 2021; the EnBW Group thus held 225 patents (previous year: 224) at the end of the year. The patents held by EnBW focus mainly on the areas of renewable generation, gas and electromobility.

Research and development: Selected activities

Wind energy: Offshore wind power plants with fixed foundations are limited to shallow waters with water depths of up to around 50 m. Floating platforms could be used to install wind turbines in deeper waters. In cooperation with partners, we are investigating several different concepts for floating offshore wind farm projects that would be suitable for opening up new international offshore wind energy regions. In cooperation with the engineering company aerodyn from northern Germany, we have tested a 1:10 scale model of a new design for floating wind turbines called **Nezzy²**, which proved to be storm-proof even under real conditions in the Baltic Sea in 2020. In 2021, the design was optimized and tailored for the next phase of the project: a 1:1 scale model for the test site in the South China Sea and another possible site in the North Sea. It was possible to reduce the weight of the entire turbine by 500 t, while at the same time, improving its nominal output by up to 25%, depending on the location. The aim is to test the 1:1 model in 2022. We had planned to test a different floating foundation together with another European company in the Irish Sea in 2023 but the test was delayed once again and it is now highly likely that it will be impossible to complete it on time even at an alternative site. We will thus be discussing how to proceed with the project in the next few months. Floating foundations remain an important element for the implementation of our offshore strategy and will thus also be the subject of further research activities in the future.

Photovoltaics: Our subsidiary EnPV, which was founded in December 2017, is working on the commercialization of the research results from a joint project with the University of Stuttgart. In 2021, it enhanced the design for **powerful non-toxic silicon solar cells** and developed a construction plan for the very efficient and inexpensive production of the cells. In October 2021, EnPV signed a letter of intent with an international cell producer to examine the possibility of jointly producing the cells in Europe.

Geothermal energy: In addition to the production of electricity, geothermal energy has the potential to reduce the use of fossil fuels in heating networks. We support our business partners, such as local authorities, in decarbonizing their **heating networks using geothermal energy**. In August 2020, our joint bid with MVV for an exploration project to the south of Mannheim was accepted by the State Agency for Geology, Raw Materials and Mining (LGRB). The two companies founded the company **GeoHardt for this purpose at the beginning of 2021**. This company examined the geophysical conditions in the area in 2021 and processed the results in a simulation model that can be used to identify suitable sites in discussion with stakeholders such as local authorities, associations and citizens. A geothermal plant in Bruchsal – operated jointly with the company Stadtwerke Bruchsal – has now been reliably supplying geothermal heat to a nearby police station for the third heating season in a row. Following a long modernization phase, it was also possible to place the electricity generation plant back into operation in 2021.

Hydrogen from renewable energies: We also want to provide our customers with carbon-neutral gaseous energy sources in the long term. We are carrying out research in this field in the two projects “alkaline hydrogen electrolysis plant” and “H₂Mare.” The **alkaline hydrogen electrolysis plant in Wyhlen** has been operated by our subsidiary Energiedienst (ED) with funding from the State of Baden-Württemberg using electricity generated from hydropower since 2018. In the reporting year, ED started work on expanding the capacity of the plant by 5 MW to 6 MW as part of the “Reallabore” tender process from the German Federal Ministry for Economic Affairs and Energy (BMWi) with the

Further information on the **floating wind power plant Nezzy²** can be found on our website.

Online ↗

Further information on the **Hardt geothermal project** can be found here.

Online ↗

Find out more about the **hydrogen projects in Wyhlen** here.

Online ↗

aim of supplying a district, as well as industry and customers in the mobility sector, with hydrogen produced from green electricity. The plant in Wyhlen is thus now the largest power-to-gas plant in southern Germany. In the **H₂Mare** project, a consortium of industry and research partners, in which EnBW is also participating, is carrying out research into the production of green hydrogen directly in offshore wind power plants. We want to develop the skills we will need to also construct and operate hydrogen plants at wind power plant sites in the future, although regulatory and economic aspects are also important. In four different subprojects with a total of 35 partners, H₂Mare will lay the groundwork to become a technological leader in this field in just four years. The aim is to support the climate targets by speeding up the decarbonization of the industry, heating and transport sectors. Our main priority is to gain experience in hydrogen logistics and the electrolysis of saltwater out at sea. We are thus taking a big step forward on the path to generating affordable green hydrogen.

Further information on the **“Hydrogen Island Öhringen”** project can be found on our website.

[Online ↗](#)

The **“Energy Park Bad Lauchstädt”** is a demonstration of the entire value added chain for hydrogen.

[Online ↗](#)

Hydrogen in the gas grid: Our subsidiary Netze BW started a pilot project called the **“Hydrogen Island Öhringen” in 2020 in the City of Öhringen in the Hohenlohe district that is unique across Germany**. A section of the existing natural gas grid is being disconnected and will be supplied independently. The conversion work should be completed at the beginning of 2022. A natural gas mix with a green hydrogen content of up to 30% will be used in the island grid. The hydrogen will be produced with the aid of an electrolyzer on the premises of Netze BW. In a first stage, the company building has already been supplied with a hydrogen/natural gas mix since December 2021. This project will run for several years and aims to demonstrate that the natural gas grid can be decarbonized using zero-emission energy sources – just like the electricity grid. At the field laboratory **“Energy Park Bad Lauchstädt”** in the middle of Germany, we are investigating the entire value added chain for green hydrogen on a large industrial scale, from its production and transport through to its storage and application, in a project led by VNG. A main focus will be testing the storage of the hydrogen in an underground salt cavern. The project was awarded funding from the German Federal Ministry for Economic Affairs and Energy in 2021. The field laboratory in Bad Lauchstädt was also selected by the European Clean Hydrogen Alliance as one of the projects to establish a European hydrogen industry. The European Clean Hydrogen Alliance was founded in July 2020 by the EU Commission to support the EU’s hydrogen strategy with the aim of stimulating the rollout of clean hydrogen production and use in Europe.

Internal carbon pricing: Internal CO₂ pricing is an emerging method for reducing a company’s own emissions. A corresponding model for EnBW was developed as part of a dissertation at the Sustainability Center Freiburg. Using case studies on internal CO₂ pricing in real estate, catering/canteens and mobility, the project is demonstrating how, even outside of the area of energy generation, internal processes can make an important contribution to reducing CO₂ emissions and how pricing can provide useful incentives.

E-mobility in rural areas: Our subsidiary Netze BW has analyzed what impact the charging of e-cars can have on rural electricity grids in the “E-Mobility-Chaussee” grid laboratory. The operational tests were concluded in July 2021. During an 18-month practical test, we gained important insights into the user behavior of our customers in these regions and how electromobility can be integrated into rural distribution grids. Static and above all dynamic variants of the load management system offer the greatest potential for improving the capacity of our distribution grids for the integration of e-vehicles. The grid-friendly management of charging infrastructure using measurements of, for example, the current and voltage values, taken in real time make it possible to supply electricity to almost twice as many vehicles at peak times than in grids without optimization measures.

Smart charging at home: Successfully integrating electromobility into the grid will require a smart and powerful electricity grid. In view of the current dynamic scaling up of electromobility, it will be necessary to optimize the existing electricity grid to quickly increase its capacity to handle the required charging infrastructure. The fact that electric vehicles are left unused for long periods of time in the private sector will be utilized to relieve the burden on the grid and enable the flexible and scalable management of charging stations using a smart measurement system. In Netze BW’s “Smart Home Charging” grid laboratory, scalable solutions are being developed and tested at various sites in different stages that build upon one another. Field tests are currently being carried out at the sites in Wangen im Allgäu and Künzelsau.

Further information on **integrating electromobility into the grid** can be found on our website.

[Online ↗](#)

Quick charging for trucks: In cooperation with partners, EnBW is planning to construct a quick-charging station for heavy-duty trucks. The pilot project is part of the initiative “Pilot Charging and Filling Station Infrastructure for Long-Haul Trucks” initiated by the Federal State of Baden-Württemberg, for which EnBW signed a corresponding letter of intent in October 2021. The concept for the chosen site will be developed in 2022 and aims to set a new standard in the sector with a charging output of up to 1,000 kW per truck. The charging station will be constructed and placed into operation in 2023. The most powerful charging points for passenger cars are currently able to deliver a charging output of up to 300 kW. Our subsidiary Netze BW is using the project to investigate how the quick-charging of trucks can be integrated into planning for the electricity grid. This project expands EnBW’s commitment to the task of preparing the infrastructure for the electrification of heavy goods vehicles. Megawatt charging will be tested at four sites between Berlin and the Ruhr region of Germany as part of the BMVI project HoLa (high-performance charging of trucks) between 2023 and 2025 in cooperation with a large consortium of partners from the worlds of business and science.

Inductive charging: Our site at the Port of Karlsruhe was connected to the public transport system with its own electric bus in 2021. The special feature of this electric bus is that the batteries are charged inductively during the journey. This charging technology involves inductive coils being embedded in the road surface. As soon as the vehicle drives over them, the receiver coils fitted on the underbody are activated. Electrical energy is generated in the coils via a magnetic field and is stored in the vehicle’s battery. This enables the vehicle to cover long distances without the need to stop to recharge. We are thus testing contactless charging of the electric bus during everyday use. The contactless charging technology originates from the Israeli start-up ElectReon. The e-bus has been in regular operation since August 2021 while we continuously optimize the infrastructure in the bus and road.

Further information on the **extraction of lithium** at the Bruchsal geothermal plant can be found [here](#).

[Online ↗](#)

Sustainable extraction of lithium: In cooperation with the Karlsruhe Institute of Technology (KIT) and other firms and institutes from the world of science, we are investigating a process to sustainably extract lithium from thermal water as part of a research project. In December 2020, we received funding approval for the four-year project. At existing geothermal plants – such as in Bruchsal – special carrier material will be used to selectively separate lithium from the rest of the thermal water. After successfully testing the process in the laboratory, the challenge is to transfer the process to an operating geothermal plant. The concept for the implementation in the plant at the site was developed in 2021 and several suitable carrier materials were identified. The pilot plant will be constructed during the course of 2022. Tests will then be completed to find out which carrier materials and parameters are the best for extracting the most lithium.

Research and development: Expenditure and personnel

In the 2021 financial year, we spent €38.6 million (previous year: €70.6 million) on research and development. EnBW innovation management was no longer included in the figures in 2021 because the gradual growth in revenues and the funds deployed for this purpose are distorting the presentation of expenditure on research and development. Adjusted for this change, expenditure on research and development increased in 2021 by 15.2% (previous year restated: €33.5 million). As in the previous year, we received government research grants of €1.0 million. There were a total of 66 employees in areas dedicated to research and development at the Group (previous year: 93 employees). In addition, 253 employees (previous year: 185 employees) were involved in research and development projects as part of their operational work.

Expenditure on research and development

in € million	2021	2020
Grids	18.8	16.0
Generation from renewables	5.2	7.0
Smart energy world, storage and electromobility	7.1	5.9
Hydrogen	6.5	1.8
Dismantling	0.0	1.4
Customer-related research projects	0.7	0.9
Other	0.3	0.6
Total ¹	38.6	33.5

¹ The figures may not add up due to rounding differences. The figures for the previous year have been restated.

+15.2%

increase in expenditure on **research and development** compared to the previous year.

EnBW has been awarded the **Digital Lab Award 2021**, again making it one of the best digital innovation laboratories in Germany.

[Online ↗](#)

Jürgen Stein, Head of EnBW Innovation, explains **how an idea can be turned into a company**.

[Online ↗](#)

ENV was the first German venture capital company to be awarded the **Diversity VC Standard**.

[Online ↗](#)

The founder of Switchboard tells us **how her start-up can contribute to the Energiewende**.

[Online ↗](#)

The **solar power plants** on the roofs of the EnBW charging parks are part of the **virtual power plant**.

[Online ↗](#)

Innovation management

EnBW Innovation has been an integral part of the Group since 2014. In partnership with committed company founders, investors and employees, we develop new business models related to the key themes of Smart Grid , Digital Energy Management & Trading, Connected Home, Mobility, Urban Infrastructure and Telecommunications & Data Solutions. The **innovation strategy** focuses on two main approaches: the generation and scaling up of new business models and investments in external start-ups by EnBW New Ventures.

Networking and transformation were the **main areas of focus** for EnBW Innovation in the last few months. For this purpose, we defined six relevant search fields for new business and streamlined the innovation portfolio. The acquisition of the majority shareholding in DZ-4 in June 2021 was one of the resulting measures. DZ-4 is the market leader for the leasing of solar power plants and battery storage systems and has been part of the ENV portfolio since 2015. We also intensified our networking activities both inside and outside of EnBW. The result: a great willingness to cooperate, interdepartmental collaboration in the Group and a regular exchange of ideas and information – above all with research and development and the Digital Office. To improve our networking outside of the company even further, we organized the first **Innovation Challenge** in April 2021. The winners received a start-up grant from EnBW.

EnBW New Ventures (ENV) invests in start-ups that develop sustainable and mostly digital solutions for infrastructures. The aim is to use the total initial investment volume of €100 million to secure minority shareholdings of between 10% and 30% in up to 20 start-ups, with an investment period of four to eight years in each case. It has a closed business model (evergreen structure) and any profits generated are invested in new start-ups. ENV plays the role of an active investor, supports the start-ups as a business coach or kind of “sparring partner” and is represented on their boards. The start-ups receive access to professional investor expertise via ENV. In addition, commercial cooperation with the operating units at EnBW is also possible. ENV was able to successfully conclude its first two exits in 2021 with Lumenaza and Replex.

Innovation: Selected activities

EnBW Innovation founded two start-ups in 2021: **Parconomy** works with cities and local authorities to transform parking management and thus reduce the environmental pollution caused by cars in cities. An open roaming platform is used to digitally manage access to parking spaces in Germany, and possibly across Europe in the future, and enables cashless payment for their use. The start-up **Switchboard** offers an online marketplace for programming interfaces or so-called APIs. Companies can use the marketplace to buy and sell solutions. Switchboard is initially offering an API for photovoltaic yield forecasts. It was developed by EnBW and makes it possible to reliably forecast the electrical output of PV power plants. Other interfaces and services are planned.

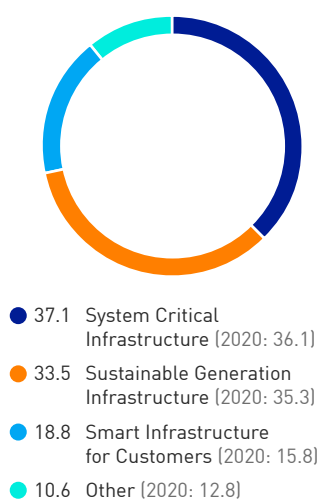
One of the major challenges of the Energiewende is the transition from just a few central conventional power plants to many millions of decentralized renewable energy power plants. We are exploiting the possibilities offered by digitalization to develop a future-oriented solution: Our **virtual power plant** unites many small power plants such as wind turbines, photovoltaic power plants, CHP power plants and hydrogen power plants via a digital platform and joins them together in a network. The “amassed” green electricity is then sold on the electricity markets for the benefit of customers. In 2021, the virtual power plant grew from 2,000 power plants to over 5,000 power plants with a total capacity of more than 2GW. The solar power plants at the EnBW charging parks also belong to the virtual power plant.

Procurement

Efficient and sustainable procurement processes

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

Procurement volumes of the EnBW Group by segment in %

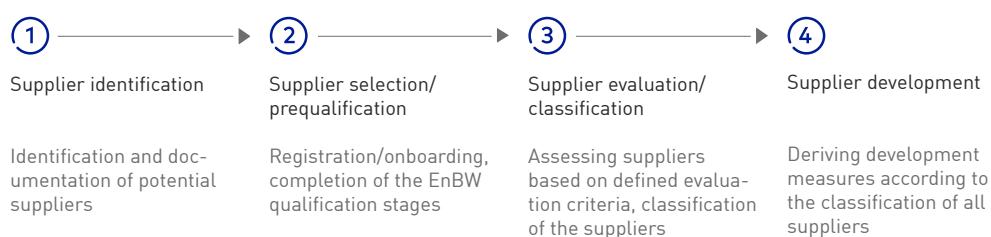


The **procurement volume** of the EnBW Group in 2021 (without ITOs ⁸) amounted to around €3.5 billion (previous year: around €3.2 billion).

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

Sustainable procurement begins with the careful selection of business partners. Central purchasing at EnBW AG uses a standardized **prequalification process** for this purpose. Suppliers are required to provide a self-assessment via our supplier portal on whether they have sustainable measures in place in the areas of environmental management, occupational health and safety, the respect for human rights, the fight against corruption, data protection and quality management. This self-assessment was completed by around 85% of our suppliers by the end of 2021 (measured by procurement volume).

Supplier management process



The **coronavirus pandemic** continues to have a significant impact worldwide on supply and demand along the supply chain. This results in some cases in legal and economic consequences that make having an effective supplier management system crucial. As an energy company and operator of critical infrastructure we are acutely aware of the responsibility we have – not only during this crisis. In order to assess the impact the coronavirus pandemic will have in the future, we work with various, in some cases extreme, scenarios. Purchasing uses these to identify critical operating resources and to largely exclude supply risks by employing our multiple supplier strategy and by strategic stockpiling of the majority of these critical operating resources. For EnBW, the various shortages have primarily manifested themselves in higher prices and longer delivery times for these goods, although there was only a minor impact on procurement processes in the financial year. Shortages of raw materials, finished parts and services will remain a central theme in 2022.

We aim to fulfill our responsibilities for our **supply chains** in accordance with the Guiding Principles on Business and Human Rights of the United Nations. Further information can be found on our website.

Online [↗](#)

Respecting human rights and protecting the environment are key pillars of our corporate culture. In cooperation with our business partners, we aim to **improve the situation with respect to sustainability across the entire supply chain**. We are thus planning to make our procurement process even more sustainable in the future – especially with consideration to social and ecological aspects. As part of a sustainable procurement project, which is one of the measures in the EnBW sustainability program ([p. 41](#)), a Supplier Code of Conduct (SCoC) was developed in 2020. It was introduced in 2021 as a shared set of values and an important criterion for the selection and development of our suppliers. As a consequence, all of our suppliers must fulfill binding minimum requirements with respect to sustainability as part of the prequalification process by 1 January 2023 at the latest. In addition, we analyze and evaluate sustainability risks and sustainability potential in the procurement markets and at our suppliers and, where necessary, agree measures to improve sustainability with our suppliers and evaluate their effectiveness together. We will be able to identify and reduce social and ecological risks in this way (German Supply Chain Due Diligence Act). Alongside the careful selection of suppliers and targeted supplier development activities, the deliberate procurement of sustainable products and services has also become an increasingly important aspect of sustainability in our supply chain. Our goal is to develop resilient and sustainable supply chains that supply products and services that fulfill all requirements with respect to human rights and environmental due diligence according to national and international standards. Furthermore, we will use the carbon footprint and other sustainability criteria as measurable decision-making criteria for the award of all relevant contracts. In purchasing, long-term relationships with our suppliers, communication and cooperation are particularly important to us.

Various **automation and digitalization initiatives** have been introduced in central purchasing at EnBW AG with the aim of simplifying our processes even further and, in particular, ensuring that any recurring procurement activities are carried out with the minimal amount of effort. This will allow us to concentrate on valuable and future-oriented strategic growth themes in the Group, such as the expansion of renewable energies and broadband [🔗](#). As part of a Group-wide transformation project, a new purchasing system was introduced in central purchasing. The new purchasing system makes cooperation between suppliers, specialist departments and central purchasing significantly easier. Prequalification and supplier evaluation procedures, the ordering process and self-service applications have been greatly simplified and made much more intuitive. In addition, a catalog platform containing almost 25 million items has been introduced that can be accessed by the employees of EnBW AG.

Our **subsidiaries** that are not overseen by central purchasing at EnBW AG address non-financial aspects in purchasing using their own mechanisms. **Energiedienst Holding (ED)** works together closely with central purchasing at EnBW AG to procure important product groups using joint invitations to tender and framework contracts, including the associated prequalification processes. In addition, orders are placed largely with regional suppliers from Germany, Switzerland or neighboring EU countries. Purchasing at the companies of **Pražská energetika (PRE)** ensures that suppliers observe practices such as the payment of social security contributions, the settlement of tax liabilities and the prevention of money laundering. Potential suppliers must verify their compliance with these aspects by either submitting a sworn declaration or by presenting corresponding certificates when bidding for invitations to tender. The fulfillment of these obligations is also stipulated in supplier contracts. At **Stadtwerke Düsseldorf (SWD)**, sustainability aspects are anchored in the compliance guidelines, environmental management system manuals and process descriptions. In the area of procurement, SWD pays particular attention to the use of environmentally friendly and sustainable products. It also uses clauses in its supplier contracts as a way to reinforce the fight against corruption and bribery and to ensure observance of labor and social laws. The fundamental principles for procurement at **VNG** are regulated by a code of conduct, the management handbook and Group guidelines. Aspects such as the prevention of corruption – which is embedded in the compliance management system – and environmental protection are fixed components of procurement processes.

We also refer you to the details provided in the “Report on opportunities and risks” ([p. 132](#)).

Responsible raw materials procurement in the coal sector

Origin of coal supplies

With a view to the phaseout of coal-fired generation in Germany and the aim of making EnBW climate neutral by the end of 2035 at the latest, hard coal will be gradually replaced by more climate-friendly energy sources. Nevertheless, hard coal will still play a relevant role for EnBW as a source of energy over the next few years to ensure a reliable and economic supply of electricity. Responsible raw materials procurement, especially in the coal sector, is thus extremely important to us. As in the previous year, Russia was the main coal export country for Western Europe in 2021. The coal producers in Colombia, South Africa and the USA were able to secure higher prices for their coal in other markets. This development is also reflected in the volumes of coal delivered to the EnBW power plants. The significant increase in deliveries of 132.3% to 4.19 million t (previous year: 1.80 million t) was due to a higher demand for coal as a result of lower electricity production from wind energy, the recovery in demand compared to the previous year that had been impacted by the coronavirus pandemic and the improved competitiveness of coal in relative terms when compared to gas. Over a 10-year period, coal consumption fell by 35.8% compared to the figure in 2012 of 6.52 million t. As a result of the higher volumes in combination with higher prices for coal, the procurement volume increased significantly in 2021 to €433 million (previous year: €79 million).

It is important for us to know the origins of our coal. Some 77.9% of our coal requirements are thus covered by contracts for which the producers are already known when the contract is concluded. The remainder is sourced from contracts concluded with trade intermediaries, which usually define a quality standard but not the source of the coal. In addition, we maintain close contacts with other potential producers and traders to avoid any dependency on one single producer. The Russian coal was sourced from the mining region of the Kuznetsk Basin (Kuzbass) and was primarily mined by the producers SUEK and Kuzbassrazrezugol (KRU). The American coal was sourced from underground mines in the Illinois Basin, mainly by the producer Murray Energy. The Colombian coal was sourced from the producer Cerrejón.

The opportunities and risks in relation to coal procurement can be found in the “Report on opportunities and risks” [\[p. 132⁷\]](#).

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

In accordance with the Guiding Principles on Business and Human Rights of the United Nations, we strive to procure coal responsibly. The EnBW coal supplier portfolio acts as the basis for our activities and it is updated on an annual basis. The sustainability performance of current and potential coal suppliers to EnBW is examined and evaluated on the basis of the **EnBW rules of conduct** governing the responsible procurement of hard coal and other raw materials. We determine any future action based on the supplier evaluations, such as requesting further specific information from selected suppliers. In addition, we pay close attention to the latest studies from competitors and international initiatives, as well as specific information and contributions from civil society organizations.

We have been a member of the corporate initiative **Bettercoal** since 2020. The independent audits carried out via Bettercoal and the monitoring of the progress made by the producers with respect to the Bettercoal Continuous Improvement Plans also flow into our process for auditing business partners. Furthermore, we are active in the Russian and Colombian working groups because the large coal producers come from these countries. In addition, we use Bettercoal as a platform for exchanging information with our producers and above all with other stakeholders from civil society, with government representatives from the coal mining regions and with experts on individual countries and human rights. Instead of an on-site visit, a virtual trip to Colombia was organized in early 2021 by Bettercoal. A webinar on the theme of biodiversity and renaturation was also held for the operators of the Russian coal mines.

Our rules of conduct in combination with internal implementation guidelines act as the foundation for our business activities. In the sustainability clause that is part of all of our contracts with coal producers, we obligate our business partners to observe these rules of conduct. In addition to

Origin of coal supplies to EnBW power plants

in million t	2021	2020
Russia	3.57	1.62
Colombia	0.21	–
USA	0.40	0.18
Total¹	4.19	1.80

¹ The figures may not add up due to rounding differences.

Further information on **coal procurement** can be found on our website.

[Online ↗](#)

The **rules of conduct governing the responsible procurement** of hard coal and other raw materials can be downloaded in PDF format [here](#).

[Online ↗](#)

Further information on the international business initiative **Bettercoal** can be found [here](#).

[Online ↗](#)

regular auditing of the sustainability performance of coal suppliers, a multistage auditing process will come into force in the event of suspected breaches of the rules, which can lead to temporary suspension or, as a last resort, the termination of the business relationship and thus exclusion from our procurement process. When new contracts are due to be concluded, the results of the analyses in the sustainability index are regularly presented to an internal **committee for the responsible procurement of hard coal and other raw materials (AVB)** with participation from all relevant specialist areas. If any deviations from the minimum standards are identified for existing supply contracts, corrective measures are developed in cooperation with the producers and their implementation is monitored. In 2021, this committee held several meetings to discuss possible additions to our portfolio of producers that are necessary due to the current situation on the market. The discussions focused, in particular, on the sustainability performance of potential new coal producers in South Africa, as well as current issues related to the import of raw materials and the currently challenging situation on the market.

Current developments

Russia

In 2021, we carried out an intensive business partner audit of our coal producers SUEK and KRU based on a comprehensive assessment from Bettercoal. Due to the coronavirus pandemic and the difficult situation on the market, it was only possible to stay in contact with producers to a limited extent. As well as maintaining contact with the producers, we were also in dialog with other stakeholders in Russia, especially in view of the increasingly difficult situation faced by representatives from civil society when it comes to freedom of expression and critical reporting. At the end of last year, EnBW had already begun to further diversify its procurement portfolio in order to reduce its dependence on deliveries of Russian coal. It will be possible to fully switch to alternative sources in the medium term at higher cost while continuing to guarantee the security of supply.

Colombia

Due to the increased demand for coal, we once again procured small amounts of coal from Colombia in 2021. On the basis of the virtual dialog with Bettercoal, we had the opportunity to contact various different stakeholders in Colombia in early 2021. This included discussions with representatives from civil society, the unions and government, as well as with the coal producers. The discussions mainly focused on two topics: on the one hand, the current situation in the Cesar coal mining region in Colombia, where the coal producer Prodeco has announced that it will be handing back its coal mining licenses to the Colombian government, and the associated issue of what responsibilities Prodeco will still have with respect to due diligence after it ends its mining activities, and on the other hand, the question of how Bettercoal can further support the peace process via the coal producers.

South Africa

As a result of the current geopolitical tensions and the difficult situation on the coal market associated with them, we are considering whether to add South African coal producers to our portfolio. For this purpose, we carried out a country risk analysis with a focus on the coal mining region of Limpopo. The results have been included in our business partner audits and we are focusing on the issues of water management, emissions and resettlements in our evaluations of potential new business partners. We have entered into in-depth virtual discussions with one of the producers to find out more about their sustainability performance and have received a comprehensive range of documents to verify that the producer is complying with our sustainability requirements.

Other procurement alternatives

In order to further diversify our procurement portfolio in the medium term, we are currently examining additional procurement options in Australia, Africa and Asia in addition to those in Colombia, South Africa and the USA. The coal market is generally characterized by an elastic supply. The coal is mainly transported by ship, whereby no special pipeline infrastructure is required for this purpose. A comprehensive audit of all potential new business partners is also part of this examination process, to determine, for example, whether the quality of the coal is suitable for our power plants.

Responsible raw materials procurement in the gas sector

Natural gas as a transition technology

In order to achieve our target of climate neutrality by 2035, we are working intensively on switching over our power plants initially from coal to more climate-friendly gas (fuel switch [?]) and then to climate-neutral gas such as biogas or hydrogen in the long term. Natural gas plays an important role as a transition technology – either in the form of liquefied natural gas (Liquefied Natural Gas, LNG [?]) or grid-based natural gas. Therefore, we are now gradually expanding our measures for the responsible procurement of raw materials to also include the procurement of natural gas. Due to the current situation in the Ukraine, alternative sources of supply are being strongly considered with a view to reducing the dependency on Russia in the gas sector.

Origin and own consumption

EnBW sources most of its natural gas via supply contracts with Equinor from Norway and Gazprom from Russia, and the European wholesale market. As is the case with coal procurement, EnBW is striving to make its gas procurement more diverse with respect to countries, suppliers and the terms of the contracts. This will also help us to reduce our dependency on Russian suppliers. Activities in the LNG sector are something that will become increasingly important in the future. They will generally open up access to additional sources of supply from global exporters of gas and LNG.

In 2021, we acquired 8,249 GWh of natural gas for our own consumption at EnBW (previous year: 9,660 GWh). We use this gas for generating electricity and heat in our power plants, for heating our buildings and for operating our gas plants.

The opportunities and risks in relation to gas procurement can be found in the “Report on opportunities and risks” (p. 132⁷).

Exercising due diligence

We also take our responsibilities seriously in the procurement of gas and exercise human rights due diligence in our supply chain. We are gradually transferring our business partner auditing processes from the area of coal procurement to gas procurement. In 2021, we thus audited the sustainability performance of all new business partners using a clearly defined process. This includes an audit with respect to both compliance and sustainability. The main focus is placed on the observance of international sustainability standards, compliance with guidelines on environmental protection and human rights, dialog with stakeholders and disclosure of the extraction methods. Existing suppliers are reevaluated from a sustainability perspective every one to three years, depending on a risk assessment, as part of our recurring audits, insofar as there are no reasons to carry out an audit sooner.

Methane emissions

The monitoring of methane emissions from natural gas is becoming increasingly important due to the growing procurement volumes. It is very difficult to collect exact data on methane emissions particularly in the upstream gas supply chain due to the different calculation models used. We are currently working with a general emissions factor of 29 g CO₂/kWh natural gas for the upstream supply chain for our gas procurement (source: DBI (2016): “Critical Evaluation of Default Values for the GHG Emissions of the Natural Gas Supply Chain”; German Environment Agency (2018): “Evaluation of Emissions in the Natural Gas Supply Chain in Germany”). This figure includes the methane emissions. For the combustion of the gas, we use an emissions factor (including methane) of 202 g CO₂/kWh natural gas based on data from the German Environment Agency (UBA) and the German Emissions Trading Authority (DEHSt). Despite these low amounts, we are continuously working to further reduce methane emissions. This includes measures at our grid subsidiaries for smart grid management to avoid blowouts, systematic integrity evaluations of the grid, eliminating any weaknesses and the continuous modernization of grid technology, as well as the application of special technical equipment and systems to avoid methane emissions from our lines during maintenance and repair work.

Business report

General conditions

Macroeconomic trends

Economies

Following a severe global recession caused by the impact of the coronavirus pandemic in 2020, there was a strong recovery in 2021. Due to falling rates of infection, especially in the spring and summer of 2021, many countries were able to ease restrictions on economic and social life, which led to a growth in demand. However, the economic recovery differed greatly from country to country and from sector to sector. The economic recovery was also accompanied by interruptions to international supply chains, a sharp increase in the prices of crude oil, energy and raw materials, and a general increase in inflationary pressure.

The Omicron variant of the COVID-19 virus spread across the world at the end of 2021. The pandemic will continue to have an impact on economic growth in 2022 and economic projections are subject to considerable uncertainty. Global economic growth is likely to weaken again in 2022, however individual countries such as Germany or the Czech Republic could deviate from this economic trend. The macroeconomic trends are not expected to have either a particularly positive or negative influence on our business performance in 2022.

Development of gross domestic product (GDP)

in %	2022	2021 ¹	2020 ¹
World	4.4	5.9	-3.1
Eurozone	3.9	5.2	-6.4
Germany	3.8	2.7	-4.6
France	3.5	6.7	-8.0
United Kingdom	4.7	7.2	-9.4
Sweden	3.4	4.0	-2.8
Switzerland	3.0	3.7	-2.5
Czech Republic	4.5	3.8	-5.8
Turkey	3.3	9.0	1.8

¹ The figures for the previous year have been restated.

Development of interest rates

In 2021, the central banks and countries used monetary and fiscal policy measures to an extent that was unprecedented historically. The global economy continued to recover despite high infection rates, new COVID-19 mutations, lockdowns and the resulting problems with supply chains. During the course of the year, rising inflation rates especially in the fourth quarter became a dominant theme on the capital markets, as consumer price inflation in Europe and the USA hit multi-year highs. In this environment, yields on German government bonds rose, for example, 30-year maturities touched 0.5%.

Against this background, the actuarial interest rate, which is used to discount the pension provisions, also increased from 0.75% to 1.15% during the course of 2021. Following years of falling interest rates, this development led to a reduction in the present value of the provisions for the first time. The discount rate for nuclear provisions stood at 0.01% (previous year: 0.00%)

The consensus forecast for the ECB interest rate on the main refinancing operations remains unchanged for 2022 at 0.00%.

Development of the sector and competitive situation

The energy sector is currently experiencing a period of great upheaval. There is particular pressure for change due to the Energiewende. However, digitalization, sector coupling [?] and the desire of local authorities to become self-sufficient are also having a strong influence on the sector.

A significant factor is that the energy sector is highly regulated, which means that political policies strongly influence developments. Traditional energy companies need to re-examine their competitiveness in individual business areas, exploit the potential offered by a changed market environment and align their strategies for the future.

Selection of international, national, regional and new competitors

Established competitors		New competitors			
National and international	Regional	Commodity suppliers, solution suppliers, start-ups	Renewable energies	E-mobility, tele-communications and broadband	Financial investors
ALPIQ, EDF, EDPR, Enel, Engie, E.ON, Equinor, EVN, Fortum, Iberdrola, Ørsted, RWE, Uniper, Vattenfall, Verbund	Badenova, Entega, EWE, Mainova, MVV, NERGIE, SWM, Thüga	Lichtblick, NEXT Kraftwerke, Octopus Energy, ostrom, Sonnen, Thermondo	BayWa r.e., bp, Encavis, ENERTRAG, PNE Wind, Shell, theolia, Total Energies, wpd	1&1, Allego, Aral, Deutsche Glasfaser, Deutsche Telekom, Ecotel, Fastned, Google, Ionity, Shell, Tesla, VW	KGAL, Talanx

EnBW position:

- Further development from an integrated energy supplier to a sustainable and innovative infrastructure partner
- Focus on growth in renewable energies, grids and customer solutions (especially e-mobility, telecommunications and broadband)
- Active in Baden-Württemberg, Germany and selected foreign markets

Challenges:

- Increasing competition due to entry of new market participants in the core business
- New competition due to market entry of EnBW in new business fields
- Optimal positioning with respect to the regulatory environment and highly competitive market

Cross-segment framework conditions

Coronavirus pandemic

As in the previous year, the coronavirus pandemic also dominated the political agenda in 2021. Following renewed lockdowns due to high incidence rates at the beginning of the year, it was possible to reduce the seven-day incidence rate to under ten cases per 100,000 inhabitants in June and reopen again thanks to the observance of safety measures, the increasing vaccination rate and seasonal effects. Due to the subsequent stagnation in the vaccination rate and seasonal effects, there was a sharp increase in the seven-day incidence rate to over 450 by the end of the year. This led to the imposition of new restrictions on public, private and economic life. In contrast to other sectors, such as the retail trade, hospitality and the hotel industry, the energy sector was less affected by the new restrictions. Following relatively low electricity consumption levels at the beginning of the year, electricity consumption once again returned to a normal level. At the same time, government aid programs and stimulus measures to combat the threat of an economic crisis were linked at a European and national level with the goal of supporting investment in the green transformation of the economy and of accelerating structural change. One example is the “environmental bonus” offered by the German government for the purchase of electric cars and plug-in hybrids.

Climate protection

The decision issued by the German Federal Constitutional Court (BVG) on climate change on 24 March 2021 meant that climate protection was once again pushed to the top of the political agenda, with politicians now under even greater pressure to take action. The court found that the annual emission levels allowed until 2030 are incompatible with fundamental rights insofar as they lack sufficient specifications for further emission reductions from 2031 onwards. To prevent any unfair burden being placed on future generations in violation of the German constitution, additional reductions will be required by 2030 on top of the existing climate budget. We announced at an early stage that we actively support the Paris Agreement and defined a residual emissions budget together with a reduction path that conforms to the Paris Agreement according to the definition published by the German Advisory Council on the Environment. In response to public pressure following the decision issued by the BVG, the German government has quickly announced a revision of the Federal Climate Change Act, which was agreed in parliament before the summer break. The revised act tightens the national reduction target for 2030 to –65%, sets a new reduction target of –88% for 2040 and pulls forward the target for net greenhouse gas neutrality to 2045. The aim is to achieve negative emissions

by 2050. The stricter target for 2030 will require a corresponding tightening of the annual allowable residual sector emissions up to 2030. The targets for the energy industry sector have been tightened by the greatest amount: the energy industry must now reduce its CO₂eq emissions based on the reference year of 1990 by 77% (previously: 62%). The fact that the energy industry would have to deliver by far the highest reductions up to 2030 was to be expected as it has lower CO₂ avoidance costs. This will generate huge challenges, but also opportunities, for the energy sector and EnBW. In particular, there is the phaseout of coal power, which will need to be accelerated due to these resolutions and will make a significantly faster expansion of renewable energies necessary. Although the targets have been tightened considerably in some cases, the German government has still not defined emissions budgets as the key metrics in the amendment to the law.

EU Green Deal

Measures were introduced at an EU level to push forward the new ambitions associated with the EU Green Deal [?](#) and the Climate Law 2050. The goal of climate neutrality by 2050 and above all tightening the climate emissions target for 2030 to -55% will make it necessary to amend and in some cases completely revise numerous pieces of legislation. In its initial comprehensive "Fit for 55" [?](#) legislative package, the EU Commission presented extremely ambitious, interlinked proposals in the middle of July 2021, which will now pass through the legislative process that is likely to last beyond the end of 2022.

In particular, the revision of the Emissions Trading Directive and Effort Sharing Regulation, the proposals to introduce comparable trading schemes for transport and heating at an EU level and the revision of the directive to promote renewable energies are of central importance for our company. The revision of the Energy Efficiency Directive, the directive on the deployment of alternative fuel infrastructure, the Energy Taxation Directive and the introduction of a carbon border adjustment mechanism [?](#) are also important to highlight. In our view, the proposed reforms to the Emissions Trading Directive are largely positive. We also broadly support the amendments to the targets and the general principles behind the Renewable Energy Directive. However, we believe that some further adjustments are required, above all, to the criteria for determining whether the production of green hydrogen can be deemed renewable, as well as to the guarantees of origin system and the sustainability requirements for the use of biomass. In our view, it is important overall to set the right targets and ensure the coherency of the proposals.

The gas package presented in the middle of December 2021 that includes the creation of a new regulatory framework for the establishment of a hydrogen market was a crucial step towards a quick and efficient Energiewende. The plan to integrate hydrogen into the existing regulations for the gas market is positive. At the same time, the restrictive approach – such as stricter unbundling rules with respect to the future hydrogen infrastructure – could hinder the successful ramp-up of the hydrogen market. Changes to the funding instruments and capital market rules are also still being discussed, with generally positive signals for the switch to a sustainable economy. We believe that transitional activities also need to be taken into account in this area. The revision of the state aid regulations is a further important building block in developing the future investment framework.

On 22 December 2021, the first delegated act for the climate objectives of the EU taxonomy [?](#) came into force. The EU Taxonomy Regulation creates a framework for the classification of "green" or "sustainable" economic activities in the EU. At the turn of the year, the EU Commission presented its Complementary Climate Delegated Act that includes criteria for electricity and heat generation from natural gas and nuclear energy. According to the proposals, investment in gas power plants and nuclear power plants will be classified as sustainable for a transitional period. We believe that the requirements placed on gas power plants (according to the version of the delegated act of 2 February 2022) are very ambitious, and in some cases too ambitious from a technological and economic perspective to enable a swift transition to a hydrogen economy. Gas and nuclear activities will not be taken into account in this year's report.

Further information on the implementation of the EU Taxonomy Regulation in the EnBW Group can be found on [p. 110 ff.](#)⁷. Full information on the taxonomy-eligible and taxonomy-aligned figures according to Annex II of the delegated act for the EU taxonomy can be found on [p. 146](#)⁷.

Further information on our experiences with applying the EU sustainable finance taxonomy can be found [here](#).

Online [↗](#)

Germany's parliamentary election

The election for the 20th German parliament was held on 26 September 2021. The subsequent coalition negotiations between the so-called traffic light parties (SPD, Greens and FDP) ended on 24 November 2021. The resulting coalition agreement includes a number of reforms with one of its focal points being climate protection. In this context, the phaseout of coal-fired generation will be accelerated and will “ideally” be completed by 2030. The previous target for the phaseout of coal was 2038. The coalition government also remains committed to the phaseout of nuclear power as expected. The government plans to introduce an emergency climate protection program from 2022 and every legislative proposal will be subject to a “climate check” to examine whether it conforms to the climate goals. The installation of rooftop solar power will become mandatory on new commercial buildings and photovoltaics should also be installed “as a general rule” on new private buildings. At the same time, the German states should allocate 2% of their land area to the generation of wind energy. Finally, funding of the EEG cost allocations via electricity prices will cease from 2023 to ease the burden on private households and businesses, and EEG funding will be ended once the coal phaseout is complete. In addition, the government has acknowledged the need to construct hydrogen-ready gas power plants. This means that the momentum generated by the new German government could thus have a positive boost on the future activities of EnBW.

Smart Infrastructure for Customers segment

Electricity and gas prices for retail and industrial customers

According to an analysis of electricity prices by the German Association of Energy and Water Industries (BDEW) published in January 2022, the average monthly electricity bill for a household with an annual consumption of 3,500 kWh in 2021 came to €93.80 compared to €92.78 in the previous year. Taxes and levies account for more than half of this amount. EnBW lowered the price for the basic supply of electricity by around €18 per year on 1 April 2021. This was due to a decrease in costs, both for the procurement of electricity and also for cost allocations, which was offset to some extent by the increase in network user charges. For industrial customers receiving a medium-voltage supply, the average electricity price including electricity taxes increased according to calculations made by BDEW by more than 20%, from 17.76 ct/kWh in the previous year to 21.38 ct/kWh in 2021.

According to calculations by the German Federal Statistical Office, natural gas prices for private households in 2021 were 12% higher than the prices in the previous year. As of December 2021, gas prices for industry had increased by 235% in comparison to the previous year; the average price for the year also more than doubled in 2021.

Average electricity price for a 3-person household¹

in ct/kWh	2021	2020
Grid fees ²	7.80	7.75
EEG cost allocations	6.50	6.76
Procurement, sales	7.93	7.51
VAT	5.13	5.03
Electricity tax	2.05	2.05
Concession fees	1.66	1.66
Other allocations	1.09	1.05
Total	32.16	31.81

¹ Annual consumption of 3,500 kWh.

² Including metering and metering station operation.

Source: BDEW | As of January 2022.

+1.1%

increase in **electricity costs** for a household with an annual consumption of 3,500 kWh in comparison to the previous year.

Structural changes

Following relatively low **electricity consumption levels** at the beginning of the year – due to renewed restrictions caused by the coronavirus pandemic – electricity consumption rose to higher than the level in the previous year between March and September (increase of up to 12.3%). Despite the broader restrictions that were reimposed at the end of the year, electricity consumption in the fourth quarter was once again slightly above the level in 2020.

The high wholesale market prices for electricity and gas placed smaller suppliers, in particular, under pressure. Consequently, some companies canceled their supply contracts with their customers or were forced to declare themselves insolvent. As a result of our long-term procurement strategy, we were less affected by the rising prices and were able to demonstrate our reliability, also guaranteeing that those customers in our **basic supply area** who had lost their suppliers were still supplied with energy as usual.

Despite the coronavirus pandemic, the **home electricity storage market** already grew by 63% in 2020 compared to the previous year. Further growth was also seen in 2021. In the first half of 2021, around 73,000 battery systems were installed in privately owned homes, which was an increase of 59% in comparison to the same period of the previous year. Due to the supply difficulties caused by the coronavirus pandemic, EUPD Research estimates that a total of 135,000 new home storage systems were installed in 2021. Around 15% of the storage systems installed were retrofitted to existing PV systems. Via our subsidiary SENEK, we are one of the leading providers of home photovoltaics storage systems and are thus participating in this growth.

There was even stronger dynamism in the **new registration of electric vehicles**. According to the Federal Motor Transport Authority, around 267,000 electric cars were registered between January and October 2021, which was approximately 120% more battery electric vehicles than in the same period of the previous year. The share of the total number of new registrations accounted for by purely electric vehicles increased to 12%. A similarly high proportion of the overall market was accounted for by plug-in hybrid vehicles. There were around 265,000 newly registered hybrid vehicles, which was an increase of 103%. These growth rates were mainly due to the higher environmental bonus for car purchases that has been available over the last year and the wider selection of electric vehicle models. This growth will also be supported by the target of 15 million electric cars by 2030 that is defined in the coalition agreement concluded by the German government. To ensure there is sufficient charging infrastructure to handle this growth, EnBW mobility+ already operates the largest quick-charging network in Germany, is investing in further expansion, and also makes it possible for drivers to charge their vehicles across large areas of Europe using the mobility+ app.

The coronavirus pandemic has increased awareness for the huge importance the Internet has for the economy and for social life. However, a comprehensive expansion of the **broadband infrastructure** ⁸ is currently not economically viable in many regions. For this reason, the subsidies that had so far only been available to fund “white areas” (bandwidth ≤ 30 Mbit/s) have been expanded: Funding will now also focus on “gray areas” in the future. This means that funding will be provided between 2021 and 2023 for areas with a bandwidth of ≤ 100 Mbit/s (download) and from 1 January 2023 for areas with a bandwidth ≤ 200 Mbit/s (symmetrical), and thus effectively for all private customer connections that are not gigabit-ready. Alongside the existing funding programs from the federal and state governments, additional funds totaling €12 billion will be made available in future for the expansion of the fiber-optic infrastructure. In order to benefit from this transformation to a gigabit-ready infrastructure, Plusnet is now participating in the expansion of broadband across Germany. NetCom BW will continue to focus on Baden-Württemberg.

System Critical Infrastructure segment

The consultation process for the second draft of the **Network Development Plan (NDP) Electricity 2021–2035** ⁹ was concluded by the four transmission grid operators in October and NDP 2035 was confirmed and finalized by the Federal Network Agency in January 2022. The expected increase in net electricity consumption in Germany of between 15% and 25% in the scenarios will be driven by the progressive electrification of the industrial, heating and transport sectors. The phaseout of nuclear power and the planned phaseout of coal-fired generation will require the doubling of the installed output of renewable energies, mainly through the expansion of wind energy and PV, to between 233 and 261 GW. To also guarantee the stability of a system in 2035 in which between 70% and 74% of the gross electricity consumption will be accounted for by renewable energies, it will be necessary to expand the output of gas power plants by up to 17 GW. These power plants must then be operated with climate-neutral gases in the future.

Our transmission grid operator TransnetBW is participating in two major projects to push forward the development of high-voltage DC transmission lines ¹⁰ to transport wind energy in the future from the north of Germany to the centers of consumption in the south. The plans and documentation for planning permission for the most southern section of the **ULTRANET** project between North Rhine-Westphalia and Philippsburg were submitted in October 2021. In the **SuedLink** project, two high-voltage DC transmission lines from Schleswig-Holstein to Bavaria and Baden-Württemberg are being realized in cooperation with TenneT. In September 2021, the Federal Network Agency defined the scope of the planning approval procedures for all sections of the power line. Following on from this, the transmission system operators are developing the specific plans for the routes of the transmission lines. Besides the major north-south transmission lines, in which EnBW is already involved via TransnetBW, new gas power plants will also be required, particularly in the south of Germany.

The German gas transmission system operators (FNB) started the consultation process for the framework scenario for the **Network Development Plan (NDP) Gas 2022–2032** ¹¹ at the end of June 2021. Alongside examining how the demand for natural gas will develop, the plan will also consider the integration of climate-neutral gases into the gas infrastructure. In the last version of the NDP Gas 2020–2030, the FNB already demonstrated how a hydrogen infrastructure could be developed using the existing natural gas grid in Germany. The newly proposed scenarios cover a development in total growth by 2032 of between +9% and –14% in comparison to the reference year 2019 with 913 TWh.

Demand for hydrogen of up to 92 TWh is expected by 2032 and could thus account for almost 10% of the total demand. Against the background of the already high utilization of the high-pressure gas grid in Baden-Württemberg, a design variant for Baden-Württemberg has also been included in the framework scenario. The growth in the connected distribution grids will lead to an expected increase in gas capacities for our transmission system operator terranets bw of around 10% over a period of ten years.

In October 2021, the Federal Network Agency made a decision on the future **rate of return on equity for grid investments**. The interest rate for new plants in the gas grid from 2023 and in the electricity grid from 2024 will be reduced from the current rate of 6.91% to 5.07% before taxes, subject to the legal challenges initiated by numerous network operators. In order to continue to operate profitably under these conditions, our grid companies will rely on improvements in efficiency through the implementation of digitalization measures. One example is the field test being carried out in the flexQgrid research project, which started in August under the leadership of Netze BW. This project is investigating how electric vehicles and heat pumps – that are gaining more and more relevance as connected devices – can be aligned with the decentralized, renewable generation that will make up the energy world of tomorrow to ensure the optimal use of existing grid capacities.

Sustainable Generation Infrastructure segment

Installed net output for electricity generation from renewable energies in Germany¹

in GW	2021	2020	2019	2018	2017
Solar	58.98	54.07	49.10	45.31	42.29
Onshore wind	56.27	54.84	53.19	52.45	50.17
Biomass	9.41	8.25	8.46	8.11	7.69
Offshore wind	7.77	7.74	7.53	6.40	5.41
Hydropower ²	5.50	5.50	5.50	5.50	5.50
Gas	31.68	30.50	30.07	30.13	29.76
Hard coal	19.91	23.71	22.67	23.82	24.04
Brown coal	19.96	20.25	20.90	20.90	21.11
Nuclear power	8.11	8.11	9.52	9.52	10.80
Oil	4.68	4.38	4.38	4.38	4.42
Total	222.27	217.35	211.32	206.52	201.19

¹ The figures for the previous year have been restated.

² Correction to the value for hydropower from 4.86 GW to 5.50 GW by EnBW. Source: Fraunhofer ISE (www.energy-charts.de). | As of 31/01/2022.

Renewable Energies

Germany

The proportion of total electricity generation accounted for by renewable energies fell slightly in 2021 to around 43% in comparison to the level in the previous year (45.4%), which was primarily due to poorer wind conditions compared to the previous year.

Onshore wind

In 2021, new onshore wind farms with a total capacity of around 1.7 GW were placed into operation in Germany. In the auctions, the available capacities were only covered by bids for the first time from September, after the first two rounds of auctions were significantly undersubscribed. The German government agreed in 2022 to increase the capacities available in the auctions by 1.1 GW to 4 GW per year.

Offshore wind

There were no new offshore wind farms placed into operation in Germany in 2021. In the first auction for capacities in the so-called “transition model” in September, 958 MW of capacity was awarded and all of the successful bids did not require state funding. In the coalition agreement, the new German government agreed a significant increase in the offshore expansion targets to 30 GW by 2030, 40 GW by 2035 and 70 GW by 2045. This strengthens our belief that offshore wind energy with its huge generation potential will play an important role in the achievement of the climate targets.

Photovoltaics

Photovoltaic power plants with a total output of around 4.9 GW were placed into operation in Germany in 2021. In the five rounds of auctions held during the year, bids for projects with a total capacity of 1.9 GW were accepted, whereby all of the rounds were significantly oversubscribed.

The German government increased its expansion target for 2030 to 200 GW in the coalition agreement. It intends to make significant improvements to the conditions for approvals and the terms of the auctions. The coalition agreement also explicitly includes an obligation for the installation of rooftop solar systems on commercial buildings for the first time.

France

We develop and realize wind energy and PV projects on the French market through our subsidiary Valeco – a project developer and operator in the renewable energies sector. We expect continued dynamic growth in France, in both the wind power and photovoltaic sectors, despite the fact that the development time for new wind projects is also increasing in France. The framework conditions in France guarantee continued and reliable funding for renewable energies.

Great Britain

An auction for offshore wind rights was held by the Crown Estate at the turn of the year 2020/2021 in Great Britain. We had our bid for two sites with a total potential capacity of 3 GW – which was submitted together with our project partner bp – accepted in this auction and this project is currently in the development and approval process. In July 2021, EnBW and bp submitted a joint bid for a site in the Scottish North Sea. In January 2022, the equal partners had a bid accepted by the Crown Estate Scotland to develop a 2.9 GW offshore wind farm off the east coast of Scotland.

Sweden

The Swedish market offers favorable conditions and an increasingly competitive environment for renewable energies. In particular, the further expansion of onshore wind plays an important role on the Swedish generation market. Photovoltaics are also becoming a more attractive proposition, especially in Southern Sweden. We have been continuously expanding our wind power portfolio in Sweden over the last year by entering into partnerships in the project development phase.

Turkey

The new funding mechanism for renewable energies came into force on 1 July 2021 and will be valid until the end of 2025. Feed-in remuneration for new projects will no longer be calculated in US dollars, as previously, but rather directly in Turkish Lira. This change will have no impact on the earnings from our existing projects. Turkey continues to have great untapped potential with respect to renewable energies, primarily in the areas of onshore wind and photovoltaics. We still believe that the Turkish market is an attractive proposition for the future, although we are monitoring the current political and economic developments in Turkey very closely.

Conventional generation: market and fuel prices

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

in €/MWh	Average 2021	Average 2020
Spot	96.84	30.47
Rolling front year price	89.14	40.20

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

in €/MWh	Average 2021	Average 2020
Spot	46.87	9.41
Rolling front year price	33.60	13.49

Electricity wholesale market

In 2021, the average spot market price ² of around €97/MWh was more than €66/MWh higher than in the previous year. The average price on the forward market ² was also significantly higher than the average price in the previous year. This increase in prices was mainly due to higher prices for gas, coal and CO₂ allowances. In addition, coal power plants were deployed to a much greater extent than normal due to, among other things, lower levels of renewable generation. The future development of electricity prices will depend on the development of fuel and CO₂ prices and trends in the electricity generation mix. As well as the future development of energy and climate policies, the way the war between Russia and Ukraine develops and the sanctions imposed on Russia will have a significant effect on the electricity market.

Gas market

Prices in 2021 were considerably higher than the prices in the previous year, increasing sharply especially from March 2021. The reasons for this were the colder winter 2020/2021 in parts of North Asia and the resulting increase in demand for LNG ², as well as the significantly colder months of April and May in Europe, which led to further withdrawals from the gas storage facilities. Furthermore, there was more maintenance work in Norway and Great Britain, unexpected demand for gas from the power plant sector from the middle of the year onwards to compensate for below-average energy production from wind power plants and increased demand for gas in China due to the economic recovery in the country. Gazprom – the Russian natural gas supplier – largely suspended any additional supplies to Europe in the summer. Russian exports via Poland also fell significantly from the end of July. Damage to a pipeline and a fire at a Siberian gas plant were the reasons given for this development. The long-term bookings for the transport of gas via Poland by Gazprom expired at the end of September. This meant that significantly lower volumes were booked and transported between October and December in comparison to the previous year.

The fill levels at the gas storage facilities in Europe were below the average level in the previous years. When storage levels are low, every cold spell or another shortage in supply could result in significant price increases. It is uncertain how the natural gas market will develop in the future. If further sanctions are imposed on Russia in response to their hostilities in the Ukraine, there is some uncertainty as to the volumes of natural gas that Russian suppliers will be able to deliver or that can be sourced from them. As a result of the suspension of the approval process for Nord Stream 2, there is no expectation that the supply difficulties will ease in the foreseeable future.

Development of prices on the oil markets

in US\$/bbl	Average 2021	Average 2020
Crude oil (Brent) front month (daily quotes)	70.95	43.21
Crude oil (Brent), rolling front year price (daily quotes)	66.58	45.88

Development of prices on the coal markets

in US\$/t	Average 2021	Average 2020
Coal – API #2 rolling front year price	95.07	57.98
Coal – API #2 spot market price	122.24	50.40

Oil market

In 2021, oil prices were significantly higher than in the previous year, rising continuously during the course of the year. From June onwards, prices exceeded pre-coronavirus levels at the beginning of 2020. The main driver of this rise in prices was restrictive production management by the OPEC+ group combined with a growing recovery in the global demand for oil. Following the presidential elections in Iran, any hopes of a quick increase in Iranian oil exports after a revival of the Iran nuclear deal proved to be premature. As a result of the factors mentioned above, the global oil market was persistently undersupplied in 2021. This led to a sharp fall in the global stocks of oil. Despite demands from large oil importers including the USA and India, OPEC+ did not increase their oil production sufficiently from month to month even in the fourth quarter of 2021. The oil market is also subject to a degree of uncertainty due to the geopolitical crisis triggered by Russia.

Coal market

Coal prices generally experienced sideways movement up to the end of March 2021. Prices then started to increase and this upward trend accelerated sharply through August and September before coal prices hit a high at the beginning of October. New all-time highs were seen on the spot and forward markets. Higher gas and LNG ² prices led to higher demand for coal in the electricity generation sector because coal-fired generation became more attractive economically than gas generation. This was accompanied by a sharp increase in the demand for coal imports in China. Due to various different factors, domestic coal production in China was not able to keep pace with the dynamic growth in demand. This increase in international demand was met on the supply side by production issues in almost all important coal export countries. The result was a bidding war for the available quantities of coal. It was only after a significant decrease in gas prices, followed by a huge political intervention by the Chinese government in its domestic coal market, that coal prices

began to noticeably fall again from October onwards. In the near future, the coal market will be influenced – in the same way as the other raw materials markets – by the uncertainty caused by the war between Russia and Ukraine.

CO₂ allowances [?]

In 2021, prices rose continuously to more than €70/t CO₂ and were significantly higher than those in the previous year. This market trend was caused by higher emissions from the increased use of fossil fuels for the generation of electricity, higher fuel switch [?] costs and the recovery of industrial production. Demand for EUA certificates [?] was also strengthened by speculation that EUA prices will increase further in the medium to long term due to shortfalls from 2022 to 2024 and tighter climate targets for 2030. As a result of the further reductions in supply imposed by the market stability reserve (MSR) [?] and the tightening of the climate targets for 2030, further price increases are expected. The fourth trading phase of the EU Emissions Trading System (EU ETS) started on 1 January 2021 and the use of CERs (Certified Emission Reductions) [?] is no longer permitted. It was still possible to exchange CERs for EUA certificates up to 30 April 2021.

Development of prices for emission allowances/daily quotes

in €/t CO ₂	Average 2021	Average 2020
EUA – rolling front year price	52.76	24.46
CER – rolling front year price	n/a	0.26

Nuclear power

Germany has decided to phase out nuclear power by 2022. The current coalition agreement also reaffirms this decision. We responded to this decision at an early stage with a comprehensive dismantling strategy that is being rigorously implemented by our subsidiary EnBW Kernkraft (EnKK). EnKK is the licensed operator of our five nuclear power plants and is also responsible for their dismantling. The dismantling work has been underway in Obrigheim since 2008, at the blocks Neckarwestheim I and Philippsburg 1 since 2017 and at Philippsburg 2 since 2020. We are still permitted to generate electricity at the fifth power plant – Block II in Neckarwestheim – until the end of 2022 at the latest. EnKK has also already applied for approval to dismantle this power plant so that the work can be started as soon as possible after it is finally shut down.

The government is responsible for the construction of the final storage site for radioactive waste and this lies outside of the control of the operators of the nuclear power plants. However, the power plant operators – including EnBW – have made a significant financial contribution towards these final storage facilities and paid around €24 billion into the state “fund for the financing of nuclear waste management” from their nuclear provisions.

The EnBW Group

Finance and strategy goal dimensions

Results of operations

Electricity sales as in previous year, gas sales increase significantly

Electricity sales volume (without System Critical Infrastructure)

in billion kWh	Smart Infrastructure for Customers		Sustainable Generation Infrastructure		Total (without System Critical Infrastructure)		Change in %
	2021	2020	2021	2020	2021	2020	
Retail and commercial customers (B2C)	14.4	14.3	0.0	0.0	14.4	14.3	0.7
Business and industrial customers (B2B)	23.5	20.0	0.0	0.0	23.5	20.0	17.5
Trade	0.2	1.0	69.4	72.0	69.6	73.0	-4.7
Total	38.1	35.3	69.4	72.0	107.5	107.3	0.2

Electricity sales in the 2021 financial year were at the same level as in the previous year. In a persistently challenging competitive environment, electricity sales to retail and commercial customers (B2C) remained at the same level as in the previous year. In contrast, sales to business and industrial customers (B2B) increased significantly. Sales in the trading sector were slightly lower than in the previous year.

Gas sales volume (without System Critical Infrastructure)

in billion kWh	Smart Infrastructure for Customers		Sustainable Generation Infrastructure		Total (without System Critical Infrastructure)		Change in %
	2021	2020	2021	2020	2021	2020	
Retail and commercial customers (B2C)	18.3	17.1	0.0	0.0	18.3	17.1	7.0
Business and industrial customers (B2B)	246.6	199.7	0.0	0.0	246.6	199.7	23.5
Trade	1.2	0.3	228.9	224.4	230.1	224.7	2.4
Total	266.1	217.1	228.9	224.4	495.0	441.5	12.1

In the 2021 financial year, there was a substantial increase in gas sales in comparison to the previous year. Adjusted for the effects of changes in the consolidated companies, gas sales were 1.3% higher than in the previous year. Gas sales grew in business with retail and commercial customers (B2C) due to the weather and despite the persistently challenging competitive environment. The increase in sales to business and industrial customers (B2B) in comparison to the previous year was the result of the purchase of Gas-Union by VNG and an increase in sales by our sales teams. There was also slight growth from trading activities.

Significant increase in revenue, especially from trading activities

External revenue by segment

in € million ¹	2021	2020	Change in %
Smart Infrastructure for Customers	13,998.2	9,964.9	40.5
System Critical Infrastructure	4,407.2	3,657.5	20.5
Sustainable Generation Infrastructure	13,734.8	6,063.8	126.5
Other/Consolidation	7.7	8.1	-4.9
Total	32,147.9	19,694.3	63.2

¹ After deduction of electricity and energy taxes.

Adjusted for the effects of the changes in the consolidated companies, external revenue was 58.5% higher than the level in the previous year.

Smart Infrastructure for Customers: Revenue in the Smart Infrastructure for Customers segment increased considerably in the 2021 financial year in comparison to the previous year. Adjusted for the effects of the changes in the consolidated companies, revenue was 33.3% higher than the level in the previous year. This was primarily due to higher volumes of electricity and gas sold.

System Critical Infrastructure: Revenue in the System Critical Infrastructure segment increased significantly in the 2021 financial year in comparison to the previous year. Adjusted for the effects of the changes in the consolidated companies, especially the acquisition of Gas-Union Transport, revenue was 18.6% higher than the level in the previous year. This increase in revenue was primarily due to higher revenue from the use of the grids.

Sustainable Generation Infrastructure: Revenue in the Sustainable Generation Infrastructure segment increased in comparison to the previous year, mainly due to higher trading activities as a result of growing volatility on the electricity and gas markets that led in part to higher earnings contributions. This was offset to some extent by lower revenues from our offshore and onshore winds farms, which generated less electricity due to the weather conditions.

Material developments in the income statement

On the one hand, the increase in the cost of materials caused by higher procurement prices corresponded to the increase in revenue, while on the other hand, additions to the provisions for onerous contracts also contributed to the increase in the cost of materials. The rise in personnel expenses was mostly due to the growth in the number of employees in all segments and wage increases as part of the collective bargaining agreement. The balance of other operating income and other operating expenses in the reporting period fell from €-747.3 million in the previous year to €-1,159.4 million in the reporting year. This decrease was largely the result of valuation effects from derivatives ². The increase in impairment losses was mainly attributable to impairment losses on conventional power plants and to a smaller extent on offshore wind farms. Despite the higher investment income in comparison to the previous year, the investment result fell due to the positive effect of a write-up on the joint venture in Turkey and the revaluation of the shares in EnBW Albatros in the previous year. EnBW Albatros is no longer accounted for using the equity method but has instead been fully consolidated since the beginning of 2020. The financial result improved to €174.5 million (previous year: €-307.0 million), which was mainly attributable to the significantly higher result from the market valuation of securities in comparison to the previous year. The result in the previous year reflected the uncertainties on the global securities markets caused by the coronavirus pandemic. Overall, earnings before tax (EBT) ² stood at €513.3 million in the 2021 financial year, compared to €1,002.6 million in the previous year.

Earnings

The Group net profit/loss attributable to the shareholders of EnBW AG decreased from €596.1 million in 2020 by €232.9 million to €363.2 million in the reporting period. Earnings per share amounted to €1.34 in the 2021 financial year, compared to €2.20 in the previous year.

Adjusted earnings and non-operating result

The sum of the adjusted earnings figures and non-operating figures ² gives the figures on the income statement. The non-operating result includes effects that cannot be predicted or cannot be directly influenced by us and as such are not relevant to the ongoing management of the company. The effects are presented and explained in the section "Non-operating EBITDA ²". The business activities relevant to the ongoing management of the company are of particular importance for internal management and for the external communication of the current and future earnings potential. We use the adjusted EBITDA ² – earnings before the investment and financial results, income taxes and amortization, adjusted for non-operating effects – as the key reporting indicator for disclosing this information.

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

in € million	2021	2020	Change in %	Forecast 2021
Smart Infrastructure for Customers	323.1	335.0	-3.6	300 to 375
System Critical Infrastructure	1,288.5	1,346.6	-4.3	1,300 to 1,400
Sustainable Generation Infrastructure	1,535.1	1,277.8	20.1	1,375 to 1,475
Other/Consolidation	-187.4	-178.2	5.2	–
Total	2,959.3	2,781.2	6.4	2,825 to 2,975

TOP**Share of adjusted EBITDA accounted for by the segments**

in %	2021	2020	Forecast 2021
Smart Infrastructure for Customers	10.9	12.0	10 to 15
System Critical Infrastructure	43.5	48.4	40 to 50
Sustainable Generation Infrastructure	51.9	45.9	45 to 45
Other/Consolidation	-6.3	-6.3	–
Total	100.0	100.0	

The adjusted EBITDA for the EnBW Group increased by 6.4% in the 2021 financial year in comparison to the previous year. This positive earnings performance was at the top end of our forecasted range for the 2021 financial year. The shares of the adjusted EBITDA accounted for by the segments were all within the forecasted ranges. Adjusted for the effects of changes in the consolidated companies, the adjusted EBITDA of the EnBW Group would have increased by 5.4%.

Smart Infrastructure for Customers: The adjusted EBITDA of the Smart Infrastructure for Customers segment fell by 3.6% in 2021 in comparison to the previous year and was within our forecasted range. Adjusted for the effects of changes in the consolidated companies, earnings fell by 8.0%. The main reasons for this fall in earnings were the negative impacts of increasing numbers of customers being provided with a basic supply of energy at high additional procurement costs, as well as impairments to receivables. Excluding these effects, the adjusted EBITDA would have increased to above the level in the previous year due to a better result in the commodity business and the positive earnings performance of our subsidiary SENEK.

System Critical Infrastructure: The adjusted EBITDA of the System Critical Infrastructure segment in 2021 was slightly below the level in the previous year (–4.3%) and was also slightly below the forecasted range. Adjusted for the effects of the changes in the consolidated companies, the decrease was 5.0%. The main reason for this fall in earnings and failure to achieve the target range was the considerably higher expenses for the grid reserve and balancing energy to maintain the security of supply. In addition, it was not possible to fully compensate for the increase in personnel expenses in comparison to the previous year, mainly as a result of the necessary expansion of the grids, with higher revenue from the use of the grids.

Sustainable Generation Infrastructure: The adjusted EBITDA of the Sustainable Generation Infrastructure segment increased substantially by 20.1% in comparison to the figure in the previous year and was thus above the forecasted range.

Adjusted EBITDA Sustainable Generation Infrastructure

in € million	2021	2020	Change in %
Renewable Energies	794.0	835.6	-5.0
Thermal Generation and Trading	741.1	442.2	67.6
Sustainable Generation Infrastructure	1,535.1	1,277.8	20.1

In the Renewable Energies area, the adjusted EBITDA fell by 5.0% to €794.0 million. Poorer wind conditions across Germany, both in comparison to the previous year and the long-term average, primarily contributed to this decrease. In the Thermal Generation and Trading area, the adjusted EBITDA increased in 2021 by 67.6% in comparison to the previous year. This was due to growing volatility on

the wholesale markets, which led to positive earnings contributions from trading activities for electricity and gas that were higher than both the level in the previous year and the forecasted value.

Fall in the non-operating EBITDA in comparison to the previous year

Non-operating EBITDA

in € million	2021	2020	Change in %
Income/expenses relating to nuclear power	70.5	43.7	61.3
Income from the reversal of other provisions	8.6	38.3	-77.5
Result from disposals	-6.6	2.4	-
Reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	-343.1	-56.8	-
Income from reversals of impairment losses	69.5	16.9	-
Restructuring	-42.3	-53.9	-21.5
Other non-operating result	87.6	-108.5	-
Non-operating EBITDA	-155.8	-117.9	32.1

The fall in non-operating EBITDA [?] was primarily due to expenses related to additions to the provisions for onerous contracts for electricity procurement agreements. The main reasons for these additions were lowered expectations in relation to future cash flows against the background of increasingly tighter requirements with respect to climate protection. As a result, EnBW was compelled to revise its expectations of energy industry conditions, as well as of medium and long-term price trends in the relevant procurement and sales markets.

In the 2021 financial year, the other non-operating result increased in comparison to the previous year. This was mainly attributable to valuation effects from derivatives [?]. In the 2020 financial year, this item contained extraordinary negative effects related to VAT.

Considerable decrease in Group net profit

Group net profit

in € million	2021			2020		
	Total	Non-operating	Adjusted	Total	Non-operating	Adjusted
EBITDA	2,803.5	-155.8	2,959.3	2,663.3	-117.9	2,781.2
Amortization and depreciation	-2,644.7	-1,088.3	-1,556.4	-1,560.6	-170.9	-1,389.7
EBIT	158.8	-1,244.1	1,402.9	1,102.7	-288.8	1,391.5
Investment result	180.0	-42.1	222.1	206.9	95.7	111.2
Financial result	174.5	0.0	174.5	-307.0	-13.4	-293.6
EBT	513.3	-1,286.2	1,799.5	1,002.6	-206.5	1,209.1
Income tax	-72.1	330.7	-402.8	-195.0	72.7	-267.7
Group net profit/loss	441.2	-955.5	1,396.7	807.6	-133.8	941.4
of which profit/loss shares attributable to non-controlling interests	(78.0)	(-115.5)	(193.5)	(211.5)	(-47.1)	(258.6)
of which profit/loss shares attributable to the shareholders of EnBW AG	(363.2)	(-840.0)	(1,203.2)	(596.1)	(-86.7)	(682.8)

The fall in Group net profit in comparison to the previous year is mainly due to impairment losses in the area of conventional generation totaling €0.7 billion. To a lesser extent, impairment losses of €0.3 billion were also recognized on the offshore wind farms. Please refer to the section “Non-operating EBITDA” for more information on the reasons for these impairment losses (p. 80⁷). In contrast, there was a significant improvement in the financial result. The reason for this development was income from the market valuation of securities, compared to costs from market valuations in the previous year. Please refer to the section “Material developments in the income statement” (p. 78⁷) for further information on this subject.

We use the amended adjusted investment result to calculate the value added. This is calculated on the basis of the adjusted investment result less the adjusted result from investments held as financial assets of €133.7 million (previous year: €69.6 million).

Financial position

Financial management

Basis and objectives

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

The liquidity management system at EnBW is based on an efficient inhouse bank [↗](#) approach in which liquidity is combined in an EnBW cash pool. Using a newly developed forecasting tool, liquidity needs are transparently measured against liquidity sources in order to determine the financing needs. Almost 100 relevant liquidity drivers were identified for the forecast. The tool combines a deterministic approach with a risk-based approach to liquidity management. Daily operational management of liquidity is secured using a seven-day and three-month assessment. We also examine the situation over a period of twelve months in our strategic financial analysis.

In the operating business, derivatives [↗](#) are deployed for hedging purposes only: for example, for forward contracts for electricity and primary energy source trading. This also applies for foreign exchange and interest rate derivatives. All trading activities take place within a consistent framework using risk capital on the one hand and derived limits on the other. The risk capital for trading is approved by the entire Board of Management of EnBW on an annual basis. The risk capital used for own trading stood at €130 million (previous year: €60 million).

Interest rate risk management involves the management and monitoring of interest-sensitive assets and liabilities. The consolidated companies regularly report on the existing risk position as part of the rolling liquidity planning process. An interest rate risk strategy is developed in an analysis conducted every quarter on an aggregated basis. The purpose is to limit the impact of fluctuations in interest rates and interest rate risks on the results of operations and net assets. The interest rates on financial liabilities are predominantly fixed. We use interest rate derivatives to keep the relationship between fixed and variable interest rates within predefined limits in order to optimize the interest result. The potential risk is determined on the basis of current interest rates and possible changes in these interest rates.

Currency positions resulting from operations are closed by appropriate forward exchange contracts. Currency fluctuations from operating activities do not have any major effect on our operating result. Foreign exchange risks are monitored on a case-by-case basis within the framework of the currency management system.

As part of the EnBW-wide digital transformation, the treasury IT landscape [↗](#) including the payment transaction system is being replaced. The aim is to achieve greater automation and more stable processes. In addition, new and amended governance rules will be implemented.

We will continue to strive to maintain a balanced financing structure, solid financial profile and thus solid investment-grade ratings [↗](#). We aim to secure our long-term access to the capital markets under competitive conditions by reaching a broader base of investors using sustainable financial instruments. Furthermore, we are digitalizing the underlying information and decision-making processes by creating a centralized data structure that can be managed and viewed using new media.

We have been in a growth phase since 2021 as part of the EnBW 2025 strategy. It is not possible to finance all of the investment exclusively via the company's internal financing capability [↗](#). Therefore, EnBW will manage its financial profile from 2021 onwards using the key performance indicator debt repayment potential [↗](#) as the most important indicator of the company's creditworthiness. The debt repayment potential describes the retained cash flow [↗](#) in relation to the net debt [↗](#) and measures the ability of EnBW to repay its debts from its current earnings potential.

Details on the **risk management system** can be found in the notes to the consolidated financial statements in note (25) "Accounting for financial instruments."

A target level of 12% should enable the company to exploit growth opportunities while maintaining the creditworthiness of the company at the same time. This target level is reviewed on a regular basis to guarantee a solid investment-grade rating.

Further explanations of our financial terms can be found in the chapter “Strategy, goals and performance management system” on [p. 47[↗]](#).

Ratings

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

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

Development of credit ratings – rating/outlook

	2021	2020	2019	2018	2017
Moody's	Baa1/stable	A3/negative	A3/negative	A3/stable	Baa1/stable
Standard & Poor's (S&P)	A-/stable	A-/stable	A-/stable	A-/stable	A-/stable

We have decided to concentrate in future on the two large rating agencies Moody's and S&P. We ended our rating by the agency Fitch on 22 March 2021.

The rating agency Moody's downgraded its credit rating for EnBW AG from A3 to Baa1 on 18 May 2021. The outlook for the rating is stable. Despite the fact that EnBW exceeded its earnings target set out in the EnBW 2020 strategy in the 2020 financial year, Moody's analysts believe that the company's financial profile will not meet the requirements for an A3 rating over the next few years.

The rating agency S&P confirmed its A- rating for EnBW AG with a stable outlook on 2 June 2021. S&P believes that EnBW is well positioned within the European energy transition and has a business portfolio that is proving resilient to economic downturns. From a risk perspective, the rating agency has a positive view of the partnership approach followed by EnBW for major projects. In order to take account of the increase in minority interests reported on the balance sheet in this context, S&P have introduced a so-called pro-rata guidance, i.e., separate performance indicator requirements for the ownership interests held by EnBW.

EnBW continues to have one of the strongest credit ratings among integrated energy supply companies in Europe with an A- rating from S&P and a Baa1 rating from Moody's. These ratings are in line with EnBW's objective of maintaining solid investment-grade ratings.

Assessment by the rating agencies

Moody's (18/05/2021)

- Leadership position as vertically integrated utility within Baden-Württemberg
- Significant proportion of EBITDA, around 50%, from low-risk regulated distribution and transmission activities
- Growing share of renewables under contracts as EnBW continues to invest in line with its strategy
- Historically balanced financial policy and demonstrated commitment to robust credit quality
- Difficult operating environment in Germany for conventional generation and challenging retail markets
- Execution risks relating to a large investment program, including off-shore wind development
- Supportive stance of shareholders

Standard & Poor's (02/06/2021)

- Well positioned amid the European energy transition, with a business mix that is proving resilient to economic downturns
- Prudent risk-sharing strategy; increasing share of minority shareholdings factored in in S&P's rating triggers
- EnBW to enter an intensive investment circle focusing mostly on low-risk grid projects and increasing renewable capacity
- Capex intensification will increase leverage, but consistent with current rating
- Regulated business and low-risk renewable portfolio will translate into stable and sustainable cash flow streams
- Moderate likelihood of government support

Financing strategy

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

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

- Debt Issuance Program (DIP) [?], via which bonds are issued: €~4.7 billion of €7.0 billion drawn
- Subordinated bonds: €~3.5 billion
- Commercial paper (CP) program [?]: €~0.2 billion of €2.0 billion drawn
- Sustainability-linked syndicated credit facility [?]: €1.5 billion undrawn, with a term until the end of June 2026 after successfully utilizing the first annual extension option after the first year. There is another extension option after the second full year until the end of June 2027 at the latest.
- Contractually committed bilateral credit lines: €~0.1 billion of €~1.3 billion drawn
- Project financing and loans from the European Investment Bank (EIB)
- In addition, subsidiaries have other financing activities in the form of bank loans and promissory notes.

Details on **financial liabilities** can be found in the notes to the consolidated financial statements in note (22) "Liabilities and subsidies" and note (26) "Contingent liabilities and other financial commitments."

Documentation of short-term and long-term borrowings on the capital markets under the established DIP [?] and CP programs [?], as well as other credit documentation with banks (e.g., syndicated lines of credit [?]) include internationally standardized clauses. The issuing of a negative pledge and a pari passu clause [?] to all creditors form essential key elements of our financing policy. The use of undrawn credit lines is not subject to restrictions.

In June 2021, a consortium of 18 banks agreed to the one-year extension of our sustainability-linked syndicated credit line with a volume of €1.5 billion. The new term for the syndicated credit line ends on 24 June 2026. The financing costs are tied to the sustainability performance of EnBW. The borrowing costs reduce or increase according to the degree to which the targets for selected non-financial key performance indicators are achieved:

- CO₂ intensity
- Share of the generation capacity accounted for by renewable energies
- SAIDI (Electricity)

Capital market activities in 2021

We have sufficient and flexible access to the capital market at all times. The EnBW bonds continue to have a well-balanced maturity profile. As part of our financing strategy, we constantly assess capital market trends with regard to the current interest rate environment and to any potentially favorable refinancing opportunities.

To implement our sustainable corporate strategy, we use green bonds as a sustainable financing instrument. We have already issued green bonds [?] with a total volume of €2.5 billion. They are exclusively used to finance climate-friendly projects, which means that all of the proceeds are invested in sustainable environmental and climate protection projects. All of our green bonds fulfill the criteria for certification by the Climate Bonds Standard Board [?] on behalf of the Climate Bonds Initiative [?]. To gauge the requirements of the capital market with respect to ESG, we held dedicated ESG discussions with prominent investors from England, France and Germany in 2021. We want to hold these discussions on a regular basis so that we can provide our investors with detailed information on the transformation of EnBW and respond to any changes more quickly.

In the middle of February, we issued a call notification for our subordinated bond with a volume of €1.0 billion that was issued in March 2014. It was redeemed at the earliest possible date on 2 April 2021 at the principal amount plus interest accrued.

Information on how the funds from the green bonds are used can be found in the **Green Bond Impact Report** on our website.

[Online ↗](#)

We also issued two corporate bonds in February, each with a volume of €500 million. The bond with a term of seven years has a coupon of 0.125%. The bond with a term of twelve years has a coupon of 0.500%. Due to high demand, we were able to issue the bonds at attractive conditions.

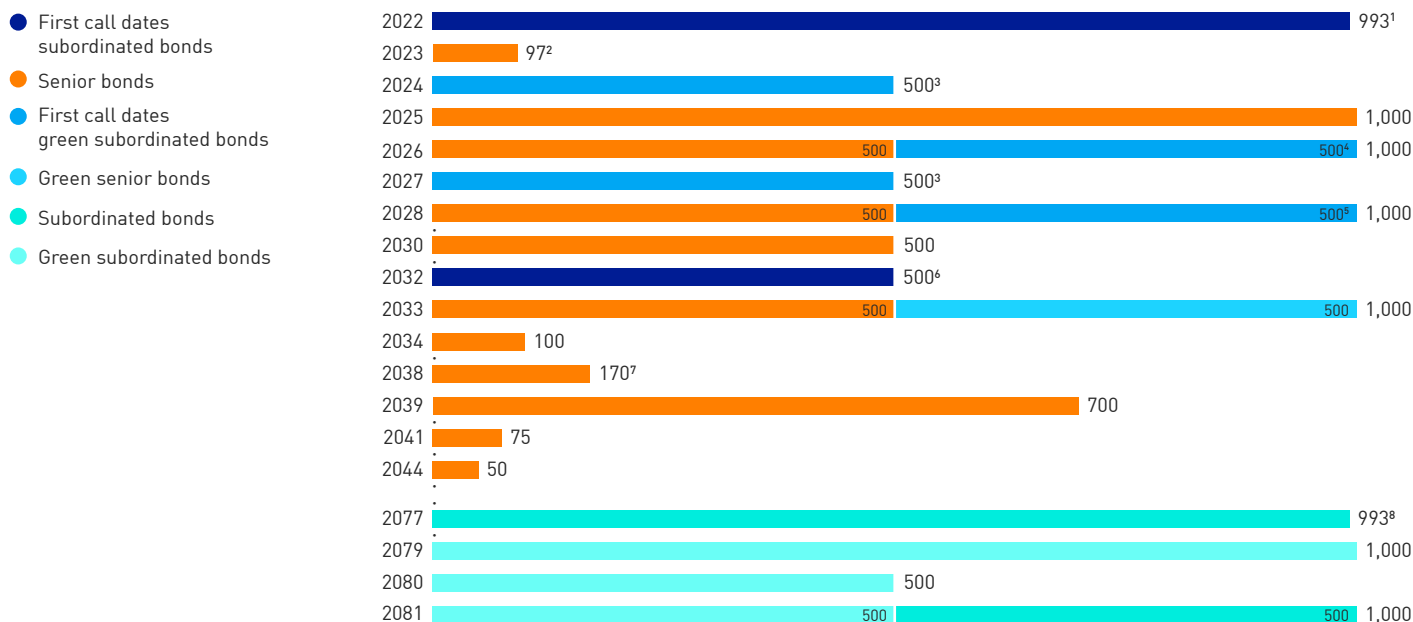
EnBW issued two subordinated bonds at the end of August, one of which was a green bond. The bonds each have a volume of €500 million and a term of 60 years. The proceeds from the green subordinated bond will be exclusively used to finance climate-friendly projects in the area of offshore wind, onshore wind, photovoltaics and electromobility. EnBW has the right to redeem the green subordinated bond with a starting coupon of 1.375% at the first call date on 31 May 2028 and then at every coupon date.

The proceeds from the other bond will also be used for implementing aspects of the company's strategy that focus on sustainability, although they are not earmarked for specific projects. This subordinated bond with a starting coupon of 2.125% can be redeemed for the first time on 31 May 2032. The rating agencies Moody's and Standard & Poor's classify half of both subordinated bonds as equity, which has a positive effect on the financial performance indicators relevant to EnBW's ratings. Subordinated bonds are thus an important financing instrument for EnBW for both supporting our ratings and strengthening our capital structure.

On 5 December 2021, we issued a call notification for the subordinated bonds that were issued in September 2016. The euro subordinated bond with a volume of €725 million and the US dollar subordinate bond with a volume of US\$300 million were redeemed at the earliest possible date on 5 January 2022 in accordance with their terms at their principal amounts plus interest accrued.

EnBW thus has a well-balanced maturity profile.

Maturity profile of EnBW bonds in € million



¹ First call date: subordinated bond maturing in 2077; includes US\$300 million (swap in €), coupon before swap 5.125%.

² CHF 100 million, converted into € as of 31/12/2021.

³ First call date: green subordinated bond maturing in 2079.

⁴ First call date: green subordinated bond maturing in 2080.

⁵ First call date: green subordinated bond maturing in 2081.

⁶ First call date: subordinated bond maturing in 2081.

⁷ JPY 20 billion (swap in €), coupon before swap 5.460%.

⁸ Includes US\$300 million, converted into € at rate on 05/10/2016.

Asset liability management model

We ensure the timely coverage of the pension and nuclear obligations using our asset liability management model [?].

The aim is to cover the Group's pension and nuclear provisions within an economically feasible period of time by means of appropriate financial assets. We ensure this using our cash flow-based asset liability management model. For this purpose, we determine the effects on the cash flow statement, income statement and balance sheet over the next 30 years. Alongside the anticipated return on financial assets, actuarial reports on pension provisions and sector-specific appraisals by external experts on costs for nuclear decommissioning and disposal are taken into account. The aim of this model is to limit the impact the utilization of the pension and nuclear obligations may have on the operating business to €300 million (plus an inflation supplement) a year by taking funds from the financial assets. In the 2021 financial year, the impact on the cash flow from operating activities was €360 million. As soon as the provisions are fully covered by the financial assets, no further funds will be taken from the cash flow from operating activities as part of the model. This model also allows simulations of various alternative scenarios.

As of 31 December 2021, the dedicated financial assets [?] for pension and nuclear provisions totaled €6,477.2 million (previous year: €6,220.3 million). Alongside the dedicated financial assets, there are plan assets to cover certain pension obligations with a market value of €869.9 million as of 31 December 2021 (previous year: €949.9 million).

We strive to reach the defined investment targets with minimum risk. We also further optimized the risk/return profile of the financial assets in 2021. The main part of the dedicated financial assets is distributed as investments across nine asset classes. The financial assets are bundled in two master funds with the following investment targets:

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

Financial asset management [?] at EnBW exploits the strategic opportunities offered by digitalization. The main focus is being placed on improving the reliability of processes and improving efficiency. More specifically, a newly created data structure now forms the basis for several new digital solutions that can be scaled up across the Group. At the forefront is, among other things, a novel AI-based cash flow forecasting tool. New digital technologies for intelligent data mining are also being implemented. All of the digital solutions are combined within a user-centered dashboard that is geared towards optimizing performance.

Net debt

As of 31 December 2021, net debt [?] fell by €5,620.4 million in comparison to the previous year. The reason for this development was primarily a higher level of cash and cash equivalents. This was mainly attributable to higher collateral received on the reporting date against the backdrop of current fluctuations on the market. In addition, cash and cash equivalents include EEG funds of €1,215.2 million and current financial assets include EEG funds of €350.0 million. The Federal Republic of Germany paid a federal subsidy of €1,620.0 million to settle the balance on the EEG [?] bank account. The decrease in net debt was also due to the increase in the interest rate for pension provisions.

Net debt

in € million	31/12/2021	31/12/2020	Change in %
Cash and cash equivalents available to the operating business	-6,466.5	-959.0	–
Adjusted cash and cash equivalents available to the operating business ¹	(-5,251.3)	(-1,588.3)	–
Current financial assets available to the operating business	-934.5	-463.8	101.5
Adjusted current financial assets available to the operating business ¹	(-584.5)	(-463.8)	(26.0)
Long-term securities available to the operating business	-2.1	-2.1	0.0
Bonds	8,401.0	7,161.9	17.3
Liabilities to banks	2,067.4	1,771.9	16.7
Other financial liabilities	782.0	679.5	15.1
Lease liabilities	884.5	886.4	-0.2
Valuation effects from interest-induced hedging transactions	-53.0	-51.6	2.7
Restatement of 50% of the nominal amount of the subordinated bonds ²	-1,746.3	-1,746.3	0.0
Other	-31.4	-45.0	-30.2
Net financial debt ²	2,901.1	7,231.9	-59.9
Adjusted net financial debt ^{2 1}	(4,466.3)	(6,602.6)	(-32.4)
Provisions for pensions and similar obligations ³	7,772.4	8,338.5	-6.8
Provisions relating to nuclear power	4,955.6	5,415.3	-8.5
Receivables relating to nuclear obligations	-365.8	-358.9	1.9
Net pension and nuclear obligations	12,362.2	13,394.9	-7.7
Long-term securities and loans to cover the pension and nuclear obligations ⁴	-6,053.4	-5,318.2	13.8
Cash and cash equivalents to cover the pension and nuclear obligations	-186.5	-293.7	-36.5
Current financial assets to cover the pension and nuclear obligations	-97.3	-276.9	-64.9
Surplus cover from benefit entitlements	-121.5	-307.6	-60.5
Other	-18.5	-23.9	-22.6
Dedicated financial assets	-6,477.2	-6,220.3	4.1
Net debt relating to pension and nuclear obligations	5,885.0	7,174.6	-18.0
Net debt	8,786.1	14,406.5	-39.0
Adjusted net debt ¹	(10,351.3)	(13,777.2)	(-24.9)

¹ Adjusted for EEG funds totaling €1,565.2 million (previous year: €-629.3 million).

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

³ Less the market value of the plan assets (excluding the surplus cover from benefit entitlements) of €869.9 million (31/12/2020: €949.9 million).

⁴ Includes equity investments held as financial assets.

Investment analysis

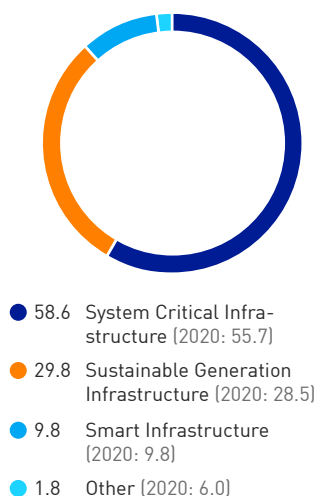
Net cash investment

in € million ¹	2021	2020	Change in %
Investments in growth projects ²	2,022.1	1,704.8	18.6
Investments in existing projects	786.4	820.9	-4.2
Total investments	2,808.5	2,525.7	11.2
Divestitures ³	-20.4	-33.1	-38.4
Participation models	-147.9	-283.7	-47.9
Disposals of long-term loans	-1.1	-20.0	-94.5
Other disposals and subsidies	-167.9	-362.0	-53.6
Total divestitures	-337.3	-698.8	-51.7
Net (cash) investment	2,471.2	1,826.9	35.3

¹ Excluding investments held as financial assets.

² Does not include cash and cash equivalents acquired with the acquisition of fully consolidated companies. These amounted to €0.0 million in the reporting period (previous year: €16.8 million).

³ Does not include cash and cash equivalents relinquished with the sale of fully consolidated companies. These amounted to €0.0 million in the reporting period (previous year: €39.9 million).

Investment by segment
in %

Investment by the EnBW Group in 2021 was around 11% higher than the level in the previous year. This was due primarily to our successful bid for offshore wind rights for the construction of offshore wind farms in Great Britain and to the expansion of the electricity transmission grids. Around 72.0% of overall gross investment was attributable to growth projects; the proportion of investment in existing facilities stood at 28.0%.

Investment in the **Smart Infrastructure for Customers** segment of €274.1 million was higher than the level in the previous year (€246.4 million), which was mainly a result of a higher investment in electromobility and for storage solutions at SENEK.

Investment in the **System Critical Infrastructure** segment of €1,647.0 million was higher than the level in the previous year of €1,407.3 million. In both years, it was primarily attributable to the expansion of the transmission grids by our Group subsidiaries TransnetBW, terranets bw and ONTRAS Gastransport. In addition, our grid companies invested in the expansion and renewal of the distribution grid.

There was investment of €837.0 million in the **Sustainable Generation Infrastructure** segment, which was higher than the level in the previous year (€719.9 million).

Investments in Sustainable Generation Infrastructure

in %	2021	2020
Renewable Energies	23.3	23.6
Thermal Generation and Trading	6.5	4.9
Sustainable Generation Infrastructure	29.8	28.5

A total of €655.6 million of this investment was in the Renewable Energies area, compared to €597.3 million in the previous year. This increase was mostly attributable to the offshore wind sector due to our successful participation in the auction in Great Britain. In contrast, there was lower capital expenditure on our wind farms EnBW Hohe See and EnBW Albatros, which have been in operation for around a year. Investment in the Thermal Generation and Trading area stood at €181.4 million and was thus higher than in the previous year (€122.6 million). This was mainly due to the construction of the gas turbine power plant in Marbach am Neckar, which we are building on behalf of TransnetBW.

Other investments of €50.4 million were significantly lower than the level in the previous year (€152.1 million). This was due primarily to the acquisition of Gas-Union in the previous year.

Divestitures in the reporting year comprised the sale of shares in a portfolio of onshore wind farms and other transactions as part of our local authority participation model "EnBW connects." There was an overall decrease of about 50% compared to the value from the previous year. The divestitures in the previous year were mainly influenced by transactions as part of "EnBW connects" and the transfer of the high-voltage grid to the City of Stuttgart.

Investment obligations for the acquisition of intangible assets and property, plant and equipment amounted to €2,703.8 million as of 31 December 2021 (previous year: €2,176.6 million). Commitments for corporate acquisitions totaled €737.8 million (previous year: €657.2 million).

We also take climate goals into account in our investment decisions. For this purpose, we have adapted our investment guidelines: Significant investment projects now undergo additional steps to evaluate their sustainability. This additional information flows into the approval processes carried out by the investment committee and Board of Management (p. 47f.⁷).

Liquidity analysis

Condensed cash flow statement

in € million	2021	2020	Change in %
Cash flow from operating activities	7,597.8	1,158.1	–
Cash flow from investing activities	-2,859.1	-1,978.5	44.5
Cash flow from financing activities	600.1	681.9	-12.0
Net change in cash and cash equivalents	5,338.8	-138.5	–
Change in cash and cash equivalents due to changes in the consolidated companies	29.0	38.7	-25.1
Net foreign exchange difference	32.4	-11.4	–
Change in cash and cash equivalents due to risk provisions	0.1	0.1	–
Change in cash and cash equivalents	5,400.4	-111.1	–

The significant increase in cash flow from operating activities in comparison to the previous year was caused primarily by an inflow of cash in the net current assets for reasons related to the reporting date. This was mainly attributable to higher collateral received against the backdrop of current fluctuations on the market. As well as the reduction in inventories, there was a sharp fall in the net balance of trade receivables and payables in comparison to the previous year mainly as a result of the payments to settle the EEG bank account.

Cash flow from investing activities returned a higher outflow of cash in the reporting period compared to the previous year. The main reasons for this development were higher net capital expenditure [?] on intangible assets and property, plant and equipment and the foundation of two companies in Great Britain together with our associated bids for offshore wind rights for the construction of offshore wind farms. Cash flow from investing activities was also impacted by higher net investment as part of the portfolio management of securities and financial investments.

Cash flow from financing activities returned a slightly lower cash inflow than the figure in the previous year. In the reporting year, this was primarily due to the issuing of senior and subordinated bonds in the first and third quarters. This was offset to some extent by the repayment of a subordinated bond in the second quarter, a cash outflow for alterations of capital in non-controlling interests and higher interest and dividends paid.

The solvency of the EnBW Group was ensured as of the reporting date thanks to the company's internal financing capability and the external sources available for financing. The company's future solvency is secured by its solid financial position and results of operations.

Retained cash flow

in € million	2021	2020	Change in %
EBITDA	2,803.5	2,663.3	5.3
Changes in provisions	-103.9	-553.3	-81.2
Non-cash-relevant expenses/income	-396.3	-26.1	–
Income tax paid	-200.6	-207.8	-3.5
Interest and dividends received	358.0	264.5	35.3
Interest paid for financing activities	-314.5	-236.1	33.2
Dedicated financial assets contribution	184.8	123.1	50.1
Funds from operations (FFO)	2,331.0	2,027.6	15.0
Dividends paid	-547.2	-389.1	40.6
Retained cash flow	1,783.8	1,638.5	8.9

Funds from operations (FFO) [?] were higher than the level in the previous year, which was mainly due to the higher EBITDA [?] and higher interest and dividends received. The additions to the provisions for onerous contracts for electricity procurement agreements also had a positive effect on FFO. This was offset to some extent by higher non-cash-relevant income. Despite the higher dividends paid, the increased FFO led to an increase in retained cash flow [?]. The retained cash flow is an expression of the internal financing capability [?] of EnBW and reflects the funds that are available to the company

for investment – after all stakeholder claims have been settled – without the need to raise additional debt.

TOP

Debt repayment potential

in € million	2021	2020	Change in %
Retained cash flow	1,783.8	1,638.5	8.9
Net debt	8,786.1	14,406.5	-39.0
Adjusted net debt ¹	(10,351.3)	(13,777.2)	-24.9
Debt repayment potential in %	20.3	11.4	-
Adjusted debt repayment potential in % ¹	(17.2)	(11.9)	-

¹ Adjusted for EEG funds of €1,565.2 million (previous year: €-629.3 million).

Following the transition to the 2025 growth strategy, the key performance indicator internal financing capability was replaced by the new key performance indicator debt repayment potential [?] in 2021. In the reporting year, the retained cash flow was slightly above the forecasted range of €1.6 billion to €1.7 billion. Due to factors that are outside of the company's influence, such as higher collateral and a rise in the interest rate for pension provisions, the debt repayment potential in the 2021 financial year was significantly higher than the target value of between 11.5% and 12.5%.

Net assets

Condensed balance sheet

in € million	31/12/2021	31/12/2020	Change in %
Non-current assets	35,232.5	33,284.7	5.9
of which intangible assets	(3,417.0)	(3,498.5)	(-2.3)
of which property, plant and equipment	(20,364.4)	(19,990.9)	(1.9)
of which entities accounted for using the equity method	(1,017.9)	(968.9)	(5.1)
of which other financial assets	(6,744.3)	(6,185.2)	(9.0)
of which deferred taxes	(1,115.2)	(1,344.7)	(-17.1)
Current assets	35,986.7	12,645.3	-
Assets held for sale	54.0	35.0	54.3
Assets	71,273.2	45,965.0	55.1
Equity	8,499.3	7,768.8	9.4
Non-current liabilities	28,531.0	26,447.2	7.9
of which provisions	(14,089.5)	(14,803.4)	(-4.8)
of which deferred taxes	(1,018.3)	(916.0)	(11.2)
of which financial liabilities	(9,182.5)	(8,120.1)	(13.1)
Current liabilities	34,242.9	11,744.7	-
of which provisions	(2,676.5)	(1,479.6)	(80.9)
of which financial liabilities	(2,067.9)	(1,493.1)	(38.5)
Liabilities directly associated with assets classified as held for sale	0.0	4.3	-
Equity and liabilities	71,273.2	45,965.0	55.1

As of 31 December 2021, total assets exceeded the level at the end of the previous year by €25,308.2 million. Non-current assets increased by €1,947.8 million between the two reporting dates, which was mainly due to the increase in derivatives [?]. Current assets increased by €23,341.4 million. This was also attributable to the increase in derivatives caused by current fluctuations on the market and to higher bank balances.

As of 31 December 2021, equity increased by €730.5 million as a result of the decrease in losses in other comprehensive income, which was mainly caused by an increase in the discount rate for the pension provisions from 0.75% at the end of 2020 to 1.15% as of the reporting date in 2021. The equity ratio fell from 16.9% to 11.9% between the two reporting dates. Non-current liabilities increased by €2,083.8 million. The main reasons for this development were the increase in derivatives and the rise in financial liabilities as a result of the issuing of two senior bonds and two euro subordinated

bonds, each with a volume of €500.0 million. This was offset to some extent by the early repayment of a subordinated bond with a volume of €1.0 billion and the fall in pension provisions as a result of the increase in the discount rate. Current liabilities increased by €22,498.2 million. This was mainly attributable to the increase in derivatives caused by current fluctuations on the market.

TOP

ROCE and value added

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

Value added by segment 2021

	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result ¹ in € million	174.2	719.9	867.6	-233.6	1,528.1
Average capital employed in € million	1,653.7	10,625.5	8,917.6	514.7	21,711.5
ROCE in %	10.5	6.8	9.7	-	7.0
Weighted average cost of capital before tax in %	7.6	4.0	5.4	-	4.9
Value added in € million	48.0	297.5	383.5	-	455.9

¹ Amended adjusted investment result of €88.4 million, adjusted for taxes (investment result/0.706 - investment result; with 0.706 = 1 - tax rate 29.4%).

Value added for 2020 by segment ¹

	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Adjusted EBIT including the adjusted investment result ² in € million	186.5	824.9	665.7	-226.7	1,450.4
Average capital employed in € million	1,543.8	10,435.1	10,537.5	509.2	23,025.6
ROCE in %	12.1	7.9	6.3	-	6.3
Weighted average cost of capital before tax in %	7.4	4.1	5.4	-	5.2
Value added in € million	72.6	396.5	94.8	-	253.3

¹ The figures for the previous year have been restated.

² Amended adjusted investment result of €41.6 million, adjusted for taxes (investment result/0.706 - investment result; with 0.706 = 1 - tax rate 29.4%).

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

In the 2021 financial year, value added increased in comparison to the previous year to €455.9 million. The adjusted EBIT[?] including the adjusted investment result increased, while the average capital employed[?] fell at the same time. The risk-adjusted weighted average cost of capital fell in comparison to the previous year to 4.9%. The ROCE reached 7.0% and thus exceeded the expectation for the 2021 financial year (forecast for 2021: 5.3% to 6.3%). ROCE will be replaced by the key performance indicator value spread[?] from the 2022 financial year onwards. In 2021, the value spread at a Group level was 2.1%.

Smart Infrastructure for Customers: Value added in the Smart Infrastructure for Customers segment fell by €24.6 million in 2021. This was mainly due to the increase in the average capital employed, especially in the area of electromobility. In addition, the lower adjusted EBIT including the adjusted investment result and the slightly higher capital costs had a negative effect on value added.

System Critical Infrastructure: Value added in the System Critical Infrastructure segment decreased by €99.0 million in comparison to 2020. The adjusted EBIT including the adjusted investment result was €105.0 million lower than the figure in the previous year. The increase in capital employed, which was mainly due to investment in the transmission and distribution grids, also had a negative impact on value added.

Sustainable Generation Infrastructure: Value added in the Sustainable Generation Infrastructure segment of €383.5 million was €288.7 million higher than the value in the previous year. The adjusted EBIT including the adjusted investment result increased to €867.6 million. At the same time, capital employed decreased due to impairment losses already made on conventional generation plants and, to a smaller extent, on offshore wind farms at the six-monthly reporting date. Furthermore, higher market prices for gas and electricity led to an increase in liabilities and thus to a further decrease in capital employed.

Performance indicators relevant to remuneration

The performance indicators relevant to remuneration are derived as follows:

EBT relevant to remuneration

in € million	2021	2020
EBT	513.3	1,002.6
Less outstanding items for derivatives allocated under trading within EBITDA	-220.2	4.1
Less the measurement of financial assets and outstanding items for derivatives allocated under trading within the financial result	-380.3	54.8
Less changes to the inflation rate and discount rate for nuclear provisions	-2.0	5.2
EBT relevant to remuneration	-89.2	1,066.7

Funds from operations (FFO) relevant to remuneration

in € million	2021	2020
Funds from operations (FFO)	2,331.0	2,027.6
Less income tax paid	200.6	207.8
Funds from operations (FFO) relevant to remuneration	2,531.6	2,235.4

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

in € million	2021	2020
Intangible assets	3,417.0	3,498.5
Property, plant and equipment	20,364.4	19,990.9
Investment properties	45.6	27.9
Investment cost subsidies	-3.8	-6.2
Construction cost subsidies	-967.0	-941.9
Intangible assets and property, plant and equipment (net)	22,856.3	22,569.2
Average intangible assets and property, plant and equipment (net) ¹	22,381.0	21,696.2

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

The **remuneration report** is available as a separate report on our website.

Online [↗](#)

ROA (return on assets) relevant to remuneration

in € million	2021	2020
EBIT	158.8	1,102.7
Less outstanding items for derivatives allocated under trading within EBITDA	-220.2	4.1
Less changes to the inflation rate and discount rate for nuclear provisions	0.0	0.1
EBIT relevant to remuneration	-61.4	1,106.9
Average intangible assets and property, plant and equipment (net)	22,381.0	21,696.2
ROA (return on assets) relevant to remuneration in %	-0.3	5.1

The remuneration of the members of the Board of Management is described in full in the **remuneration report**, which is available as a separate report at www.enbw.com/corporate-governance.

Customers and society goal dimension

Reputation

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

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

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

Reputation Index

Reputation is measured using the key performance indicator Reputation Index using a standardized survey that is carried out by an external market research institute. It is measured in accordance with the requirements of the EnBW Group standard for market research and surveys [\(p. 46⁷\)](#).

TOP

Key performance indicator

	2021	2020	Change in %	Forecast 2021
Reputation Index	55	56	-1.8	55 – 58

The Reputation Index fell in 2021 by one index point in comparison to the previous year. Nevertheless, we were still within our target range of 55 to 58 points. This decrease was mainly due to the fact that the figures for opinion leaders and investors fell again in 2021, after they had risen most sharply in 2020. We assume that we benefited in 2020 from a positive assessment of how we handled the impact of the coronavirus pandemic and our very reliable supply of energy, and these effects faded in 2021. However, the index values for almost all stakeholder groups and the overall Reputation Index in 2021 were still higher than the values in 2019.

More details on reputational risks can be found in the “Report on opportunities and risks” on [p. 132⁷](#).

Customer proximity

On the path to becoming a sustainable and innovative infrastructure partner, we have great opportunities for generating additional revenue and for acquiring new customers using **digital services and solutions**. Our company website is the central sales and information channel for the EnBW brand for existing and potential customers for our range of products – particularly electricity, gas, telecommunications, e-mobility, solar and storage solutions, and digital solutions for medium-sized companies. The website was the main focus of our corporate campaign in 2021. An interactive e-mobility assistant was integrated into the website that allows customers and companies to access our e-mobility solutions on the go, at home or at work. The continuous optimization of our range of digital services and improvements to user friendliness in 2021 led to a further increase in user numbers of 25% in comparison to 2020. Our end-customer portal “My EnBW” enables customers to manage their contracts and also provides them with services such as a cost overview, relocation service and checking the amount of their advance payments. In 2021, the number of “My EnBW” registrations increased by 11% and the ratio of monthly active users by 12% in comparison to 2020. We had also added a customer app for iOS and Android smartphones to our services by the end of 2021. The IT and process landscape EnPower that was introduced in 2019 was also continuously enhanced in 2021. In particular, we improved the digital support offered to customer advisors for the EnBW and Yello brands.

You can find our **company website** [here](#).

Online [↗](#)

One of the goals for our sustainability activities is to achieve “sustainable sales” (p. 41⁷). Sustainable sales will create economic, ecological and social value added for us and will set us apart from the competition. The latest studies show that our customers have a great interest in sustainable products. In order to achieve “sustainable sales,” the initial focus will be placed on the themes of climate protection and thus climate-neutral sales. We were already able to implement the first initiatives in 2021 and we present the most important ones in the section “Selected activities.”

Customer Satisfaction Index

Our customers are the central focus of our philosophy and actions. We aim to build long-term relationships with our customers by offering an intelligent combination of products and services, developing new product worlds, communicating transparently and delivering the highest-quality service possible. Maintaining a high level of customer satisfaction is key. The Customer Satisfaction Index is compiled for EnBW and Yello from customer surveys carried out by an external provider (p. 46⁷).

TOP

Key performance indicator

	2021	2020	Change in %	Forecast 2021
Customer Satisfaction Index for EnBW/Yello	127/159	132/159	-3.8/-	127 – 139/ 150 – 161

In 2021, the Customer Satisfaction Index fell slightly to 127 points. The satisfaction of EnBW retail customers was, however, still at a good level and within the forecasted range. A good level is reached when half of those surveyed indicate that overall they are particularly satisfied with EnBW. This is the case from 114 points upwards. A very good level of satisfaction is achieved from 136 points upwards. Various spill-over effects were probably the reason for the decrease in 2021: The data for the Customer Satisfaction Index was collected within a comparatively difficult media environment for energy companies. Extensive reporting in the media on the expected sharp rise in prices on the energy market and discussions about the regulatory measures necessary to combat the climate crisis led in our opinion to negative spill-over effects. We were not able to fully compensate for these effects through our measures to strengthen customer satisfaction, such as the development of a further range of sustainable products and the expansion of our digital services for retail customers.

Yello was able to reaffirm the very good level of satisfaction among its customers with an index value of 159 in 2021. This good value was due to the very high level of customer satisfaction with the service offered by Yello.

Further details are available in the “Report on opportunities and risks” on p. 132⁷.

Selected activities

Green electricity has now become the standard in the product portfolio of EnBW and Yello. The proportion of the electricity supplied to new customers by EnBW and Yello that was accounted for by green energy increased from 83% in 2020 to 96% in 2021. 39% of the total customer base for both brands is now supplied with green electricity (excluding the provision of basic and reserve supplies). In comparison to the sale of conventional electricity and taking compensation measures into account, Yello and EnBW were thus able to save around 370,000 t of CO₂ emissions in 2021.

In order to **expand the charging infrastructure for electromobility** we are not only investing in our own sites but also working together with partners at their sites. In the 2021 financial year, we concluded new, long-term, nationwide cooperation agreements with renowned companies. In the process, we are installing quick-charging infrastructure with the highest capacities of up to 300 kW. In coordination with the State of Baden-Württemberg, EnBW has also been realizing the projects “Urban Quick-Charging Parks in Baden-Württemberg” (USP-BW) and “Fast Lane-BW” since 2020. As part of these projects, we placed, for example, urban charging parks into operation in Heilbronn and Ludwigsburg in 2021. We are also pushing forward the **expansion of quick-charging infrastructure** internationally with our joint venture SMATRICS EnBW in Austria. Following the installation of numerous new quick-charging stations across the whole of Germany, EnBW is demonstrating how electromobility can work in everyday life. The new flagship charging parks particularly stand out – especially one of the largest quick-charging parks in Germany for ultrafast charging at the Kamener Kreuz interchange in North-Rhine Westphalia and the charging park in Unterhaching near Munich.

You can find further information and videos about our **advertising campaign** [here](#).

[Online ↗](#)

The charging park in Kamen was placed into operation in December 2021 and has 52 quick-charging points, each with an output of up to 300 kW. Depending on the e-car, drivers can charge their cars in just five minutes with enough electricity to travel 100 km. Customers are supplied with 100% green electricity at all charging points operated by EnBW.

At the same time, we are also a provider of electromobility services and provide our customers with access to the **EnBW HyperNetwork**. It is the largest charging network in Germany, Austria and Switzerland and also offers extensive charging options across France, Italy and the Netherlands. Belgium, Luxembourg and Liechtenstein were also added to the network in 2021. Using the **EnBW mobility+ app** and a charging card, drivers of e-cars have access to more than 200,000 charging points where they can always charge at the same price. Since fall 2021, we have also been operating the largest charging network in Germany that supports AutoCharge: Drivers of e-cars can start the charging process at the EnBW quick-charging points automatically as a result. In summer 2021, we launched the **EnBW HyperNetwork advertising campaign** with the former racing driver Nico Rosberg as an ambassador. Under the motto “We charge Germany,” we are positioning ourselves as the driver of electromobility in Germany to a wider public in this growing market. The commercials highlight, among other things, the joys of driving an e-car and the comprehensive charging network, as well as how simple customer solutions can improve convenience and make driving an e-car compatible with everyday life.

We also offer complete charging solutions for a variety of different customer groups. In cooperation with our partner **SMATRICS**, we not only introduced products onto the market in 2021 that make it easier for local authorities to use electromobility but, since the late summer of 2021, we have offered the operators of fleets a comprehensive solution for managing corporate fleets of electric vehicles.

In both capacities – as an operator of charging infrastructure and also as a provider of electromobility services – we received various awards and came first in tests in 2021, including the extensive charging network test carried out by the renowned technology magazine “connect,” the award for the largest charging network in the DACH region from “Autobild” and the reader’s award “BEST OF mobility 2021” from the sector magazine “Vision Mobility.”

Our subsidiary **SENEC** is one of the top-three providers of home storage systems for solar power plants in Germany and a specialist in equipping customers so that they are able to meet their own energy needs with solar electricity. In comparison to the previous year, SENEK was able to almost double its revenue and the number of electricity storage systems it sold. It was also able to increase the capacity of the PV modules sold. The main driver of this development was the growing network of SENEK specialist partners, which now includes more than 1,100 companies. According to the results of independent market research, SENEK increased its share of the installed home storage system market in Germany to around 20% in 2021. As part of its full-service package, SENEK also calculates the carbon footprint of all of its product components. In addition, the product development department at SENEK systematically examines and optimizes both the carbon footprint as well as the associated effects that the materials used in the system have on sustainability. For example, a solar module mainly consists of materials that have to be recycled according to regulatory requirements. Manufacturers are obligated to ensure that 80% of the material in a PV module can be recycled. In 2021, SENEK and its customers helped to save around 324,000 t CO₂ in Germany. This corresponds to the CO₂ binding capacity of 54,000 hectares of forest in Germany.

In the area of **contracting**, we provide industry, the real estate sector and public clients with a sustainable and efficient energy infrastructure implemented directly at the customer’s site. We create customized energy concepts for the provision of energy either with no CO₂ emissions or with only low emissions. For example, we started work on restructuring the entire cooling, heating, steam and electricity supplies for a large German food company in 2021. After implementing our concept, we expect that the CO₂ emissions generated in the provision of energy and media will be sustainably reduced by 35%. An important component of our long-term contracting agreements is the ongoing monitoring and optimization of plant operation. We develop applications and business processes as part of our digitalization approach that automatically collect, link and evaluate data from the plant.

Our company views itself as an experienced and capable **partner for local authorities and public utilities**. We have invested in many local authority companies across the whole of Baden-Württemberg and play an active role in networks for the exchange of information between our participating

interests and other public utilities. We currently support numerous local authorities and public utilities using the customer-specific products and services we have developed for them. The basis for our local authority business are five product clusters, which were developed in 2020: smart mobility, networked infrastructure, innovative communities, sustainable energy and reliable security systems. In this context, we are continuously working on strategic approaches and potential new business fields. In 2021, we focused intensively on the area of **sustainable energy** and defined corresponding strategic initiatives. The main themes were heating system planning, climate protection consulting and local authority energy management. In addition, we have also been providing roadmaps for the renovation of local authority properties since 2021. Using our **digital school services**, we help local authorities to upgrade their schools to the latest technological standards and provide them with the necessary infrastructure to make digital learning possible for all of their students. Based on the experience we gained from our long-standing involvement with 116 schools in Stuttgart, we are currently trialing our services in the towns of Munderkingen and Sindelfingen.

The “**EnBW connects**” participation model started in July 2019. By 1 July 2020, a total of 116 local authorities had already signed up in the first subscription phase to indirectly invest in Netze BW by acquiring shares in the local authority holding company Netze BW GmbH & Co. KG. Another 98 local authorities subscribed by 1 July 2021 in the second round, so that the number of local authorities participating in “EnBW connects” has now reached a total of 214. Almost 14% of the shares in Netze BW are now indirectly held by local authorities. “EnBW connects” not only enables local authorities to participate financially but also gives them the opportunity to actively get involved with current issues in the energy industry.

The main **telecommunications activities** at EnBW AG are bundled together in EnBW Telekommunikation with its subsidiaries NetCom BW and Plusnet. As part of their strategic alignment, the two companies expanded their activities related to the self-financed expansion of the fiber-optic network in 2021, with clear regional competencies: NetCom BW is mainly involved with the publicly funded expansion of the fiber-optic network, especially in rural regions. For example, it had its bid accepted to become the telecommunications network operator for the funded fiber-optic infrastructure in the Schwäbisch Hall district in 2021. In addition, NetCom BW is now increasingly investing in its own infrastructure in its home market of Baden-Württemberg and the neighboring regions of Bavaria. In cooperation with Netze BW, it has upgraded an industrial estate in Bahlingen am Kaiserstuhl, laying fiber-optic cables directly into the buildings. In the other regions of Germany, Plusnet is pushing forward the expansion of the fiber-optic network in attractive, undersupplied industrial areas and is financing this expansion itself. The company is thus expanding its existing business model to exploit the potential for new added value in the fiber-optic ecosystem.

The German government passed the IT Security Act 2.0 last year. This was in response to a sharp increase in the number of attacks by hackers – nine out of ten companies were affected by these attacks in the past two years. Customer demand for effective solutions has thus increased both in the critical infrastructure and non-critical infrastructure sectors. The **Full Kritis Service (Full Critical Infrastructure Service)** expanded its cybersecurity services for cities and local authorities, industry and health-care customers even further in 2021. The cooperation between the Baden-Württemberg Ministry of the Interior, the Baden-Württemberg State Bureau of Investigation and EnBW has already paid off. For example, a joint degree course in business information science with a focus on cybersecurity has been developed in cooperation with the Baden-Württemberg Cooperative State University, which is taken by students from all three institutions during the practical parts of their courses.

In the area of **sustainable districts**, we develop sustainable, future-proof and, at the same time, cost-effective concepts for district infrastructure for cities, municipalities and project developers and outline how a district as a whole should function in the future. In 2021, we were able to conclude other contracts for projects covering a total of around 3,000 residential units and the associated supply infrastructure for the district. Four projects in Laupheim, Achern, Flehingen and Schlier with a total of about 450 residential units are currently being realized. At EnBW's “Stöckach” site in the east of Stuttgart, we are planning to build up to 800 apartments with total living space of around 60,000 m² (p. 57⁷). As the supplier, our sustainable districts department will be responsible for the general planning of the technical infrastructure with the aim of also operating this infrastructure in the future. In addition, we are also integrating other innovative themes such as mobility concepts and digital parking space management solutions into these districts.

Supply reliability

As an energy company and in cooperation with our distribution grid companies, we are tasked with guaranteeing a secure and reliable supply of electricity and gas to our customers. We face additional challenges both now and in the future due to the increasing amount of decentralized generation, with volatile feed-ins as a result of changing weather conditions, and the electrification of road traffic. We are preparing our distribution grids so that they can handle this decentralized energy world. Therefore, we are expanding the existing conventional infrastructure with smart grid technologies [?] so that we can better monitor and manage the generation, distribution and storage of energy.

Our grid companies are responsible for the secure and reliable operation of the distribution grids. The processes are managed by the respective grid control center, which is also responsible for coordinating any work to rectify faults in the grid in the respective region. As part of the investment and maintenance programs, our grid companies maintain the grids and expand them according to demand. The overall annual budget for the realization of all investment and maintenance measures is approved by the Board of Management of the EnBW Group. The measures are carried out over one or multiple years and are realized independently by our grid companies. Some of the investment budget is used for the gradual expansion of smart grids. The increasing use of smart grid technology helps us to avoid or delay expensive investment in conventional grids. Besides the reliability and security of supply, the efficiency of the measures is also taken into account when making investment decisions. This is because grid investment also has an influence on the network user charges that make up part of the electricity price paid by customers.

SAIDI

We record all unscheduled interruptions to supply at our distribution grid operators for gas and electricity. This data flows into the "System Average Interruption Duration Index" (SAIDI). It states the average duration of supply interruptions per end consumer in minutes per year (p. 46⁷).

TOP

Key performance indicator

	2021	2020	Change in %	Forecast 2021
SAIDI (electricity) in min./year ¹	16	15	6.7	15 – 20

¹ SAIDI (electricity) includes all unscheduled interruptions to supply that last more than three minutes for the end consumer.

In comparison to the previous year, the supply reliability of the electricity distribution grid was maintained at a good level in 2021 and was within our forecasted range. Several districts supplied with electricity by our subsidiary Netzgesellschaft Düsseldorf were impacted by the flood disaster in July 2021. However, this only had a moderate effect on the Group SAIDI Electricity.

At our gas distribution grid operators, the average duration of unplanned supply interruptions per end consumer (SAIDI Gas) was below 1 min./a in the 2021 financial year, as in the previous year.

Environment goal dimension

Our Group environmental targets – which are integrated into the EnBW 2025 Group strategy – relate to the expansion of renewable energies and to making our contribution to climate protection. These targets are measured using the key performance indicators “installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE” and CO₂ intensity. Our Group environmental goals are supplemented by activities and targets for the implementation of environmental themes in the EnBW sustainability program [\(p. 41 ff. ⁷\)](#). Alongside EnBW AG, the main subsidiaries dealing with environmental issues include ED, SWD and Netze BW. These and other subsidiaries have an environmental management system certified according to DIN EN ISO 14001 or validated according to EMAS, as does EnBW AG. This creates the prerequisites for ensuring that environmental requirements are systematically and continuously taken into account. It is used to manage the required guidelines and regulations, define and monitor environmental targets and establish the necessary testing processes. The consistent implementation and further development of the environmental management system ensures that any material negative impacts on the environment can be avoided as well as possible. Risks generally exist in the area of environmental protection due to the operation of power generation plants and transmission facilities and the possible consequences for air, water, soil and nature. We counter these risks using organizational and procedural measures to reduce their impact, as well as through emergency planning and hazard prevention measures.

Expansion of renewable energies

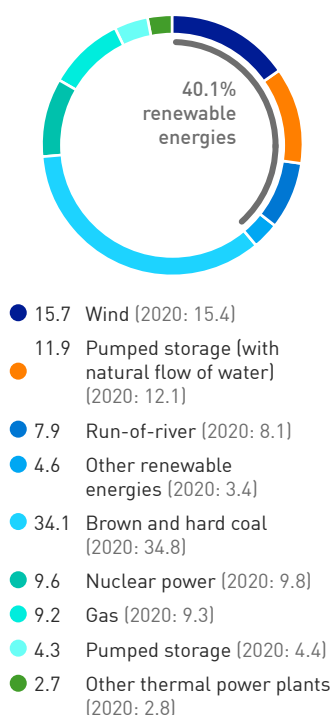
Installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE

TOP

Key performance indicator

	2021	2020	Change in %	Forecast 2021
Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE in %	5.1/40.1	4.9/39.0	4.1/-	5.2 – 5.4/ 40.5 – 41.5

In 2021, the installed output of renewable energies increased to 5.1 GW. The share of the generation capacity accounted for by RE increased to 40.1%. Both performance indicators were thus slightly below the forecasted values, which was due to delays in the supply chains. The commissioning of our solar parks Gottesgabe and Alttrebbin will thus only begin in the first quarter of 2022. The increase in comparison to the previous year was the result of the full commissioning of our Weesow-Willmersdorf solar park with a total capacity of 187 MWp and the expansion of onshore wind farms and other photovoltaic power plants. We have thus continued to push forward the expansion of electricity generation from renewable energy sources in accordance with our strategy.

Installed output
in %Breakdown of the generation portfolio ¹ (as of 31/12)Electrical output ² in MW

	2021	2020
Renewable Energies	5,100	4,865
Run-of-river power plants	1,007	1,007
Storage/pumped storage power plants using the natural flow of water ²	1,517	1,507
Onshore wind	1,016	951
Offshore wind	976	976
Other renewable energies	584	424
Thermal power plants ³	7,622	7,621
Brown coal	875	875
Hard coal	3,467	3,467
Gas	1,166	1,165
Other thermal power plants	346	346
Pumped storage power plants that do not use the natural flow of water ²	545	545
Nuclear power plants	1,223	1,223
Installed output ⁴	12,722	12,486
of which renewable in %	40.1	39.0
of which low CO ₂ in % ⁵	13.4	13.7

¹ The generation portfolio includes long-term procurement agreements and generation from partly owned power plants.

² Output values irrespective of marketing channel, for storage: generation capacity.

³ Including pumped storage power plants that do not use the natural flow of water.

⁴ In addition, power plants with an installed output of 1,706 MW were registered for decommissioning. However, they were classified as system-relevant by the Federal Network Agency and TransnetBW and are thus used by TransnetBW as reserve grid capacity.

⁵ Excluding renewable energies; only gas power plants and storage power plants that do not use the natural flow of water.

Own generation ^{1,2,3} by primary energy source

in GWh

	2021	2020
Renewable Energies	11,692	11,792
Run-of-river power plants	5,150	5,137
Storage/pumped storage power plants using the natural flow of water	858	885
Onshore wind	1,746	1,809
Offshore wind	3,196	3,441
Other renewable energies	742	520
Thermal power plants ⁴	30,707	23,357
Brown coal	5,691	3,137
Hard coal	10,829	4,084
Gas	3,452	4,401
Other thermal power plants	152	168
Pumped storage power plants that do not use the natural flow of water	1,106	1,321
Nuclear power plants	9,477	10,246
Own generation	42,399	35,149
of which renewable in %	27.6	33.5
of which low CO ₂ in % ⁵	10.8	16.3

¹ Own electricity generation includes long-term procurement agreements and partly owned power plants.

² The figures for the previous year have been restated.

³ The generation volumes are reported without the controllable volumes for redispatch deployment. Own generation including redispatch in 2021 was 44,170 GWh.

⁴ Including pumped storage power plants that do not use the natural flow of water.

⁵ Excluding renewable energies; only gas power plants and storage power plants that do not use the natural flow of water.

Own generation increased in 2021 compared to the previous year to 42.4 TWh. This development was primarily attributable to the significantly higher deployment of our thermal generation plants as a consequence of prices on the market. Despite further expansion of renewable power plants, generation based on renewable energies fell in comparison to the level in the previous year. Poorer wind conditions were the main reason for this decrease, which resulted in lower volumes of electricity generated. Generation from hydropower plants stood at the same level as in the previous year. These trends in thermal and renewable generation were observed across Germany in 2021 (p. 74⁷). The proportion of own generation from renewable energy sources thus fell in comparison to the previous year to 27.6%.

CO₂ intensity/climate protection

CO₂ intensity

TOP

Key performance indicator

	2021	2020	Change in %	Forecast 2021
CO ₂ intensity in g/kWh ¹	478	342	39.8	0 % – 15 %

¹ The calculation method for the key performance indicator CO₂ intensity will be restricted in future to include only factors that can be controlled by the company. In contrast to previous years, the share related to redispatch that cannot be controlled by EnBW is no longer included. Using the previous calculation method, the CO₂ intensity for the 2021 financial year would have been 492 g/kWh (previous year: 372 g/kWh). This performance indicator still excludes nuclear generation. The CO₂ intensity including nuclear generation for the reporting year was 386 g/kWh (previous year: 268 g/kWh). We publish a five-year comparison of the performance indicators in our "Multi-year overview" on [p. 289](#)[↗].

The CO₂ intensity of our own electricity generation increased in comparison to the previous year to 478 g/kWh. With respect to our target of reducing the CO₂ intensity of our own electricity generation, 2020 was an exceptional year that was subject to extraordinary effects. Electricity generation at our fossil fuel-fired power plants was thus significantly lower than expected due to market-driven developments. In the Integrated Annual Report 2020, we thus forecast a CO₂ intensity for 2021 at the same level as in 2020 in the best-case scenario, and an increase of 15% in the worst-case scenario. In the 2021 financial year, economic activities recovered as we had previously forecast and this resulted in a catch-up effect with high demand for energy and raw materials. Furthermore, the 2021 financial year was characterized by below-average wind conditions and, in particular, market-driven developments, especially in the gas sector. Significantly higher volumes of electricity were generated using fossil fuel-fired power plants as a result, which is why the forecasted range for CO₂ intensity in 2021 in comparison to the exceptional year 2020 was exceeded. Nevertheless, CO₂ intensity in 2021 was 12.7% lower than in 2018 and thus still at the lower end of our target corridor for reducing our CO₂ intensity by 2025 by between -15% and -30% in comparison to the reference year of 2018.

We also refer you to the details provided in the "Report on opportunities and risks" ([p. 132 f.](#)[↗]).

Carbon footprint of EnBW

Carbon footprint

in thousand t CO₂eq/in %

	2021	2020
Direct CO₂ emissions (Scope 1)	16,313/100.0	9,532/100.0
Electricity generation – not controllable ¹	1,695/10.4	1,447/15.2
Electricity generation – controllable ²	13,423/82.3	7,079/74.3
Heat generation	881/5.4	754/7.9
Operation of gas pipelines/plants ³	242/1.5	189/2.0
Operation of electricity grid	32/0.2	26/0.3
Buildings	10/<0.1	8/<0.1
Vehicles	27/0.2	26/0.3
Other ⁴	2/<0.1	2/< 0.1
Indirect CO₂ emissions (Scope 2)⁵	439/100.0	769/100.0
Grid losses	373/85.0	709/92.2
Operation of plants, electricity grid	11/2.4	10/1.3
Operation of plants, gas grid	37/8.4	28/3.6
Buildings	9/2.1	12/1.6
Operation of plants, data and telecommunications network	7/1.5	6/0.8
Other ⁶	3/0.7	4/0.5
Indirect CO₂ emissions (Scope 3)	60,898/100.0	49,764/100.0
Upstream indirect CO₂ emissions (Scope 3)	8,900/14.6	7,168/14.4
Upstream gas sales	7,669/12.6	6,287/12.6
Procurement of fuel for energy generation ³	1,222/2.0	874/1.8
Upstream gas consumption, gas plants	8/<0.1	5/<0.1
Business trips	1/<0.1	2/<0.1
Downstream indirect CO₂ emissions (Scope 3)	51,998/85.4	42,596/85.6
Gas consumption by customers	51,998/85.4	42,596/85.6
CO₂ emissions avoided	9,808	8,904
CO₂ intensity of business journeys and traveling in CO₂/km	190	190

1 Includes the CO₂ emissions for electricity generation from redispatch and reserve power plant deployment.

2 CO₂ emissions from electricity generation excluding redispatch and reserve power plant deployment.

3 The figures for the previous year have been restated.





4 Includes non-automotive fuel consumption (e.g., emergency generators).

5 Market-based method. According to the location-based method, the Scope 2 emissions were 803 thousand t CO₂eq in 2020 and 753 thousand t CO₂eq in 2021.

6 Contains Scope 2 emissions from electricity consumption at water plants and own/operational consumption at charging infrastructure for e-mobility.

Direct CO₂ emissions are determined mainly by the deployment of power plants. In 2021, lower wind yields and market-driven developments, especially in the gas sector, primarily led to higher electricity generation at our fossil fuel-fired power plants and thus to an increase in direct CO₂ emissions from 9.5 million t CO₂eq in 2020 to 16.3 million t CO₂eq in 2021. Netze BW acquired certificates of origin for sufficient quantities of green electricity in 2021 to cover its procurement of electricity to compensate for grid losses and thus permanently withdrew these certificates from the market. As a result, the Scope 2 emissions of Netze BW related to the procurement of electricity to compensate for grid losses fell to zero. This resulted in a fall in the Scope 2 CO₂ emissions⁵ at EnBW from 0.77 million t CO₂eq to 0.44 million t CO₂eq. Scope 3 CO₂ emissions are mainly influenced by the gas consumption of our customers and thus by gas sales in the B2C and B2B sectors. The Scope 3 emissions increased in the 2021 financial year in comparison to the previous year. This was primarily due to higher gas sales compared to 2020. Due to updated avoidance factors from the German Environment Agency and an increase in biogas activities, CO₂ emissions avoided rose from 8.9 million t CO₂eq to 9.8 million t CO₂eq.

Emissions (Scope 1, 2 and 3)

8.9 million t CO ₂ eq	16.3 million t CO ₂ eq	0.4 million t CO ₂ eq	52.0 million t CO ₂ eq
Greenhouse gas emissions (CO ₂ , CH ₄ , N ₂ O and SF ₆)			
 Scope 3 upstream Other indirect greenhouse gas emissions	 Scope 1 Direct greenhouse gas emissions from sources belonging to, or directly controlled by, the company	 Scope 2 Indirect greenhouse gas emissions originating during the production of purchased electricity, steam, district heating and cooling that the company consumes; grid losses	 Scope 3 downstream Other indirect greenhouse gas emissions
<ul style="list-style-type: none"> Upstream gas sales (gas procurement) Procurement of fuel Business trips 	<ul style="list-style-type: none"> Electricity generation Heat generation Operation of gas pipelines and gas plants Operation of electricity grid Buildings Vehicles 	<ul style="list-style-type: none"> Grid losses Operation of plants, electricity grid Operation of plants, gas grid Operation of plants, water supply Buildings 	<ul style="list-style-type: none"> Gas consumption by customers
Upstream emissions by third parties	Direct and indirect emissions at EnBW		Downstream emissions by third parties

Energy consumption

Energy consumption

	2021	2020
Total final energy consumption in GWh ¹	2,741	2,799
Proportion of renewable energies in final energy consumption in % ²	60.5	54.6
Energy consumption of buildings per employee in kWh per employee ^{3,4}	4,854	5,859

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

2 For electricity consumption for which the proportion of renewable energies is unknown, the Bundesmix (federal mix) label for electricity in the respective reporting year is assumed. For fuels, a proportion of 5% bioethanol is generally assumed.

3 Calculations based on assumptions and estimates. Only those companies with relevant consumption data have been taken into account.

4 The figure for the previous year has been restated.

Total final energy consumption includes the consumption of final energy for our business activities. It does not include conversion losses during energy generation or grid losses. Total final energy consumption is mostly influenced by pump energy as well as the company's own consumption requirements and the operating consumption of the power plants. As a result of the lower use of pump energy and the reduction in the company's own consumption at the thermal power plants, total final energy consumption fell by around 2.1% in comparison to the previous year from 2,799 GWh to 2,741 GWh.

The proportion of renewable energies in final energy consumption increased from 54.6% in 2020 to 60.5% in 2021. This was primarily due to the increase in pump energy at the pumped storage power plants operated by the subsidiary Vorarlberger Illwerke, which uses electricity generated by renewable sources for this purpose.


The energy consumption of our buildings covers the energy required for heating rooms, providing hot water and electricity. The energy consumption of buildings per employee decreased from 5,859 kWh in 2020 to 4,854 kWh in 2021, which was mainly attributable to the fact that employees were continuing to work from home.

You can find numerous other **environmental performance indicators** on our website.

Online 7

Current selected activities

Climate-friendly internal mobility: In order to make a contribution to climate-friendly mobility, we are replacing 178 company vehicles that have conventional drives with fully electric vehicles in the **fleet** operated by EnBW AG by 2024. At the end of 2021, we already had 45 fully electric vehicles in the EnBW AG fleet. In addition, all dedicated **company vehicles** that are newly purchased by the central mobility management department at EnBW AG will be exclusively hybrid or electric vehicles. There was a total of 266 of this type of company vehicle at the end of 2021. Another element of climate-friendly internal mobility is the electric cars from the **New Mobility employee program**, which offers attractive models to employees at special leasing conditions. Some 825 employees were using an electric car by the end of 2021 and over 775 more cars were ordered in 2021. An internal analysis of the fleet management system at SWD showed that 16% of business journeys covered a total distance (round trip) of less than 10 km. As a sustainable alternative to motor vehicles, the company is now using high-power **pedelecs** (electric bikes). **Electric cargo bikes** are also available for the transport of heavy objects. To support the use of public transport, employees can use screens at the SWD sites or an app to access mobility information that includes up-to-date departure times for regional public transport.

Sustainable real estate management: We aim to reduce **CO₂ emissions** in our real estate portfolio. EnBW Real Estate GmbH, the subsidiary responsible for most of the real estate activities of EnBW AG, has been set the target of reducing the **specific energy consumption** of existing buildings by 10% by 2025 and by 20% by 2030, based on the reference year of 2018. By 2021, we achieved a reduction of 4.6% at the representative reference sites. The portfolio managed by EnBW Real Estate GmbH comprises around 100 properties with approximately 260 buildings and a net floor space of about 650,000 m². An important measure for achieving this target has been, for example, the switch to green electricity and biogas in the building portfolio since 2021. In the area of **building automation and digitalization**, we have upgraded our concepts to reduce CO₂ emissions to include aspects related to gray energy in the construction sector (following the cradle-to-cradle  principle), life cycle assessments and the use of sustainable raw materials. In addition, we are developing measures to preserve **biodiversity** at the properties. Our basic goal is to create **working worlds** for the people who work in the buildings that are **healthy, future proof and also boost their performance**. A large photovoltaic power plant with an output of almost 300 kWp has been installed on a roof at SWD. Most of the electricity generated will be used at the site, while the rest will be fed into the electricity grid.

Reduction in paper consumption: We have set ourselves the goal of significantly reducing paper consumption and want to reduce the volume of paper procured at EnBW AG headquarters by up to 90% by 2025, based on the reference year of 2019. We have been able to reduce internal paper consumption by around 63 t and customer-driven paper consumption by around 539 t since 2019, primarily due to our digitalization initiatives. This represents a total **reduction in paper consumption of 75%** since 2019. The coronavirus pandemic and the associated regulation allowing working from home also led to a noticeable reduction in paper consumption. The progress we have made in the digitalization of our internal processes can be seen by the number of printers operated by the company, which decreased in 2021 from around 1,400 to 1,000. In line with our sustainability goals, new homes have been found for the decommissioned printers, e.g., some of the printers were made available free of charge to interested educational institutions.

Hydropower: Electricity generated from hydropower protects the climate. At the same time, the use of hydropower also encroaches on nature. Therefore, we are committed to harmonizing hydropower with the environment. If power plants cause changes to the natural landscape, we compensate for these effects through **environmental enhancement measures**. For example, we ensure or improve the continuity of watercourses by newly constructing or optimizing existing fish migratory routes as well as technical installations to aid the migration of fish up and down rivers. In addition, we are developing innovative solutions to protect fish. At the power plant site in Forbach, the first of two new fish lifts was placed into operation at the low-head hydropower plant in November 2021. The second fish lift at the weir system in Kirschbaumwasen is still under construction and is due to be placed into operation in 2022. This is an extremely important development as the Murg can now be repopulated with the formerly indigenous Atlantic salmon. An already existing dam in Fridingen an der Donau has been remodeled and fish ladders for fish to ascend or descend the river have been added. Furthermore, the minimum water level in the Donau's main river channel has now been increased at this site in agreement with the responsible authorities. The reconstruction of the

Find out more about our measures to improve **energy efficiency**, **conserve biological diversity** and **protect nature and species** on our website.

[Online ↗](#)

Further information on how we use our **solar parks** to **protect species** can be found here.

[Online ↗](#)

Further environmental data, including information relating to the **Global Reporting Initiative**, is available on the Internet.

[Online ↗](#)

turbines in Fridingen will also allow us to utilize the available water to efficiently generate CO₂-free electricity. We are thus making a valuable contribution to achieving the targets in the EU Water Framework.

Conservation of biological diversity: We are aware of our shared responsibility to the environment and want to help protect species. As part of the **blooming transformer station** project, Netze BW has been using the uncultivated areas around transformer stations to promote biodiversity since 2019. The aim is to create natural flower meadows at every transformer station that will become home to a large number of different species that are usually found in the natural environment at the respective sites. As a result, we will be actively making a contribution to the proliferation of flower pollinating insects such as wild bees and butterflies. Furthermore, Netze BW is also examining its **bird protection** measures across the whole electricity grid. In sensitive areas where there is a risk to large birds, markings will be added to the electricity transmission lines in cooperation with nature conservation associations. If it is economically feasible, future planning processes for the routes covered by transmission lines will also examine whether it is possible to avoid sensitive areas, especially bird sanctuaries and migration corridors. SWD is promoting **biodiversity** at its hydropower plants using targeted management and care measures adapted to the local habitat. To protect and support the population of peregrine falcons, SWD has also been installing artificial nesting aids at a height of around 100 m for several years in those urban environments where pairs of peregrine falcons search for suitable nesting sites.

Energy efficiency projects: The German Energy Agency (dena) awarded the Energy Efficiency Award 2021 in the category "Think Big! Complex Energy Transition Projects" to a joint waste heat recovery project run by Energiedienst and Evonik in Rheinfelden (Baden). Both companies received the award for their innovative joint project to recover industrial waste heat and use it to heat residential apartments. The evaluation criteria included, for example, a particularly high level of energy savings, the relevance of the project to climate protection, innovation and profitability.

Alongside the key performance indicators in the environment goal dimension, other environmental targets are defined in the EnBW sustainability program (p. 41 ff. [↗](#)). We utilize a broad range of additional environmental performance indicators for measuring, managing and reporting on the other results of our environmentally relevant activities. Selected activities and performance indicators are described in this section. Further **environmental performance indicators** can be found in our "Multi-year overview" (p. 289 [↗](#)) and on our website.

Employees goal dimension

The further development of our corporate strategy in the period up to 2025 [\[p. 40 ff. ↗\]](#) will place new demands on our HR policy. In future, the strategy will focus on growth, infrastructure, selective internationalization and new business also outside of the energy sector. Using our HR strategy 2025 “People as the main focus,” we want to give the people at EnBW and our company itself the opportunity for growth, development, a future and thus success. The key tasks of HR are recruiting employees for the company, managing their development and accompanying them through the transformation, encouraging loyalty to the company among employees and maintaining and fostering their motivation, satisfaction and employability.

Employee engagement

People Engagement Index (PEI)

Since November 2020, we have been using a redesigned employee survey (EnMAB) to measure the People Engagement Index (PEI) as a new key performance indicator. The PEI allows us to draw conclusions not only on the satisfaction of employees, but also on how motivated and engaged they are in their work at EnBW [\[p. 47 ↗\]](#).

TOP

Key performance indicator

	2021	2020	Change in %	Forecast 2021
People Engagement Index (PEI) ¹	82	83	-1.2	> 77

¹ Variations in the group of consolidated companies (all companies with more than 100 employees are considered [except ITOs]). Companies that were fully consolidated for the first time in the fourth quarter of 2021 were not included in the employee surveys for the PEI.

The employee survey EnMAB was held from 18 October to 3 November 2021. The survey achieved its highest coverage to date, being answered by around 22,500 employees, including trainees and students. On the basis of this survey, the PEI reached 82 points in 2021 on a scale of 0 to 100. It stood at 83 points in the previous year. According to an assessment by the service provider, an international benchmark index compiled using similar questions at numerous companies from various different sectors stood at 74 points in 2021. The motivation and engagement of employees of EnBW thus continues to be at a very high level in comparison with other companies. We assume that this year's results were also impacted by extraordinary effects caused by the fact that employees of EnBW continue to rate the company's handling of the impact of the coronavirus pandemic very positively.

We also refer you to the details provided in the “Report on opportunities and risks” [\[p. 133 ↗\]](#).

HR strategy 2025

Our HR strategy 2025 “People as the main focus” supports the implementation of the EnBW 2025 corporate strategy. Digitalization requires a willingness to change, technological expertise and modern working practices. Our managers should not just place expectations on their employees but also support them and lead their teams with conviction into a more complex world. Our HR policy will support employees in this process of change, for example by developing new forms for cooperation and for further training and education. In addition, we value the potential offered by the diversity of our employees.

The HR strategy focuses on six key themes with 21 strategic areas:

- People-centered transformation
- Employer brand recruiting
- Leadership skills
- Qualification@EnBW
- Diversity@EnBW
- HR processes, services & digitalization

In 2021, we introduced a total of 72 initiatives across all six key themes and were able to almost fully implement all of them despite the special conditions that are still currently ongoing.

Selected activities in our six themes

People-centered transformation: We consider ourselves to be the shapers of a people-centered transformation and are placing the main focus on people and their needs. To support employees as well as possible in the transformation process, we are further developing, for example, the employee survey and establishing the transformation circle – the first community for all colleagues who are pushing forward the themes of transformation.

Since the beginning of the coronavirus pandemic in February 2020, around 10,000 employees of EnBW have been mainly working from home [p. 108 f. ⁷]. As part of the “**Best Work**” initiative, we thus focused in 2021 on the question: “How do we design the working world of the future?” A special focus is being placed on rules for mobile working that take account of the best interests of employees and designing modern working worlds in the office that fulfill the needs of a more flexible and hybrid way of working. In addition, the initiative is dealing with, for example, the question of how working practices will change the culture of cooperation and leadership. At the start of the rollout of “**Best Work**” in November 2021, the works councils and participating companies agreed a new set of rules that replaced the previous company agreement Alternating Telework (ATH) from 2017. It will allow significantly more flexibility in the choice of workplace, above all with respect to working from home. By providing our employees with a comprehensive range of opportunities for mobile working even after the coronavirus pandemic, we will also reduce the number of journeys made between home and the workplace, thus making a contribution to reducing CO₂ emissions. This will support the measure “Human resources work focused on sustainability” in our sustainability program [p. 41 f. ⁷].

Employer brand recruiting: EnBW is on track for growth. This will require us to secure new talent. In November 2020, we started an employer campaign under the motto “We are the E” or “I am the E” to make EnBW more well known nationwide as an employer and to also increase the attractiveness of EnBW as an employer. In May 2021, we expanded our campaign to include advertisements in social and business networks and released an image film in October that can also be viewed on YouTube. The number of visits to our career website increased to around 35,000 views per month as a result (previous year: about 25,500). We continuously optimize our recruiting processes to improve efficiency and place a greater focus on applicants. For example, we have digitalized the hiring process to a large extent and improved our talent finder program. During the application process, we are now holding more interviews via videoconference.

Leadership skills: The growth of our company is closely linked to the personal development of every individual and the collective development of the management team. Under the name “EnBW Guides,” we have developed a new competency model in a cross-functional team comprising members of the works council, representatives from the business areas and HR personnel. This new competency model defines the eight overarching skills that will be required in the future. The eight key skills and what they stand for are presented in a series of videos.

Furthermore, we have developed the digital learning and development platform “**LernWerk**” (**Learning Factory**) that helps our employees to independently shape their own development. A prototype of the platform was tested at the end of the year, initially by around 80 internal specialists and subject matter experts. We will start to rollout “LernWerk” to the employees in the functional units at EnBW AG in the first quarter of 2022.

Qualification@EnBW: On 31 December 2021, there were a total of 1,235 trainees and students working in the EnBW Group. To develop the skills required in the future, four new job profiles and specialist extensions to the degree courses (geomatics, cybersecurity, data science and mobile information science) have been introduced with a focus on digitalization. In 2021, we moved into three new further training and education centers in Karlsruhe, Biberach and Tuttlingen. These offer employees the ideal environment for experiencing modern technologies through exploratory learning, such as augmented or virtual reality and by using drones.

We have been offering a multistage **career integration program** to refugees and migrants since 2016, in which 59 people are currently serving a technical apprenticeship. Ten apprentices completed their training as either an industrial mechanic, electronics technician or plant mechanic in early 2021 and were awarded with mostly permanent contracts. We will continue this program over the next few years – both as a social initiative and also increasingly as an additional tool for recruiting young talent.

Diversity@EnBW: Diversity is a fixed component of our corporate culture and a key element of the HR strategy. We actively support equal opportunities. EnBW wants to give its employees in leadership positions more flexibility. To this end, more leadership positions will be offered as part-time jobs in the future.

Proportion of female managers at EnBW AG

in %	2021	2020
First level below the Board of Management	7.7	8.7
Second level below the Board of Management	21.3	14.5

The Board of Management has set the goal of further increasing the proportion of female managers at both management levels below the Board of Management in the period from 1 January 2021 to 31 December 2025. At both the first level (top management) and second level (upper management), the proportion of female managers should increase to at least 20%. These targets were not yet achieved in the reporting period at the top management level. Although there were the same number of women in top management, the proportion of female managers changed from 8.7% in the previous year to 7.7% in the reporting period. In upper management, the proportion of female managers increased from 14.5% in the previous year to 21.3%, which was due to the appointment of more women to these positions. We will continue to develop measures based on the HR strategy to achieve the set targets.

HR processes, services & digitalization: The main focus in 2021 was placed on the rigorous simplification and digitalization of processes with a customer interface, such as contract management. In addition, we examined whether it was possible to use software robots to automate processes and already implemented them in more than ten processes, greatly reducing the workload. In the area of strategic personnel planning, we developed a clear picture of the long-term personnel requirements and identified potential areas for action.

Selected activities at our key subsidiaries: The main focus at Energiedienst (ED) in 2021 was converting the area of human resources and organizational development into a modern and digital HR world. The six modules that form the “HR Core System” program (HR planning, talent acquisition, talent management, compensation & benefits, HR services and further training) entered the implementation phase. The company’s social media activities in the area of recruiting were also strengthened. Pražská energetika (PRE) primarily focused on enabling employees to work at home as a countermeasure to the coronavirus pandemic. This mainly required adapting the IT systems. In addition, PRE established an assessment center for newly nominated young talent and ran a development program for managers. Stadtwerke Düsseldorf (SWD) continued the “Leadership in transition,” “agile@230” and “Digitalization of the grids” programs as part of its company-wide transformation process. Improved candidate and employee journeys were also developed. VNG launched the project “Employer Branding” to reposition itself as an employer and introduced a new applicant management system. In addition, it launched the “Next Work” project that will focus on the theme of future cooperation in a working world that has already been changed by the coronavirus pandemic.

Other issues

The Employers' Association for Electricity Power Plants in Baden-Württemberg and the labor union ver.di reached a **collective bargaining agreement** on 16 March 2021 that has a term of 24 months from 1 March 2021 until 28 February 2023. In accordance with the agreement, remuneration increased by 2.1% on 1 March 2021 and will increase by a further 1.6% on 1 May 2022. A one-off tax-free payment has also been agreed based on the pay scale groupings. Higher pay grades received €350 and lower grades €700, while trainees received €200. Remuneration for trainees has also been increased again.

EnBW provides a comprehensive range of services to promote the health of its workforce. This includes, among other things, preventative medical services, vaccinations, physiotherapy treatments and psychological counseling. The sickness ratio stood at 4.1% in 2021 and was thus 0.2 percentage points lower than the figure in the previous year.

Other performance indicators

Other **performance indicators for employees** are published on our website.

[Online ↗](#)

Employees ¹

	31/12/2021	31/12/2020	Change in %
Smart Infrastructure for Customers	5,407	4,826	12.0
System Critical Infrastructure	10,686	9,935	7.6
Sustainable Generation Infrastructure	7,051	7,072	-0.3
Other	2,920	2,822	3.5
Total	26,064	24,655	5.7
Number of full-time equivalents ²	24,519	23,078	6.2

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

² Converted into full-time equivalents.

As of 31 December 2021, the EnBW Group had 26,064 employees, which was 1,409 more than at the end of 2020. This increase was primarily due to taking on new employees in strategic growth fields. The increase in the number of employees in the Smart Infrastructure for Customers segment was primarily due to the first-time consolidation of investments, as well as the recruitment of additional personnel due to the expansion of broadband [🔗](#) and increased demand for energy and storage solutions. In the System Critical Infrastructure segment, the increase in the number of employees was due to the importance of the regulated business and also the first-time consolidation of an investment. The digitalization and transformation processes as well as restructuring within the Group increased the number of employees in Other. The employee turnover ratio stood at 6.2% in 2021 and was thus 0.3 percentage points higher than the figure in the previous year.

Occupational safety

In the area of occupational safety, we have set ourselves the goals of avoiding accidents and work-related illness and creating a safe working environment. The Group guidelines "Occupational safety and health protection" describe the responsibilities and tasks related to occupational safety and define the processes. The EnBW guidelines for occupational safety and health protection are also described in this document. The Occupational Safety Working Group has the task of regulating issues that affect all companies uniformly within the Group. It is headed by the Chief Operating Officer Sustainable Generation Infrastructure at EnBW and has the power to make binding decisions in accordance with the company's rules of procedure.

We work continuously on minimizing **danger in the workplace**, which could result in accidents or work-related illnesses, through training and programs of measures. In 2021, 117 managers participated in the training course "Responsibilities and liability with respect to occupational safety" that was organized by the Group occupational safety department.

The **Quentic software** is now being used in 25 Group companies with around 15,000 employees. We have been using the audit module to a greater extent to document inspections, internal audits and short safety briefings since 2021. In addition, the software is increasingly used for documentation

purposes in hazardous substance management. Quentic will also be used in future as an information platform for the purposes of training and communicating safety instructions to external contractors working in the area of renewable energies.

Since February 2020, a **task force** comprising representatives from various different areas of the company such as crisis management, occupational medicine, HR and corporate communications has met on a regular basis to discuss events related to the **coronavirus pandemic**. It has been possible to prevent chains of transmission occurring within the company from the very beginning. A range of different measures were introduced to do this, such as the stringent implementation of AHA+L rules (social distancing, hygiene, community masks + ventilation), testing strategies and allowing a high proportion of employees to work from home. Around 8,500 COVID-19 vaccinations (first, second and booster vaccinations) were also administered between 8 June and 31 December 2021.

LTIF

The key performance indicator LTIF is used to measure the number of LTI according to the definition on p. 47⁷. Every Group company included in the LTIF receives an individual target from the Board of Management – the fulfillment of this LTIF target flows into the assessments for the achievement of targets in each case. The companies can also set their own individual targets that go beyond those set by the Board of Management.

TOP

Key performance indicator

	2021	2020	Change in %	Forecast 2021
LTIF for companies controlled by the Group ^{1, 2, 3}	2.3	2.1	9.5	2.0 – 2.2
LTIF overall ^{1, 2}	3.3	3.6	-8.3	3.6 – 3.8

1 LTIF indicates how many LTI occurred per one million working hours performed. Further information on the calculation of this performance indicator can be found on p. 47⁷.

2 Variations in the group of consolidated companies (all companies with more than 100 employees, excluding external agency workers and contractors, are considered). Companies that were fully consolidated for the first time during the 2021 financial year were not included in the calculations for the LTIF performance indicators.

3 Except for companies in the area of waste management.

In 2021, the LTIF for companies controlled by the Group deteriorated, increasing to 2.3. The average days of absence per accident was 20.3 as of 31 December 2021 (previous year: 21.9). The LTIF overall fell and stood at 3.3 for 2021. The average days of absence per accident was 19.8 as of 31 December 2021 (previous year: 22.1). The LTIF overall includes subsidiaries in the area of waste management. The number of accidents in this area is at a very good level in comparison to other companies in the sector and also improved significantly in 2021.

There were unfortunately two fatal accidents in our grids business in 2021. One of the fatal accidents occurred during maintenance work at a 110 kV transformer station and the second at a test stand for high-pressure gas meters.

The **measures for achieving the targets for occupational safety** are defined independently by the Group companies.

For example, **Netze BW** implemented the following measures in 2021:

- To improve awareness for factors that increase the possibility of accidents during everyday work, the company launched the “#Lifesaver” awareness campaign to promote an occupational safety culture. The first film in this campaign entitled “Lifesaver – PPE” won first prize at the kommitment Festival in the section “companies and organizations.” The festival is part of the prevention campaign “kommitment” organized by the workers compensation funds and accident insurance institutions.
- A project to improve occupational safety at Netze BW was started with support from DuPont Sustainable Solutions.
- In October 2021, the integrated management system (occupational safety, environment and energy) was certified in accordance with DIN EN ISO 14001, EMAS, DIN EN ISO 50001, and for the first time DIN ISO 45001.

Alongside the Group-wide measures to combat the coronavirus pandemic, the coordination unit CoVid at Netze BW introduced additional codes of conduct, where necessary, for operational tasks such as working in confined spaces, on construction sites and at the customer's premises.

In the area of conventional **generation**, the main focus was placed on activities related to the increased application of the Quentic software and tools for tracking measures from the events, audits and risk assessment modules. Due to the coronavirus pandemic, there were restrictions on the events, safety training courses and exercises at the power plant sites throughout the year. Despite the challenging situation, discussion on near accidents and unsafe situations was intensified across all bodies. The "100 days without accidents" campaign was continued in 2021 and this goal was achieved twelve times in the reporting year. Another focus throughout the year was the implementation of measures and codes of conduct at construction sites and for inspections of power plants in response to the coronavirus pandemic. In cooperation with our external contractors, we were able to meet the scheduled deadlines.

EnKK developed and implemented a concept for the tracking of measures derived from work accidents or near accidents in 2021. The manager of an employee who was nearly involved in an accident was made actively responsible for developing measures to ensure that this situation was not repeated in the future. This ensured a high degree of accountability in the implementation of measures after work accidents or near accidents. Furthermore, the occupational safety department was involved in 2021 to a much greater extent in the process for awarding contracts for invitations to tender in areas relevant to occupational safety. It has thus been possible to ask questions and request information on important aspects that need to be observed with respect to occupational safety when selecting a partner company. In addition, the issue of occupational safety has also been integrated to a greater extent in the development of work contracts. Since the start of the coronavirus pandemic, a standing working group at EnKK has – in cooperation with the coronavirus task force at EnBW – been analyzing the situation with regards to the pandemic, and has defined and implemented adequate protection measures at EnKK.

The main focus at **SWD** in 2021 was comprehensive measures to protect against the coronavirus pandemic. In contrast to the employees working in the industrial sector, who still mainly worked on-site, employees with commercial and administrative functions worked remotely for several months of the year. Throughout the year, the main resources for the management of occupational health and safety were incorporated into central management functions such as the crisis management task force and could also be generally accessed via the advisory services offered by the specialist departments. An internal vaccination center was set up during the year.

We also refer you to the details provided in the "Report on opportunities and risks" (p. 134⁷).

EU taxonomy

The European Commission presented the European Green Deal ⁹ in December 2019. It includes the target of reducing net emissions from greenhouse gases in the European Union to zero by 2050. A key element of the EU Green Deal is the EU taxonomy ⁹, a classification system used to define “environmentally sustainable” business activities. The aim is to use defined requirements to classify economic activities EU-wide with respect to their contribution to six environmental objectives in order to encourage the development of sustainable financing products:

1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems

Specific technical screening criteria for most of the activities that contribute to environmental objectives 1 and 2, as well as detailed reporting requirements, were made binding at the start of December 2021 by the EU Commission after the scrutiny period set by the European Parliament and the European Council had expired. The criteria for some disputed activities related to objectives 1 and 2, such as the generation of energy from natural gas, including the associated pipeline infrastructure, and electricity generation from nuclear energy, are still being discussed. The technical screening criteria for the other environmental objectives are still in development and will thus only be relevant for the subsequent financial year. The European Commission is expected to publish a draft delegated act for the other environmental criteria in the second quarter of 2022. A concrete definition of the minimum social safeguards is also only expected in the spring of 2022.

The Taxonomy Regulation distinguishes between “taxonomy-eligible” and “taxonomy-aligned” activities:

- Activities are **taxonomy-eligible** if they can be assigned to with the taxonomy criteria for the activity and they match the description of the activity, irrespective of whether they fulfill the criteria.
- Activities are **taxonomy-aligned** if they fulfill the taxonomy criteria for the activity. In this case, they make a significant contribution to the respective environmental objective (fulfill the technical screening criteria), cause no significant harm to any of the other environmental objectives (do no significant harm, DNSH) and observe and comply with the minimum safeguards for occupational safety and human rights.

It is only necessary in the 2021 financial year to determine the taxonomy-eligible business activities and disclose their proportion of total revenue, capital expenditure (capex) and operating expenses (opex). We have decided to also voluntarily disclose the taxonomy-aligned revenue, capital expenditure and operating expenses. We are also publishing supplementary information on adjusted EBITDA ⁹ and on capex including the proportion for entities accounted for using the equity method.

Business activities are taxonomy-aligned in the sense of the Taxonomy Regulation and thus “environmentally sustainable” when they:

- make a substantial contribution to climate change mitigation and climate change adaptation, verified through the fulfillment of certain technical screening criteria,
- do no significant harm (DNSH) to the achievement of any of the other EU environmental objectives, verified through the fulfillment of certain technical screening criteria and
- comply with minimum safeguards for occupational safety and human rights.

Further information on our **experiences with applying the EU sustainable finance taxonomy** can be found [here](#).

[Online ↗](#)




Implementation of the EU Taxonomy Regulation in the EnBW Group

To implement the taxonomy requirements across the Group, we already launched a project in the 2020 financial year. We established a steering committee to work together with the relevant specialist departments in determining the environmentally sustainable revenue, capex and opex, as well as the adjusted EBITDA, related to the Group's taxonomy-eligible activities. Our reporting was based on the Taxonomy Regulation in the version from 18 June 2020 and the technical screening criteria in the draft delegated act for the Taxonomy Regulation from 20 November 2020. It disclosed information on some of the activities in our former Grids and Renewable Energies segments, which became the new System Critical Infrastructure and Sustainable Generation Infrastructure segments in the 2021 financial year.

In the 2021 financial year, we expanded the application of the Taxonomy Regulation to all of EnBW's business activities described in the delegated acts. The delegated acts supplementing Article 8 of the Taxonomy Regulation from 6 July 2021 and the associated technical screening criteria for the objectives of climate change mitigation and climate change adaptation from 4 June 2021 were applied. The formulations and terms contained in these pieces of legislation are subject to uncertainty and need further clarification. Our own interpretation is presented below.

As well as those activities reported in the previous year, we also considered the following business activities in the 2021 financial year that can be classified as taxonomy-eligible according to the EU taxonomy: biomass, water grids/extraction, e-mobility and hydropower (pumped storage with and without a natural flow of water).

Activities examined for the EU Taxonomy Regulation

			2020	2021
Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure		
	<ul style="list-style-type: none"> Electricity distribution grids Electricity transmission grids 	<ul style="list-style-type: none"> Onshore wind Offshore wind Solar Run-of-river 		
<ul style="list-style-type: none"> E-mobility 	<ul style="list-style-type: none"> Water grids Water supply 	<ul style="list-style-type: none"> Biomass Pumped storage 		

The determination of whether activities in the areas of wind, solar and run-of-river were taxonomy-aligned was carried out at the level of each individual activity. The existing business transactions for each activity were analyzed and evaluated with respect to being taxonomy-aligned. In addition to the information required by law on the taxonomy-eligible activities in the 2021 financial year, we are also disclosing information on the taxonomy-aligned activities as in the previous year. All of the taxonomy-eligible activities were also classified as taxonomy-aligned.

Based on the available documentation for the six environmental objectives of the EU Taxonomy (delegated acts for environmental objectives 1 and 2 and drafts for environmental objectives 3 to 6), we carried out an in-depth examination of the contributions made by our business activities. We believe that our main contribution is in the area of climate change mitigation and the contribution made by EnBW's activities to the other five environmental objectives will thus not be examined further.

The following proportions were determined:

KPIs for the taxonomy-aligned business activities of the EnBW Group

in € million/in %	2021	2020
Adjusted EBITDA	2,959.3/100.0	2,781.2/100.0
of which environmentally sustainable	1,853.1/62.6	1,891.7/68.0
Capex	2,676.9/100.0	2,870.8/100.0
of which environmentally sustainable	1,826.5/68.2	2,008.9/70.0
Capex incl. IFRS 11 I IAS 28	2,963.6/100.0	2,907.6/100.0
of which environmentally sustainable	2,108.9/71.2	2,036.7/70.0
Revenue	32,147.9/100.0	19,694.3/100.0
of which environmentally sustainable	4,698.4/14.6	3,993.7/20.3
Opex	1,142.8/100.0	947.9/100.0
of which environmentally sustainable	335.0/29.3	351.3/37.1

Proportion of taxonomy-aligned adjusted EBITDA in the segments

in € million/in %	2021	2020
Adjusted EBITDA Smart Infrastructure for Customers	323.1/100.0	335.0/100.0
of which environmentally sustainable	-34.4/-10.6	-28.1/-8.4
Adjusted EBITDA System Critical Infrastructure	1,288.5/100.0	1,346.6/100.0
of which environmentally sustainable	916.8/71.2	1,032.9/76.7
Adjusted EBITDA Sustainable Generation Infrastructure	1,535.1/100.0	1,277.8/100.0
of which environmentally sustainable	970.7/63.2	886.9/69.4

Proportion of taxonomy-aligned expanded capex in the segments

in € million/in %	2021	2020
Expanded capex Smart Infrastructure for Customers	296.9/100.0	284.4/100.0
of which environmentally sustainable	107.2/36.1	91.5/32.2
Expanded capex System Critical Infrastructure	1,711.5/100.0	1,696.8/100.0
of which environmentally sustainable	1,396.4/81.6	1,227.5/72.3
Expanded capex Sustainable Generation Infrastructure	897.8/100.0	862.3/100.0
of which environmentally sustainable	605.3/67.4	717.7/83.2

The adjusted EBITDA from environmentally sustainable activities was €1,853.1 million and thus slightly below the level in the previous year. The adjusted EBITDA from environmentally sustainable activities in the Smart Infrastructure for Customers segment is low and almost unchanged in comparison to the previous year because for many business activities there are not yet any criteria in the EU taxonomy, such as for the sale of commodities. In the System Critical Infrastructure segment, the adjusted EBITDA decreased mainly due to the considerably higher expenses for the grid reserve and balancing energy to maintain the security of supply. As a result, the proportion of adjusted EBITDA accounted for by environmentally sustainable activities in the System Critical Infrastructure segment fell slightly. The adjusted EBITDA in the Sustainable Generation Infrastructure segment was higher than in the previous year as a result of the increased volatility of market prices that was offset to some extent by lower generation at our offshore and onshore wind farms due to the weather conditions. The proportion of adjusted EBITDA accounted for by environmentally sustainable activities in this segment fell as a result. The activities in the Renewable Energies area within the Sustainable Generation Infrastructure segment are fully taxonomy-aligned.

The capex for environmentally sustainable activities was €182.4 million lower than the value in the previous year, which corresponded to a decrease of 9%. This was primarily due to additions to non-cash-relevant right-of-use assets from leases, especially in the electricity transmission grid. This fall was also due to the acquisition of smaller onshore wind farms in the previous year. The decrease in non-cash-relevant right-of-use assets from leases and the fall in company acquisitions can also be seen in the capex at a Group level. However, this effect was compensated for to some extent at a Group level by higher additions to property, plant and equipment, so that the KPI for capex only fell from 70.0% to 68.2%.

The proportion of taxonomy-aligned activities in relation to expanded capex in the Smart Infrastructure for Customers segment stood at 36.1% and is thus relatively low because for many business activities there are not yet any criteria in the EU taxonomy, such as for the sale of commodities. The proportion for the System Critical Infrastructure segment is relatively high at 81.6% because our business activities relating to the electricity transmission grid, electricity distribution grid and water grid are fully taxonomy-aligned. The EU taxonomy criteria for our activities relating to the gas grids are due to be published in 2022 – once the technical screening criteria have been finalized. The proportion in the Sustainable Generation Infrastructure segment stood at 67.4% and is relatively high. The activities in the Renewable Energies area are fully taxonomy-aligned.

Revenue from environmentally sustainable activities of €4,698.4 million in 2021 was 17.6% higher than the value in the previous year. This development was mainly attributable to higher revenue from the use of the grids at the electricity grid operators in the System Critical Infrastructure segment. The proportion of total revenue accounted for by environmentally sustainable activities fell in comparison to 2020 because Group revenue from commodity sales and trading activities grew significantly by 60.3%, which was mainly due to the increased volatility on the electricity and gas markets.

The opex for environmentally sustainable activities was €335.0 million and the proportion of total opex accounted for by environmentally sustainable activities in 2021 was 29.3%, which was lower than the level in the previous year. This development was primarily due to lower expenditure on maintenance and repair services in comparison to 2020.

Due to the first-time application of the final delegated act for the Taxonomy Regulation of 6 July 2021 in the 2021 financial year, information on the EU taxonomy is only comparable with data from the 2020 financial year to a limited extent. The figures for the key performance indicators (KPIs) reported this year also differ from the figures reported in the previous year because we only reported on selected activities in the Integrated Annual Report 2020. The figures for the previous year have been restated in this Annual Report. Full information on the taxonomy-eligible and taxonomy-aligned figures according to Annex II of the delegated act for the EU taxonomy can be found on p. 146 ff⁷.

Accounting policies

The proportion of sustainable **investment (capex)** exclusively refers to the assets associated with taxonomy-aligned activities. To calculate the proportions, investments from the following IFRS standards were included:

- Additions to property, plant and equipment (IAS 16)
- Additions to intangible assets (IAS 38)
- Additions to property held as a financial investment (IAS 40)
- Additions to right-of-use assets from leases (IFRS 16)

The numerator for investments taken into account according to the taxonomy comprises the following:

Composition of the capex numerator

in € million	2021	2020
Additions to property, plant and equipment ¹	1,649.6	1,655.9
Additions to intangible assets	70.3	61.0
Additions to right-of-use assets from leases	106.6	224.8
Additions to property held as a financial investment	0.0	0.0
Additions resulting from business combinations	0.0	67.2
Total	1,826.5	2,008.9

¹ This includes additions to provisions recognized for the decommissioning and dismantling of property, plant and equipment in the reporting period of €14.6 million (31/12/2020: €204.4 million).

The additions to calculate the denominator can be found in notes 10 (without consideration of the column "Goodwill"), 11, 12 and 14 (column "Investment properties") of the notes to the consolidated financial statements.

To determine the KPI for sustainable **revenue** the net revenue that makes a contribution to the environmental objective of climate change mitigation is divided by the total net revenue for the Group. Further information on net revenue can be found in the section on external revenue on [p. 76](#)⁷ and in note 1 of the notes to the consolidated financial statements.

Composition of the revenue numerator

in € million	2021	2020
Revenue from contracts with customers	4,342.5	3,713.0
Other revenue	355.9	280.7
Total	4,698.4	3,993.7

The denominator to determine the KPI for **opex** in the sense of the Taxonomy Regulation comprises the following direct, non-capitalized costs:

- Research and development
- Building renovation measures
- Short-term leases
- Maintenance and repair costs

The numerator equals the part of the opex that is related to assets or activities associated with taxonomy-aligned economic activities. The expenditure included in the denominator covers the expenditure categories presented in the following table. The numerator for calculating the opex KPI is determined as follows:

Composition of the opex numerator

in € million	2021	2020
Maintenance and repair costs ¹	328.8	342.4
Short-term leases (not recognized as right-of-use assets)	5.4	8.2
Research and development costs	0.8	0.7
Total	335.0	351.3

¹ Includes building renovation measures.

As well as the KPIs required by the Taxonomy Regulation, we are also voluntarily reporting information on the environmentally sustainable **adjusted EBITDA** and **capex including the proportion for entities accounted for using the equity method** pursuant to IFRS 11 and IAS 28 (**expanded capex**). The sustainable adjusted EBITDA is the proportion of total adjusted EBITDA that makes a contribution to the environmental objective of climate change mitigation ([p. 78](#)⁷). With this KPI, we can create a direct link to our key performance indicator adjusted EBITDA that is relevant for the management of the company. Detailed information on this performance indicator can be found in the section on adjusted EBITDA on [p. 78f.](#)⁷

By reporting the expanded capex, we are disclosing all of our sustainable investment, irrespective of whether it is made within the EnBW Group. The numerator for the KPI for expanded capex is determined by taking the capex numerator from the Taxonomy Regulation and expanding it to include additions for entities accounted for using the equity method, whereby sustainable additions from acquisitions and capital increases are taken into account:

Composition of the expanded capex numerator

in € million	2021	2020
Capex numerator according to EU taxonomy	1,826.5	2,008.9
Additions to entities accounted for using the equity method	282.4	27.8
Total	2,108.9	2,036.7

Substantial contribution to the environmental objective of climate change mitigation

In the case of business activities relating to wind and solar energy and with respect to the requirement for a substantial contribution to climate protection, it is not currently necessary to test

compliance with the criteria because energy generation of this type will remain significantly below the current threshold of 100 g CO₂eq/kWh, even when analyzed over their entire life cycle. The electricity grids make a substantial contribution to climate change mitigation due to the fact that the majority of the connections in the last five years have been for renewable energies. Hydropower plants make a substantial contribution to climate change mitigation over their entire life cycle as they have a very low greenhouse gas intensity of significantly less than 100 g CO₂eq/kWh. We used the emissions factors published by the German Environment Agency as a reference, which give figures for both run-of-river and pumped storage with natural flow of water well below the threshold of 100 g CO₂eq/kWh.

In the case of pump storage power plants and the charging infrastructure for electromobility, the taxonomy criteria generally assume that these activities make a significant contribution to climate change mitigation and it is thus not necessary to examine any other criteria. The average net energy consumption of the water grids operated by the EnBW Group fulfills the energy efficiency criteria.

No significant harm to the other EU environmental objectives

In the next stage, we examined whether any significant harm was being done to the other five environmental objectives (climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control and the protection and restoration of biodiversity and ecosystems). This predominantly relates to the legal and official regulations in the energy sector that have to be observed in order to receive approval for constructing and operating power plants. Compliance with these energy industry regulations and with any further requirements (such as those related to the circular economy) was analyzed at the superordinate level of the business activities with the aid of the respective specialist departments at EnBW. With respect to the five environmental objectives, the analysis yielded the following results:

Protecting our power plants against the physical impact of climate change (**climate change adaptation**) is economically relevant for EnBW and is thus taken into account in our investment decisions. Furthermore, climate-related risks and opportunities are increasingly being integrated into the EnBW risk management system, not least as part of our implementation of the TCFD ⁸ recommendations.

The environmental objective **sustainable use and protection of water and marine resources** is particularly relevant for our hydropower plants and offshore wind activities. In particular, the criteria reference the legal and official regulations in the energy sector that have to be observed in order to receive approval for constructing and operating power plants.

In terms of the environmental objective **transition to a circular economy**, there are general regulations relating to high durability, easy dismantling, repairability and a declaration of intent to maximize the recycling of the plant at the end of its service life. The vast majority of components are designed for a very long service life, are recyclable and have monetary value at the end of their period of use (steel, aluminum, copper). These plant components can either be recycled within the EnBW Group or also sold to third parties for further use.

In terms of the environmental objective **pollution prevention and control**, there are only criteria that relate to biomass and the charging infrastructure, namely guaranteeing observance of applicable law. Compliance with these energy industry regulations is a prerequisite for receiving approval to operate the power plant.

For the last relevant environmental objective **protection and restoration of biodiversity and ecosystems**, we examined environmental impact assessments and other comparable assessments that are a key requirement for receiving approval for constructing and operating power plants. These assessments are only carried out as needed.

Compliance with minimum safeguards

In the third and final stage, we analyzed the business activities at a Group level with respect to their compliance with the minimum social safeguards for human rights and occupational safety (prequalification process (p. 62 f.⁹), information on occupational safety (p. 107 ff.⁹) and the "Report on opportunities and risks" (p. 128 ff.⁹)).

EnBW AG

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

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

The full **financial statements of EnBW AG** are available to download on our website.

[Online ↗](#)

For statements that are necessary to understand the position of EnBW AG and that are not explicitly described in the following sections, especially those relating to the strategy of the company and to economic and political conditions, please refer to the information provided for the EnBW Group (p. 40 ff.¹ and 67 ff.²).

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

Results of operations of EnBW AG

Condensed income statement of EnBW AG

in € million ¹	2021	2020	Change in %
Revenue	67,052.9	37,943.8	76.7
Cost of materials	-66,217.0	-36,959.1	-79.2
Amortization and depreciation	-471.2	-300.9	-56.6
Other operating result	50.5	-804.3	-
Earnings before interest and taxes	415.2	-120.5	-
Financial result	-384.7	315.2	-
Tax	16.1	-36.8	-
Net profit	46.6	157.9	-70.5

¹ In accordance with German commercial law.

EnBW AG reported an annual net profit of €46.6 million. The decrease in comparison to the previous year was mainly influenced by the €535.7 million in higher earnings before interest and taxes, the decrease in the financial result of €699.9 million and the increase in the tax result of €52.9 million.

Earnings before interest and taxes of EnBW AG is primarily determined by the revenues generated from electricity and gas sales, as well as by the associated cost of materials. The increase in revenue of €29,109.1 million was offset by an increase in the cost of materials of €29,257.9 million.

Revenue (after the deduction of electricity and energy taxes) of €67,052.9 million primarily includes revenue from electricity sales of €13,052.7 million and gas sales of €49,422.9 million. Electricity and gas sales comprise both the trading business, involving deliveries to trading partners and stock exchanges, and sales activities in the form of the direct delivery of energy to end customers.

The trading business recorded an increase in revenue in 2021 of €28,512.7 million to €64,194.1 million. This increase was mainly attributable to price effects as a result of the development of gas and electricity prices since the second half of 2021. There was also an increase in the volume traded in the gas sector related to the growth in business activities. The increase in total revenue in the trading business was also offset by the rise in the cost of materials of €28,483.4 million to €63,598.9 million.

Revenues from sales activities were split into €1,696.3 million for electricity and €205.6 million for gas, which represented an overall increase of €37.3 million.

In the retail and end customer sector (B2C), electricity sales of 6.6 billion kWh were 0.1 billion kWh higher than the level in the previous year due, in particular, to higher electricity heating consumption as a result of the temperature. The higher sales volume led to higher revenues in the electricity business segment. Gas sales increased to 3.9 billion kWh also due to the temperature and were thus 0.1 billion kWh higher than in the previous year. Alongside the sales trends described above, higher revenues in the gas business were also attributable to the introduction of the CO₂ duty, which is passed on to customers.

The cost of materials includes costs for electricity procurement of €12,305.6 million and costs for gas procurement of €49,229.8 million.

Alongside scheduled amortization and depreciation, the amortization and depreciation item includes impairment losses of €242.0 million, which mainly relate to conventional generation plants.

The significant increase in the other operating result in comparison to the previous year was primarily due to a rise in income from the disposal of assets of €657.4 million, which was mainly attributable to intercompany restructuring, and higher income from reversals of provisions of €238.8 million, which was mainly related to provisions for onerous contracts for electricity procurement agreements.

The decrease in the financial result was mainly influenced by a fall in investment income of €401.7 million, higher impairment losses on financial assets of €291.1 million, which were mainly related to EnBW Kraftwerk Lippendorf Beteiligungsgesellschaft mbH, and higher interest expenses for personnel provisions of €124.5 million. This was offset to some extent by the lower interest expenses for nuclear provisions of €54.4 million, the decrease in interest expenses for tax provisions of €33.7 million and the drop in interest expenses for subordinated bonds of €15.7 million.

In the financial year, there was a positive tax result of €16.1 million, compared to a negative tax result of €36.8 million in the previous year. The taxes mainly comprise reversals of provisions for tax audit risks of €31.0 million. In the previous year, there were additions to the provisions for tax audit risks of €48.7 million. The tax result also includes out-of-period expenses for income taxes of €8.2 million, compared to out-of-period income from income taxes of €19.6 million in the previous year. The option of recognizing a surplus of deferred tax assets was not exercised.

Net assets of EnBW AG

Balance sheet of EnBW AG

in € million ¹	31/12/2021	31/12/2020	Change in %
Assets			
Non-current assets			
Intangible assets	381.3	448.5	-15.0
Property, plant and equipment	623.6	902.8	-30.9
Financial assets	23,802.6	22,687.3	4.9
	24,807.5	24,038.6	3.2
Current assets			
Inventories	674.0	471.9	42.8
Receivables and other assets	7,134.7	2,551.9	-
Securities	305.0	250.0	22.0
Cash and cash equivalents	4,275.5	413.7	-
	12,389.2	3,687.5	-
Prepaid expenses	8,925.3	668.7	-
Surplus from offsetting	128.7	363.6	-64.6
	46,250.7	28,758.4	60.8
Equity and liabilities			
Equity			
Subscribed capital	708.1	708.1	-
Treasury shares	-14.7	-14.7	-
Issued capital	(693.4)	(693.4)	-
Capital reserve	776.0	776.0	-
Revenue reserves	1,572.5	1,872.5	-16.0
Retained earnings	427.6	351.9	21.5
	3,469.5	3,693.8	-6.1
Extraordinary items for investment cost subsidies and grants	25.5	27.2	-6.3
Provisions	13,654.5	12,005.0	13.7
Liabilities	21,191.9	12,483.0	69.8
Deferred income	7,909.3	549.4	-
	46,250.7	28,758.4	60.8

¹ In accordance with German commercial law.

The net assets of EnBW AG as of 31 December 2021 are significantly influenced by the non-current assets (particularly the financial assets) and the receivables and other assets. These are primarily offset by liabilities and provisions relating to nuclear power and for pensions and similar obligations.

Financial assets primarily consist of shares in affiliated entities of €16,310.7 million, securities held as non-current assets of €2,841.0 million and investments of €1,420.8 million. The increase in financial assets of €1,115.3 million mainly comprises payments into the capital reserves at shares in affiliated entities and intercompany restructuring. This was offset to some extent by the reduction in loans to affiliated entities of €550.9 million and impairments of €298.8 million.

Trade receivables of €2,038.8 million mainly comprise receivables from trading activities and consumption accruals for electricity and gas deliveries not yet invoiced. This increase was primarily attributable to trading activities as a result of the development of gas and electricity prices.

The increase in other assets was mainly due to the rise in collateral of €2,538.7 million. Higher market prices and a very volatile market environment in the 2021 financial year led to an increase in the collateral to stock markets and trade partners.

Cash and cash equivalents of EnBW AG totaling €4,275.5 million largely consist of bank deposits, which are invested as time deposits to the amount of €1,200.0 million. More details on the development of this item can be found in the section "Financial position of EnBW AG."

The increase in prepaid expenses of €8,256.6 million was primarily due to deferred earnings components from electricity and gas futures as a result of the significant increase in market prices.

The provisions for pensions and similar obligations held by EnBW AG to the amount of €6,348.6 million combine obligations from the company pension scheme and other company agreements made by major subsidiaries and EnBW AG. The resulting annual expenses for retirement benefits are reimbursed by the subsidiaries concerned in each case. The increase in the provisions for pensions and similar obligations of €548.2 million was mainly due to the effect of the further decrease in the discount rate as in the previous year. In addition, provisions relating to nuclear power of €3,630.7 million are disclosed, which are formed to fulfill public law obligations and requirements in the operating licenses.

Of the liabilities totaling €21,191.9 million, €7,705.0 million have a residual term of more than one year. Overall, there are liabilities of €9,381.8 million to affiliated entities, which primarily result from intercompany settlement transactions within the framework of centralized financial and liquidity management, as well as from loan agreements.

The total increase in liabilities of €8,708.9 million was mainly attributable to higher cash collateral received of €2,734.4 million and the increase in variation margins of €3,553.8 million, which were due to higher market prices and the extremely volatile market environment. In addition, liabilities to affiliated entities and to investments increased by €1,880.8 million.

Non-current liabilities exist to the amount of €4,705.1 million to EnBW International Finance B.V. as part of the Debt Issuance Program (DIP) ², to the amount of €2,500.0 million from the issuing of five subordinated bonds and to the amount of €456.8 million from loan agreements with credit institutions. The main changes in comparison to the previous year were the issuing of one green subordinated bond with a total volume of €500.0 million and the issuing of a subordinated bond with a volume of €500.0 million, as well as the repayment of a subordinated bond with a volume of €1,000.0 million. Furthermore, two new bonds were issued via EnBW International Finance B.V., each with a volume of €500.0 million.

The increase in deferred income of €7,359.9 million was primarily due to deferred earnings components from futures as a result of the significant increase in market prices.

The aim is to cover the non-current pension and nuclear provisions with appropriate financial assets within an economically feasible time period. Overall, financial assets of €23,802.6 million are offset by long-term debt of €17,174.5 million.

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

Financial position of EnBW AG

In comparison to the reporting date in the previous year, the liquidity of EnBW AG increased from €413.7 million by €3,861.8 million to €4,275.5 million.

The cash flows of EnBW AG fundamentally arise from both its own operating business and also the operating business of the subsidiaries with balance payments received and made via the bank accounts of EnBW AG as part of the intercompany cash pooling system ² within the framework of central financing and liquidity management.

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

Inflows from margin payments of €3,738 million had a material impact on liquidity.

In addition, a green subordinated bond with a volume of €494.8 million and a subordinated bond with a volume of €498.3 million were issued and €265.1 million was invested in time deposits. Two new bonds with a total volume of €994.6 million and commercial papers with a volume of €240.0 million were also issued via EnBW International Finance B.V. This was offset to some extent by the repayments of a subordinated bond with a volume of €1,000.0 million and bank loans of €70.5 million.

In the financial year, there was investment of €1,530.8 million, mainly in the area of the grids and renewable energies.

There was a cash outflow of €748.3 million in connection with the utilization of the nuclear power and pension provisions.

Another business transaction with a material impact on liquidity was the repayment to settle the EEG [?] credit line of €656.0 million from the previous year.

In the financial year, the loans to affiliated entities also decreased by €550.9 million.

A total of €270.9 million was distributed to the shareholders of EnBW AG in dividends. This was offset to some extent with an impact on liquidity by the receipt of dividends of €237.8 million.

Interest payments of €125.0 million were also made to banks.

Overall assessment of the economic situation and development of EnBW AG

In our judgment, the development of the results of operations, financial position and net assets of EnBW AG as of 31 December 2021 is satisfactory after taking into account the effects described below that are not relevant to the ongoing management of the company. In the previous year, we expected a break-even annual net result in 2021. The annual net profit in 2021 was influenced by negative effects not relevant to the ongoing management of the company of around €400 million and considerably higher expenses for the grid reserve and balancing energy to maintain the security of supply.

The annual net profit for 2021 stands at €46.6 million and was significantly influenced by effects that arose both at EnBW AG itself and at its subsidiaries, which had an impact on EnBW AG due to profit and loss transfer agreements.

The main effects not relevant to the ongoing management of the company were higher interest expenses for pension provisions and provisions relating to nuclear power totaling €582.5 million (€553.9 million of which is reported as interest expenses of EnBW AG) resulting from the drop in discount rates, which were €46.5 million lower than expected. Furthermore, additions to the provisions relating to nuclear power of €239.1 million (of which €164.4 million was reported as cost of materials of EnBW AG) had a negative effect. Other negative effects arose from impairment losses on financial assets of €349.1 million, which were mainly attributable to EnBW Kraftwerk Lippendorf GmbH, impairment losses on intangible assets and property, plant and equipment of €290.2 million, primarily relating to conventional generation plants, and additions to the provisions for onerous contracts of €279.5 million.

This was offset to some extent by income from the disposal of assets of €825.8 million, reversals of provisions of €428.6 million and tax effects of €62.9 million.

Based on the annual net profit of €46.6 million and taking into account the profit carried forward of €81.0 million and transfers from other revenue reserves of €300.0 million, there are retained earnings of €427.6 million.

We anticipate an annual net profit of between €150 million and €200 million in 2022. This result will be negatively influenced by high interest expenses for non-current provisions. We anticipate that the negative impact on earnings caused by the fall in the average interest rate will be reduced in 2022. Based on the assumption that the average interest rate will fall to a lesser extent, we expect a negative impact on earnings of around €350 million.

In the 2022 financial year, we expect that effects not relevant to the ongoing management of the company will, in total, negatively impact earnings by around €400 million. Adjusted for these effects, the annual net profit would be between €550 million and €600 million. The possible impact of the war between Russia and the Ukraine has not been taken into account in the forecast. Due to the dynamic situation, we expect the results to be subject to increased volatility. Based on our preliminary updates to the anticipated risks and opportunities, however, we currently do not expect any significant deviations from the forecast.

The amount that is ineligible for distribution as dividends, which primarily comprises the valuation of the provisions for pension obligations, is expected to be around €550 million as of 31 December 2022.

Opportunities and risks

As the business performance, economic situation and opportunities and risks relating to the future development of EnBW AG do not deviate from the business performance, economic situation and opportunities and risks relating to the future development of the EnBW Group, the management report of EnBW AG is combined with that of the EnBW Group [\(p. 127 ff.?\)](#).

Comments on reporting

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

EnBW share and dividend policy

As a result of the small proportion of EnBW shares in free float, events on the financial markets and the development of the DAX generally only have a minor influence on the development of the EnBW share price. The price of EnBW shares was €57.00 at the start of 2021 and stood at €76.00 by the end of the year.

The strategic development of the company as an infrastructure partner by the end of 2025 will create the foundations for the future viability of EnBW. The trust placed in EnBW by shareholders is based on this value generated by the company. EnBW manages the development of value using the key performance indicator ROCE [?](#), which will be replaced by the value spread [?](#) from the 2022 financial year, and has managed its credit standing since 2021 using the key performance indicator debt repayment potential [?](#).

EnBW strives to achieve a dividend payout ratio of between 40% and 60% of adjusted Group net profit. Based on the annual net profit of EnBW AG of €46.6 million and taking into account the profit carried forward of €81.0 million and transfers from other revenue reserves of €300.0 million, there are retained earnings of €427.6 million for the financial year and thus dividends will be paid for the 2021 financial year. If approved by the Annual General Meeting, the dividend to be distributed for the 2021 financial year will be €1.10 per share. Adjusted for the valuation effects of IFRS 9, this corresponds to a dividend payout ratio of 36%.

Information on our **share price, dividends and shareholder structure** can be found on our website.

Online [↗](#)

Overall assessment of the economic situation of the Group

We have successfully concluded the EnBW 2020 strategy. Our EnBW 2025 strategy is increasingly placing the company's focus onto the infrastructure aspects of existing energy-related business fields and exploiting new growth opportunities above and beyond the energy sector. Organized in three strategic segments, we want to further strengthen our profitability and continuously improve our sustainability performance at the same time. The measures in our 25-point sustainability program were either implemented or pushed forward as a priority in 2021 and will in the next stage be transferred into our EnBW sustainability agenda. The aim is to make the company climate neutral with respect to our own emissions by 2035.

The operating business developed overall at a Group level in 2021 as expected and forecast at the start of the year: The adjusted EBITDA [?] increased by 6.4% in comparison to the previous year. The result in the Smart Infrastructure for Customers segment fell by 3.6% and was within the forecasted range. The adjusted EBITDA for the System Critical Infrastructure segment decreased by 4.3%, mainly due to higher expenses for the grid reserve and balancing energy to maintain the security of supply, and was thus slightly below our forecasted range. The result in the Sustainable Generation Infrastructure segment rose significantly by 20.1% and exceeded our forecasted range. While the adjusted EBITDA in the Renewable Energies area fell by 5.0%, mainly due to unfavorable wind conditions, the result in the Thermal Generation and Trading area rose by 67.6% due to growing volatility on the wholesale markets.

The fall in non-operating EBITDA [?] was primarily due to expenses related to additions to the provisions for onerous contracts for electricity procurement agreements. This was offset to some extent by valuation effects from derivatives.

In total, the Group net profit attributable to the shareholders of EnBW AG decreased from €596.1 million in 2020 to €363.2 million in the reporting year. The main reason for this development was impairment losses of €0.7 billion in the area of conventional generation and of €0.3 billion on offshore wind farms. In contrast, there was a significant improvement in the financial result due to the market valuation of securities. Earnings per share amounted to €1.34, compared to €2.20 in the previous year.

The financial position of the company remains sound. Solvency was ensured at all times up to the 2021 reporting date thanks to the company's available liquidity and its internal financing capability [?], as well as external sources available for financing. As of 31 December 2021, net debt [?] fell by €5,620.4 million in comparison to the reporting date in the previous year, which was mainly attributable to the receipt of collateral and the increase in the interest rate for the pension provisions. As a result of the significant fall in net debt, primarily due to factors outside of the company's influence, the debt repayment potential [?] of 20.3% significantly exceeded the target value of between 11.5% and 12.5% for the reporting year. ROCE reached 7.0% and thus exceeded expectations for the 2021 financial year.

In the customers and society goal dimension, the Reputation Index in 2021 almost reached the same level as in the previous year. The satisfaction of EnBW customers fell slightly against the background of the public debate on the increasing prices on the energy market, while Yello was able to reaffirm the high level of satisfaction among its customers. As in the previous year, supply reliability remained at a very good level in 2021. In the environment goal dimension, we continued with the expansion of renewable energies. The CO₂ intensity of our own electricity generation increased in comparison to the previous year as a result of below-average wind conditions and higher electricity generation from fossil fuel-fired power plants due to market-driven developments. In the employees goal dimension, the People Engagement Index (PEI) remained at a high level in comparison with other companies. In the area of occupational safety, the LTIF for companies controlled by the Group increased in comparison to the previous year, while LTIF overall fell in comparison to the previous year.

In the estimation of the Board of Management, the operating business of our company developed positively in 2021. The operating result increased as expected. Furthermore, EnBW once again proved itself to be a reliable and economically stable partner in the second year of the coronavirus pandemic when it came to maintaining a secure supply of energy and reliable infrastructure.

Forecast

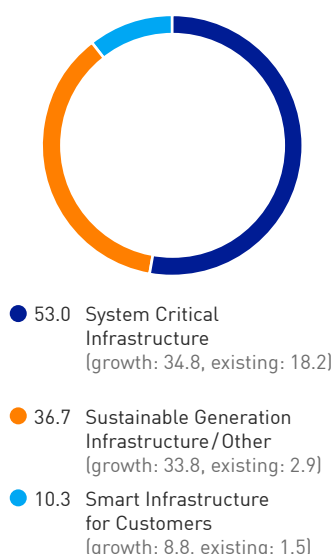
In our forecast we take a look at the expected growth and development of EnBW in the years 2022 to 2024. It should be noted that the present conditions – such as the high volatility on the markets [\(p. 74f. ↗\)](#) – increase the level of uncertainty with which predictions about the future development of the company can be made. The expected economic, political and regulatory conditions are presented in the chapter “General conditions” [\(p. 67ff. ↗\)](#). Potential factors influencing the forecast are described in detail in the “Report on opportunities and risks” [\(p. 127ff. ↗\)](#).

Expected trends in the finance and strategy goal dimensions

Investment over a three-year period

In order to continue to play an active role in shaping the Energiewende, gross investment of €10.6 billion is planned for the 2022 to 2024 period. This represents on average €3.5 billion per year. €2.4 billion (23%) of this investment will be on existing projects and €8.2 billion (77%) on growth projects. The majority of the gross investment (76%) will be in the System Critical Infrastructure segment and the expansion of renewable energies.

Total investment 2022 – 2024
in %



Around 10% of the investment is planned for the **Smart Infrastructure for Customers** segment, of which approximately 9% will be for growth investment. This investment is mainly intended for the expansion of electromobility, as well as for the expansion of the telecommunications infrastructure.

Around 53% of the investment will flow into the **System Critical Infrastructure segment**. Growth investment will account for 35% of the overall gross investment and 18% will be for upgrading the existing grids. In order to make the transmission of renewable energies from the north to the south of Germany possible, funds have been allocated to the transmission grid for the realization of two HVDC projects [🔗](#) ULTRANET and SuedLink that involve our subsidiary TransnetBW and are part of the Network Development Plan [🔗](#). In addition, extensive investment in the expansion and upgrading of the existing grids is planned by our grid subsidiaries.

Around €3.9 billion or 37% of the investment is planned for the **Sustainable Generation Infrastructure** segment and for other investment (other investment: 2%). 34% of the investment will be on growth themes. Investment of around €2.4 billion for the expansion of renewable energies is planned for the period 2022 to 2024, which corresponds to 23% of the gross investment. The planned investment in renewable energies includes funds for the realization of further offshore wind farms, such as our EnBW He Dreiht wind farm in the German North Sea. After acquiring offshore wind rights in Great Britain in 2021 and at the beginning of 2022, we are planning the construction of further offshore projects in Great Britain, for which additional investment has been allocated within the three-year period. In addition, we also plan to invest in the construction of onshore wind farms and photovoltaic parks (including the two solar parks Gottesgabe and Alttrebbin, each with an output of around 150 MWp, which we will start to commission in the first quarter of 2022) from our comprehensive project pipeline [\(p. 40f. ↗\)](#). Furthermore, planned investment for the Sustainable Generation Infrastructure segment also includes fuel switch projects [🔗](#) for converting three of our thermal power plants in Baden-Württemberg from coal to gas in order to secure, in particular, the supply of district heating at these sites in the future. Other investment mainly involves investment in the central IT system.

The investment program of the EnBW Group supports our strategy of expanding renewable energies and ensuring security of supply in the regulated areas of the transmission and distribution grids (electricity and gas), as well as the expansion of charging infrastructure for the benefit of electromobility.

The total investment volume of around €10.6 billion between 2022 and 2024 will be accompanied by **divestitures** of around €3.6 billion. These include divestitures in the Renewable Energies area, which will build on our already realized participation models. In order to finance our investments for the Energiewende, we plan to continue opening up specific areas of the company for investment by third parties as minority shareholders. In this context, EnBW is also examining the option of opening up the transmission system operator TransnetBW to long-term minority shareholders. Other divestitures will mainly comprise the receipt of building cost subsidies.

The balance of gross investment and divestitures gives the net investment [?], which is €7.0 billion or €2.3 billion on average per year.

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

TOP Development in 2022 (adjusted EBITDA and the share of adjusted EBITDA accounted for by the segments) compared to the previous year

	Earnings performance (adjusted EBITDA) compared to the previous year		Development of the share of adjusted EBITDA for the EnBW Group accounted for by the segments	
	2022	2021	2022	2021
Smart Infrastructure for Customers	€350 to €425 million	€323.1 million	10% to 15%	10.9%
System Critical Infrastructure	€1,225 to €1,325 million	€1,288.5 million	35% to 45%	43.5%
Sustainable Generation Infrastructure	€1,650 to €1,750 million	€1,535.1 million	50% to 60%	51.9%
Other/Consolidation		€-187.4 million		-6.3%
Total	€3,025 to €3,175 million	€2,959.3 million		100.0%

The adjusted EBITDA [?] of the **Smart Infrastructure for Customers** segment in 2022 will be higher than the level in the previous year. We expect higher earnings due to growth in our new business fields and at our subsidiary SENEK. However, it is still uncertain whether the negative impacts of increasing numbers of customers being provided with a basic supply of energy at high additional procurement costs and of impairments on receivables will continue in the future. The share of the adjusted EBITDA for the Group accounted for by this segment should reach at least the level in the previous year.

The adjusted EBITDA of the **System Critical Infrastructure** segment will reach about the same level in 2022 as in the 2021 financial year. Revenue from the use of the grids is expected to increase slightly in comparison to the previous year, as a result of returns on increased investment activity in projects that are included in the Network Development Plan Electricity and Network Development Plan Gas. In contrast, there is a risk that higher expenses for the grid reserve and balancing energy since the end of 2021 will continue in 2022 and negatively impact the operating result. We expect a stable or decreasing share of the adjusted EBITDA for the Group accounted for by this segment.

The adjusted EBITDA of the **Sustainable Generation Infrastructure** segment will increase further in 2022. Renewable energies will contribute around €900 million to earnings. The forecasts for wind yields and thus for the volume of electricity generated are based on the long-term average. As the wind yields in the 2021 financial year were below this level due to poorer weather conditions, we expect higher earnings in 2022 in comparison to the previous year. The further expansion in power plants for the utilization of renewable energies will have a slightly positive impact on the earnings performance. We also expect earnings from our thermal power plants to improve in 2022 due to higher wholesale market prices and spreads. The share of the adjusted EBITDA for the Group accounted for by this segment should reach at least the level in the previous year.

The **adjusted EBITDA** for the EnBW Group will increase further in the 2022 and be between €3.025 billion and €3.175 billion. We expect the adjusted EBITDA for the Group to be at the same level in 2023 as in 2022.

The **EBITDA** [?] in 2022 and 2023 will develop in line with the adjusted EBITDA. We do not make any forecasts relating to material non-operating effects.

The **EBT** [?] relevant to remuneration will be between €1.1 billion and €1.2 billion in 2022. This is an increase in comparison to the previous year, which will be due to the elimination of negative non-operating effects on earnings. A further slight increase in EBT is expected in 2023. The accuracy of the forecast for EBT is, however, dependent on other exogenous factors relevant to the non-operating result that cannot be planned for, such as impairment losses, the reversal of impairment losses or impending losses on onerous contracts for electricity procurement agreements.

Assuming an adjusted EBITDA in the range of €3.025 billion to €3.175 billion, we expect to achieve a **retained cash flow** in 2022 of between €1.75 billion and €1.85 billion. Adjusted for dividend payments (including payments from investments to third parties) and income tax payments, we expect an FFO relevant to remuneration of between €2.5 billion and €2.6 billion. We expect that the retained cash flow in 2023 will be at the same level as in 2022.

Debt repayment potential

TOP

Key performance indicator

	2022	2021
Debt repayment potential in %	13.5 – 14.5	20.3

We expect a debt repayment potential of around 13.5% to 14.5% in 2022. The development of the debt repayment potential is dependent on factors within net debt that are outside of the company's influence, such as political discussions about the abolition of the EEG cost allocations and thus the future development of the EEG account, the development of interest rates for non-current provisions or the performance of the dedicated financial assets.

Value spread

TOP

Key performance indicator

	2022	2021
Value spread in %	1.5 – 2.5	2.1

We will manage the increase in the value of the company using value spread from 2022. This will improve the comparability of the data as we will be able to present the increase in value of the company independent of the weighted average cost of capital (WACC), which fluctuates over time. ROCE will thus be replaced by the new key performance indicator value spread. In the 2022 financial year, it is anticipated that the value spread will be between 1.5% and 2.5%. In general, investments tend to lead at first to a fall in value spread as a result of low initial contributions to earnings. This will be the case due to the cost of capital for the planned investment in the grids and offshore wind farms in 2022, which will not yet have a positive effect on earnings. The value spread is expected to fall in 2023.

In 2022, the ROA relevant to remuneration will be between 5.0% and 5.6%. It is thus expected to be higher than the level in the previous year due to the elimination of the negative non-operating effects on earnings in 2021. As things currently stand, we expect that the ROA will stabilize in 2023 in comparison to 2022.

Expected trends in the customers and society goal dimension

TOP

Key performance indicators

	2022	2021
Reputation Index	56 – 59	55
Customer Satisfaction Index for EnBW/Yello	127–139/ 150–161	127/159
SAIDI (electricity) in min./year ¹	15–20	16

¹ SAIDI (electricity) includes all unscheduled interruptions to supply that last more than three minutes for the end consumer.

Reputation Index

EnBW will strive to improve its reputation continuously and noticeably over the next few years. The Reputation Index is an important non-financial performance indicator because it is influenced by a whole series of factors that are important to the future viability of our company. The existing reputation management department and stakeholder team at EnBW can recommend measures for optimizing the reputation of the company.

Customer Satisfaction Index

We continue to expect a high level of competitive pressure in 2022 both from direct competitors within the energy industry and, to an increasing extent, competitors from other sectors that have already entered or will enter the energy market. In addition, it is anticipated that other factors will increasingly influence the satisfaction of customers in 2022. There may be negative effects, for example, due to the ongoing coronavirus pandemic or a higher rate of inflation, especially if prices for electricity and gas rise in the long term and this is combined with higher demand for energy in Germany and Europe. Increasingly volatile developments on the market and, for example, further unexpected market exits or insolvencies of market participants could also have negative effects. It is likely that these effects would also impact the satisfaction with EnBW.

To improve the satisfaction of our customers, we are thus also expanding our range of sustainable energy industry services and energy solutions and targeting our sales activities in this direction. We aim to become climate neutral with respect to our own emissions (Scope 1 and 2 ⁹) by 2035 and in this context are also making the product portfolio sustainable. We are combining traditional energy products (electricity and gas) with household and energy-related products and services for our customers. This includes, for example, continuing with the swift and comprehensive expansion of the quick-charging infrastructure in Germany and enabling the convenient charging of e-cars with the AutoCharge functionality at quick-charging stations in the EnBW HyperNetwork. This allows drivers to conveniently charge their vehicles as required, not only at shopping centers but also on major highways and in urban centers across Germany. Using our advanced digital skills, we will offer our customers customized products and services, and are striving to achieve a Customer Satisfaction Index of between 127 and 139 points in the 2022 financial year. Through continuous optimization of these digital skills, personalized offers and a clear focus on sustainability, Yello is once again striving to achieve a Customer Satisfaction Index of between 150 and 161 points in the 2022 financial year.

SAIDI

The grid subsidiaries of EnBW have always achieved a highly reliable supply throughout their grid area and for their customers. The corresponding key performance indicator SAIDI (Electricity), which states the average duration of supply interruptions per end consumer per year, stood at 16 minutes in 2021. We are striving to achieve a value of between 15 and 20 minutes in the 2022 financial year and subsequent years.

Expected trends in the environment goal dimension

TOP

Key performance indicators

	2022	2021
Installed output of RE in GW and the share of the generation capacity accounted for by RE in %	5.4–5.6/ 41.5–42.5	5.1/40.1
CO ₂ intensity in g/kWh ¹	0%–15%	478

¹ The calculation method for the key performance indicator CO₂ intensity will be restricted in future to include only factors that can be controlled by the company. In contrast to previous years, the share related to redispatch that cannot be controlled by EnBW is no longer included. This performance indicator still excludes nuclear generation.

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

The installed output of renewable energies and the share of the generation capacity of the Group accounted for by renewable energies will continue to rise in 2022. This will be mainly attributable to photovoltaics and the commissioning of the Gottesgabe and Alttrebbin solar parks that are currently under construction. In addition, we are planning to further expand onshore wind power. In subsequent years, we also expect a continuous increase in the installed output of renewable energies. This will thus increase the share of the generation capacity accounted for by RE further. The expansion in renewable output will be taken into account in the remuneration of the Board of Management in future and will become a component of the Long Term Incentive (LTI).

CO₂ intensity

Despite the increase in CO₂ intensity due to the below-average generation from wind power and market-driven developments especially in the fourth quarter, we were still within our target corridor for the 2021 reporting year of between –15% and –30% in comparison to the reference year of 2018. In 2022, we anticipate higher generation from our thermal power plants in the first quarter of 2022 due to rising wholesale market prices and spreads – driven especially by the high price of gas. In combination with wind yields, which are measured according to the long-term average, we anticipate that CO₂ intensity in 2022 will remain around the same level as in 2021, based on the assumption that gas prices will normalize from the second quarter onwards, or it will be 15% higher if gas prices remain high.

Expected trends in the employees goal dimension

TOP

Key performance indicators

	2022	2021
People Engagement Index (PEI) ¹	≥ 77	82
LTIF for companies controlled by the Group ^{2, 3, 4}	2.0 – 2.2	2.3
LTIF overall ^{2, 3}	3.2 – 3.5	3.3

¹ Variations in the group of consolidated companies (all companies with more than 100 employees are considered [except ITOs]). Companies that were fully consolidated for the first time in the fourth quarter of 2021 were not included in the employee surveys for the PEI.

² LTIF indicates how many LTI occurred per one million working hours performed. Further information on the calculation of this performance indicator can be found on p. 47 ⁷.

³ Variations in the group of consolidated companies (all companies with more than 100 employees, excluding external agency workers and contractors, are considered). Companies that were fully consolidated for the first time during the 2021 financial year were not included in the calculations for the LTIF performance indicators.

⁴ Except for companies in the area of waste management.

People Engagement Index

The People Engagement Index (PEI) stood at 82 points in the reporting year. However, it is probable that this very good result reflects the fact that employees have attached too much importance to the company's handling of the impact of the coronavirus pandemic in their positive assessment. An international benchmark index compiled using similar questions at numerous companies from various different sectors stood at 74 points in 2021. Taking into account this global benchmark score and the ongoing extraordinary effect of the coronavirus pandemic on this index in 2021, we are striving to achieve a target value for the PEI of at least 77 points in 2022.

LTIF

We are committed to our goal of continuously improving occupational safety within the company for both our own employees and those of our partner companies who carry out work on behalf of EnBW. Therefore, we have implemented numerous accident prevention measures. Our activities in 2021 were once again highly influenced by the coronavirus pandemic. As a critical infrastructure company, we have a responsibility to ensure a reliable supply of energy. The coronavirus pandemic will also have a big impact on safe and healthy working practices in 2022. Irrespective of this challenge, we are still striving to continuously reduce both the LTIF for companies controlled by the Group and LTIF overall. The LTIF for companies controlled by the Group and the number of fatal accidents will be taken into account in the remuneration of the Board of Management in future and will become a component of the Long Term Incentive (LTI).

Overall assessment of anticipated developments by the management

We anticipate a further increase in the adjusted EBITDA ⁸ for the Group in 2022 in comparison to the previous year. The shares of earnings accounted for by the different segments will not change significantly. We always strive to maintain a balanced financing structure, solid financial profile and thus solid investment-grade ratings ⁹. With respect to our non-financial key performance indicators, we expect a largely stable to positive development in 2022. The only exceptions may be the People Engagement Index (PEI), which is impacted by extraordinary effects, and CO₂ intensity, which, depending on the price of gas, could be higher than the level in the previous year. The possible impact of the war between Russia and the Ukraine has not been taken into account in the forecast. Due to the dynamic situation, we expect the results to be subject to increased volatility. Based on our preliminary updates to the anticipated risks and opportunities, however, we currently do not expect any significant deviations from the forecast.

Report on opportunities and risks

Principles of the integrated opportunity and risk management system

Opportunity and risk map

Strategic / sustainability		Operative			Financial		Compliance
Strategy	Sustainability	Business activity	Infrastructure	Implementation of growth fields	Financial management	Corporate financing	Compliance
Sustainable Generation Infrastructure ● ●	Climate change ● ●	Business processes	Plants / grids / storage / IT	Renewable Energies ● ●	Market prices	Capital market	Corruption ●
Market developments / social trends ●	Environmental protection ●	Operating activities	Information security / confidentiality	Gas / biogas business	Liquidity management	Ratings	Antitrust law
System Critical Infrastructure	Weather / natural events ●	Products / contracts	Crime / sabotage / terrorism	E-mobility / digitalization	Earnings management		Data protection
Smart Infrastructure for Customers	HR ●	Operational projects		Expansion of the grids	Investment management		Fraud
	Occupational safety / health protection ●	Approvals / licenses / patents					Taxes and levies
	Human rights ●	Legislation / regulation / litigation ●					
	Social issues ●						
	Reputation ● ●						

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

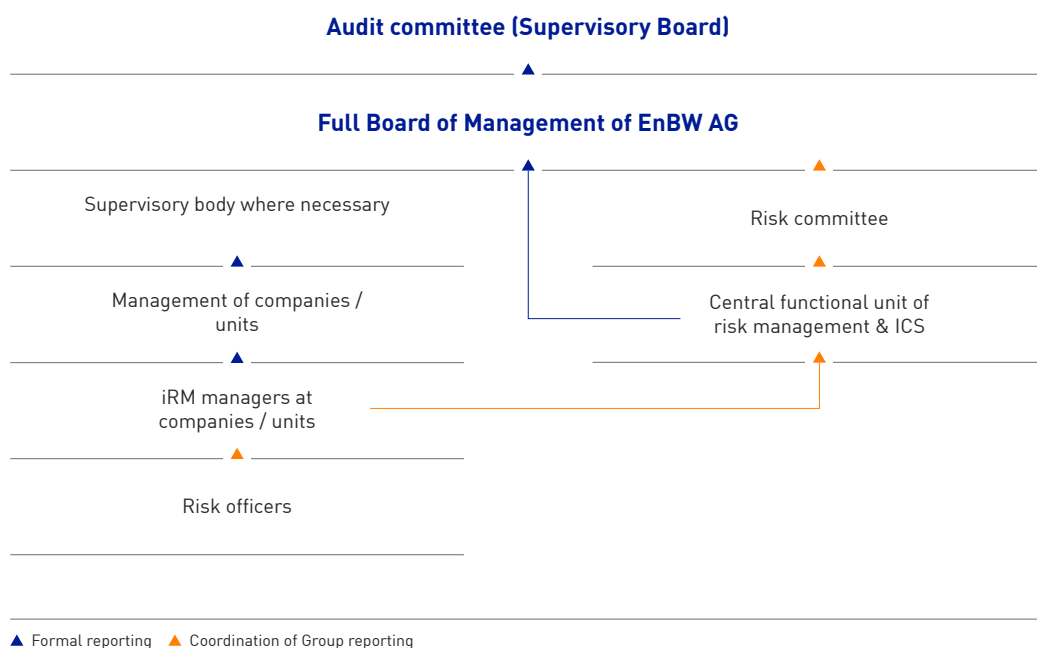
The integrated opportunity and risk management system (iRM) of EnBW is based on the internationally established COSO II framework as a standard for risk management systems that span entire companies. The iRM aims, through a holistic and integrated approach, to effectively and efficiently identify, evaluate and manage opportunities and risks (including monitoring) and report on the opportunity and risk position, as well as to ensure the appropriateness and functionality of related processes. Risk management involves measures for avoiding, reducing or transferring risk through adequate accounting provisions, as well as measures for managing risk tolerance. For this purpose, we define an opportunity/risk as an event that might cause a potential over-attainment/non-attainment of strategic/sustainability, operational, financial and compliance goals in the future. The iRM process also takes into account the guidelines for a non-financial declaration. In order to identify and categorize opportunities and risks, the opportunity and risk map that is well known throughout the Group is utilized. The risk map is used to explicitly consider possible opportunities and risks that affect the sustainable orientation of our company. As well as focusing on the fulfillment of the requirements for a non-financial declaration, the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) ² are also taken into account.

We constantly improve and enhance the maturity of our integrated opportunity and risk management system. In 2020, we already expanded and improved the quantitative assessment of opportunities and risks using a question-based collection method. Building on this, we developed and implemented an approach to assess the risk-bearing capacity in the reporting year. This is based on the continuous quantification of risks, which are aggregated using stochastic simulations to find the total risk position. The total risk position is then measured against the coverage potential. The result is an

assessment of the company's individual risk-bearing capacity, i.e., the risks that EnBW can tolerate without jeopardizing its ability to continue as a going concern. This can be used as a management instrument and fulfills the requirements of the auditing standard IDW PS 340 n. F.

Structure and processes of the integrated opportunity and risk management system

Structure and process of the iRM system



The structures and processes of the iRM are well-known throughout the Group. The central risk management & ICS functional unit is responsible for specifying methods, processes and systems for the whole Group, determining the opportunity and risk position of the Group and for reporting. The central steering body is the risk committee, which – with the involvement of specially selected units/companies – is responsible for clarifying relevant issues from various Group perspectives, as well as for determining the top opportunities/risks.

The iRM is tested annually by the Group auditing department with a focus on different main themes each year and the results of the test are then presented to the Supervisory Board in the form of a so-called effectiveness report. All opportunities and risks are initially assessed with the help of the iRM relevance filter before and after consideration has been taken of both implemented and envisaged management instruments. In the process, they are allocated to one of seven relevance categories on the basis of quantitative and qualitative criteria for each of the four dimensions: “strategic/sustainability,” “operational,” “financial” and “compliance.”

The internal reports are submitted on a quarterly basis in standardized form. In the case of any significant changes, a special report is immediately issued. The opportunities and risks can have an impact on our key financial performance indicators adjusted EBITDA [?], value spread [?] and debt repayment potential [?] (p. 46⁷). The possible effects on the key non-financial performance indicators (p. 46 f.⁷) are discussed with those responsible in the specialist areas.

Opportunities and risks are evaluated within the medium-term planning period. Insofar as a financial valuation of the opportunities and risks is possible, they are allocated to relevance classes 0 to 4 if they have a value in the range of less than €0.2 million up to less than €50 million within the medium-term planning period. From relevance class 5 and above, which corresponds to a financial valuation of more than €50 million and a probability of occurrence of over 50%, opportunities and risks are generally included in the Group report on opportunities and risks. The so-called

top opportunities/risks and long-term opportunities and risks that are of particular importance are then added. The top opportunities/risks are determined using global opportunity and risk trends, value drivers along the value added chain and quantitative characteristics such as relevance classes and monetary limits.

Any opportunities and risks with a probability of occurrence of up to 50% are subject to an individual review to determine whether they should be taken into account in the next planning session. Opportunities and risks with a probability of occurrence of over 50% are generally taken into account in the planning process and, as far as possible, appropriate accounting measures are taken in the consolidated financial statements in accordance with IFRS.

Opportunities and risks are generally evaluated in relation to the current planning period. This is carried out using quantitative methods involving stochastic modeling based on appropriate probability distributions. The resulting distributions enable us to derive the risk dimensions in each case, such as the expected level for the opportunity and risk and the variation in the expected level.

To ensure that possible extreme scenarios for individual opportunities or risks can be identified, risk ranges are selected that are appropriate to such extreme scenarios. For this purpose, the confidence level for the stochastic modeling of risks for the reporting year was raised from 67% to 98% as of the reporting date of 31 December 2021. This represents larger financial ranges in order to cover possible extreme scenarios with a higher probability. The calculation methods and distribution functions for opportunities and risks were not changed in the process.

Relevance filter for classifying opportunities and risks

Strategic / sustainability	Operative	Financial	Compliance	
Achievement of strategic targets, sustainability targets, e.g., climate protection, environmental protection, reputation	Achievement of business targets, functional processes, retaining added value, customer / external effects	Achievement of financial targets, generally in accordance with medium-term planning or approved (project) budgets	Compliance with legal / official regulations and internal regulations	
Relevance class 5	<ul style="list-style-type: none"> One key operational target for the EnBW Group is not achieved The value added is massively disrupted across the company / business units / functional units 	≥ €50 million (relevance threshold for functional units and EnBW Group)	Breach of legal / official regulations and / or internal regulations with negative consequences for the EnBW Group	Group reporting level
Relevance class 6	<ul style="list-style-type: none"> Several or all operational targets for the EnBW Group are not achieved Value added throughout the whole Group is massively disrupted 	≥ €250 million	Breach of legal / official regulations and / or internal regulations with serious negative consequences for the EnBW Group	

Structure and processes of the accounting-related internal control system

Principles

An accounting-related internal control system (ICS) has been established at EnBW that is designed to ensure proper and reliable financial reporting. In order to guarantee that this ICS is effective, the appropriateness and functionality of the Group-wide control mechanisms are tested regularly at the level of the individual companies and at a Group level.

If any existing weaknesses are identified in the control system and are considered relevant to the financial statements, they are remedied. This accounting-related ICS methodology is based on the COSO II standard.

Once the control mechanisms have reached a standardized and monitored degree of maturity, and no material control weaknesses can be identified, the accounting-related ICS is deemed to be effective. The materiality of control weaknesses is measured as the probability of occurrence and the extent to which there could be a potential misstatement in connection with those financial statement items concerned. The accounting-related risk management system defines measures for identifying and assessing risks that jeopardize the preparation of compliant financial statements as part of the accounting-related ICS.

Despite having established an ICS, there is no absolute certainty that it will attain its objectives or that it will be complete. In individual cases, the effectiveness of the ICS can be impaired by unforeseeable changes in the control environment, fraud or human error.

Structure

The accounting-related ICS at EnBW is organized at both a centralized and decentralized level. All key companies, business units and functional units have an ICS officer. These officers monitor the effectiveness of the ICS and evaluate any control weaknesses that may arise. A report on the effectiveness of the ICS is prepared on an annual basis. The ICS officer at Group level assists the companies/units with the implementation of standardized procedures and also consolidates collected data.

Process

Standardized procedures are used to ensure completeness and consistency in the preparation of the financial statements and financial reporting. The accounting-related ICS defines controls designed to ensure compliance with the accounting policies used by the Group, as well as procedures and deadlines for the individual accounting and consolidation processes. During the Group consolidation process, the rigorous implementation of the four-eye principle is observed, while random samples and deviation analyses improve quality. An annual control cycle monitors whether the documentation is up to date and also checks the appropriateness and functionality of the controls. In addition, it identifies and evaluates any control weaknesses that may arise.

A risk-based selection process defines the companies/units, significant items in the financial statements and processes including their associated control measures that are relevant.

The defined processes and controls are recorded in a central documentation system. The effectiveness of the various control activities is then assessed. If any control weaknesses are identified, their effect on the financial statements is evaluated. The results are reported at both company or unit level and at Group level. Furthermore, the Group auditing department performs ICS reviews as part of its risk-oriented audit planning.

Non-financial declaration

As part of the non-financial declaration, we closely analyze the related opportunities and risks in the areas of compliance, social engagement and procurement, as well as in the customers and society, environment and employees goal dimensions. In order to guarantee that the requirements for a non-financial declaration are fulfilled, the established iRM methods and the associated process are used. In this context, the iRM also identifies opportunities and risks relating to climate protection and thus provides important impetus for the implementation of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). You can find further information on this subject on [p. 145[↗]](#).

Risks associated with the non-financial declaration

The non-financial declaration describes, among other things, the fundamental opportunities and risks connected with the EnBW business model and the activities based upon it that could have a possible impact on one of the individual issues. Material individual risks with a very high probability of a serious negative impact in relation to any of the following issues do not exist at EnBW.

Compliance

The observance of relevant legal regulations and internal company rules forms the basis of our business activities. Managing compliance risks at EnBW (with a main focus on corruption, antitrust and data protection risks) is the task of the compliance management system, which comprises regular risk assessments of this type. Risks related to fighting corruption and bribery are addressed on p. 49 ff.⁷ in a cross-segment manner.

Social engagement

There are no risks in the area of social engagement. In fact, we take our social responsibility for civic and social engagement seriously (p. 55f.⁷).

Procurement

Sustainable procurement – purchasing: In the area of procurement, risks cannot be excluded due to increasing levels of complexity and the large number of suppliers. Purchasing utilizes an active risk management system, counters procurement risks and implements the necessary measures for safeguarding against and avoiding risk. These risks are managed using defined processes and, especially in this area, through the prequalification process (p. 62 ff.⁷).

Raw materials procurement – coal and gas: In the area of raw materials procurement and thus in the associated supply chain, there are above all potential human rights and environmental risks. In the procurement of raw materials, a multistage process is used to check whether human rights and environmental standards are being observed. All coal suppliers and also potential suppliers are regularly subjected to a screening process. The activities carried out for the procurement of coal are currently being implemented for gas procurement. Other measures that form part of the assessment are carried out in direct cooperation with the compliance department.

In coal mining and the production of natural gas, there are possible human rights risks related to the working and living conditions of people in the coal mining regions and natural gas producing regions. In addition, there are environmental risks for the immediate environment in each of these mining and gas producing regions. An increase in civil society activity in this context can in turn result in an increase in reputational risk. We are in constant contact with representatives from civil society and keep them informed about the advances made and challenges faced in all sustainability topics (p. 64 ff.⁷).

Customers and society goal dimension

Reputation: All opportunities and risks, as well as non-financial issues, can have a positive or negative impact on reputation and thus on the key performance indicator Reputation Index (p. 92⁷). The reputation management department thus identifies opportunities and risks related to reputation, develops measures to protect and improve reputation, advises the Board of Management and management and provides recommendations for action.

Customer proximity: Risks exist especially in connection with the competitive pressure both from direct competitors within the energy industry and, to an increasing extent, competitors from other sectors that have already entered the energy market or will do so shortly. This is associated with the risk of a negative impact on the customer base and sales volumes. It is also accompanied by very volatile market prices in the area of procurement. Opportunities exist above all through the provision of a broader range of customer-specific products and services such as offering hardware bundles⁸ and product options, as well as through processes more oriented to the customer. EnBW also continued to expand its range of electromobility, sustainable energy industry services and energy solutions in 2021 and targeted its sales activities in this direction (p. 92 ff.⁷).

Environment goal dimension

Expansion of renewable energies: Risks generally exist in the approval and auction process. These risks can result in delays to the further expansion of renewable energies. Due to the fact that the auctions are held on equal terms, we continue to expect a high level of competition. We measure the expansion of renewable energies with our key performance indicator “installed output of renewable energies (RE) and the share of the generation capacity accounted for by RE” (p. 97 f.⁷).

CO₂ intensity / climate protection: Risks generally exist in the area of environmental protection due to the operation of power generation and transmission plants with possible consequences for the air, water, soil and nature. The importance of climate protection is taken into account in, for example, the key performance indicator CO₂ intensity (p. 99⁷).

We counter these risks using, among other things, an environmental management system certified according to DIN EN ISO 14001, which has been established at key subsidiaries (p. 97⁷). We take the safety of the population and the protection of the environment very seriously. In this context, risks also exist due to external circumstances, such as extreme weather conditions. We counter these risks using comprehensive organizational and procedural measures to reduce their impact. We ensure that the risks posed by crisis and emergency situations are mitigated quickly, effectively and with a coordinated approach through regular crisis management exercises and other measures. Through our diverse range of activities in the areas of environmental, nature and species protection, we also utilize the opportunity – beyond our core activities – to make a substantial contribution to improving environmental protection. Thanks to the positive public perception of these activities, they can also have a positive impact on our key performance indicator Reputation Index (p. 92⁷).

At the same time, EnBW also faces potential risks due to the ongoing process of climate change. For example, more frequent extreme weather conditions leading to highly fluctuating water levels or limits being placed on emissions locally could have a negative impact, particularly on the operation of power plants and thus the security of supply (electricity grids). The operation of hydropower plants can be restricted by both a lack of, or also an abundance of, water. The output from thermal power plants that must be cooled could possibly be impacted by temperature limits on discharged water. Increasing volatility in the availability of wind, water and sun presents challenges in terms of planning certainty for the operation of power plants and the sale of volumes of electricity (p. 40 ff.⁷). For this reason, the top opportunity/top risk of wind fluctuations has been reported since the Integrated Annual Report 2016, although these opportunities/risks have no material effect on non-financial issues. In addition, there is uncertainty due to increasing environmental restrictions for the realization of projects for sustainable energy generation and for the operation of power plants. These risks are managed and mitigated in internal processes using targeted control measures.

Alongside changes in physical climate parameters and other developments relating to or governed by environmental factors, regulatory guidelines and the potential changes associated with them, as well as changes in the market, also flow into the risk evaluation process. However, there are also opportunities such as changing customer needs (p. 92 ff.⁷) and an increasing demand for climate-friendly products such as e-mobility. These opportunities and risks are regularly and systematically identified Group-wide. The recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) ⁸ are continuously implemented and are communicated in the report on opportunities and risks. Building on the risk map, special focus is placed on sustainability aspects – especially climate protection targets – and they are anchored more deeply in the risk evaluation process. We closely examine the significance of sustainability and climate protection themes for the business model and implement measures and set targets to orientate our opportunity and risk management system even more towards climate-related opportunities and risks.

Employees goal dimension

Engagement of employees: Due to the persistent level of competition on the labor market, especially for qualified and highly qualified specialists, there is a fundamental risk when recruiting employees that the company will not be able to secure a sufficient number of employees with the necessary qualifications at the right time. The more intensive measures to strengthen the company's reputation as an employer, the growing interest in jobs in the energy sector and the possibility of tapping into the international job market lessen this risk to some extent. We believe that regular anonymous employee surveys, from which we derive the People Engagement Index (PEI) as a key performance indicator, are an important tool for seizing opportunities early in the areas of employee development and employee loyalty (p. 104⁷).

Occupational safety: Risks generally exist in the areas of occupational safety and health protection in our business activities. We counter these risks using comprehensive organizational and procedural measures, such as workplace-specific hazard analyses, to protect employees as well as possible against any adverse consequences. We also view these measures as an opportunity to preserve the capacity of our employees to do their work and to maintain the position of EnBW as an attractive employer. Occupational safety is measured in the employees goal dimension in the form of the key performance indicator LTIF for companies controlled by the Group and LTIF overall (p. 107f. 7).

Classification of opportunities and risks

The individual evaluations of the top opportunities/risks tell us – based on their level of opportunity/risk – what effects they could have with a high probability of occurrence on our key performance indicators in the finance goal dimension: adjusted EBITDA 7, debt repayment potential 7 and value spread 7, which will replace the key performance indicator ROCE 7 from the 2022 financial year onwards. The risks are described after the implementation of risk limitation measures. The financial effects based on a 98% confidence level break down as follows:

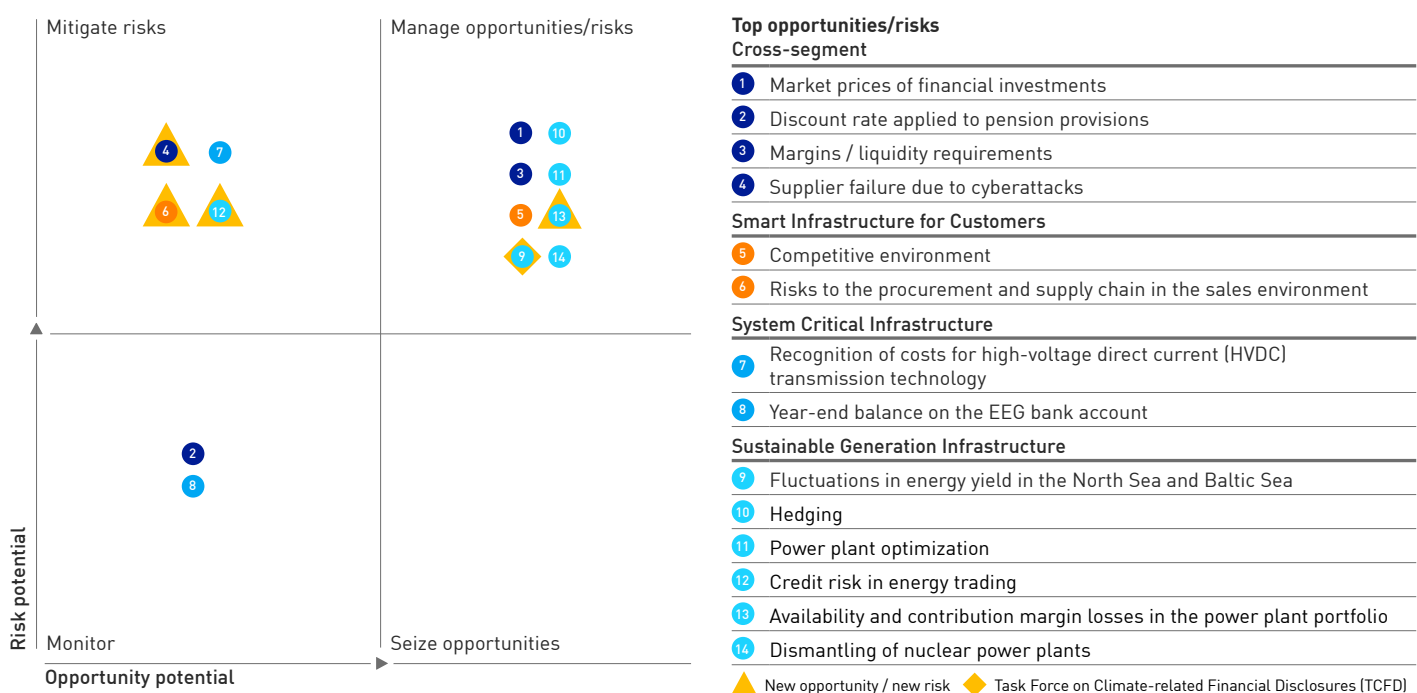
Classification of the level of opportunity/risk

	Adjusted EBITDA	Net debt
Low	< €100 million	< €350 million
Moderate	≥ €100 million to < €350 million	≥ €350 million to < €1,200 million
Significant	≥ €350 million to < €600 million	≥ €1,200 million to < €2,000 million
Material	≥ €600 million	≥ €2,000 million

Opportunity and risk position

The following diagram illustrates how the opportunity and risk position is reported to the Board of Management and the audit committee of the Supervisory Board. The arrangement of the top opportunities/risks in the quadrants indicates how EnBW can employ control measures to exploit the opportunities or to counteract the risks.

Top opportunities/risks as of 31/12/2021



Details on the top opportunities/risks and their potential effects on the relevant performance indicators are listed in the following section.

The following top opportunities/risks were new in 2021:

- Supplier failure due to cyberattacks
- Risks to the procurement and supply chain in the sales environment
- Credit risk in energy trading
- Availability and contribution margin losses in the power plant portfolio

Cross-segment opportunities and risks

Our company faces general **risks from legal proceedings** due to our contractual relationships with customers, business partners and employees. To a limited extent, we are also conducting legal proceedings relating to topics in the area of corporate law. For this purpose, adequate accounting provisions are made or, in the event of a probability of occurrence of <50%, adequate contingent liabilities. As a consequence, there is also an opportunity of positive effects on earnings if these provisions can be reversed once again. In addition, various court cases, 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 and other financial obligations.

In connection with these types of legal proceedings, we also recognize the **water concession risk in Stuttgart**. In the court proceedings dealing with the takeover of the water grid after the water concession in the state capital Stuttgart expires, the state capital and EnBW are still striving to reach an amicable settlement. The court proceedings have been suspended several times, namely from January 2015 until the end of 2016 and from April 2018 until the end of January 2019, to give the parties the opportunity to reach an amicable settlement. Unfortunately, it was not possible to reach such an agreement due to a difference of opinion on the valuation. Therefore, there continues to be a risk in 2022 of losing the water grid without receipt of adequate compensation.

Financial opportunities and risks

① **Market prices of financial investments:** The financial investments managed through the asset management system ² are subject to risks that arise from price losses and other losses in value as a result of the volatile financial market environment. Following a clear recovery on the stock markets in 2021, we expect volatile, sideways movement in 2022. However, uncertainty with respect to future developments remains high as higher inflation in the wake of the coronavirus pandemic caused by, for example, a sharp increase in the cost of energy and raw materials, has become a major issue. To improve the opportunity/risk ratio of the portfolio, greater focus is currently being given to sustainability criteria in our investments. There is a moderate level of opportunity and risk in 2022 and a significant level of opportunity and moderate level of risk in this area in 2023. This will have an impact on net debt ² and thus on the key performance indicator debt repayment potential ².

② **Discount rate applied to pension provisions:** There is a general opportunity and risk associated with any change in the discount rate applied to the pension provisions because the present value of the pension provisions falls when the discount rate increases and increases when the discount rate falls. As of the reporting date of 31 December 2021, the discount rate was 1.15%, which was up 0.40 percentage points on the rate at the end of 2020 (0.75%). Against the background of the expected development of interest rates in future, we identify a significant level of opportunity and moderate level of risk in 2022 and a material level of opportunity and significant level of risk in this area in 2023. This will have an impact on net debt and thus on the key performance indicator debt repayment potential.

③ **Margins/liquidity requirements:** Due to unforeseeable developments, especially margin payments, unutilized project funds, tax issues or financial market crashes, the Group's liquidity planning is subject to an inherent degree of uncertainty. Persistently high prices for energy and CO₂ allowances and the high level of volatility on the commodity markets are resulting in higher margin requirements.

Sharp increases in prices and high volatility in energy trading on the commodity markets (EEX/ICE) have led to high cash inflows and outflows as part of margining processes, which are beyond the normal margin requirements. In 2021, this led to the higher utilization of liquidity to cover margins in the short term, also on intraday trading platforms[?]. These effects cannot be excluded in the future. In general, there is also a risk of additional liquidity requirements if the rating agencies downgrade the credit rating of EnBW. The risk can be covered by existing credit lines. There is a material level of opportunity and risk in 2022 and 2023 with an impact on net debt and thus on the key performance indicator debt repayment potential, as well as on the key performance indicator value spread[?] via capital employed[?].

4 Supplier failure due to cyberattacks: There is an increasing global risk of cyberattacks on computer systems. As EnBW has many suppliers and third-party service providers, it could be directly or indirectly impacted by these attacks and thus suffer damage. This could not only result in a high level of economic damage but also a loss of reputation. There is a moderate level of risk with an impact on the key performance indicator adjusted EBITDA[?] in 2022 and 2023 and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow[?] and on the key performance indicator value spread via the adjusted EBIT[?].

Compliance opportunities and risks

Compliance risk assessments focus, in particular, on assessing risks and defining appropriate preventative measures in the compliance risk areas of corruption, antitrust law and data protection.

Risks for which we derive measures for fighting corruption and bribery primarily exist in sales activities relating to local authority/political business activities when dealing with public officials. Important preventative measures, especially training and advisory services, are described on [p. 51 f.](#)⁷.

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

The incorrect handling or illicit disclosure or use of personal data poses data protection risks. These risks exist in view of the digital transformation of many business activities. Advisory and awareness services and process controls are in place to guarantee adherence to legal data protection requirements in the Group. Company-specific measures are coordinated via the compliance and data protection department.

Smart Infrastructure for Customers segment

Financial opportunities and risks

5 Competitive environment: There is a risk that the volatile competitive situation for all EnBW brands in the electricity, gas and energy solutions business, combined with the historically high procurement prices on the market (for electricity and gas) could have a considerable impact on sales activities. In addition, there is a risk that further insolvencies among competitors could also have a negative impact on results of operations. Opportunities currently exist, for example, in the expansion of the range of electromobility products and services, sustainable energy industry services and energy solutions, and through aligning sales activities more towards these products and services. There is a low level of opportunity and risk with an impact on the key performance indicator adjusted EBITDA in 2022 and 2023 and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow and on the key performance indicator value spread via the adjusted EBIT.

6 Risks to the procurement and supply chain in the sales environment: As a result of the current situation on the procurement markets, unexpected price spikes are being experienced on the spot markets for procurement ⁷. There is a risk that the planned contribution margins will not be achieved. As EnBW holds reserve supplies for B2C customers, insolvencies of other energy suppliers could also pose a financial risk if more customers than planned have to be provided with a basic supply of energy at higher procurement prices. There is a low level of opportunity and risk with an impact on the key performance indicator adjusted EBITDA in 2022 and 2023 and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow and on the key performance indicator value spread via the adjusted EBIT.

System Critical Infrastructure segment

Strategic opportunities and risks

7 Recognition of costs for high-voltage direct current (HVDC) transmission technology: TransnetBW plans to set up new connections using high-voltage direct current transmission technology (HVDC) ⁷ with other transmission system operators. In addition, a regulation stipulating the use of underground cabling applies to the SuedLink project. In both projects, there are currently general risks of potential delays and additional costs, as well as a low level of risk that the necessity for these transmission lines might no longer be confirmed in a new Network Development Plan ⁷. In 2023, there is a low level of risk with an indirect impact on the key performance indicator value spread via the adjusted EBIT.

Financial opportunities and risks

8 Year-end balance on the EEG bank account: The EEG ⁷ bank account is a separately managed bank account in accordance with section 5 of the German Compensation Mechanism Ordinance (AusglMechV) and is kept separate from other areas of activity. In accordance with AusglMechV, a deficit or surplus on the account balance can have a temporary positive or negative effect on the calculation of the net debt ⁷ of EnBW, respectively. As of the reporting date of 31 December 2021, there was a surplus of €1,565.2 million on the EEG bank account of our subsidiary TransnetBW (reporting date of 31 December 2020: €-629.3 million). We expect the EEG account to develop positively throughout 2022 and have a positive bank balance at the end of the year. There is a significant or material level of opportunity with an impact on net debt and thus on the key performance indicator debt repayment potential.

Sustainable Generation Infrastructure segment

Financial opportunities and risks

9 Fluctuations in energy yield in the North Sea and Baltic Sea: There is a general opportunity or risk for wind power plants due to fluctuations in the energy yield. As we expand our wind power plants and our wind farm portfolio continues to grow, the variation in the level of opportunity and risk will naturally increase. Findings on the development of wind conditions are continuously examined to identify the possible effects of these risks and taken into account in the planning. There is a moderate level of opportunity and risk with an impact on the key performance indicator adjusted EBITDA in 2022 and 2023 and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow ⁷ and on the key performance indicator value spread via the adjusted EBIT.

10 Hedging ⁷: When selling generated electricity volumes, EnBW is exposed to the risk of falling electricity prices and the risk of the unfavorable development of fuel prices in relation to electricity prices. The concept underlying our hedging strategy not only limits risk but also seeks to exploit opportunities. The hedging instruments utilized in 2021 were forwards, futures and swaps. The EnBW Group has exposure to foreign exchange risks from procurement and the hedging of prices for its fuel requirements, as well as from gas and oil trading business. Opportunities and risks generally exist with an impact on the key performance indicator adjusted EBITDA in 2023 and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow and on the key performance indicator value spread via the adjusted EBIT.

Further information on **financial instruments** can be found in the notes to the consolidated financial statements in note (25) "Accounting for financial instruments."

11 Power plant optimization: Following the conclusion of the hedging of generation activities, the Trading business unit will manage the further deployment of the power plants. This is being carried out as part of power plant optimization on the forward market ⁹, through the sale of system services ⁹ and through placements on the spot and intraday trading platforms ⁹. We currently identify a high level of volatility in the impact of opportunities and risks that is dependent on the development of market prices. There is a moderate level of opportunity and risk with an impact on the key performance indicator adjusted EBITDA in both 2022 and 2023 and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow and on the key performance indicator value spread via the adjusted EBIT.

12 Credit risk in energy trading: There is a risk that trading partners will fail to fulfill their financial obligations or be unable to fulfill them on time. Our credit management department counters this risk by carefully monitoring credit lines, conducting stress tests and introducing measures to reduce its impact. There is a significant level of risk with an impact on the key performance indicator adjusted EBITDA in 2022 and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow and on the key performance indicator value spread via the adjusted EBIT.

13 Availability and contribution margin losses in the power plant portfolio (previously: Availability of nuclear power plants): There is a general risk that exogenous and endogenous factors will have an influence on the availability of power plants. We try to counter these risks using preventive measures. Depending on the duration of interruptions to the operation of the power plants and prices on the energy trading market, this could have a positive or negative impact on the operating result. There is a low level of opportunity and significant level of risk in 2022 and a low level of opportunity and risk in this area in 2023. This will have an impact on the key performance indicator adjusted EBITDA and thus an indirect impact on the key performance indicator debt repayment potential via the retained cash flow and on the key performance indicator value spread via the adjusted EBIT.

Impairment losses and impending losses on onerous contracts: As a result of changes to the conditions in the energy industry, there is a general risk that impairment losses on power plants and the formation of provisions for impending losses on onerous contracts for long-term electricity procurement agreements could have a negative impact on earnings. It was already necessary to recognize an impairment loss on the power plants and increase the provisions for onerous contracts at the six-monthly reporting date in 2021 due to tighter requirements with respect to climate protection and stricter climate legislation. In the area of electricity procurement agreements, there are opportunities due to increasing consolidation on the market. We anticipate further impairment losses on the offshore wind farms due to the fact that they will have fewer and fewer operating years with EEG funding in the future.

Operative opportunities and risks

14 Dismantling of nuclear power plants: For long-term major projects such as the remaining operation and dismantling of a nuclear power plant, there is a general risk that delays and additional costs may arise over the course of time due to changed framework conditions. Moreover, there is also an opportunity to make lasting cost savings due to synergies over the course of time and due to learning effects for subsequent dismantling activities. During the project planning stage, opportunities and risks were identified that could result in reduced or additional costs or adjustments to the term of the project. There is a low level of opportunity and moderate level of risk in 2022 and 2023 with an impact on net debt and thus on the key performance indicator debt repayment potential.

Changes compared to the 2020 financial year

The opportunity “Compensation for the phasing out of nuclear energy” has materialized. The compensation that was contractually agreed with the German government was paid at the beginning of December 2021.

The risk “Obligation to pay EEG cost allocations for power plants” has reduced in comparison to the 2020 financial year and is thus no longer included in the top opportunities/risks.

The risk associated with the reorganization and return transport of reprocessing waste from France that was previously reported as part of the risk “Dismantling of nuclear power plants” has decreased significantly following the conclusion of an agreement with the contractual partner in France. The risk “Dismantling of nuclear power plants” has thus been reduced by the risk associated with the return of waste.

In comparison to the 2020 financial year, the following opportunities/risks have also been eliminated due to their lack of materiality and will thus no longer be reported:

- Effects of the pandemic on certain business areas
- Political and economic environment in Turkey
- Compliance with data protection regulations

Link to the key performance indicators

The top opportunities/risks can have an impact on our key performance indicators, whereby the effects on the non-financial key performance indicators are potential and long term in nature and more difficult to measure. They have thus been shown less boldly in the following diagram.

Linking the top opportunities/risks with the key performance indicators

	Key performance indicators												
	Financial performance indicators			Strategic performance indicators			Non-financial performance indicators						
							G Reputation Index	H EnBW/Yello Customer Satisfaction Index	I SAIDI (Electricity)	J People Engagement Index (PEI)	K LTIF for companies controlled by the Group / LTIF overall	L Installed output of RE and share of generation capacity accounted for by RE	M CO ₂ intensity
	A Adjusted EBITDA	B Debt repayment potential	C Value spread	D Overall share of adjusted EBITDA: Smart Infrastructure for Customers	E System Critical Infrastructure	F Sustainable Generation Infrastructure							
Top opportunities/risks	A	B	C	D	E	F	G	H	I	J	K	L	M
Cross-segment													
1 Market prices of financial investments		●											
2 Discount rate applied to pension provisions		●											
3 Margins / liquidity requirements		●	●										
4 Supplier failure due to cyberattacks	●	●	●	●	●	●							
Smart Infrastructure for Customers													
5 Competitive environment	●	●	●	●			○	○	○	○			
6 Risks to the procurement and supply chain in the sales environment	●	●	●	●				○					
System Critical Infrastructure													
7 Recognition of costs for high-voltage direct current (HVDC) transmission technology			●										
8 Year-end balance on the EEG bank account		●											
Sustainable Generation Infrastructure													
9 Fluctuations in energy yield in the North Sea and Baltic Sea	●	●	●			●						○	○
10 Hedging	●	●	●			●							
11 Power plant optimization	●	●	●			●							○
12 Credit risk in energy trading	●	●	●			●							
13 Availability and contribution margin losses in the power plant portfolio	●	●	●			●	○						
14 Dismantling of nuclear power plants		●											
● Direct effect													
○ Potential/long-term effect													
◆ Task Force on Climate-related Financial Disclosures (TCFD)													

Overall assessment by the management

Due to the comprehensive range of preventative measures and countermeasures to counteract the effects of the coronavirus pandemic that were implemented at an early stage, the pandemic has only had a minor impact on the EnBW Group up to now. However, the economic recovery has had a global impact on supply and demand along the supply chains and on the markets for raw materials. This has led to a sharp increase in prices, also in the energy sector, and resulted in risks in the form of higher energy procurement costs for the sale of electricity and gas. In the energy trading business, the sharp increase in prices has resulted in high short-term cash outflows for stock exchange transactions. The increasing threat of cyberattacks around the world poses a growing risk of, for example, restrictions in supply chains or even of supplier failures. In addition, there are planning uncertainties in the area of sustainable energy generation, especially with respect to our wind power plants due to natural fluctuations in the wind yield.

The development of the war between Russia and Ukraine and the sanctions imposed on Russia as a result are being continuously analyzed and evaluated with respect to their potential impact on the EnBW Group using various different scenarios. In particular, the procurement of raw and other materials, the increased need for liquidity as a result of rising energy prices and the even greater risk of cyberattacks have a significant impact on the overall risk position. These effects could have an impact on the following top opportunities/risks: ① Market prices of financial investments, ③ Margins / liquidity requirements, ④ Supplier failure due to cyberattacks, ⑤ Competitive environment, ⑥ Risks to the procurement and supply chain in the sales environment, ⑩ Hedging, ⑪ Power plant optimization and ⑫ Credit risk in energy trading. Nevertheless, we do not believe that the current situation endangers the company's ability to continue as a going concern, even if deliveries of Russian coal and gas are halted.

No risks currently exist that might jeopardize the EnBW Group as a going concern.

Further information on **financial instruments** can be found in the notes to the consolidated financial statements in note (25) "Accounting for financial instruments."

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

In the following, the Board of Management provides the information prescribed by sections 289a (1) and 315a (1) HGB and explains this in accordance with section 176 (1) sentence 1 AktG.

Composition of the subscribed capital and shares in capital

The composition of the subscribed capital is described and explained in the notes to the annual and consolidated financial statements in the section "Equity." Direct or indirect shares in capital that exceed 10% of the voting rights are described and explained in the notes to the annual financial statements in the sections "Shareholder structure" and "Disclosures pursuant to sections 33 ff. German Securities Trading Act (WpHG)" and the notes to the consolidated financial statements in section "Related parties (entities)." Information and explanations about the company's treasury shares are presented below and can be found in note 19 of the notes to the consolidated financial statements [\(p. 207⁷\)](#).

Restrictions relating to voting rights or transferability of shares

Agreements were reached on 22 December 2015 between, on the one hand, Zweckverband Oberschwäbische Elektrizitätswerke (Zweckverband OEW) and OEW Energie-Beteiligungs GmbH and, on the other, the Federal State of Baden-Württemberg, NECKARPRI GmbH and NECKARPRI-Beteiligungsgesellschaft mbH, which include clauses relating to restrictions of authorization over EnBW shares held by these parties and a general mutual obligation of both main shareholders to maintain parity investment relationships in EnBW with respect to each other. Restrictions relating to voting rights no longer exist to the knowledge of the Board of Management since the aforementioned direct and indirect EnBW shareholders annulled a shareholder agreement on 22 December 2015 that had previously existed between them.

Legal provisions and statutes on the appointment and dismissal of members of the Board of Management and amendments to the Articles of Association

Pursuant to section 84 AktG in conjunction with section 31 MitbestG, responsibility for the appointment and dismissal of members of the Board of Management rests with the Supervisory Board. This competence is stipulated in article 7 (1) sentence 2 of the Articles of Association of EnBW. If, under exceptional circumstances, a necessary member of the Board of Management is missing, section 85 AktG requires that a member of the Board of Management be appointed by the court in urgent cases. The Annual General Meeting has the right to make changes to the Articles of Association in accordance with section 119 (1) no. 6 AktG. The specific rules of procedure are contained in sections 179 and 181 AktG. For practical reasons, the right to amend the Articles of Association was transferred to the Supervisory Board where such amendments affect the wording only. This option pursuant to section 179 (1) sentence 2 AktG is embodied in article 18 (2) of the Articles of Association. Pursuant to section 179 (2) AktG, resolutions by the Annual General Meeting to amend the Articles of Association require a majority of at least three quarters of the capital stock represented when passing the resolution, unless the Articles of Association stipulate a different majority, which, however, for any amendment to the purpose of the company can only be higher. Pursuant to article 18 (1) of the Articles of Association, resolutions by the Annual General Meeting require a simple majority of the votes cast, unless legal regulations or the Articles of Association stipulate otherwise. If the law requires a larger majority of the votes cast or of the capital stock represented when passing the resolution, the simple majority suffices in those cases where the law leaves the determination of the required majority to the Articles of Association.

Authority of the Board of Management regarding the possibility to issue or redeem shares

No authorized or conditional capital nor any authorization of the Annual General Meeting pursuant to section 71 (1) no. 8 AktG for the purchase of treasury shares by the company currently exists at EnBW. Therefore, the company may only acquire treasury shares on the basis of other reasons justifying such purchases in accordance with section 71 (1) AktG. As of 31 December 2021, the company holds 5,749,677 treasury shares which were purchased on the basis of earlier authorizations in accordance with section 71 (1) no. 8 AktG. The company's treasury shares can be sold on the stock exchange or by public offer to all company shareholders. The use of treasury shares, in particular their sale, in any other way can only occur within the scope of the resolution issued by the Annual General Meeting on 29 April 2004. The treasury shares held by EnBW do not grant the company any rights in accordance with section 71b AktG.

Material agreements of the company subject to the condition of a change of control as a result of a takeover bid and the resulting effects

The following EnBW agreements are subject to the condition of a change of control following a takeover bid as defined by sections 289a (1) no. 8 and 315a (1) no. 8 HGB:

EnBW concluded a new sustainability-linked syndicated credit line [?] with a volume of €1.5 billion on 24 June 2020. A one-year extension was agreed with the bank consortium in June 2021 and the credit line is now available until 24 June 2026. The sustainability-linked syndicated credit line remained undrawn as of 31 December 2021. The credit line can be terminated by the lenders and become due for repayment given a change of control at EnBW. This does not apply if the purchaser of the shares is the Federal State of Baden-Württemberg or Zweckverband OEW or another German state-owned public law legal entity.

A bond of JPY 20 billion issued on 12 December 2008 under the Debt Issuance Program [?] can be terminated by the lenders and become due for repayment given a change of control at EnBW. This does not apply if the purchaser of the shares is EDF (whose legal successor as shareholder has been the Federal State of Baden-Württemberg since February 2011) or Zweckverband OEW or another German state-owned public law corporation.

Two bilateral long-term bank loans, drawn to the value of €300 million and around €227 million as of 31 December 2021, can be terminated by the lender and become due for repayment given a change of control at EnBW, provided the change of control has a negative effect on repayment of the loan in future. This does not apply if the purchaser of the shares is EDF (whose legal successor as shareholder has been the Federal State of Baden-Württemberg since February 2011) or Zweckverband OEW.

Stadtwerke Düsseldorf AG (SWD AG) has a promissory note loan drawn to the value of €200 million and two bilateral bank loans together drawn to the value of around €35 million as of 31 December 2021 for the financing of its CCGT power plant. These can each be terminated and become due for repayment given a change of control at SWD AG, including an indirect change of control. This does not apply if, after the change of control, the majority of shares in SWD AG are held directly or indirectly by German government entities and the City of Düsseldorf holds at least 25.05% of the shares in SWD AG.

SWD AG took out a syndicated credit line [?] with a volume of €350 million on 16 December 2020, of which €196 million was drawn as of 31 December 2021. The credit line can be terminated and become due for repayment given a change of control at SWD AG, including an indirect change of control. This does not apply if, after the change of control, the majority of shares in SWD AG are held directly by German legal entities under public law or indirectly by these shareholders via controlled legal entities and the City of Düsseldorf holds at least 25.05% of the shares in SWD AG.

A syndicated credit line with a volume of €700 million agreed with VNG AG, of which around €139 million was drawn as of 31 December 2021, can become due for repayment given a change of control at VNG AG, including an indirect change of control. This does not apply if, after the change of control, the majority of shares in VNG AG continue to be held directly by German public sector shareholders or indirectly by these shareholders via controlled legal entities.

In the event of a change of control, the financing instruments described above can become due for repayment at the aforementioned conditions. The corresponding debt instruments may have to be refinanced as a result – possibly at less favorable conditions.

Compensation agreements pursuant to sections 289a (1) no. 9 and 315a (1) no. 9 HGB

In the event of the premature termination of service on the Board of Management due to a change of control, the possibility of a severance payment for the member of the Board of Management is limited to the pro rata share of annual remuneration(s) for the residual term of the contract. However, the severance payment must not exceed three times the annual remuneration.

Note

Nos. 4 and 5 of sections 289a (1) and 315a (1) HGB were not relevant for EnBW in the 2021 financial year.

Indexes and tables

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

In accordance with sections 315b and 289b German Commercial Code (HGB), the EnBW Group and EnBW AG have been obligated to issue a non-financial declaration since the 2017 financial year. We comply with the requirements by fully integrating the non-financial declaration into the Integrated Annual Report as part of the combined management report of the EnBW Group and EnBW AG. For all of the aspects required by the HGB and also other aspects that are material from the perspective of EnBW, such as standing in society, customer satisfaction and supply quality, we fulfill the obligations by providing information about concepts, results and measures, performance indicators and opportunities and risks.

Non-financial declaration of the EnBW Group and EnBW AG

Description of the business model	p. 31 f. [↗]				
Materiality analysis	p. 53 [↗]				
EU taxonomy	p. 110 ff. [↗]				
TOP Key performance indicators					
Aspects	Themes	Concepts, results and measures	Target achievement 2021	Forecast 2022	Opportunities and risks
Fighting corruption and bribery	Compliance	p. 51 f. [↗] p. 57 [↗]	–	–	p. 132 [↗]
Social issues	Social engagement	p. 55 ff. [↗]	–	–	p. 132 [↗]
Respect for human rights	Procurement	p. 62 ff. [↗]	–	–	p. 132 [↗]
Standing in society	Reputation		TOP Reputation Index		
		p. 53 ff. [↗] p. 92 [↗]	p. 92 [↗]	p. 125 [↗]	p. 132 [↗]
Customer satisfaction	Customer proximity		TOP Customer Satisfaction Index		
		p. 53 ff. [↗] p. 93 ff. [↗]	p. 93 [↗]	p. 125 f. [↗]	p. 132 [↗]
Supply quality	Supply reliability		TOP SAIDI Electricity		
		p. 96 [↗]	p. 96 [↗]	p. 126 [↗]	p. 133 [↗]
Environmental issues	Expansion of renewable energies		TOP Installed output of RE and share of generation capacity accounted for by RE		
		p. 31 ff. [↗] p. 40 ff. [↗] p. 97 f. [↗]	p. 97 [↗]	p. 126 [↗]	p. 132 f. [↗]
	CO ₂ intensity / climate protection		TOP CO₂ intensity		
		p. 31 ff. [↗] p. 40 ff. [↗] p. 99 ff. [↗]	p. 99 [↗]	p. 126 f. [↗]	p. 133 [↗]
Employee issues	Engagement of employees		TOP People Engagement Index (PEI)		
		p. 104 ff. [↗]	p. 104 [↗]	p. 127 [↗]	p. 133 f. [↗]
	Occupational safety		TOP LTIF for companies controlled by the Group		
		p. 108 f. [↗]	p. 107 f. [↗]	p. 127 [↗]	p. 134 [↗]

The non-financial declaration is issued jointly for the EnBW Group and EnBW AG. Any differences between statements made for the Group and for EnBW AG are clearly identified in the text. Information on the business model can be found in the section “Business model” (p. 31 ff. [↗]). We have not identified any material individual risks in the 2021 financial year that have a very high probability of a serious negative impact in relation to the relevant non-financial issues.

Further information on the **GRI content index** can be found on our website.

[Online ↗](#)

The reporting of sustainability issues is based on the GRI Standards, including the Electric Utilities Sector Supplement. This report was created in accordance with the GRI Standards “Core” option. An audit will be carried out in the second quarter of 2022 as part of the GRI content index service. Our sustainability reporting also complies with the Communication on Progress requirements for the UN Global Compact and is based to an increasing extent on the UN Sustainable Development Goals [🔗](#). The framework standards and the SDGs have been used as the basis for the non-financial declaration.

Information on the diversity concept can be found in the declaration of corporate management [\(p. 151 ff. ↗\)](#).

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft has audited the consolidated financial statements and the combined management report including the contents of the non-financial declaration with reasonable assurance and has thus carried out a complete audit.

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

EnBW started to implement the recommendations of the TCFD [🔗](#) in 2017. This work has continued in the current financial year and is being continuously developed in each of the four key elements. The index also includes other themes besides these where we are working on the further implementation of the TCFD recommendations.

Task Force on Climate-related Financial Disclosures (TCFD)

TCFD element	Themes	Section	Page reference
Governance	• Corporate management	• Corporate governance	page 49 ↗
	• Materiality analysis	• In dialog with our stakeholders	page 53 ↗
	• Investment guidelines	• Strategy, goals and performance management system	page 47 f. ↗
	• Climate protection initiatives	• The EnBW Group	page 86 ↗
		• In dialog with our stakeholders	page 54 ↗
		• General conditions	page 68 f. ↗
Strategy	• Overall assessment by the management	• Overall assessment of the economic situation of the Group	page 122 ↗
	• Board of Management remuneration	• Corporate governance	page 49 ↗
	• Robustness of business model / scenario analysis	• Business model	page 32 f. ↗
	• Strategy, strategic development	• Strategy, goals and performance management system	page 40 ff. ↗
	• Interdependencies	• Strategy, goals and performance management system	page 47 f. ↗
	• Materiality analysis	• In dialog with our stakeholders	page 53 ↗
Risk management	• Green bonds	• Strategy, goals and performance management system	page 44 ↗
		• The EnBW Group	page 83 f. ↗
	• General conditions, climate protection	• General conditions	page 68 f. ↗
	• Integrated opportunity and risk management including opportunity and risk map	• Report on opportunities and risks	page 128 ff. ↗
	• Environment goal dimension: opportunities and risks	• Report on opportunities and risks	page 132 f. ↗
Performance indicators and targets	• Sustainability ratings	• In dialog with our stakeholders	page 54 f. ↗
	• Key performance indicators and long-term targets	• Strategy, goals and performance management system	page 44 ff. ↗
	• Environment goal dimension: key performance indicators and other performance indicators	• The EnBW Group	page 97 ff. ↗

Key performance indicators for the EU taxonomy

Revenue

EnBW activity	No significant harm to other EU objectives (DNSH)												
	Revenue	Proportion of revenue	Substantial contribution to climate change mitigation	Climate change adaptation	The sustain-able use and protection of water and marine resources	The tran-sition to a circular economy	Pollution prevention and control	The pro-tection and restoration of biodiversi-ty and eco-systems	Minimum social safe-guards	Taxono-my-aligned proportion of revenue 2021	Taxono-my-aligned proportion of revenue 2020	Category enabling activities	Category transitional activities
	in € million	in %	in %	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	in %	in %	E/-	T/-
A. Taxonomy-eligible activities	4,698.4	14.6								14.6	20.3		
A.1 Environmentally sustainable activities (taxonomy-aligned)	4,698.4	14.6								14.6	20.3		
4.1 Electricity generation via photovoltaic technology	31.9	0.1	100	Yes	Yes	Yes	Yes	Yes	Yes	0.1	0.2	–	–
4.3 Electricity generation via wind power	446.8	1.4	100	Yes	Yes	Yes	Yes	Yes	Yes	1.4	3.8	–	–
4.9 Transmission and distribution of electricity	3,096.9	9.6	100	Yes	Yes	Yes	Yes	Yes	Yes	9.6	12.7	–	–
4.10 Storage of electricity ¹	832.5	2.6	100	Yes	Yes	Yes	Yes	Yes	Yes	2.6	2.3	–	–
4.13 Production of biogas and biofuels for the transport sector and liquid biofuels ²	54.8	0.2	100	Yes	Yes	Yes	Yes	Yes	Yes	0.2	0.2	–	–
5.1 Construction, expansion and operation of systems to extract, treat and supply water	197.8	0.6	100	Yes	Yes	Yes	Yes	Yes	Yes	0.6	1	–	–
6.15 Infrastructure for low-carbon road traffic and public transport	37.7	0.1	100	Yes	Yes	Yes	Yes	Yes	Yes	0.1	0.1	–	–
Revenue from environmentally sustainable activities (taxonomy-aligned) (A.1)													
A.2 Taxonomy-eligible activities that are not taxonomy-aligned													
–	–	–	–	–	–	–	–	–	–	–	–	–	–
Revenue from taxonomy-eligible activities that are not taxonomy-aligned (taxonomy non-aligned activities) (A.2)													
Total (A.1 + A.2)	4,698.4	14.6								14.6	20.3		
B. Taxonomy non-eligible activities	27,449.5	85.4								85.4	79.7		
Revenue from non-environmentally sustainable activities (taxonomy-aligned) (B)	27,449.5	85.4								85.4	79.7		
Total (A + B)	32,147.9	100.0								100.0	100		

1 Including 4.5 Electricity generation from hydropower.
2 Including 4.20 Combined heat/cooling and power plants with bioenergy.

Capex

EnBW activity	No significant harm to other EU objectives (DNSH)										Taxonomy-aligned proportion of capex 2020	Category enabling activities	Category transitional activities
	Capex	Proportion of capex	Substantial contribution to climate change mitigation	Climate change adaptation	The sustainable use and protection of water and marine resources	The transition to a circular economy	Pollution prevention and control	The protection and restoration of biodiversity and ecosystems	Minimum social safeguards	Taxonomy-aligned proportion of capex 2021			
	in € million	in %	in %	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	in %	in %	E/-	T/-
A. Taxonomy-eligible activities	1,826.5	68.2								68.2	70.0		
A.1 Environmentally sustainable activities (taxonomy-aligned)	1,826.5	68.2								68.2	70.0		
4.1 Electricity generation via photovoltaic technology	140.1	5.2	100	Yes	Yes	Yes	Yes	Yes	Yes	5.2	3.4	–	–
4.3 Electricity generation via wind power	162.1	6.1	100	Yes	Yes	Yes	Yes	Yes	Yes	6.1	19.2	–	–
4.9 Transmission and distribution of electricity	1,372.1	51.3	100	Yes	Yes	Yes	Yes	Yes	Yes	51.3	41.0	–	–
4.10 Storage of electricity ¹	16.9	0.6	100	Yes	Yes	Yes	Yes	Yes	Yes	0.6	0.7	–	–
4.13 Production of biogas and biofuels for the transport sector and liquid biofuels ²	7.2	0.3	100	Yes	Yes	Yes	Yes	Yes	Yes	0.3	1.7	–	–
5.1 Construction, expansion and operation of systems to extract, treat and supply water	20.9	0.8	100	Yes	Yes	Yes	Yes	Yes	Yes	0.8	0.8	–	–
6.15 Infrastructure for low-carbon road traffic and public transport	107.2	4.0	100	Yes	Yes	Yes	Yes	Yes	Yes	4.0	3.2	–	–
Capex from environmentally sustainable activities (taxonomy-aligned) (A.1)													
A.2 Taxonomy-eligible activities that are not taxonomy-aligned													
–	–	–	–	–	–	–	–	–	–	–	–	–	–
Capex from taxonomy-eligible activities that are not taxonomy-aligned (taxonomy non-aligned activities) (A.2)													
Total (A.1 + A.2)	1,826.5	68.2								68.2	70.0		
B. Taxonomy non-eligible activities	850.5	31.8								31.8	30.0		
Capex from non-environmentally sustainable activities (taxonomy-aligned) (B)	850.5	31.8								31.8	30.0		
Total (A + B)	2,677.0	100.0								100.0	100.0		

1 Including 4.5 Electricity generation from hydropower.
2 Including 4.20 Combined heat/cooling and power plants with bioenergy.

Opex

EnBW activity	No significant harm to other EU objectives (DNSH)										Taxonomy-aligned proportion of opex 2020	Category enabling activities	Category transitional activities
	Opex	Proportion of opex	Substantial contribution to climate change mitigation	Climate change adaptation	The sustain-able use and protection of water and marine resources	The tran-sition to a circular economy	Pollution prevention and control	The pro-tection and restoration of biodiversi-ty and eco-systems	Minimum social safe-guards	Taxono-my-aligned proportion of opex 2021			
	in € million	in %	in %	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	in %	in %	E/-	T/-
A. Taxonomy-eligible activities	335.0	29								29.3	37.1		
A.1 Environmentally sustainable activities (taxonomy-aligned)	335.0	29.3								29.3	37.1		
4.1 Electricity generation via photovoltaic technology	-4.7	-0.4	100	Yes	Yes	Yes	Yes	Yes	Yes	-0.4	-0.1	-	-
4.3 Electricity generation via wind power	78.9	6.9	100	Yes	Yes	Yes	Yes	Yes	Yes	6.9	9.5	-	-
4.9 Transmission and distribution of electricity	223.6	19.6	100	Yes	Yes	Yes	Yes	Yes	Yes	19.6	23.7	-	-
4.10 Storage of electricity ¹	14.2	1.2	100	Yes	Yes	Yes	Yes	Yes	Yes	1.2	1.2	-	-
4.13 Production of biogas and biofuels for the transport sector and liquid biofuels ²	12.6	1.1	100	Yes	Yes	Yes	Yes	Yes	Yes	1.1	1.0	-	-
5.1 Construction, expansion and operation of systems to extract, treat and supply water	14.0	1.2	100	Yes	Yes	Yes	Yes	Yes	Yes	1.2	1.9	-	-
6.15 Infrastructure for low-carbon road traffic and public transport	-3.6	-0.3	100	Yes	Yes	Yes	Yes	Yes	Yes	-0.3	-0.1	-	-
Opex from environmentally sustainable activities (taxonomy-aligned) (A.1)													
A.2 Taxonomy-eligible activities that are not taxonomy-aligned													
-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opex from taxonomy-eligible activities that are not taxonomy-aligned (taxonomy non-aligned activities) (A.2)													
Total (A.1 + A.2)	335.0	29.3								29.3	37.1		
B. Taxonomy non-eligible activities	807.8	70.7								70.7	62.9		
Opex from non-environmentally sustainable activities (taxonomy-aligned) (B)	807.8	70.7								70.7	62.9		
Total (A + B)	1,142.8	100.0								100.0	100.0		

1 Including 4.5 Electricity generation from hydropower.
2 Including 4.20 Combined heat/cooling and power plants with bioenergy.

Adjusted EBITDA

	No significant harm to other EU objectives (DNSH)													
	Adjusted EBITDA	Proportion of adjusted EBITDA	Substantial contribution to climate change mitigation	Climate change adaptation	The sustainable use and protection of water and marine resources	The transition to a circular economy	Pollution prevention and control	The protection and restoration of biodiversity and ecosystems	Minimum social safeguards	Taxonomy-aligned proportion of adjusted EBITDA 2021	Taxonomy-aligned proportion of adjusted EBITDA 2020	Category enabling activities	Category transitional activities	
EnBW activity	in € million	in %	in %	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	in %	in %	E/-	T/-	
A. Taxonomy-eligible activities	1,853.1	62.6								62.6	68.0			
A.1 Environmentally sustainable activities (taxonomy-aligned)	1,853.1	62.6								62.6	68.0			
4.1 Electricity generation via photovoltaic technology	45.0	1.5	100	Yes	Yes	Yes	Yes	Yes	Yes	1.5	1.0	–	–	
4.3 Electricity generation via wind power	609.1	20.6	100	Yes	Yes	Yes	Yes	Yes	Yes	20.6	24.3	–	–	
4.9 Transmission and distribution of electricity	875.0	29.6	100	Yes	Yes	Yes	Yes	Yes	Yes	29.6	35.5	–	–	
4.10 Storage of electricity ¹	301.3	10.2	100	Yes	Yes	Yes	Yes	Yes	Yes	10.2	6.0	–	–	
4.13 Production of biogas and biofuels for the transport sector and liquid biofuels ²	15.3	0.5	100	Yes	Yes	Yes	Yes	Yes	Yes	0.5	0.5	–	–	
5.1 Construction, expansion and operation of systems to extract, treat and supply water	41.8	1.4	100	Yes	Yes	Yes	Yes	Yes	Yes	1.4	1.7	–	–	
6.15 Infrastructure for low-carbon road traffic and public transport	-34.4	-1.2	100	Yes	Yes	Yes	Yes	Yes	Yes	-1.2	-1.0	–	–	
Adjusted EBITDA from environmentally sustainable activities (taxonomy-aligned) (A.1)														
A.2 Taxonomy-eligible activities that are not taxonomy-aligned														
–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Adjusted EBITDA from taxonomy-eligible activities that are not taxonomy-aligned (taxonomy non-aligned activities) (A.2)														
Total [A.1 + A.2]	1,853.1	62.6								62.6	68.0			
B. Taxonomy non-eligible activities	1,106.2	37.4								37.4	32.0			
Adjusted EBITDA from non-environmentally sustainable activities (taxonomy-aligned) (B)	1,106.2	37.4								37.4	32.0			
Total [A + B]	2,959.3	100.0								100.0	100.0			

1 Including 4.5 Electricity generation from hydropower.
2 Including 4.20 Combined heat/cooling and power plants with bioenergy.


Declaration of the legal representatives


We assure to the best of our knowledge that, in accordance with the applicable accounting principles, the annual and consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the company and the Group, and that the combined management report gives a true and fair view of the business development including the result and situation of the company and the Group and also describes the significant opportunities and risks relating to the anticipated development of the company and the Group.

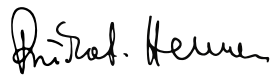
Karlsruhe, 9 March 2022


EnBW Energie Baden-Württemberg AG


Dr. Mastiaux


Güsewell


Kusterer


Rückert-Hennen


Dr. Stamatiopoulos

Declaration of corporate management

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Good corporate governance is an essential part of the corporate culture at EnBW Energie Baden-Württemberg AG (EnBW). We are convinced that responsible and transparent corporate governance strengthens the trust and confidence that customers, capital providers, employees and the general public place in the company, thereby contributing to its long-term success. The Board of Management and Supervisory Board have the responsibility of managing and supervising the company above and beyond merely fulfilling statutory requirements, but to do so in accordance with recognized benchmarks for good corporate governance and in harmony with the principles of a social market economy, guaranteeing the continued existence of the company and ensuring a sustainable increase in its added value.

As the member of the Board of Management responsible for corporate governance, Colette Rückert-Hennen monitors compliance with the German Corporate Governance Code (DCGK) at EnBW and reported extensively to the Board of Management and Supervisory Board on all current themes pertaining to corporate governance. Both boards acknowledged the report from Colette Rückert-Hennen and subsequently approved the company's declaration of compliance, which is reproduced in full at the end of this report.

In this declaration of corporate management, the Supervisory Board and Board of Management report on the corporate governance of the company (corporate governance report) above and beyond the legal requirements according to sections 289f (2) and 315d HGB.

The corporate governance report is based on the new version of the DCGK from 16 December 2019, which was published in the German Federal Gazette on 20 March 2020, because this version of the code was definitive in the reporting period.

Board of Management and Supervisory Board

Close and trusting cooperation for the good of the company is considered an integral part of the EnBW culture by the Board of Management and Supervisory Board.

The Board of Management jointly manages the company on its own responsibility. In the reporting period up to 31 December 2021, the Board of Management comprised four members up to the end of 31 May 2021 and five members from 1 June 2021, of which one held the position of Chairman. The Board of Management is tasked with defining the company goals and developing the strategic orientation of the EnBW Group, agreeing this with the Supervisory Board and implementing it accordingly. In addition, it ensures Group-wide compliance with statutory regulations and internal guidelines, as well as appropriate risk management and risk controlling.

Important aspects of cooperation within the Board of Management are defined in its rules of procedure. These regulate, among other things, the frequency at which the meetings of the Board of Management led by the Chairman are held multiple times a month and stipulates that all important questions relating to the management of the Group and any cross-departmental issues will be addressed at these meetings. Furthermore, the rules of procedure include a rule that resolutions will be taken by the Board of Management on a majority vote basis, whereby the Chairman has the casting vote in the event of a tie.

The **curricula vitae for all members of the Board of Management** can be found on our website.

Online ⁷

The Chairman of the Board of Management in the reporting period was and also currently is Dr. Frank Mastiaux. Further details on the members of the Board of Management and the division of responsibilities can be found in the information provided on [p. 15f.](#)⁷, as well as in the section "Corporate governance" under "Management and supervision" on [p. 49](#)⁷.

The standard retirement age set for members of the Board of Management at EnBW is 63 years old. In the reporting period and also currently, the members of the Board of Management did not and do not hold more than three positions on supervisory boards at non-Group listed companies or on supervisory bodies at non-Group companies that have comparable requirements. As in the past, there were also no known conflicts of interests for the members of the Board of Management in the 2021 financial year. EnBW did not enter into any significant transactions with individuals or companies that are related to a member of the Board of Management in the reporting period.

In the reporting period, the Board of Management discussed the Six-Monthly Financial Report and the quarterly statements with the audit committee of the Supervisory Board before publication.

The Supervisory Board of EnBW is comprised of 20 members, half of which are representatives elected by the shareholders and half by employees. The Chairman of the Supervisory Board is Lutz Feldmann.

The elected employee and shareholder representatives began their term of office at the conclusion of the Annual General Meeting of EnBW on 5 May 2021. The defined term of office for the elected members of the Supervisory Board ends at the conclusion of the Annual General Meeting in 2026.

There was a change to the composition of the Supervisory Board in the reporting period. Edith Sitzmann (shareholder representative) stepped down from her position as a member of the Supervisory Board with effect from 15 September 2021. Dr. Danyal Bayaz was proposed as her replacement by the responsible company NECKARPRI-Beteiligungsgesellschaft mbH and was appointed by the court as a member of the Supervisory Board with effect from 16 September 2021 until the end of the regular election period for his predecessor.

Further details on the Supervisory Board and its composition can be found in the information provided on [p. 281 ff.](#) and [285 f.](#), as well as in the section “Corporate governance” under “Management and supervision” on [p. 50](#).

The key task of the Supervisory Board is to advise and supervise the Board of Management on its management of the company. In general, all members of the Supervisory Board have the same rights and obligations and are not bound by orders or instructions. Important aspects of the cooperation within the Supervisory Board are defined in its rules of procedure. These rules require the Supervisory Board to meet regularly for ordinary meetings, as well as for extraordinary meetings as necessary, that are chaired by the Chairman. The members of the Board of Management generally participate in the meetings, although the Supervisory Board can also convene without the Board of Management if necessary. The Board of Management regularly, comprehensively and promptly informs the Supervisory Board in accordance with the rules of procedure for the Supervisory Board about, in particular, all of the issues listed in section 90 of the German Stock Corporation Act (AktG), all important financial and non-financial performance indicators and the risks faced by the company and the Group and their development, strategy, planning, the accounting process, the effectiveness of the internal control system, risk management and the internal auditing system, compliance and other important matters.

Between the meetings of the Supervisory Board, there is ongoing communication between the Chairman of the Supervisory Board and the Board of Management, particularly with the Chairman of the Board of Management, in order to discuss issues relating to the strategy, planning, business performance, risk situation, risk management and compliance within the company. He is immediately informed about important events that are material for the assessment of the situation, development and management of the company by the Chairman of the Board of Management. If necessary, the Chairman of the Supervisory Board then reports to the Supervisory Board and may also convene an extraordinary meeting.

In addition, the rules of procedure for the Supervisory Board also define business activities and measures that may only be carried out by the Board of Management with the approval of the Supervisory Board. Furthermore, resolutions are also passed by the Supervisory Board on a majority vote basis, whereby the Chairman of the Supervisory Board has the casting vote in the event of a tie in accordance with the Articles of Association of EnBW. If ordered by the Chairman of the Supervisory Board, resolutions can also be passed outside of meetings, if this is not opposed by a majority of the members of the Supervisory Board. The Supervisory Board provided detailed information on its main activities and the contents of its discussions in the 2021 financial year in its report to the Annual General Meeting. The rules of procedure for the Supervisory Board are not published on the Internet.

Another important task of the Supervisory Board is to appoint and, if necessary, dismiss the members of the Board of Management. In this context, the Supervisory Board works together with

The **report to the Annual General Meeting** is accessible to the general public [here](#).

Online [↗](#)

the Board of Management to ensure appropriate long-term succession planning for the Board of Management. This is the task of the personnel committee. It consults regularly and in close communication with the Chairman of the Board of Management on issues relating to the up-to-dateness and further development of the Board of Management structure, the division of responsibilities and ensuring the Board of Management remits can be filled after the end of the term of office, taking into account the current terms of office. In advance of any decision to appoint a new member of the Board of Management, a requirement profile is developed in good time as necessary and a comprehensive selection process is usually carried out with the aid of specialist support.

In order to improve the efficiency of its work and to handle complex issues, the Supervisory Board has formed specialist committees:

- **Nomination committee:** Dr. Danyal Bayaz, Dr. Dietrich Birk, Lutz Feldmann (Chairman), Dr. Wolf-Rüdiger Michel, Gunda Röstel, Lothar Wölfle
- **Audit committee:** Stefanie Bürkle, Michaela Kräutter, Thomas Landsbek, Dr. Hubert Lienhard, Dr. Wolf-Rüdiger Michel, Gunda Röstel (Chairwoman), Jürgen Schäfer, Ulrike Weindel
- **Personnel committee:** Dr. Danyal Bayaz, Achim Binder, Stefan Paul Hamm, Dietrich Herd, Lutz Feldmann (Chairman), Lothar Wölfle
- **Finance and investment committee:** Dr. Danyal Bayaz, Achim Binder, Dr. Dietrich Birk, Lutz Feldmann (Chairman), Stefan Paul Hamm, Dietrich Herd, Lothar Wölfle, Dr. Bernd-Michael Zinow
- **Mediation committee** (pursuant to section 27 (3) German Co-determination Act (MitbestG)): Dr. Danyal Bayaz, Lutz Feldmann (Chairman), Dietrich Herd, Jürgen Umlauf
- **Digitalization committee** (since 1 January 2019): Dr. Hubert Lienhard (Chairman), Marika Lulay, Dr. Nadine Müller, Jürgen Schäfer, Harald Sievers, Ulrike Weindel
- **Ad hoc committee:** Dietrich Herd, Gunda Röstel, Harald Sievers, Dr. Bernd-Michael Zinow (Chairman)

In accordance with DCGK, the nomination committee is exclusively comprised of shareholder representatives and proposes suitable candidates to the Supervisory Board for election as members of the Supervisory Board at the Annual General Meeting.

The audit committee is responsible, in particular, for monitoring accounting, the accounting process, the effectiveness of the internal control system, the risk management system, the internal auditing system, the audit and compliance. It presents a justified recommendation for the appointment of the auditor to the Supervisory Board, which includes at least two candidates if the company intends to issue an invitation to tender for the audit mandate. The audit committee monitors the independence of the auditor and is also responsible for supervising the additional services provided by the auditor, the award of the audit mandate to the auditor, the definition of areas of focus for the audit, monitoring the quality of the audit and negotiating the auditor's fees with the auditor.

The Chairwoman of the audit committee, Gunda Röstel, is independent and is not a former member of the Board of Management of EnBW. As the long-standing Commercial Director of Stadtentwässerung Dresden GmbH and Authorized Officer of Gelsenwasser AG, she possesses special expertise and experience in the application of accounting principles and internal control processes. She has gained even more experience in her position as the Chairwoman of the audit committee over the last few years, and is familiar with the audit process. As a long-standing chief executive and member of management boards at various companies, Dr. Hubert Lienhard also has special expertise and experience in the application of accounting principles and internal control processes, and is familiar with the audit process.

The full version of the **Report of the Supervisory Board** is published [here](#).

Online [↗](#)

The roles of the other committees of the Supervisory Board and their specific activities in the past financial year are described in the Report of the Supervisory Board for the 2021 financial year.

The chairpersons of the committees report on the work carried out in their committees at the latest at the next plenary meeting of the Supervisory Board. No separate rules of procedure exist for the Supervisory Board committees; they are subject to the rules of procedure for the Supervisory Board and all relevant procedural rules contained therein.

The Supervisory Board has set specific objectives for its composition that take into account the company's situation and has developed a competency profile for the entire Supervisory Board,

whereby the special rules defined in the German Co-determination Act and associated legislation were and are taken into account for employee representatives. The primary aim is to guarantee that the members collectively possess the knowledge, skills and specialist experience required to properly perform their functions.

The objectives for the composition of the Supervisory Board that are currently valid and were valid during the entire reporting period appropriately take into account the international activities of the company, potential conflicts of interest, an appropriate number of independent members in the estimation of the Supervisory Board, age limits for members of the Supervisory Board, a maximum time limit for the period of service on the Supervisory Board and diversity, whereby the special rules defined in the German Co-determination Act and associated legislation were and are taken into account for employee representatives.

In the past reporting year, the Supervisory Board also examined the independence criteria defined in the German Stock Corporation Act and the DCGK. The Supervisory Board came to the conclusion that these criteria have – as in the past – been satisfied and that it comprised and still comprises a sufficient number of independent members and reflects the shareholder structure, whereby it is of the opinion that all shareholder representatives on the Supervisory Board are independent in the sense of the DCGK and this proportion of members is appropriate. Refer to the overview on [p. 281 f.](#)⁷ for the names of the members of the Supervisory Board elected by the shareholders. Alongside the successfully achieved objective of continuing to ensure a majority of independent members, the Supervisory Board will also take care to avoid any conflicts of interest in future.

The Supervisory Board does not believe that it is necessary to define quantitative objectives with respect to internationality due to the structure and business activities of the company.

Competency profile of the Supervisory Board



The rules of procedure for the Supervisory Board stipulate that candidates proposed to the Annual General Meeting for the election of shareholder representatives as members on the Supervisory Board should generally not be older than 70 at the time of the election. This general age limit was exceeded in the reporting period by Dr. Hubert Lienhard. However, there are no doubts surrounding the suitability of Dr. Hubert Lienhard as a member of the Supervisory Board. On the contrary, the membership of Dr. Hubert Lienhard on the Supervisory Board also clearly serves the interests of the company. As the Supervisory Board is aware that exceptions may be desirable because long-term members of the Supervisory Board bring long-standing knowledge and experience to the board, it has ultimately defined a maximum time limit for the period of service on the Supervisory Board of three full election periods, which was not reached or exceeded during the reporting period or currently by any member of the Supervisory Board.

The Supervisory Board has not defined any further diversity targets beyond the legal regulations that apply to the company for the minimum proportion of women and men and the previously described objectives for its composition.

The competency profile of the Supervisory Board stipulates that the eight fields of competency shown in the diagram must be covered to an appropriate extent by the members of the Supervisory Board in its entirety.

The Supervisory Board possesses the knowledge and skills required to perform its functions. The objectives for its composition were fully taken into account by the Supervisory Board during the reporting period with respect to its composition and the coverage of its competency profile. In its future proposals to the Annual General Meeting for the election of members, the Supervisory Board will continue to take into account the objectives for its composition and will strive to ensure that the competency profile continues to be covered by the Supervisory Board in its entirety.

The **curricula vitae for all members of the Supervisory Board** can be found on our website.

[Online ↗](#)

The curricula vitae for all members of the Supervisory Board have been published on the company website and provide information on the relevant knowledge, skills and experience of the members and have been supplemented by an overview of their main activities in addition to their position on the Supervisory Board. These curricula vitae are updated on an annual basis for all members of the Supervisory Board.

The members of the Supervisory Board are all able to dedicate the expected amount of time required for their activities on the Supervisory Board. The Supervisory Board will also ensure for its future proposals to the Annual General Meeting for the election of new members of the Supervisory Board that all candidates are able to dedicate the expected amount of time required for their activities on the Supervisory Board. In the 2021 financial year, all members of the Supervisory Board participated in more than half of the meetings of the Supervisory Board and the majority of the members of the Supervisory Board participated in more than half of the meetings of the committees on which the member serves; this was also noted in the Report of the Supervisory Board to the Annual General Meeting. Participation via telephone and videoconference is also valid, although this form of participation was not a normal occurrence for any member of the Supervisory Board in accordance with the suggestion in the DCGK, except for those meetings of the Supervisory Board in which all members participated via an electronic form of communication. In the reporting period, some meetings of the Supervisory Board and also some meetings of its committees were held in digital form, i.e., via telephone and videoconferences, in order to comply with the contact restrictions imposed due to the coronavirus pandemic.

In its proposals made to the Annual General Meeting for the forthcoming re-election of members, the Supervisory Board will also disclose the personal and business relationships of each candidate with the company, the company's corporate bodies and with shareholders holding a major interest in the company, whereby this information will be limited to information that the Supervisory Board considers material in order for a shareholder to cast their vote objectively.

No former members of the Board of Management of EnBW were members of the Supervisory Board during the reporting period nor are they currently members. The members of the Supervisory Board also did not perform any advisory or board functions for important competitors of EnBW during the reporting period nor do they currently.

Every member of the Supervisory Board is bound to act in the interests of the company. In making decisions, members may not pursue personal interests or take advantage of business opportunities intended for the company. Conflicts of interest, particularly those that could arise due to advisory or board functions for customers, suppliers, lenders or other third parties, must be disclosed to the Supervisory Board. In such cases, the Supervisory Board will disclose any conflicts of interest that have arisen and how they were handled in its report to the Annual General Meeting. Any material conflict of interest relating to a member of the Supervisory Board that is not merely of a temporary nature will result in the termination of their position. Advisory and other service agreements and contracts for work between a member of the Supervisory Board and EnBW require the approval of the Supervisory Board. In the reporting period, there were no conflicts of interest involving members of the Supervisory Board.

The Supervisory Board regularly assesses how effectively the Supervisory Board as a whole and its committees are performing their duties (self-assessment). In the reporting period, the Supervisory Board carried out a self-assessment at its meeting on 30 September 2021. To prepare for the review, the members of the Supervisory Board completed a comprehensive questionnaire on content-related and organizational themes as in previous years, and discussed, among other things, the results of the questionnaires in detail. In addition, the implementation of the findings drawn from the efficiency review from the previous year were examined.

The members of the Supervisory Board are responsible for participating in any necessary basic and further training measures required for their tasks and are supported appropriately and as necessary by the company in this area. This not only includes providing them with regular information on themes and developments related to the current situation of the company with respect to legal issues, the energy industry, financial industry or other relevant aspects, as well as other subjects relevant to the work on the Supervisory Board, but also comprises corresponding on-site appointments and events. In 2021, an e-learning platform from an external service provider designed for

supervisory boards was used. In addition, information was provided on the legal changes due to the law for the implementation of the second shareholder rights directive ("ARUG II") coming into force, the reform of the DCGK and its content, and the German Act to Strengthen Financial Market Integrity (FISG) and the resulting requirements for listed companies. Furthermore, the Supervisory Board took part in a training course on the issue of entrepreneurial activities of members of supervisory boards that are subject to VAT. At an external meeting in Berlin, the members of the Supervisory Board also received detailed information on the challenges, opportunities and risks faced in the realization of major projects in the area of renewable energy during a tour of the EnBW solar park Weesow-Willmersdorf. Dr. Danyal Bayaz, who was newly appointed as a member of the Supervisory Board from 16 September 2021, received documentation on all of the important rules relating to the work of the Supervisory Board that are relevant to him when he assumed his new position.

In accordance with the suggestion in the DCGK, the Chairman of the Supervisory Board is prepared to enter into discussions with investors on specific issues relating to the Supervisory Board. Discussions of this type were not held in the reporting period.

The actions of the Board of Management and the Supervisory Board are governed by statutory regulations and internal Group guidelines (compliance). The Board of Management also reported continuously on compliance issues in the 2021 financial year and discussed them in detail with the Supervisory Board and the audit committee of the Supervisory Board. More detailed information on this area will be provided in the "Compliance" section below. Information on the relevant corporate governance practices that go above and beyond the legal requirements and the recommendations and suggestions in the DCGK will also be given there.

Further information – above and beyond that provided above – on the procedures of the Board of Management and Supervisory Board and their committees, as well as on corporate governance practices, can be found in the section "Corporate governance" under "Management and supervision" on [p. 49 f.](#), in the "Report of the Supervisory Board" on [p. 11 ff.](#) and in articles 7 to 13 and 19 of the Articles of Association.

The **Articles of Association** are accessible to the general public [here](#).

[Online ↗](#)

Diversity

The Supervisory Board has decided that all of the statutory and self-defined regulations for its composition (objectives for the composition, competency profile, legal targets for the proportion of women, age limit, maximum time limit for the period of service, see here the information above in the section "Board of Management and the Supervisory Board" on [p. 152 ff.](#)) will form the diversity concept in the sense of section 289f (2) no. 6 HGB. The primary goal of this concept is to ensure that the Supervisory Board can properly perform its tasks and is helped in this process by the diversity of its composition. This concept is implemented through the election of shareholder representatives by the Annual General Meeting. In the reporting period, the objectives defined in the concept were achieved.

The proportion of women on the Supervisory Board in its entirety continuously stood at 30% or more. This figure is calculated from the proportion of women among the shareholder representatives, which was initially 40% and has been 30% since September, and the proportion of women among the employee representatives of 30%. The proportion of women on the Supervisory Board of EnBW in its entirety of 30% is in line with the minimum statutory requirement of 30%. The shareholder and employee representatives resolved before the last election of members to the Supervisory Board to veto the overall fulfillment of this statutory minimum proportion by the shareholder and employee representatives combined in accordance with section 96 (2) sentence 3 AktG for the length of the current election period, so that the minimum proportion in accordance with the legal requirements must be fulfilled by both sides. This should make it possible to better plan the composition of the Supervisory Board.

In terms of the composition of the Board of Management, the Supervisory Board also takes diversity into account when appointing new members of the Board of Management, while acknowledging the limited number of members of the Board of Management. Therefore, it has resolved that the standard age limit for the Board of Management defined by the Supervisory Board together with the target for the proportion of women will form the diversity concept in the sense of section 289f (2) no. 6 HGB. The primary goal of this concept is to ensure that the Board of Management can properly

perform its tasks and is strengthened here by the diversity of its composition. This concept is implemented through the appointment of members of the Board of Management by the Supervisory Board. In the reporting year, the objectives defined in the concept were achieved.

For the period from 1 July 2017 until 30 June 2022, the Supervisory Board set the target of one woman on the Board of Management that should be achieved at least by the end of this defined time period. This target was and has been met since the start of the term of office of Colette Rückert-Hennen on 1 March 2019.

The Board of Management has set the goal of further increasing the proportion of women at both management levels below the Board of Management in the period from 1 January 2021 to 31 December 2025. At both the first level (top management) and second level (upper management), the proportion of women should increase to at least 20%. These targets were not yet achieved in the reporting period in top management. Although there were the same number of women in top management, the proportion of women changed from 8.7% in the previous year to 7.7% in the reporting period. In upper management, the proportion of women increased from 14.5% in the previous year to 21.3% in the reporting period, which was due to the appointment of more women to positions in upper management. We will continue to develop measures based on the HR strategy to achieve the set targets.

Shareholders and Annual General Meeting

The shareholders of EnBW exercise their rights at the Annual General Meeting, including their right to vote. Prior to the Annual General Meeting, EnBW publishes the agenda and all of the relevant reports and documents that shareholders may require to evaluate it. These include the current annual report for the last completed financial year, which is available in an easily accessible format on the Internet. Any counter motions to items on the agenda of the Annual General Meeting received by the specified deadline are also made publicly available on the website.

Our shareholders have the opportunity to use a proxy appointed by the company if they are not able to personally attend the Annual General Meeting.

In accordance with section 1 (1) and (2) of the German law on COVID-19 measures, the ordinary Annual General Meeting 2021 took place in purely virtual form without the physical presence of shareholders or their proxies. Images and audio of the Annual General Meeting were broadcast online via a password-protected Investor Portal. In addition, the Annual General Meeting was broadcast live on the Internet as it was in the last few years until the end of the speech by the Chairman of the Board of Management.

Compliance

Compliance as an expression of all measures required for the observance of statutory regulations and internal guidelines is regarded as an essential management and supervisory task at EnBW. Since 2009, the compliance department has established a Group-wide compliance organization and defined the necessary rules and processes. The compliance department is responsible for the prevention, detection and sanctioning of corruption, the prevention of violations against competition and antitrust laws and the prevention of money laundering. Due to organizational changes, the area of data protection has been the responsibility of the newly created legal department for markets, data protection and digital business models since 1 August 2021.

The regular in-person training events – which were replaced by online training events in the reporting year – cover the latest compliance and data protection issues. One of the main focuses of the compliance activities is conveying a compliance culture. Providing advice and completing regular risk assessments are also part of the compliance activities. In cooperation with the internal audit department, control measures to ensure compliance with internal guidelines are implemented. The selective internationalization of EnBW is being accompanied by the compliance and data protection departments.

All **documents for the Annual General Meeting** are accessible to the general public on our website.

Online [↗](#)

The most important compliance functions for the Group are represented on the compliance committee. The compliance department uses this body to coordinate the Group-wide compliance activities. Implementation of the centrally defined compliance measures in the decentralized units is controlled through the compliance forum, which is comprised of compliance officers from the most important Group companies and business units.

Preventative compliance measures are defined using a Group-wide compliance risk assessment on an annual basis as part of the compliance and data protection program of EnBW. These include communication and training measures, the introduction and development of rules and processes, central management of guidelines and business partner auditing. The compliance culture is an aspect taken into account in all of the compliance activities. In particular, training measures are not only designed to convey knowledge but also to reinforce attitudes among employees for compliance-conforming activities, so that they can make their own contribution to the avoidance of compliance breaches.

Internal and external whistleblowers can report compliance breaches and suspected cases to the compliance department or an ombudsman for EnBW as an external contact. The ombudsman can guarantee whistleblowers absolute confidentiality and anonymity with respect to EnBW. Reported compliance breaches and suspected cases are then handled by the compliance committee task force using a standardized process. The Head of Compliance reports on the status of the implementation of measures and on current compliance breaches to the Board of Management and audit committee of the Supervisory Board every quarter. An annual report is prepared for the Supervisory Board.

The compliance management system (CMS) is continuously updated and examined.

Remuneration of the Board of Management and the Supervisory Board

The remuneration of the Board of Management and the Supervisory Board are each presented in a detailed remuneration report. This can be found in a separate report on the company website. We refer you to this report at this point. The system of variable remuneration for the Board of Management that was resolved by the Supervisory Board in 2020 and approved by the Annual General Meeting on 5 May 2021 is described in detail in the remuneration report for the Board of Management. The documents described above that have to be made accessible according to sections 289f and 315d HGB are publicly available for download on the EnBW website. This declaration of corporate management is also publicly available there.

Transparency

EnBW ensures the transparency stipulated in the DCGK at all times by keeping shareholders, the capital market, financial analysts, shareholder associations and the interested public up to date on material business changes at the company. In order to provide consistent information in good time to all interested groups, the company mainly relies on the Internet.

In particular, EnBW provides information on its business situation in the Integrated Annual Report, interim financial information, the press conference on the annual results, telephone conferences for investors and analysts to accompany the publication of quarterly and annual results and at other events such as investor conferences. The corresponding documents are publicly available on the EnBW website. The financial calendar also published on our website provides adequate notice of the publication dates for the Integrated Annual Reports and interim financial information, as well as the date of the Annual General Meeting, the press conference for the annual results and investor conferences.

If specific information on a matter relating to EnBW or the shares and bonds issued by EnBW which is not public knowledge should become available outside the regular reporting framework that could significantly influence the stock prices of these securities, we announce this insider information in the form of ad hoc notifications. In the 2021 financial year, ad-hoc notifications were published on 25 June 2021 and 15 July 2021.

The **remuneration report** is available as a separate report **together with other documents** on our website.

[Online ↗](#)

Information on the business situation of EnBW is made available to the public on our website.

[Online ↗](#)

The **financial calendar** can be found here.

[Online ↗](#)

In the 2021 financial year, EnBW did not receive any notices about transactions involving EnBW shares, EnBW bonds, emission allowances or related financial instruments concerning persons in managerial positions or those persons closely related to them. There were also no securities subject to disclosure requirements held by any members of the Board of Management or the Supervisory Board.

Financial reporting and the audit

Financial reporting at EnBW is carried out in accordance with the International Financial Reporting Standards (IFRS). The Annual General Meeting on 5 May 2021 elected Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart, as auditor of the financial statements and the consolidated financial statements for the 2021 financial year and as auditor for the review of the condensed financial statements and interim management report contained in the Six-Monthly Financial Report, as well as for all reviews of additional interim financial information in the sense of section 115 (7) of the German Securities Trading Act (WpHG) in the 2021 financial year. At the same time, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft was elected as the auditor for the review of all additional interim financial information in the sense of section 115 (7) WpHG in the 2022 financial year, insofar as such a review is carried out before the next Annual General Meeting.

The Board of Management discussed the interim financial information with the audit committee before its publication. The consolidated financial statements for the 2021 financial year were made available to the public within 90 days of the end of the financial year and the Quarterly Statements and the Six-Monthly Financial Report for the 2021 financial year were made available within 45 days after the end of the relevant reporting period.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft was commissioned by the audit committee and its chairman to perform the audit. The audit committee ensured in advance of the Annual General Meeting that there was no doubt concerning the independence of the auditing firm to be commissioned and received a declaration of independence before submitting the proposal for the appointment of the auditor. This declaration also included the scope to which other services, especially in the consultancy sector, were provided to EnBW in the past financial year or have been contractually agreed for the following financial year. The agreement with the auditor stipulates that the auditing committee must be informed immediately about any grounds for exclusion or conflicts of interest that arise during the audit unless such grounds could be immediately eliminated. In addition, it was also agreed that the auditor would immediately inform the audit committee on all facts and events significant to the tasks of the Supervisory Board which come to the attention of the auditor during the performance of the audit and that the auditor would inform the Supervisory Board or make a corresponding note in the audit report if facts were uncovered during the performance of the audit that demonstrate that the declaration of compliance issued by the Board of Management and Supervisory Board in accordance with section 161 AktG is incorrect.

The audit committee and its chairman also commissioned Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft to audit the non-financial declaration published for the reporting period.

EnBW did not have any share option programs or similar securities-based incentive systems for the company in the reporting period nor does it currently have such programs or systems.

Declaration of compliance

In accordance with section 161 AktG, the Board of Management and the Supervisory Board of EnBW Energie Baden-Württemberg AG declared on 8 December 2021 that: Since the last declaration of compliance on 10 December 2020, EnBW Energie Baden-Württemberg AG has complied and will comply in full with the recommendations of the Government Commission for the German Corporate Governance Code in the version published in the German Federal Gazette on 16 December 2019 with the exception of the following deviations:

Publication of the rules of procedure of the Supervisory Board (Recommendation D.1 DCGK)

The procedures of the Supervisory Board and the composition and procedures of the committees of the Supervisory Board are described in detail in the declaration of corporate management according to section 289f (2) no. 3 HGB, which is published on an annual basis. In addition, the annual, written Report of the Supervisory Board according to section 171 AktG reports in detail on the work of the Supervisory Board and its committees. Against this background, the Board of Management and Supervisory Board do not consider it expedient to also publish the rules of procedure of the Supervisory Board as they contain details on the rules at a technical level that will not provide any information of additional value to shareholders, which is why the recommendation in D.1 of the Code is not followed.

Disclosure of the composition of a peer group to assess the total remuneration of the members of the Board of Management (Recommendation G.3 sentence 1 DCGK)

A horizontal comparison as proposed by the recommendation in G.3 of the Code would result in considerable administrative burden with respect to the procurement and evaluation of data, especially as the composition of a specific peer group would constantly be subject to change. A horizontal comparison would thus be associated with considerable costs on a regular basis due to the commissioning of external consulting services.

Therefore, it is preferable to not always automatically carry out a specific peer group comparison each time remuneration is defined or examined, even if a horizontal comparison per se or a specific peer group comparison are generally expedient, and thus to continue only carrying out this process from time to time.

Should a horizontal comparison be carried out from time to time based on a company-specific peer group comparison, the Board of Management and Supervisory Board believe that it is not expedient to publish the composition of the peer group because the composition of the peer group may allow conclusions to be drawn about the strategic considerations of the Supervisory Board which should not be accessible to competitors. In the interests of the company, the recommendation in G.3 sentence 1 of the Code is, therefore, not followed.

Comprehensibility of the target achievement for members of the Board of Management (Recommendation G.9 sentence 2 DCGK)

The law for the implementation of the second shareholder rights directive ("ARUG II") introduced a new remuneration report in section 162 AktG that contains detailed information on the remuneration of the members of the Board of Management. Publication of any further information on the minimum, target and maximum values for the individual performance indicators that are defined annually by the Supervisory Board for the remuneration of the Board of Management would reveal sensitive company information about strategic targets. This information should not be accessible to competitors, which is why in the interests of the company the recommendation in G.9 sentence 2 of the Code is not followed.

Granting of variable remuneration to the Board of Management in company shares (Recommendation G.10 sentence 1 DCGK)

Section G.10 of the Code recommends that the variable remuneration for members of the Board of Management should be predominantly invested in company shares or granted as share-based remuneration. Based on the fact that only 0.39% of the share capital of EnBW Energie Baden-Württemberg AG is in free float and the EnBW share is thus a narrow-market security with reduced liquidity on the stock exchange, it is not expedient to implement this recommendation at the company. Therefore, the recommendation in G.10 sentence 1 of the Code is not followed.

Accessibility of the long-term variable remuneration components for members of the Board of Management (Recommendation G.10 sentence 2 DCGK)

In its recommendation in G.10 sentence 2, the Code proposes that the measurement period for the long-term variable remuneration components for members of the Board of Management is extended to four years. The intention behind this rule is to create greater incentive for sustainable business activities. The long-term variable remuneration components for members of the Board of Management of EnBW Energie Baden-Württemberg AG are based on a three-year measurement period. For the Board of Management and Supervisory Board, it is not clear why – and the Commission has not given any further justification as to why – a four-year period should create a greater incentive for sustainable business activities or why, for any other reason, a four-year period should be more advantageous in comparison to a three-year period.

Due to the fact that the three-year period applied up to now has proven successful in the last few years and an extension is not considered expedient, the recommendation in G.10 sentence 2 of the Code is not followed.”

This declaration of compliance and the declarations from previous years are published here.

[Online ↗](#)

The declaration was also published separately. This page also includes a link to the download center where all of the declarations of compliance of EnBW published since 2002 have been made available.

Karlsruhe, 22 March 2022

EnBW Energie Baden-Württemberg AG

On behalf of the Board of Management

Colette Rückert-Hennen

On behalf of the Supervisory Board

Lutz Feldmann

Financial statements of the EnBW Group

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Income statement

in € million	Notes	2021	2020	Change in %
Revenue including electricity and energy taxes		32,695.0	20,210.4	61.8
Electricity and energy taxes		-547.1	-516.1	6.0
Revenue	(1)	32,147.9	19,694.3	63.2
Changes in inventories		56.6	39.8	42.2
Other own work capitalized		220.3	205.3	7.3
Other operating income ¹	(2)	2,256.1	1,100.6	105.0
Cost of materials ¹	(3)	-25,951.0	-14,280.9	81.7
Personnel expenses	(4)	-2,457.5	-2,178.7	12.8
Impairment losses ²	(25)	-53.4	-69.2	-22.8
Other operating expenses	(5)	-3,415.5	-1,847.9	84.8
EBITDA		2,803.5	2,663.3	5.3
Amortization and depreciation	(6)	-2,644.7	-1,560.6	69.5
Earnings before interest and taxes (EBIT)		158.8	1,102.7	-85.6
Investment result	(7)	180.0	206.9	-13.0
of which net profit/loss from entities accounted for using the equity method		(59.0)	(95.4)	(-38.2)
of which other profit/loss from investments		(121.0)	(111.5)	(8.5)
Financial result	(8)	174.5	-307.0	-
of which finance income		(661.1)	(409.2)	(61.6)
of which finance costs		(-486.6)	(-716.2)	(-32.1)
Earnings before tax (EBT)		513.3	1,002.6	-48.8
Income tax	(9)	-72.1	-195.0	-63.0
Group net profit		441.2	807.6	-45.4
of which profit/loss shares attributable to non-controlling interests		(78.0)	(211.5)	(-63.1)
of which profit/loss shares attributable to the shareholders of EnBW AG		(363.2)	(596.1)	(-39.1)
EnBW AG shares outstanding (million), weighted average		270.855	270.855	0.0
Earnings per share from Group net profit (€) ³	(24)	1.34	2.20	-39.1

¹ The figures for the previous year have been restated.

² According to IFRS 9.

³ Diluted and basic; in relation to profit/loss attributable to the shareholders of EnBW AG.

Statement of comprehensive income

in € million ¹	Notes	2021	2020	Change in %
Group net profit		441.2	807.6	-45.4
Revaluation of pensions and similar obligations	(20)	645.1	-599.0	-
Entities accounted for using the equity method	(13)	1.0	-1.0	-
Income taxes on other comprehensive income	(9)	-268.9	175.2	-
Total of other comprehensive income and expenses without future reclassifications impacting earnings		377.2	-424.8	-
Currency translation differences		86.1	-40.2	-
Cash flow hedge	(25)	438.7	11.9	-
Financial assets at fair value in equity	(14)	-31.7	22.6	-
Entities accounted for using the equity method	(13)	1.8	-1.8	-
Income taxes on other comprehensive income	(9)	-101.3	-10.2	-
Total of other comprehensive income and expenses with future reclassifications impacting earnings		393.6	-17.7	-
Total other comprehensive income		770.8	-442.5	-
Total comprehensive income		1,212.0	365.1	-
of which profit/loss shares attributable to non-controlling interests		(221.4)	(203.7)	8.7
of which profit/loss shares attributable to the shareholders of EnBW AG		(990.6)	(161.4)	-

1 Further information is available in the notes under (19) "Equity."

Balance sheet

in € million	Notes	31/12/2021	31/12/2020
Assets			
Non-current assets			
Intangible assets	(10)	3,417.0	3,498.5
Property, plant and equipment	(11), (12)	20,364.4	19,990.9
Entities accounted for using the equity method	(13)	1,017.9	968.9
Other financial assets	(14)	6,744.3	6,185.2
Trade receivables	(15)	330.2	331.7
Other non-current assets	(16)	2,243.5	964.8
Deferred taxes	(21)	1,115.2	1,344.7
		35,232.5	33,284.7
Current assets			
Inventories		2,290.3	1,151.1
Financial assets	(17)	1,174.1	759.5
Trade receivables	(15)	5,952.5	4,836.7
Other current assets	(16)	19,916.7	4,645.3
Cash and cash equivalents	(18)	6,653.1	1,252.7
		35,986.7	12,645.3
Assets held for sale	(23)	54.0	35.0
		36,040.7	12,680.3
		71,273.2	45,965.0
Equity and liabilities			
Equity	(19)		
Shares of the shareholders of EnBW AG			
Subscribed capital		708.1	708.1
Capital reserve		774.2	774.2
Revenue reserves		5,742.1	5,629.7
Treasury shares		-204.1	-204.1
Other comprehensive income		-2,372.9	-3,000.3
		4,647.4	3,907.6
Non-controlling interests		3,851.9	3,861.2
		8,499.3	7,768.8
Non-current liabilities			
Provisions	(20)	14,089.5	14,803.4
Deferred taxes	(21)	1,018.3	916.0
Financial liabilities	(22)	9,182.5	8,120.1
Other liabilities and subsidies	(22)	4,240.7	2,607.7
		28,531.0	26,447.2
Current liabilities			
Provisions	(20)	2,676.5	1,479.6
Financial liabilities	(22)	2,067.9	1,493.1
Trade payables	(22)	6,475.8	4,053.1
Other liabilities and subsidies	(22)	23,022.7	4,718.9
		34,242.9	11,744.7
Liabilities directly associated with assets classified as held for sale	(23)	0.0	4.3
		34,242.9	11,749.0
		71,273.2	45,965.0

Cash flow statement

in € million ¹

	Notes	2021	2020
1. Operating activities			
Group net profit		441.2	807.6
Income tax	(9)	72.1	195.0
Investment and financial result	(7), (8)	-354.5	100.1
Amortization and depreciation	(6)	2,644.7	1,560.6
EBITDA		2,803.5	2,663.3
Changes in provisions	(20)	-103.9	-553.3
Result from disposals of assets	(2), (5)	5.8	-2.4
Other non-cash-relevant expenses/income	(2), (3), (5)	-402.1	-23.7
Change in assets and liabilities from operating activities		5,495.1	-718.0
Inventories		(867.6)	(157.2)
Net balance of trade receivables and payables	(15), (22)	(1,246.7)	(-970.2)
Net balance of other assets and liabilities	(16), (22)	(3,380.8)	(95.0)
Income tax paid	(9), (16), (22)	-200.6	-207.8
Cash flow from operating activities		7,597.8	1,158.1
2. Investing activities			
Capital expenditure on intangible assets and property, plant and equipment	(10), (11)	-2,361.9	-2,178.1
Disposals of intangible assets and property, plant and equipment	(10), (11)	73.1	245.5
Cash received from subsidies for construction cost and investments	(22)	94.8	116.5
Acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations ²	(13)	-287.0	-126.5
Sale of subsidiaries, entities accounted for using the equity method and interests in joint operations	(13)	0.9	-39.6
Cash paid for investments in other financial assets	(14), (17)	-1,404.8	-1,409.9
Cash received from the sale of other financial assets	(14), (17)	620.5	1,167.1
Cash received/paid for investments in connection with short-term finance planning	(17), (22)	47.3	-18.0
Interest received	(8)	148.7	95.4
Dividends received	(7)	209.3	169.1
Cash flow from investing activities		-2,859.1	-1,978.5
3. Financing activities			
Interest paid	(8)	-314.5	-236.1
Dividends paid	(19)	-547.2	-389.1
Cash received for changes in ownership interest without loss of control	(19)	229.1	207.8
Cash paid for changes in ownership interest without loss of control		-5.1	-0.1
Increase in financial liabilities	(22)	3,523.5	3,697.7
Repayment of financial liabilities	(22)	-2,025.7	-2,510.6
Repayment of lease liabilities	(22)	-185.4	-160.1
Cash received for capital increases in non-controlling interests	(19)	11.5	144.7
Payments for capital reductions in non-controlling interests	(19)	-86.1	-72.3
Cash flow from financing activities		600.1	681.9
Net change in cash and cash equivalents	(18)	5,338.8	-138.5
Change in cash and cash equivalents due to changes in the consolidated companies	(18)	29.0	38.7
Net foreign exchange difference	(18)	32.4	-11.4
Change in cash and cash equivalents due to risk provisions	(18)	0.1	0.1
Change in cash and cash equivalents	(18)	5,400.4	-111.1
Cash and cash equivalents at the beginning of the period	(18)	1,252.7	1,363.8
Cash and cash equivalents at the end of the period	(18)	6,653.1	1,252.7

¹ Further information is available in the notes under (32) "Notes to the cash flow statement."

² Includes payments related to bids for offshore wind rights. These will only lead to a change in the consolidated companies at a later date.

Statement of changes in equity

in € million ¹

Notes	Other comprehensive income										Total
	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	
As of 01/01/2020	1,482.3	5,234.5	-204.1	-2,503.5	8.5	-81.6	13.0	-2.0	3,947.1	3,498.0	7,445.1
Total other comprehensive income				-419.4	-32.2	3.1	16.5	-2.7	-434.7	-7.8	-442.5
Group net profit		596.1							596.1	211.5	807.6
Total comprehensive income	0.0	596.1	0.0	-419.4	-32.2	3.1	16.5	-2.7	161.4	203.7	365.1
Dividends		-189.6							-189.6	-180.9	-370.5
Other changes ³		-11.3							-11.3	340.4	329.1
As of 31/12/2020	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
Other changes ³		20.1							20.1	27.5	47.6
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

¹ Further information is available in the notes under (19) "Equity."

² Of which subscribed capital €708.1 million (31/12/2020: €708.1 million, 01/01/2020: €708.1 million) and capital reserve €774.2 million (31/12/2020: €774.2 million, 01/01/2020: €774.2 million).

³ Of which changes in revenue reserves and non-controlling interests due to changes in ownership interest in subsidiaries without loss of control of €20.1 million and €90.0 million, respectively (previous year: €-11.3 million and €1.7 million, respectively). The change in non-controlling interests in the previous year was mainly attributable to first-time consolidation of a company previously accounted for using the equity method.

Notes to the 2021 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 financial statements for issue on 9 March 2022.

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 that 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 are not controlled due to their participation structure and as such no significant influence is exercised over them, 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	31/12/2021	31/12/2020
Fully consolidated companies	231	217
Entities accounted for using the equity method	25	22
Joint operations	3	3

Changes in the consolidated companies

Of the companies included in the consolidated financial statements by way of full consolidation, 10 (previous year: 21) domestic companies and 11 (previous year: 15) foreign companies were consolidated for the first time in the reporting year. A total of 0 (previous year: 2) domestic companies and 3 (previous year: 4) foreign companies were deconsolidated. Gains and losses on deconsolidation were immaterial in both the reporting year and the previous year. In addition, 1 (previous year: 3) domestic company and 3 (previous year: 2) foreign companies were merged.

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

First-time full consolidation of affiliated entities 2020

Full consolidation of Gas-Union

In order to strengthen its gas business, EnBW via its subsidiary VNG AG acquired 100% of the shares in the traditionally integrated gas midstream company Gas-Union GmbH, Frankfurt am Main, from Mainova AG, Frankfurt am Main, RGE Holding GmbH, Düsseldorf, Kraftwerke Mainz-Wiesbaden AG, Mainz, Städtische Werke AG, Kassel, Stadtwerke Göttingen AG, Göttingen, Energie- und Wasserversorgung Mittleres Ruhrgebiet GmbH, Bochum, and Stadtwerke Essen AG, Essen, on 30 September 2020. Gas-Union was fully consolidated in the EnBW consolidated financial statements from this point in time.

The fair value of the shares in Gas-Union at the time of full consolidation was €106.4 million. There were no significant incidental acquisition costs incurred as part of the transaction. The purchase price was paid in cash and cash equivalents. Goodwill represents, in particular, synergies in the sales area and is not deductible for tax purposes.

Following its full consolidation, Gas-Union contributed €497.5 million to revenues and €-7.5 million to earnings after taxes in the 2020 financial year. If Gas-Union had been fully consolidated since the beginning of the year, Group revenue would have increased by €1,492.5 million to €21,186.8 million, and earnings after income taxes would have decreased by €22.5 million to €785.1 million.

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

in € million	Fair value
Intangible assets	3.4
Property, plant and equipment	73.2
Other non-current assets	319.1
Cash and cash equivalents	21.5
Other current assets	315.7
Assets held for sale	94.4
Total assets	827.3
Non-current liabilities	286.5
Current liabilities	340.2
Liabilities directly associated with assets classified as held for sale	94.4
Total liabilities	721.1
Net assets	106.2
Fair value of the shares	106.4
Goodwill	0.2

The fair value of the trade receivables acquired as part of the business combination stood at €139.4 million. There were no material individual impairment losses. The total amount of the trade receivables was largely collected so that the gross value corresponded to the fair value of the trade receivables.

Full consolidation without a change in shareholding due to obtaining control in 2020

Full consolidation of EnBW Albatros

As the requirement for unanimity in the Annual General Meeting of shareholders ended with the commissioning of the wind farm, EnBW has now obtained control of EnBW Albatros GmbH & Co. KG, Hamburg, in which it holds a 50.11% shareholding. The other shareholder is a subsidiary of the Canadian energy infrastructure company Enbridge Inc., Calgary. EnBW Albatros has been fully consolidated in the EnBW consolidated financial statements since 1 January 2020. EnBW Albatros is an offshore wind farm in the North Sea consisting of 16 wind turbines with a total output of 112 MW. EnBW had previously reported the shares in EnBW Albatros in the consolidated financial statements as a joint venture using the equity method due to the lack of control as a result of a requirement for unanimity in the Annual General Meeting of shareholders during the construction phase.

The fair value of the shares held by EnBW in EnBW Albatros at the time of full consolidation was €255.5 million. As the disposal of the EnBW Albatros shares accounted for using the equity method was worth €213.4 million, there was income of €42.1 million, which was reported in the investment result. The value of the non-controlling interest was calculated pro rata based on the identifiable net assets of EnBW Albatros and stood at €253.6 million.

Following its full consolidation, EnBW Albatros contributed €65.4 million to revenues and €39.8 million to earnings after income taxes in the 2020 financial year.

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

in € million	Fair value
Intangible assets	184.4
Property, plant and equipment	350.3
Cash and cash equivalents	21.6
Other current assets	12.2
Total assets	568.5
Non-current liabilities	34.6
Current liabilities	24.8
Total liabilities	59.4
Net assets	509.1
Non-controlling interests	253.6
Net assets attributable to the shareholders of EnBW AG	255.5
Fair value of the shares	255.5

The fair value of the trade receivables acquired as part of the business combination stood at €12.0 million. There were no material individual impairment losses. The total amount of the trade receivables was largely collected so that the gross value corresponded to the fair value of the trade receivables.

Disposal of fully consolidated companies in 2020

Sale of interest in Pegasus Energie

Gas-Union GmbH, Frankfurt am Main, sold 100% of the shares in Pegasus Energie GmbH, Frankfurt am Main, to MET Holding AG, Zug, Switzerland, on 29 December 2020. Pegasus Energie GmbH was the business unit of Gas-Union active in the storage business. The transaction did not have any significant effect on earnings.

Changes in accounting policies

First-time adoption of amended accounting standards

The IASB and IFRIC have adopted the following new standards, amendments to existing standards and interpretations:

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 IFRS 4	Extension of the Temporary Exemption from Applying IFRS 9	1/1/2021	No material impact.
Amendments to IFRS 16	Covid-19-Related Rent Concessions beyond 30 June 2020	1/1/2021	No material impact.
Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16	Interest Rate Benchmark Reform – Phase 2	1/1/2021	The effects are described following this table.

In the second phase of the project to reform interest rate benchmarks (IBOR reform), the IASB examined the impacts on financial reporting of the reform of interest rate benchmarks, as well as the impact on reporting that replacing the interest rate benchmarks with alternative interest rates may have.

The amendments to the stated standards include practical expedients for, among other things, accounting for changes to contractual cash flows for financial assets and financial liabilities (IFRS 9) and lease liabilities (IFRS 16) required by the IBOR reform. Other expedients focus on the application of hedge accounting, whereby there is to be special relief from having to discontinue hedging relationships directly affected by the IBOR reform. In addition, the amendments to IFRS 7 require additional disclosures to be made about the effects and possible risks of the IBOR reform.

In the reporting period, the EnBW Group adjusted all necessary processes and contracts in accordance with the IBOR reform. The adjustments were mainly related to the European benchmark rate EURIBOR, whose reform has already been implemented.

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

Effects of new accounting standards that are not yet mandatory

The IASB and 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	1/1/2023	No material impact.
Amendments to IAS 1	Disclosure of Accounting Policies	1/1/2023	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 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.
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.
Collective standard for the amendment of various IFRS	Improvements to the IFRS Cycle 2018–2020	1/1/2022	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, water rights and the underlying concessions are amortized over 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 that 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 1.9% (previous year: 2.3%). Borrowing costs totaling €24.1 million were capitalized in the current financial year (previous year: €19.4 million).

Leases

A lease according to IFRS 16 is an agreement that conveys the right to use an asset for a period of time in exchange for the payment of a consideration. 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 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 underlying assumptions also take into account climate-related effects to an appropriate extent.

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

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

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

The recoverable amount of these cash-generating units or groups of cash-generating units is tested for impairment at least once a year. An additional test is performed whenever there is any indication that the carrying amount may not be recoverable.

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.

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

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 relate to contracts with customers. 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 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. 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. Climate risks in particular are generally taken into account in the respective investment processes.

Impairment of financial assets

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. In stage 1, risk provisions for expected credit losses over the next twelve months are calculated (12-month PD). If the default risk has increased significantly, the expected loss over the whole lifetime is calculated in stages 2 and 3 (lifetime ECL). For financial assets in the “measured at 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 (risk provision stage 1). If there has been significant deterioration in the borrower’s credit rating, the calculation horizon is extended to cover the lifetime of the receivable (risk provision stage 2). If the credit rating has deteriorated so much as to 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.

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

In the case of trade receivables, the simplified approach for determining impairments according to IFRS 9 is used irrespective of their term. Accordingly, the expected loss over the whole lifetime is always used for the risk provision. The expected loss rates are calculated based on historical defaults for each customer group. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors that could have an impact on the payment 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.

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 of €2,290.3 million (previous year: €1,151.1 million) were disclosed in the balance sheet, of which €556.7 million (previous year: €437.8 million) was for materials and supplies and the largest share of €1,543.2 million (previous year: €501.0 million) was for finished goods and merchandise. This rise was due to the increase in merchandise as a result of the significant price increases on the energy trading markets.

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 that 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.

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.

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 29.4% was applied for German Group companies (as in the previous year). Tax assets and tax liabilities are netted with each other by consolidated tax group or entity if the conditions to do so have been satisfied.

Financial liabilities

Financial liabilities are recorded at fair value upon initial recognition. After initial recognition, they are measured at 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.

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 include 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 under IFRS 9 are measured at fair value. Both the counterparty’s credit default risk and that of the company itself are taken into account in the calculation of fair value. Default risk with respect to an individual counterparty is calculated on the basis of the net risk positions. 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 that 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 (25) "Accounting for financial instruments." The economic relationship between the hedging instrument and the hedged transaction, as well as the evaluation of the expected effectiveness of the hedge, are documented at the beginning. Primary and derivative financial instruments will be netted in the balance sheet if an unconditional right to offset exists, or when there is an intention to offset or 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

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.

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

Exercise of judgment and estimates when applying accounting policies

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 2021 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.

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

Please refer to note (20) "Provisions" for more information on **provisions**.

The legislative requirements with respect to climate protection have also tightened further following the decision issued by the German Federal Constitutional Court (BVG) on climate change on 24 March 2021 and the presentation of the EU Green Deal by the EU Commission. In the second quarter, EnBW thus revised its expectations with respect to energy industry conditions and the medium and long-term price trends in the relevant procurement and sales markets. This had an impact on the valuation of the power plants and increased the impending losses from long-term electricity procurement agreements. Please refer to the section "Amortization and depreciation" for more detailed information. The exercise of judgment and estimates when assessing the impact of climate change are explained in the section "Disclosures on climate change."

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.

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:

Group of consolidated companies: Judgment must be exercised when including companies in the consolidated companies for the EnBW Group.

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 also take into account climate-related effects. 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 also take into account climate-related effects. 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.

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

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

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

Acquisition accounting: For acquisition accounting purposes, all identifiable assets, liabilities and contingent liabilities acquired in a share purchase are 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, and 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.

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 an 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 surpluses of cash and cash equivalents 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.

Disclosures on climate change

EnBW is transforming itself from an integrated energy supply company into a sustainable and innovative infrastructure partner. Sustainability is an important element of our business model and is also important for its consistent development. As an energy company, EnBW can make a particularly effective contribution to climate protection. The Group aspires to halve its greenhouse gas emissions by 2030 and become climate neutral with respect to own emissions (Scope 1 and 2) by the end of 2035 at the latest. EnBW's approach to achieving climate neutrality by 2035, in relation to electricity generation and supply of heating, is in harmony with the requirements and targets of the Paris Agreement.

In view of the growing importance of climate-related risks, EnBW's strategic considerations take into account the special requirements of the Energiewende and the profound changes that will take place due to the transformation towards climate neutrality and the effects they will have on all business sectors and private households. We place a particular focus on the expansion of renewable energies, electricity consumption, the expansion of the grids, grid stability and the security of supply. In this context, we examine in particular 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 realistic future scenarios that take into account all of the different aspects of the Energiewende. These scenarios are primarily characterized by two dimensions: climate protection and the sustainable economic growth that is achievable in the long term.

Scenarios 1 and 2 assume "normal" economic growth within the scope of so-called potential growth. In the first scenario, the climate targets defined in the EU Green Deal are fully achieved. In the second scenario, it is assumed that it will not be possible to comprehensively solve the practical challenges associated with the implementation of the Energiewende. 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. 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. 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.

The EnBW consolidated financial statements as of 31 December 2021 were prepared taking into consideration the opportunities and risks related to 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.

For further information, please refer to the details given in the following sections:

- Significant accounting policies
- Exercise of judgment and estimates when applying accounting policies
- Amortization and depreciation
- Intangible assets
- Additional disclosures on capital management

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 into 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	
	31/12/2021	31/12/2020	2021	2020
Swiss franc	1.03	1.08	1.08	1.07
Pound sterling	0.84	0.90	0.86	0.89
US dollar	1.13	1.23	1.18	1.14
Czech koruna	24.86	26.24	25.65	26.45
Japanese yen	130.38	126.49	129.85	121.78
Danish krone	7.44	7.44	7.44	7.45
Polish zloty	4.60	4.56	4.56	4.44
Swedish krona	10.25	10.03	10.15	10.49

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 2021 financial year, the net energy trading revenue amounted to €136,941.7 million (previous year: €24,752.0 million).

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

in € million	2021	2020
Revenue from contracts with customers	31,777.0	19,399.6
Other revenue	370.9	294.7
Total	32,147.9	19,694.3

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

External revenue by region

2021 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Genera- tion Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by region	13,990.8	4,043.7	13,734.8	7.7	31,777.0
Germany	(12,129.4)	(3,883.2)	(10,709.7)	(7.7)	(26,730.0)
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	7.4	363.5	0.0	0.0	370.9
Total	13,998.2	4,407.2	13,734.8	7.7	32,147.9

External revenue by region

2020 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Genera- tion Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by region	9,958.5	3,369.2	6,063.8	8.1	19,399.6
Germany	(8,695.2)	(3,209.0)	(4,169.2)	(8.1)	(16,081.5)
European currency zone excluding Germany	(86.2)	(4.1)	(1,752.3)	(0.0)	(1,842.6)
Rest of Europe	(1,176.1)	(156.1)	(142.3)	(0.0)	(1,474.5)
Rest of world	(1.0)	(0.0)	(0.0)	(0.0)	(1.0)
Other revenue	6.4	288.3	0.0	0.0	294.7
Total	9,964.9	3,657.5	6,063.8	8.1	19,694.3

External revenue by product

2021 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Genera- tion Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by product	13,990.8	4,043.7	13,734.8	7.7	31,777.0
Electricity	(5,812.7)	(2,698.8)	(6,400.7)	(0.0)	(14,912.2)
Gas	(7,360.2)	(695.6)	(6,854.6)	(0.0)	(14,910.4)
Energy and environmental services/ other	(817.9)	(649.3)	(479.5)	(7.7)	(1,954.4)
Other revenue	7.4	363.5	0.0	0.0	370.9
Total	13,998.2	4,407.2	13,734.8	7.7	32,147.9

External revenue by product

2020 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Genera- tion Infrastructure	Other/ Consolidation	Total
Revenue from contracts with customers by product	9,958.5	3,369.2	6,063.8	8.1	19,399.6
Electricity	(5,090.9)	(2,141.0)	(3,328.1)	(0.0)	(10,560.0)
Gas	(4,282.6)	(602.9)	(2,194.0)	(0.0)	(7,079.5)
Energy and environmental services/ other	(585.0)	(625.3)	(541.7)	(8.1)	(1,760.1)
Other revenue	6.4	288.3	0.0	0.0	294.7
Total	9,964.9	3,657.5	6,063.8	8.1	19,694.3

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

The most important services are described below:

Electricity and gas deliveries: The revenues primarily result from the transfer of electricity and gas to customers. For contracts where no fixed purchase volume has been agreed, the performance obligation consists in particular of providing energy and the possibility of accessing it at all times. As the customer uses these services while they are being rendered, the revenue is 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, the performance obligation consists of transferring the energy volumes and the revenue is thus recognized when control over the energy is transferred. In the case of customer groups who pay according to rolling annual statements, the transaction price is calculated based on past consumption values while taking into account the current temperature influences and time of year. Discounts or bonus payments are taken into account as variable considerations against revenue from the beginning of the contract. If individual contracts include the transfer of assets as an additional performance obligation, the revenue for these assets is 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, 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 2021 is €12,297.3 million (previous year: €8,501.4 million). Most of these performance obligations will be fulfilled as expected within the next five years. Revenues for performance obligations totaling €3,730.4 million (previous year: €2,718.4 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 2021, contract liabilities amounted to €986.5 million (previous year: €956.6 million). From the contract liabilities contained in the opening balance of €956.6 million (previous year: €932.0 million), €73.2 million (previous year: €68.4 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 [25] "Accounting for financial instruments" for the development of receivables connected to customer contracts.

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. In the reporting period, revenues of €358.0 million (previous year: €265.0 million) were recognized for performance obligations that were fulfilled either fully or partially in preceding periods.

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

Commission paid to intermediaries and sales employees for concluding contracts is capitalized as additional costs for obtaining the contracts. As of 31 December 2021, the total assets that are recognized from the costs for the conclusion of customer contracts amounted to €26.6 million (previous year: €33.5 million). These costs primarily comprise commission paid to sales offices when customers are successfully acquired for EnBW. In 2021, the amount of amortization was €20.3 million (previous year: €20.5 million). 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.

Additional 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. An adjustment to the transaction price to take account of a significant financing component is not required because no contracts have been concluded where the time period between the transfer of the promised good or service to the customer and the payment by the customer exceeds one year.

(2) Other operating income

in € million	2021	2020
Income from derivatives	1,491.5	536.3
Income from the reversals of provisions	256.5	204.4
Income from reversals of impairment losses on non-financial assets	96.4	16.9
Income from disposals of assets	17.3	27.7
Rent and lease income	17.3	17.5
Miscellaneous ¹	377.1	297.8
Total ¹	2,256.1	1,100.6

¹ The figures for the previous year have been restated.

Income from derivatives increased mainly due to valuation effects.

The reversals of impairment losses in the current financial 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 and was calculated on the basis of the fair value less costs to sell. This corresponds to Level 3 of the IFRS 13 fair value hierarchy. Using a business valuation model, the fair value was derived from the cash flow planning, based on the medium-term planning approved by the Board of Management and valid as of the date of the impairment test, as well as on assumptions about the future expansion of the grid and the regulatory framework conditions. These plans were based on past experience and on estimates concerning future regulatory developments. 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.

The increase in miscellaneous other operating income was primarily due to a settlement payment from the German federal government. In addition, there was higher income from currency exchange rate gains in the reporting year of €37.6 million (previous year: €16.5 million). Miscellaneous other operating income also includes income from the reversal of accruals.

(3) Cost of materials

in € million	2021	2020
Cost of materials and supplies and of purchased merchandise ¹	22,460.7	11,247.0
Cost of purchased services	3,490.2	3,033.9
Total ¹	25,950.9	14,280.9

¹ The figures for the previous year have been restated.

Cost of materials and supplies and of purchased merchandise comprises, in particular, electricity and gas procurement costs, including increases in provisions for onerous contracts for electricity procurement agreements. In addition, it includes the necessary 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 CO₂ allowances and income realized for the first time from the rolling procurement of emission allowances of €790.3 million are also disclosed net under this item. Net disclosure better represents the economic substance of the transaction. The figure for the previous year has been restated.

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	2021	2020
Wages and salaries	1,942.7	1,723.6
Social security	193.8	167.9
Expenses for post-employment benefits	321.0	287.2
Total	2,457.5	2,178.7

Employees in continuing operations as an annual average

Number	2021	2020
Smart Infrastructure for Customers	4,986	4,663
System Critical Infrastructure	10,259	9,573
Sustainable Generation Infrastructure	7,072	7,012
Other	2,889	2,769
Employees	25,206	24,017
Apprentices and trainees including DH students in the Group	1,109	1,015

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	2021	2020
Expenses from derivatives	1,991.7	588.5
Administrative and selling costs and other overheads	507.3	438.0
Audit, legal and consulting fees	140.6	140.6
Rent and lease expenses	87.1	80.9
Advertising expenses	78.6	81.6
Insurance	78.5	63.0
Other personnel expenses	75.0	77.8
Dues and levies	44.9	31.2
Other taxes	32.4	63.1
Costs from disposals of assets	23.2	25.3
Miscellaneous	356.2	257.9
Total	3,415.5	1,847.9

The increase in other operating expenses was mainly attributable to higher expenses from derivatives due to valuation effects.

Miscellaneous other operating expenses mainly increased due to increased costs for CO₂ allowances. In addition, miscellaneous other operating expenses contain, among other things, expenses from currency exchange rate losses amounting to €30.1 million (previous year: €28.1 million) and expenses for provisions.

(6) Amortization and depreciation

in € million	2021	2020
Amortization of intangible assets	296.1	172.2
Depreciation of property, plant and equipment	2,177.2	1,241.9
Depreciation of investment properties	0.7	0.6
Depreciation of right-of-use assets from leases	171.9	146.7
Reversals of investment cost subsidies	-1.3	-0.9
Total	2,644.6	1,560.5

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

The impairment losses on intangible assets and property, plant and equipment were €1,088.3 million (previous year: €170.9 million), of which €117.8 million (previous year: €3.0 million) were on intangible assets and €970.5 million (previous year: €167.9 million) on property, plant and equipment.

At the beginning of the current financial year, the former cash-generating unit conventional power plants was split into two cash-generating units. Nuclear generation has now been separated from the other types of conventional generation due to the planned decommissioning of our last nuclear block GKN II at the end of 2022.

In the current financial 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 is around €-0.3 billion. It was necessary to reduce our medium and long-term expectations for future cash inflows in the area of conventional generation due to tighter requirements with respect to climate protection and stricter climate legislation. 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. Alongside a change in the expected market conditions, these impairments were also necessary due to new findings with respect to offshore wind conditions and the fact that the power plants will have fewer and fewer operating years with EEG funding in the future. The recoverable amounts are around €3.2 billion.

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. This impairment was also due to changes in market conditions.

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. Using business valuation models, the fair value is derived from the cash flow planning, based on, among other things, the medium-term planning approved by the Board of Management and valid as of the date of the impairment test as well as long-term market expectations beyond the detailed planning horizon. These plans are based on past experience and on estimates concerning future market development.

The discount rates used in the valuations were between 3.0% and 5.7% after tax and between 4.4% and 8.1% before tax (previous year: between 3.1% and 5.3% after tax and between 4.3% and 7.6% before tax).

In the previous year, impairments mainly comprised impairment losses on a gas grid in the System Critical Infrastructure segment and an offshore wind farm in the Sustainable Generation Infrastructure segment. The recoverable amount was calculated on the basis of the fair value less costs to sell and corresponded to Level 3 of the IFRS 13 fair value hierarchy. The fair value was generally derived using the same method as in the current year, while the valuation parameters were also derived correspondingly. The discount rates used in the valuations were between 2.6% and 5.1%. The main reason for the impairment of the gas grid was an amendment to the network user charge notice, while the valuation of the fair value of the offshore wind farm was impacted by the fact that it will have fewer and fewer operating years with EEG funding in the future due to its advancing age. The fair value calculated for the gas grid was around €0.3 billion, while the fair value for the offshore wind farm was around €1.0 billion.

(7) Investment result

in € million	2021	2020
Share of profit/loss of entities accounted for using the equity method	56.3	24.6
Write-downs on entities accounted for using the equity method	-2.1	-2.1
Write-ups of entities accounted for using the equity method	4.8	72.8
Net profit/loss from entities accounted for using the equity method	59.0	95.3
Result from investments	173.4	86.6
Write-downs on investments	-61.7	-36.2
Write-ups of investments	0.3	0.0
Result from the sale of equity investments	9.0	61.2
Other profit/loss from investments	121.0	111.6
Investment result (+ income/- expense)	180.0	206.9

Other profit/loss from investments contains income of €12.4 million (previous year: €7.1 million expense) from the market valuation of the “measured at fair value through profit or loss” measurement category.

As in the previous year, 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. All of the recoverable amounts correspond to Level 3 of the IFRS 13 fair value hierarchy. Using a business valuation model, the fair value was derived using future cash flows, which were based on the medium and long-term planning that was valid as of the date of the impairment test. The discount rates used in the valuation were between 2.4% and 5.3% after tax and 3.3% and 7.2% before tax (previous year: 2.9% and 5.3% after tax and 4.1% and 7.5% before tax). The expense is allocated to the Sustainable Generation Infrastructure segment in the segment reporting.

In the previous year, write-ups of entities accounted for using the equity method primarily related to the joint venture in Turkey. The reason for the increase in value was the commissioning of two large wind farms. The recoverable amount of around €180 million corresponded to Level 3 of the IFRS 13 fair value hierarchy and was calculated on the basis of the fair value less costs to sell. Using a business valuation model, the fair value was derived using future cash flows, which were based on the medium and long-term planning that was valid as of the date of the impairment test. The discount rates used in the valuation were between 9.7% and 10.5% after tax and 12.4% and 13.4% before tax. The income was allocated to the Sustainable Generation Infrastructure segment in the segment reporting.

The result from the sale of equity investments in the previous year was primarily attributable to the revaluation of the shares in EnBW Albatros which has no longer been accounted for using the equity method since 2020 but is instead fully consolidated.

(8) Financial result

in € million	2021	2020
Interest and similar income	115.9	148.6
Other finance income	545.2	260.6
Finance income	661.1	409.2
Borrowing costs	-253.8	-241.6
Other interest and similar expenses	-12.1	-67.0
Interest portion of increases in liabilities	-65.9	-98.9
Personnel provisions	(-61.0)	(-81.7)
Provisions relating to nuclear power	(0.0)	(-6.8)
Other non-current provisions	(-3.9)	(-1.5)
Other liabilities	(-0.9)	(-8.9)
Other finance costs	-154.7	-308.7
Finance costs	-486.5	-716.2
Financial result (+ income/- costs)	174.6	-307.0

Interest and similar income contains, among other things, interest income from interest-bearing securities and loans, dividends and shares in profits. In the 2021 financial year, interest income of €8.4 million (previous year: €12.1 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 €460.9 million (previous year: €233.6 million). The main reason for this increase was the continued positive development on the stock markets and their alternatives.

Borrowing costs are composed as follows:

in € million	2021	2020
Expenses incurred for bank interest and bonds	195.1	201.4
Interest portion of lease liabilities	14.3	13.9
Other borrowing costs	44.4	26.3
Borrowing costs	253.8	241.6

The interest portion of increases in liabilities relates mainly to the annual accretion of the non-current provisions. The discount rate for the remaining nuclear provisions held by EnBW of 0,00% was not adjusted (previous year: 0.03% to 0,00%).

In the reporting period, other finance costs mainly included costs from the “measured at fair value through profit or loss” measurement category of €111.9 million (previous year: €249.4 million). In addition, they also contained market price losses on the sale of securities amounting to €9.5 million (previous year: €6.4 million). Impairment losses on loans of €1.4 million (previous year: €2.3 million) were recognized in the reporting period.

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

Total interest income and expenses

in € million	2021	2020
Total interest income	80.9	45.6
Total interest expenses	-215.9	-221.6

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 €52.9 million (previous year: €33.9 million) and the interest income from the “measured at fair value in equity” measurement category of €28.0 million (previous year: €11.7 million). In the reporting period, the interest expenses for the financial assets measured at amortized cost totaling €215.9 million (previous year: €221.6 million) were incurred in particular on bonds, bank liabilities and lease liabilities, as in the previous year.

(9) Income tax

in € million	2021	2020
Actual income tax		
Domestic corporate income tax	45.1	85.4
Domestic trade tax	55.7	86.6
Foreign income taxes	37.6	30.4
Total (- income/+ expense)	138.4	202.4
Deferred taxes		
Germany	-64.2	-2.7
Abroad	-2.1	-4.7
Total (-income/+expense)	-66.3	-7.4
Income tax (- income/+ expense)	72.1	195.0

The actual income tax amounting to €138.4 million (previous year: €202.4 million) concerns income tax expenses from the current financial year of €136.6 million (previous year: €160.2 million) and income tax expenses for past periods of €1.8 million (previous year: €42.2 million).

Deferred tax income of €66.3 million (previous year: €7.4 million) consists of deferred tax income from the current financial year of €63.6 million (previous year: €25.4 million expense) and deferred tax income for past periods of €2.7 million (previous year: €32.8 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.

As in the previous year, the corporate income tax rate was 15.0% plus a solidarity surcharge of 5.5% of the corporate income tax. The trade tax rate was 13.6% as in the previous year. This represents a tax rate on income of 29.4% (as in the previous year). For the foreign entities, the tax rate applicable in the country in which they are based of between 19.0% and 25.8% (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	2021	2020
Origination or reversal of temporary differences	36.7	4.4
Origination of carryforwards of unused tax losses	-109.1	-18.6
Utilization of carryforwards of unused tax losses	6.1	5.7
Correction of carryforwards of tax losses unused in previous years	0.0	1.1
Deferred taxes (- income/+ expense)	-66.3	-7.4

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

in € million	2021	in %	2020	in %
Earnings before tax	513.3		1,002.6	
Expected tax rate		29.4		29.4
Expected income tax (- income/+ expense)	150.9		294.8	
Tax effects				
Differences in foreign tax rates and tax rate differences	(-48.6)	(-9.5)	(-35.5)	(-3.5)
Tax-free income	(-124.0)	(-24.2)	(-104.7)	(-10.4)
Non-deductible expenses	(115.4)	(22.5)	(79.7)	(7.9)
Depreciation of losses on goodwill	(6.6)	(1.3)	(0.0)	(0.0)
Add-backs and reductions for trade tax purposes	(-29.1)	(-5.7)	(13.6)	(1.4)
Accounting for joint ventures and associates using the equity method	(-16.3)	(-3.2)	(-27.0)	(-2.7)
Adjustment/valuation/non-recognition of carryforwards of unused tax losses and temporary differences	(32.6)	(6.4)	(-17.6)	(-1.8)
Zero-rated disposals of investments	(-14.5)	(-2.8)	(-18.0)	(-1.8)
Taxes relating to other periods	(-0.9)	(-0.2)	(9.4)	(0.9)
Other	(0.0)	(0.0)	(0.3)	(0.0)
Current income tax (- income/+ expense)	72.1		195.0	
Current tax rate		14.0		19.4

(10) Intangible assets

in € million	Concessions, industrial property rights and similar rights and assets	Internally generated intangible assets	Goodwill	Other	Total
Cost					
As of 01/01/2021	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

in € million	Concessions, industrial property rights and similar rights and assets	Internally generated intangible assets	Goodwill	Other	Total
Cost					
As of 01/01/2020	3,273.3	128.9	1,323.7	30.6	4,756.5
Increase/decrease due to changes in the consolidated companies	192.0	0.2	14.8	0.0	207.0
Additions	66.7	22.1	0.0	43.5	132.3
Reclassifications	23.7	0.5	0.0	-22.2	2.0
Currency adjustments	-5.5	0.0	-8.6	0.0	-14.1
Disposals	-58.8	-48.8	-0.1	-0.8	-108.5
As of 31/12/2020	3,491.4	102.9	1,329.8	51.1	4,975.2
Accumulated amortization					
As of 01/01/2020	1,256.1	104.9	48.0	0.0	1,409.0
Additions	156.8	12.5	0.0	0.0	169.3
Reclassifications	0.8	-0.3	0.0	0.0	0.5
Currency adjustments	-3.3	0.0	0.0	0.0	-3.3
Disposals	-52.4	-48.6	0.0	0.0	-101.0
Impairment	3.0	0.0	0.0	0.0	3.0
Reversal of impairment losses	-0.9	0.0	0.0	0.0	-0.9
As of 31/12/2020	1,360.1	68.5	48.0	0.0	1,476.6
Carrying amounts					
As of 31/12/2020	2,131.3	34.4	1,281.8	51.1	3,498.6

The carrying amount of the intangible assets includes concessions to operate power plants amounting to €1,449.9 million (previous year: €1,593.1 million) and customer relationships amounting to €83.8 million (previous year: €91.9 million).

In the 2021 financial year, a total of €38.6 million (previous year: €33.5 million) was spent on research and development. The method used to calculate expenditure on research and development was adjusted in the reporting year. EnBW innovation management was no longer included in the figures because the gradual growth in revenues and the funds deployed in this area are distorting the presentation of expenditure on research and development. Adjusted for this change, expenditure on research and development increased by 15% in the 2021 financial year (previous year restated: €33.5 million). The criteria for recognition under IFRS were not satisfied.

Please refer to note [34] "Segment reporting" for information on the restructuring of the segments.

As part of the restructuring of the segments, goodwill was reallocated as of 1 January 2021. There was no need for impairments to goodwill as a result. The following table shows the goodwill before and after this reallocation.

As of 31 December 2021, goodwill totaled €1.3 billion (previous year: €1.3 billion). Of this figure, 82.0% (previous year: 81.6%) is attributable to the cash-generating units or groups of cash-generating units presented in the table below:

Cash-generating units/groups of cash-generating units

	Discount rates after tax in %		Goodwill in € million	
	2021	2020	2021	2020
PRE subgroup		3.4 – 6.3		262.1
PRE Sustainable Generation Infrastructure	3.3		40.1	
PRE System Critical Infrastructure	3.0		194.4	
PRE Smart Infrastructure for Customers	6.5		42.2	
Electricity sales and distribution		2.5 – 5.3		131.7
Netze BW GmbH	2.3		87.9	
ZEAG Energie AG System Critical Infrastructure	2.3		36.6	
ZEAG Energie AG Smart Infrastructure for Customers	5.7		7.2	
Stadtwerke Düsseldorf AG subgroup		2.5 – 5.3		127.4
Stadtwerke Düsseldorf AG Sustainable Generation Infrastructure	2.1 – 5.4		63.2	
Stadtwerke Düsseldorf AG System Critical Infrastructure	2.3		54.1	
Stadtwerke Düsseldorf AG Smart Infrastructure for Customers	5.7		10.0	
Energiedienst Holding AG subgroup		2.5 – 5.3		147.1
Energiedienst Holding AG Sustainable Generation Infrastructure	2.3 – 5.7		83.7	
Energiedienst Holding AG System Critical Infrastructure	2.3		49.3	
Energiedienst Holding AG Smart Infrastructure for Customers	5.7		14.1	
ONTRAS Gastransport GmbH	2.3	2.5	127.2	127.2
Valeco subgroup	2.4 – 5.3	3.3 – 5.2	250.5	250.5

The goodwill allocated to the other cash-generating units or groups of cash-generating units accounted for less than 6.0% (previous year: 6.1%) of total goodwill in each case. Its aggregate total was €233.2 million (previous year: €235.9 million).

For the purpose of impairment testing, goodwill was allocated to the respective cash-generating units (CGU) or groups of cash-generating units (CGU). The carrying amount of the CGU is compared with the recoverable amount as part of impairment testing. The recoverable amount is the higher of the two values of the fair value less costs to sell of the CGU and its value in use. In the EnBW Group, the recoverable amount of the CGU is initially calculated on the basis of the fair value less costs to sell and corresponds to Level 3 of the IFRS 13 fair value hierarchy. The value in use is also

calculated if necessary. Using a business valuation model, the fair value is derived from cash flow planning, based on the medium-term planning approved by the Board of Management for a period of three years and valid as of the date of the impairment test. The plans are based on past experience and on estimates concerning future market development. In justified, exceptional cases it is based on a longer detailed planning period, provided that this is necessitated by commercial or regulatory requirements.

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

The interest rates used for discounting the cash flows are calculated on the basis of market data and are between 2.3% and 6.5% after tax, or between 3.3% and 8.0% before tax (previous year: 2.5% to 6.3% after tax, and 3.6% to 7.7% before tax).

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.

In the 2021 financial year, there were impairments made to goodwill of €22.5 million (previous year: €0.0 million). Goodwill of €22.0 million allocated to the cash-generating unit wind onshore maintenance was fully impaired. The recoverable amount was €-1.8 million. This impairment is caused by a deterioration in the yield forecasts and is reported in the Sustainable Generation Infrastructure segment.

Of all the cash-generating units, goodwill in the System Critical Infrastructure segment had the lowest excess of the carrying amount over the recoverable amount.

The excess of the recoverable amount was around €140 million at Ontras, around €10 million for System Critical Infrastructure at Energiedienst and around €1 million for System Critical Infrastructure at ZEAG.

The valuations in this segment are sensitive to changes in the growth discount for the perpetuity that is derived from the regulatory parameters. The growth discount taken into consideration was around 0.3% in each case.

There would have been a need for impairment in goodwill at Ontras if the growth discount had been 0.18% lower (System Critical Infrastructure at Energiedienst: 0.07% lower, System Critical Infrastructure at ZEAG: 0.02% lower).

(11) Property, plant and equipment

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2021	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

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Fixed assets under construction	Total
Cost						
As of 01/01/2020	4,199.1	19,019.8	17,242.4	1,944.7	3,264.3	45,670.3
Increase/decrease due to changes in the consolidated companies	14.0	100.7	81.5	3.8	336.1	536.1
Additions	57.5	440.3	587.6	83.9	1,092.9	2,262.2
Reclassifications	46.9	1,827.8	265.8	38.2	-2,203.1	-24.4
Reclassification to assets held for sale	0.0	0.0	-80.0	0.0	0.0	-80.0
Currency adjustments	-4.1	0.3	-56.6	-0.1	-0.9	-61.4
Disposals	-49.5	-55.7	-271.6	-82.5	-73.4	-532.7
As of 31/12/2020	4,263.9	21,333.2	17,769.1	1,988.0	2,415.9	47,770.1
Accumulated amortization						
As of 01/01/2020	2,308.0	14,375.1	9,603.0	1,408.4	19.4	27,713.9
Additions	63.0	496.6	419.9	94.5	0.0	1,074.0
Reclassifications	1.0	1.4	-0.1	0.9	-17.4	-14.2
Reclassification to assets held for sale	0.0	0.0	-48.1	0.0	0.0	-48.1
Currency adjustments	-2.0	0.1	-24.4	-0.1	0.0	-26.4
Disposals	-19.6	-24.1	-179.2	-80.7	0.0	-303.6
Impairment	5.4	65.0	89.0	4.5	4.1	168.0
Reversal of impairment losses	-1.2	-4.9	-2.4	-0.1	0.0	-8.6
As of 31/12/2020	2,354.6	14,909.2	9,857.7	1,427.4	6.1	28,555.0
Carrying amounts						
As of 31/12/2020	1,909.3	6,424.0	7,911.4	560.6	2,409.8	19,215.1

Items of property, plant and equipment amounting to €196.0 million (previous year: €227.3 million) serve as collateral for liabilities to banks, of which real estate liens account for €0.1 million (previous year: €0.0 million).

The Group's capital expenditure on intangible assets and property, plant and equipment totaling €2,361.9 million (previous year: €2,178.1 million) can be derived from the statement of changes in non-current assets as follows:

in € million	2021	2020
Additions to intangible assets, property, plant and equipment and right-of-use assets according to the statement of changes in non-current assets	2,674.9	2,734.4
Less additions to assets recognized as right-of-use assets under leases	-180.4	-339.9
Less additions to the provision recognized for the decommissioning and dismantling of property, plant and equipment	-132.6	-224.8
Plus investments that became cash relevant after the change in consolidation method	0.0	8.4
Capital expenditure on intangible assets and property, plant and equipment	2,361.9	2,178.1

(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 01/01/2021	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
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
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

in € million	Land and buildings	Power plants	Distribution plants	Other equipment	Total
Right-of-use assets					
As of 01/01/2020	216.8	87.7	421.2	54.5	780.2
Increase/decrease due to changes in the consolidated companies	6.7	0.0	0.0	0.1	6.8
Additions	74.1	117.8	108.3	39.7	339.9
Reclassifications	0.3	0.0	-4.2	4.8	0.9
Currency adjustments	-0.2	0.0	-2.0	-0.2	-2.4
Disposals	-1.2	-0.1	-19.1	-10.2	-30.6
As of 31/12/2020	296.5	205.4	504.2	88.7	1,094.8
Accumulated amortization					
As of 01/01/2020	23.4	73.5	68.8	18.2	183.9
Additions	28.2	14.9	82.8	20.8	146.7
Reclassifications	0.1	0.0	-0.7	0.8	0.2
Currency adjustments	0.0	0.0	-0.1	-0.1	-0.2
Disposals	-0.4	-0.1	-0.4	-6.1	-7.0
Reversal of impairment losses	0.0	-4.7	0.0	0.0	-4.7
As of 31/12/2020	51.3	83.6	150.4	33.6	318.9
Carrying amounts					
As of 31/12/2020	245.2	121.8	353.8	55.1	775.9

The lease liabilities are due as follows:

in € million	31/12/2021		31/12/2020	
	Nominal value	Present value	Nominal value	Present value
Due within 1 year	172.2	161.4	182.8	169.1
Due in 1 to 5 years	403.0	378.9	426.1	388.7
Due in more than 5 years	432.4	344.1	400.5	328.6
Total	1,007.6	884.4	1,009.4	886.4

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

in € million	2021	2020
Expenses from short-term leases	7.4	10.0
of which cost of materials	[0.0]	(6.4)
of which other operating expenses	[7.4]	(3.6)
Expenses from leases involving low-value assets	8.3	9.0
of which cost of materials	[0.7]	(0.8)
of which other operating expenses	[7.6]	(8.2)
Variable lease payments	2.1	2.4
of which cost of materials	[2.0]	(2.1)
of which other operating expenses	[0.1]	(0.3)
Depreciation of right-of-use assets	171.9	146.7
Interest portion of lease liability	14.3	13.9

The cash flow statement is impacted as follows:

in € million	2021	2020
Repayment portion of the lease liabilities	185.4	160.1
Interest portion of lease liabilities	14.3	13.9
Expenses from short-term leases, leases involving low-value assets and variable lease payments	17.8	21.4
Total	217.5	195.4

The financial commitments from short-term leases and leases involving low-value assets are included in note (26) "Contingent liabilities and other financial commitments."

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.

In the EnBW Group, there are agreements for variable lease payments totaling €460.8 million (previous year: €290.3 million), which mainly relate to long-term electricity procurement agreements. Alongside leases that have not yet begun totaling €151.2 million (previous year: €125.1 million), which relate to electricity procurement agreements, there are other leases that have not yet begun totaling €87.2 million, which relate mainly to energy industry lease relationships, vehicles and office space (previous year: € 29.6 million for energy industry lease relationships and vehicles). Furthermore, the EnBW Group has leases with extension and termination options totaling €185.6 million (previous year: €271.0 million), which were not 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 €32.8 million (previous year: €35.5 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	31/12/2021	31/12/2020
Due within 1 year	4.9	5.5
Due in 1 to 2 years	4.5	4.6
Due in 2 to 3 years	4.3	4.3
Due in 3 to 4 years	4.1	4.0
Due in 4 to 5 years	4.0	3.9
Due in more than 5 years	11.0	13.2
Total	32.8	35.5

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

in € million	31/12/2021	31/12/2020
Nominal value of lease payments	32.8	35.5
Gross investment	32.8	35.5
Finance income not yet realized	-7.2	-6.4
Net investment	25.6	29.1

The outstanding receivables from finance leases in the 2021 financial year include impairment losses of €0.1 million (previous year: €0.1 million). The loss rate (weighted average) is 0.5% (previous year: 0.4%). No lease receivables are overdue.

The finance income on net investment in finance leases was €2.2 million (previous year: €2.1 million).

The claims due to the EnBW Group from operating leases of €153.5 million (previous year: €143.8 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	2021	2020
Due within 1 year	25.8	24.9
Due in 1 to 2 years	11.4	9.0
Due in 2 to 3 years	7.7	6.6
Due in 3 to 4 years	8.5	7.3
Due in 4 to 5 years	8.1	6.6
Due in more than 5 years	92.0	89.4
Total	153.5	143.8

For materiality reasons, operating leases are not reported separately under property, plant and equipment. Income from operating leases in the 2021 financial year was €27.8 million (previous year: €28.0 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	2021		2020	
	Associates	Joint ventures	Associates	Joint ventures
Carrying amount of entities accounted for using the equity method	556.7	460.9	565.7	403.2
Net profit/loss for the year from continuing operations	32.1	24.2	22.1	2.6
Other income	1.5	18.5	0.2	-12.5
Total comprehensive income	33.6	42.7	22.3	-9.9

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 2021.

(14) Other financial assets

in € million	Shares in affiliated entities	Other investments ¹	Non-current securities	Investment properties	Loans	Total
Cost						
As of 01/01/2021	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.

in € million	Shares in affiliated entities	Other investments ¹	Non-current securities	Investment properties	Loans	Total
Cost						
As of 01/01/2020	395.1	1,922.1	3,923.4	55.1	187.9	6,483.6
Increase/decrease due to changes in the consolidated companies	-96.4	24.9	0.0	0.0	-6.1	-77.6
Additions	52.6	306.6	2,607.5	0.0	116.6	3,083.3
Reclassifications	1.7	-4.4	-679.9	0.0	-2.8	-685.4
Reclassification to assets held for sale	0.0	0.0	0.0	-7.5	0.0	-7.5
Currency adjustments	0.0	0.7	0.0	0.0	-0.3	0.4
Disposals	-14.8	-179.4	-2,244.5	0.0	-21.2	-2,459.9
As of 31/12/2020	338.2	2,070.5	3,606.5	47.6	274.1	6,336.9
Accumulated amortization						
As of 01/01/2020	32.5	66.6	0.0	24.8	2.8	126.7
Decrease due to changes in the consolidated companies	-6.8	0.0	0.0	0.0	0.0	-6.8
Additions	0.0	0.0	0.0	0.6	0.7	1.3
Impairment	35.7	0.5	0.0	0.0	0.4	36.6
Reclassifications	0.5	-0.3	0.0	0.0	0.0	0.2
Reclassification to assets held for sale	0.0	0.0	0.0	-3.1	0.0	-3.1
Disposals	0.0	-0.2	0.0	0.0	0.0	-0.2
Reversal of impairment losses	0.0	0.0	0.0	-2.6	-0.4	-3.0
As of 31/12/2020	61.9	66.6	0.0	19.7	3.5	151.7
Carrying amounts						
As of 31/12/2020	276.3	2,003.9	3,606.5	27.9	270.6	6,185.2

¹ The carrying amounts include €1,708.0 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 €6,053.4 million (previous year: €5,318.2 million). Of the loans, €132.0 million (previous year: €264.9 million) is allocated to capital employed.

The loans consist of loans to affiliated entities amounting to €99.7 million (previous year: €128.7 million), loans to entities accounted for using the equity method of €16.5 million (previous year: €121.5 million), loans to investments held as financial assets of €4.4 million (previous year: €5.5 million) and to operative investments allocated to capital employed of €9.6 million (previous year: €8.4 million) and other loans allocated to capital employed of €6.2 million (previous year: €6.3 million).

(15) Trade receivables

in € million	31/12/2021			31/12/2020		
	Current	Non-current	Total	Current	Non-current	Total
Trade receivables	5,952.5	330.2	6,282.7	4,836.7	331.7	5,168.4
of which receivables from affiliated entities	(52.2)	(0.0)	(52.2)	(59.9)	(0.0)	(59.9)
of which receivables from other investees and investors	(95.4)	(0.0)	(95.4)	(51.9)	(0.0)	(51.9)
of which receivables from entities accounted for using the equity method	(26.0)	(0.0)	(26.0)	(43.8)	(0.0)	(43.8)

Further details on loss allowances and default risks can be found in note (25) "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	31/12/2021			31/12/2020		
	Current	Non-current	Total	Current	Non-current	Total
Income tax refund claims	241.8	0.3	242.1	286.7	0.8	287.5
Other tax refund claims	135.4	0.0	135.4	158.4	0.0	158.4
Interest from tax refunds	0.0	0.0	0.0	42.4	0.0	42.4
Derivatives	15,292.7	1,900.3	17,193.0	3,315.9	482.2	3,798.1
of which without hedges	(14,733.2)	(1,653.8)	(16,387.0)	(3,293.7)	(401.6)	(3,695.3)
of which cash flow hedge	(559.5)	(191.8)	(751.3)	(22.2)	(8.2)	(30.4)
of which fair value hedge	(0.0)	(54.7)	(54.7)	(0.0)	(72.4)	(72.4)
Finance lease receivables	2.4	23.1	25.5	3.3	25.7	29.0
Payments on account	57.5	8.1	65.6	43.9	8.5	52.4
Prepaid expenses	150.6	87.5	238.1	68.5	85.0	153.5
Miscellaneous assets	4,036.3	224.2	4,260.5	726.1	362.5	1,088.6
Total	19,916.7	2,243.5	22,160.2	4,645.2	964.7	5,609.9

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

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

Due to the high volatility and significant price increases on the energy trading markets, EnBW recorded a substantial increase in derivatives.

Payments on account contain prepayments for electricity procurement agreements amounting to €13.2 million (previous year: €12.7 million).

Miscellaneous assets contain collateral for exchange-based and over-the-counter trading business amounting to €3,217.2 million (previous year: €419.1 million) as well as variation margins of €257.3 million (previous year: €13.4 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 €121.5 million (previous year: €307.6 million).

(17) Financial assets

Profit participation rights, funds and shares mainly consist of fixed-income and floating-rate interest securities. In addition, there were fixed deposits from EEG funds of €350.0 million (previous year: €0.0 million) in the financial year. Other current financial assets in the 2021 financial year and the previous year mainly relate to loans. In the reporting year, there were impairment losses recognized on other financial assets of €1.4 million (previous year: €1.9 million). The current financial assets are available to the operative business in the amount of €934.5 million (previous year: €463.8 million).

and to cover pension and nuclear provisions in the amount of €97.3 million (previous year: €277.0 million). Of the loans allocated to the current financial assets, €142.3 million (previous year: €18.8 million) is assigned to capital employed.

in € million	31/12/2021	31/12/2020
Profit participation rights, funds and shares	777.9	477.1
Other current financial assets	396.2	282.5
Total	1,174.1	759.6

(18) Cash and cash equivalents

Cash and cash equivalents relate primarily to bank deposits, largely in the form of time and day-to-day deposits whose term is less than three months and that are only subject to an immaterial risk of fluctuations in value. Cash and cash equivalents of €1,251.0 million (previous year adjusted: €11.6 million) are subject to restrictions on disposal. This includes €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 €6,466.5 million (previous year: €959.0 million) and to cover pension and nuclear provisions in the amount of €186.5 million (previous year: €293.7 million).

(19) Equity

The development of equity and total comprehensive income are 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 2021 (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 that 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: €1.00) per share be distributed from the retained earnings of EnBW AG. As of 31 December 2021, 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 2021 financial year will be €297.9 million (previous year: €270.9 million).

Treasury shares

As of 31 December 2021, 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 or dividend entitlements from directly held treasury shares; they are not entitled to dividends. In accordance with the rulings of IFRS, the treasury shares are not recognized as securities, but are offset in one sum against equity in the balance sheet.

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 (25) "Accounting for financial instruments."

Other comprehensive income

Other comprehensive income comprises changes in the market value of financial assets in the category "measured at fair value in equity," changes in the market value of cash flow hedges, amounts 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:

	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
2021 in € million								
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
2020 in € million								
Unrealized changes in market value in the current period	-593.1	-34.3	-137.8	27.8	-2.7	-740.1	-8.4	-748.5
Reclassification adjustments included in the income statement	0.0	2.1	116.7	-5.2	0.0	113.6	1.1	114.7
Reclassification to cost of hedged items	0.0	0.0	26.2	0.0	0.0	26.2	0.0	26.2
Total other comprehensive income before tax	-593.1	-32.2	5.1	22.6	-2.7	-600.3	-7.3	-607.6
Income tax	173.7	0.0	-2.0	-6.1	0.0	165.6	-0.5	165.1
Total other comprehensive income	-419.4	-32.2	3.1	16.5	-2.7	-434.7	-7.8	-442.5

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

in € million	2021			2020		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Revaluation of pensions and similar obligations	645.1	-268.9	376.2	-598.9	175.2	-423.7
Currency translation differences	88.3	0.0	88.3	-42.3	0.0	-42.3
Cash flow hedge	311.7	-127.9	183.8	-132.2	-14.4	-146.6
Financial assets measured at fair value in equity	-28.3	8.1	-20.2	27.9	-7.5	20.4
Entities accounted for using the equity method	2.7	0.0	2.7	-2.8	0.0	-2.8
Total other comprehensive income	1,019.5	-388.7	630.8	-748.3	153.3	-595.0

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

in € million	2021			2020		
	Before tax	Tax expenses/ income	After tax	Before tax	Tax expenses/ income	After tax
Currency translation differences	-2.5	0.0	-2.5	2.1	0.0	2.1
Cash flow hedge	127.2	15.2	142.4	143.9	10.4	154.3
Financial assets measured at fair value in equity	-3.4	3.2	-0.2	-5.2	1.4	-3.8
Entities accounted for using the equity method	0.0	0.0	0.0	0.0	0.0	0.0
Total other comprehensive income	121.3	18.4	139.7	140.8	11.8	152.6

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 and EnBW Baltic 2 GmbH & Co. KG., as well as EnBW WindInvest GmbH & Co. KG since 2021.

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

in € million	2021			
	Capital share in % of non-controlling interests	Annual net profit from non-controlling interests	Dividends paid from non-controlling interests	Carrying amount of non-controlling interests
Energiedienst Holding AG	33.3	14.6	7.7	421.0
VNG AG	25.8	29.9	5.2	440.1
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

Balance sheet data

in € million

2021

	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	1,586.6	535.4	488.8	(18.5)	388.1	(5.2)	89.9	194.9
VNG AG	4,188.6	12,219.6	2,979.2	(430.2)	11,589.1	(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

Earnings data

in € million

2021

	Revenue	Adjusted EBITDA	Net profit/loss	Other income	Total comprehensive income
Energiedienst Holding AG	973.5	93.0	43.8	41.2	85.0
VNG AG	10,006.5	297.2	115.9	10.4	126.3
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	115.3	198.2
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

in € million ¹

2020

	Capital share in % of non-controlling interests	Annual net profit from non-controlling interests	Dividends paid from non-controlling interests	Carrying amount of non-controlling interests
Energiedienst Holding AG	33.3	6.2	7.7	398.5
VNG AG	25.8	4.0	5.6	422.2
Stadtwerke Düsseldorf AG	45.1	26.3	42.0	362.1
Pražská energetika a.s.	30.2	23.3	19.7	258.4
EnBW Hohe See GmbH & Co. KG	49.9	108.3	44.4	1,355.5
EnBW Albatros GmbH & Co. KG	49.9	25.1	5.3	312.0
EnBW Baltic 2 GmbH & Co. KG	49.9	23.6	49.4	583.7

¹ The figures for the previous year have been restated.

Balance sheet datain € million ¹

2020

	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	1,547.9	370.5	499.4	(15.5)	240.6	(3.6)	98.0	101.9
VNG AG	3,250.3	3,854.6	1,453.0	(311.8)	3,910.7	(324.8)	136.9	296.6
Stadtwerke Düsseldorf AG	1,424.5	505.4	787.0	(448.1)	382.8	(12.1)	164.1	129.1
Pražská energetika a.s.	1,180.6	189.2	354.2	(118.1)	154.7	(25.6)	150.0	151.8
EnBW Hohe See GmbH & Co. KG	2,729.2	348.9	260.2	(0.0)	35.6	(0.0)	262.4	146.6
EnBW Albatros GmbH & Co. KG	642.3	84.0	80.2	(0.0)	7.9	(0.0)	65.9	23.7
EnBW Baltic 2 GmbH & Co. KG	1,147.0	224.6	143.3	(0.0)	13.5	(0.0)	182.5	183.0

¹ The figures for the previous year have been restated.**Earnings data**in € million ¹

2020

	Revenue	Adjusted EBITDA	Net profit	Other income	Total comprehensive income
Energiedienst Holding AG	884.5	99.6	18.6	-8.5	10.1
VNG AG	5,158.7	249.6	15.5	-10.1	5.4
Stadtwerke Düsseldorf AG	1,764.9	189.3	58.4	13.5	71.9
Pražská energetika a.s.	794.1	172.9	77.3	-31.9	45.4
EnBW Hohe See GmbH & Co. KG	340.6	305.7	217.1	0.0	217.1
EnBW Albatros GmbH & Co. KG	77.5	71.0	50.3	0.0	50.3
EnBW Baltic 2 GmbH & Co. KG	226.3	191.5	47.3	0.0	47.3

¹ The figures for the previous year have been restated.**(20) Provisions**

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

in € million

31/12/2021

31/12/2020

	Current	Non-current	Total	Current	Non-current	Total
Provisions for pensions and similar obligations	190.2	7,582.2	7,772.4	181.8	8,156.7	8,338.5
Provisions relating to nuclear power	543.8	4,411.7	4,955.5	498.7	4,916.7	5,415.4
Other provisions	1,942.5	2,095.5	4,038.0	799.2	1,730.0	2,529.2
Other dismantling obligations	(28.4)	(912.3)	(940.7)	(27.0)	(873.5)	(900.5)
Provisions for onerous contracts	(153.4)	(682.2)	(835.6)	(110.9)	(427.7)	(538.6)
Other electricity and gas provisions	(1,458.2)	(48.3)	(1,506.5)	(348.0)	(44.5)	(392.5)
Personnel provisions	(109.8)	(153.9)	(263.7)	(111.4)	(149.0)	(260.4)
Miscellaneous provisions	(192.7)	(298.8)	(491.5)	(201.9)	(235.3)	(437.2)
Total	2,676.5	14,089.4	16,765.9	1,479.7	14,803.4	16,283.1

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 2021 was €6,581.4 million (previous year: €6,893.2 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 €1,024.2 million (previous year: €1,089.1 million). In addition, the employees are granted energy-price reductions for the period in which they receive their pensions. Other commitments amounted to €45.4 million (previous year: €48.6 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	31/12/2021		12/31/2020	
	Staff with prospective pension entitlements	Pensioners	Staff with prospective pension entitlements	Pensioners
Closed systems dependent on final salary	6,530	12,974	6,926	13,068
Pension component systems	12,470	577	11,373	510
Other commitments	842	631	829	627

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

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

The objective of asset management in this area is to cover the non-current provisions for pensions and similar obligations, as well as the Group's nuclear provisions, within an economically sensible period by means of appropriate financial investments. The investment goals indicated are to be achieved with a minimum of risk. As of 31 December 2021, the dedicated financial assets for pension and nuclear provisions totaled approximately €6.5 billion (previous year: €6.2 billion) and were allocated to a total of nine asset classes. In addition to direct investments, financial investments were bundled within two master funds and the infrastructure funds consolidated in a SICAV (société d'investissement à capital variable, open-ended investment company).

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

- Risk-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	2021	2022– 2026 ¹	2027– 2031 ¹	2032– 2036 ¹	2037– 2041 ¹	2042– 2046 ¹	2047– 2051 ¹	2052– 2056 ¹
Closed systems dependent on final salary	188.4	195.3	230.0	250.6	245.2	222.2	186.9	145.4
Pension component systems	2.0	4.1	11.0	21.0	33.6	48.0	67.0	85.3
Other commitments	1.5	1.8	2.1	2.2	1.8	1.5	1.1	0.8
Total	191.9	201.2	243.1	273.8	280.5	271.6	255.1	231.5

¹ Average values for five years.

The calculations are based on a duration of 18.3 years (previous year: 19.2 years).

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

in € million	31/12/2021		31/12/2020	
	Pension component systems	Closed pension systems dependent on final salary	Pension component systems	Closed pension systems dependent on final salary
Discount rate +/- 0.5%	-176.8/211.0	-569.3/646.6	-192.6/229.9	-644.9/738.4
Salary trend +/- 0.5%	28.2/-26.1	142.2/-126.2	33.8/-31.3	194.9/-170.4
Pension trend +/- 0.5%	7.1/-6.0	474.9/-432.2	15.5/-16.9	534.3/-483.0
Life expectancy +/- 1 year	38.8/-38.8	322.5/-315.4	42.3/-42.1	363.9/-355.3

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

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

in %	31/12/2021	31/12/2020
Actuarial interest rate	1.15	0.75
Future expected wage and salary increases	2.60	2.70
Future expected pension increase	1.85	1.80

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	2021	2020
Current service cost	176.0	138.8
Interest income from plan assets	-8.4	-12.1
Interest costs	69.1	93.3
Recording in the income statement	236.7	220.0
Income from plan assets excluding interest income	-20.6	-75.0
Actuarial gains (-)/losses (+) from changes in demographic assumptions	-3.5	-0.8
Actuarial gains (-)/losses (+) from changes in financial assumptions	-696.3	566.7
Actuarial gains (-)/losses (+) from experience-based restatements	75.3	108.1
Recording in the statement of comprehensive income	-645.1	599.0
Total	-408.4	819.0

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

in € million	31/12/2021	31/12/2020
Defined benefit obligation at the beginning of the financial year	9,288.4	8,629.5
Current service cost	176.0	138.8
Interest costs	69.2	93.3
Benefits paid	-288.2	-276.3
Actuarial gains (-)/losses (+)	-624.5	674.0
Actuarial gains (-)/losses (+) from changes in demographic assumptions	(-3.5)	(-0.8)
Actuarial gains (-)/losses (+) from changes in financial assumptions	(-696.3)	(566.7)
Actuarial gains (-)/losses (+) from experience-based restatements	(75.3)	(108.1)
Changes in the consolidated companies and currency adjustments	6.6	3.0
Reclassifications	14.8	26.1
Present value of the defined benefit obligation at the end of the financial year	8,642.3	9,288.4
Fair market value of plan assets at the beginning of the financial year	1,257.5	1,225.7
Interest income	8.4	12.1
Appropriations to (+)/transfers from (-) plan assets ¹	-205.1	34.6
Benefits paid	-96.4	-92.1
Income from plan assets excluding interest income	20.6	75.0
Changes in the consolidated companies, currency adjustments and reclassifications	6.3	2.2
Fair market value of plan assets at the end of the financial year	991.3	1,257.5
Surplus cover from benefit entitlements	121.5	307.6
Provisions for pensions and similar obligations	7,772.5	8,338.5

¹ Applies almost exclusively to the employer's contributions.

Payments into the plan assets in the amount of €9.7 million (previous year: €10.0 million) are planned in the subsequent period.

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

in € million	31/12/2021	31/12/2020
Funded benefits	897.7	1,003.7
Full funding	(881.5)	(986.8)
Partial funding	(16.2)	(16.9)
Pension entitlements without asset funding	7,744.6	8,284.7

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

in € million	31/12/2021	31/12/2020
Present value of benefit obligations	8,642.3	9,288.4
Fair market value of plan assets	991.3	1,257.5
Plan surplus	121.5	307.6
Plan deficit	7,772.5	8,338.5

The plan assets consist of the following asset classes:

in %	31/12/2021	31/12/2020
Shares	12.8	7.1
Share-based investment funds	19.0	31.1
Fixed-income funds	48.6	42.2
Fixed-income securities	12.5	11.7
Land and buildings	2.6	1.9
Current financial assets	1.8	1.2
Other	2.7	4.8
	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 €16.6 million (previous year: €16.2 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 2021 amounted to €123.9 million (previous year: €116.2 million).

Provisions relating to nuclear power

The provisions relating to nuclear power as of 31 December 2021 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	31/12/2021	31/12/2020
Remaining operation and post-operation	1,987.7	2,099.7
Dismantling including preparation	1,178.2	1,250.4
Treatment of residual material, packaging of radioactive waste	1,403.4	1,669.9
Other	386.2	395.3
Total	4,955.5	5,415.3

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 0.01% (previous year: 0.00%). A corresponding rate of increase of costs of 2.4% (previous year: 2.4%) is applied. This results in a net interest (spread) of around -2.4% (previous year: -2.4%), which generally corresponds to the real interest rate. The minor changes in these parameters led overall to a reduction in the nuclear power provisions of €1.9 million (previous year: increase of €5.4 million).

A reduction or increase of 0.1 percentage points in the real interest rate would increase the present value of the provisions by €48.3 million (previous year: €61.8 million) or reduce it by €30.0 million (previous year: €32.5 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 2021 was €4,159.1 million (previous year: €4,456.6 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 €14.0 million upwards (previous year: €4.5 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 €365.8 million (previous year: €358.9 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 procurement of electricity.

Other electricity provisions primarily relate to obligations from emission allowances.

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

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

The provisions developed as follows in the reporting year:

Statement of changes in provisions

in € million	As of 01/01/2021	Increases	Reversals	Accretion	Changes recognized in equity	Changes in con- solidated companies, currency adjust- ments, reclassifi- cations	Utilization	As of 31/12/2021
Provisions relating to nuclear power ¹	5,415.3	256.6	219.2	0.0	77.6	-10.8	563.8	4,955.7
Other provisions	2,529.2	2,212.1	44.6	4.3	49.3	-23.5	688.9	4,037.9
Other dismantling obligations	(900.5)	(0.3)	(0.2)	(1.7)	(49.3)	(4.7)	(15.6)	(940.7)
Provisions for onerous contracts	(538.7)	(408.4)	(7.3)	(0.0)	(0.0)	(0.0)	(104.2)	(835.6)
Other electricity and gas provisions	(392.4)	(1,487.1)	(1.9)	(2.2)	(0.0)	(-0.1)	(373.2)	(1,506.5)
Personnel provisions	(260.4)	(99.3)	(4.3)	(0.3)	(0.0)	(-27.3)	(64.8)	(263.6)
Miscellaneous provisions	(437.2)	(217.0)	(30.9)	(0.1)	(0.0)	(-0.8)	(131.1)	(491.5)
Total	7,944.5	2,468.7	263.8	4.3	126.9	-34.3	1,252.7	8,993.6

¹ Utilization breaks down into decommissioning and dismantling totaling €358.3 million, disposal of spent fuel rods totaling €202.9 million and waste totaling €2.6 million.

(21) Deferred taxes

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

in € million	31/12/2021		31/12/2020	
	Deferred tax assets ¹	Deferred tax liabilities ¹	Deferred tax assets ¹	Deferred tax liabilities ¹
Intangible assets	60.6	330.6	45.4	331.7
Property, plant and equipment	126.6	1,669.0	109.1	1,674.8
Financial assets	135.0	217.9	32.7	192.1
Other assets	90.8	52.5	166.3	38.3
Derivative financial instruments	1.4	583.6	0.3	149.1
Non-current assets	414.3	2,853.6	353.8	2,386.0
Inventories	1.5	287.1	5.7	31.4
Financial assets	0.2	0.1	1.0	3.2
Other assets	5,078.3	8,033.2	426.5	908.6
Current assets	5,080.0	8,320.4	433.2	943.2
Provisions	1,730.4	82.4	2,177.9	90.0
Liabilities and subsidies	857.9	165.6	369.7	166.0
Non-current liabilities	2,588.3	247.9	2,547.6	256.0
Provisions	253.2	42.7	193.5	27.4
Liabilities and subsidies	7,889.7	4,816.8	838.1	374.0
Current liabilities	8,142.9	4,859.5	1,031.6	401.4
Carryforwards of unused tax losses	152.7	0.0	49.1	0.0
Deferred taxes before netting	16,378.3	16,281.4	4,415.3	3,986.6
Netting	-15,263.1	-15,263.1	-3,070.6	-3,070.6
Deferred taxes after netting	1,115.2	1,018.3	1,344.7	916.0

¹ Deferred tax assets and liabilities prior to netting.

In the 2021 financial year, €15,263.1 million (previous year: €3,070.6 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 €10.2 million (previous year: €11.2 million) is taken into account.

In addition, deferred tax assets on measurement differences compared to the tax accounts contain €0.4 million (previous year: €0.3 million) in non-current financial assets, €957.7 million (previous year: €1,226.6 million) in non-current provisions and €616.6 million (previous year: €47.0 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 non-current financial assets (previous year: €11.2 million) and €690.9 million (previous year: €8.7 million) in current liabilities and subsidies that were offset against equity.

Deferred tax assets totaling €883.8 million (previous year: €1,254.0 million) were offset directly against equity under other comprehensive income as of 31 December 2021.

The deferred tax assets contain an amount of €83.6 million (previous year: €93.9 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.

Deferred tax assets from deductible temporary differences in assets and carryforwards of unused tax losses were only capitalized if there was sufficient certainty that there would be adequate taxable income available in the respective planning horizon. In the 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 was 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	31/12/2021		31/12/2020	
	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	399.3	437.9	353.3	408.0
Deferred taxes on the non-valued carryforwards of unused tax losses that would theoretically have to be formed	63.2	59.5	55.9	55.4
Unlimited ability to carry forward the existing unused tax losses for which deferred tax assets were formed ¹	340.4	711.9	89.4	245.0

¹ Mainly concerns German companies.

Carryforwards of unused tax losses reduced the actual tax burden by €6.1 million (previous year: €5.7 million).

As of the reporting date, deferred tax assets of €1,025.3 million (previous year restated: €13.4 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	31/12/2021	31/12/2020
Corporate income tax (or comparable foreign tax)	55.3	14.8
Trade tax	97.4	34.3
Total	152.7	49.1

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

in € million	31/12/2021	31/12/2020
Opening balance	49.1	36.5
Utilization of tax losses	-6.1	-5.7
Correction of unrecognized carryforwards of unused tax losses in previous years (addition)	0.0	-1.1
Origination of tax losses (addition)	109.1	18.6
Change in consolidated companies	0.6	0.8
Closing balance	152.7	49.1

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 €13.0 million (previous year: €14.4 million) because any retained profits from subsidiaries based on the current planning will remain invested on a permanent basis or because it is not likely that these temporary differences will reverse in the foreseeable future.

(22) Liabilities and subsidies

Financial liabilities

Financial liabilities break down as of 31 December 2021 compared to the previous year as follows:

in € million ¹	31/12/2021			31/12/2020		
	Current	Non-current	Total	Current	Non-current	Total
Subordinated bonds	989.7	2,485.9	3,475.6	999.4	2,456.0	3,455.4
Bonds	0.0	4,685.3	4,685.3	0.0	3,706.5	3,706.5
Commercial papers	240.0	0.0	240.0	0.0	0.0	0.0
Liabilities to banks	735.1	1,332.3	2,067.4	459.1	1,312.8	1,771.9
Other financial liabilities	103.1	678.9	782.0	34.6	644.8	679.4
Financial liabilities	2,067.9	9,182.4	11,250.3	1,493.1	8,120.1	9,613.2

¹ Please refer to note (25) "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

Of the non-current financial liabilities, €3,820.4 million (previous year: €3,844.7 million) have a term of between one year and five years, and €5,362.1 million (previous year: €4,275.4 million) have a term of more than five years.

Overview of the subordinated bonds

Issuer	Issue volume	Carrying amounts	Coupon	Maturity
EnBW AG ¹	€725 million	€724.9 million	3.375%	05/04/2077
EnBW AG ¹	US\$300 million	€264.7 million	3.003% ²	05/04/2077
EnBW AG ³	€500 million	€497.3 million	2.125%	31/08/2081
Green bond				
EnBW AG ⁴	€500 million	€497.8 million	1.625%	05/08/2079
EnBW AG ⁵	€500 million	€498.3 million	1.125%	05/11/2079
EnBW AG ⁶	€500 million	€495.2 million	1.875%	29/06/2080
EnBW AG ⁷	€500 million	€497.4 million	1.375%	31/08/2081
		€3,475.6 million		

¹ EnBW redeemed the bond at the earliest possible date of 5 January 2022.

² After the swap into euro.

³ Option for EnBW to redeem in the three-month period before 31 August 2032, then on every coupon date.

⁴ Option for EnBW to redeem in the three-month period before 5 August 2027, then on every coupon date.

⁵ Option for EnBW to redeem in the three-month period before 5 November 2024, then on every coupon date.

⁶ Option for EnBW to redeem in the three-month period before 29 June 2026, then on every coupon date.

⁷ Option for EnBW to redeem in the three-month period before 31 August 2028, then on every coupon date.

A subordinated bond with a volume of €1,000 million and a term until 2 April 2076 was redeemed on the first call date of 2 April 2021.

In August 2021, EnBW issued two euro subordinated bonds, each with a volume of €500 million. The bonds each have term of 60 years. The issue date was 31 August 2021 and the final repayment date for both bonds is 31 August 2081. EnBW has the right to call and redeem the bonds for the first time in the three-month period before 31 August 2028 and the three-month period before 31 August 2032, respectively, and then at every coupon date. The first coupon date for both bonds is 31 August 2022. The bonds have been given an initial coupon of 1.375% and 2.125%, respectively.

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	€96.7 million	2.250%	12/07/2023
EnBW International Finance B.V.	€500 million	€535.3 million ¹	4.875%	16/01/2025
EnBW International Finance B.V.	€500 million	€497.6 million	0.625%	17/04/2025
EnBW International Finance B.V.	€500 million	€499.1 million	2.500%	04/06/2026
EnBW International Finance B.V.	€500 million	€498.5 million	0.125%	01/03/2028
EnBW International Finance B.V.	€500 million	€498.2 million	0.250%	19/10/2030
EnBW International Finance B.V.	€500 million	€496.4 million	0.500%	01/03/2033
EnBW International Finance B.V.	€600 million	€590.6 million	6.125%	07/07/2039
Green bond				
EnBW International Finance B.V.	€500 million	€497.1 million	1.875%	31/10/2033
Private placements				
EnBW International Finance B.V.	€100 million	€98.7 million	2.875%	13/06/2034
EnBW International Finance B.V.	JPY20 billion	€153.4 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
		€4,685.3 million		

¹ Adjusted for valuation effects from interest-induced hedging transactions.

² After the swap into euros.

In February 2021, EnBW International Finance B.V. issued two senior bonds, each with a volume of €500 million. The terms are seven and twelve years, respectively. The bonds have been given an initial coupon of 0.125% and 0.500%, respectively.

Commercial paper program

As of 31 December 2021, €240 million had been drawn (previous year: undrawn) under the commercial paper program set up by EnBW and EnBW International Finance B.V. for short-term financing purposes.

Liabilities to banks

Liabilities to banks increased in the 2021 financial year due to new debt raised by EnBW and its subsidiaries. This was offset to some extent by scheduled repayments. 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 to the one-year extension in June 2021. The new term for the syndicated credit line ends on 24 June 2026. There is another extension option after the second full year until the end of June 2027 at the latest. The credit line remained undrawn as of 31 December 2021.

In addition, a further €1.2 billion (previous year: €0.9 billion) in bilateral free credit lines was available within the Group. The credit lines are not subject to any restrictions as regards their utilization.

Liabilities to banks are collateralized with real estate liens in the amount of €0.1 million (previous year: €0.0 million). Liabilities to banks to the amount of €250.3 million are collateralized with other types of securities (previous year: €279.2 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.

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	31/12/2021	31/12/2020
Non-current liabilities	4,229.8	2,595.1
Current liabilities	29,497.2	8,770.4
Liabilities	33,727.0	11,365.5
Non-current subsidies	11.0	12.5
Current subsidies	1.2	1.7
Subsidies	12.2	14.2
Non-current liabilities and subsidies	4,240.8	2,607.6
Current liabilities and subsidies	29,498.4	8,772.1
Liabilities and subsidies	33,739.2	11,379.7

Other liabilities as of 31 December 2021 break down as follows compared to the previous year:

in € million ¹	31/12/2021			31/12/2020		
	Current	Non-current	Total	Current	Non-current	Total
Trade payables	6,475.8	1.3	6,477.1	4,053.1	2.1	4,055.2
of which liabilities to affiliated entities	(46.6)	(0.0)	(46.6)	(41.3)	(1.7)	(42.9)
of which liabilities to other investees and investors	(103.7)	(0.0)	(103.7)	(92.3)	(0.0)	(92.3)
of which liabilities to entities accounted for using the equity method	(146.6)	(0.0)	(146.6)	(131.4)	(0.0)	(131.4)
Other deferred income	117.1	205.7	322.8	34.6	193.0	227.6
Liabilities from derivatives	16,934.3	2,200.6	19,134.9	3,032.8	556.4	3,589.2
of which without hedges	(16,543.8)	(2,108.3)	(18,652.1)	(2,997.5)	(443.3)	(3,440.8)
of which cash flow hedge	(390.5)	(92.3)	(482.8)	(35.3)	(113.1)	(148.4)
Income tax liabilities	84.0	96.3	180.3	156.0	127.3	283.3
of which liabilities for audit risks	(32.5)	(96.2)	(128.7)	(1.8)	(127.3)	(129.1)
Contract liabilities	83.4	903.1	986.5	72.0	884.6	956.6
Miscellaneous liabilities	5,802.6	822.7	6,625.3	1,421.9	831.8	2,253.7
of which lease liabilities	(161.4)	(723.0)	(884.4)	(169.1)	(717.3)	(886.4)
of which from other taxes	(495.5)	(4.3)	(499.8)	(178.2)	(0.1)	(178.3)
of which relating to social security	(16.7)	(0.0)	(16.7)	(15.8)	(0.0)	(15.8)
Other liabilities	29,497.2	4,229.7	33,726.9	8,770.4	2,595.2	11,365.6

¹ Please refer to note (25) "Accounting for financial instruments" for more details on the credit and liquidity risk, fair values and undiscounted cash flows by year.

Of the non-current other liabilities (excluding deferred income and contract liabilities), €2,623.5 million (previous year: €991.6 million) has a remaining term of between one year and five years, and €497.4 million (previous year: €525.9 million) has a remaining term of more than five years.

Trade payables include obligations for outstanding invoices amounting to €846.0 million (previous year: €889.9 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 €967.0 million (previous year: €941.9 million).

Miscellaneous liabilities mainly concern collateral for over-the-counter trading business (margin calls received) amounting to €2,944.4 million (previous year: €205.3 million), as well as exchange-based trading business (variation margins) of €1,413.6 million (previous year: €154.6 million), interest obligations from bonds amounting to €104.7 million (previous year: €122.5 million) and non-controlling interests in fully consolidated partnerships recorded as liabilities to the amount of €88.8 million (previous year: €103.3 million).

Due to the high volatility and significant price increases on the energy trading markets, EnBW recorded a substantial increase in derivatives. The increase in other taxes mainly related to VAT issues.

Subsidies break down as of 31 December 2021 compared to the previous year as follows:

in € million	31/12/2021	31/12/2020
Investment cost subsidies	3.8	6.2
Other subsidies from public authorities	8.4	8.0
Total	12.2	14.2

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

Assets held for sale

in € million	31/12/2021	31/12/2020
Property, plant and equipment	2.5	31.2
Other financial assets	51.5	3.9
Total	54.0	35.1

Liabilities directly associated with assets classified as held for sale

in € million	31/12/2021	31/12/2020
Deferred taxes	0.0	2.7
Other liabilities and subsidies	0.0	1.6
Total	0.0	4.3

Property, plant and equipment held for sale in the reporting year refers primarily to pieces of land held for sale. This is allocated to the System Critical Infrastructure segment in the segment reporting. In the previous year, assets held for sale related to gas distribution plants that had to be relinquished at the beginning of 2021 in accordance with a court judgment. This was allocated to the System Critical Infrastructure segment in the segment reporting.

In the reporting 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. In the previous year, other financial assets held for sale comprised investment property held for sale. This was allocated to the System Critical Infrastructure segment in the segment reporting.

In the previous year, the deferred taxes and other liabilities and subsidies associated with assets classified as held for sale related to the distribution plants held for sale.

Other disclosures

(24) Earnings per share

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

Earnings per share		2021	2020
Earnings from continuing operations	in € million	441.2	807.6
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(363.2)	(596.1)
Group net profit	in € million	441.2	807.6
of which profit/loss shares attributable to the shareholders of EnBW AG	in € million	(363.2)	(596.1)
Number of shares outstanding (weighted average)	thousands	270,855	270,855
Earnings per share from continuing operations ¹	in €	1.34	2.20
Earnings per share from Group net profit ¹	in €	1.34	2.20
Dividend per share for the 2020 financial year of EnBW AG	in €	–	1.00
Proposed dividend per share for the EnBW AG 2021 financial year	in €	1.10	–

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

(25) Accounting for financial instruments

Financial instruments include primary financial instruments and derivatives. On the assets side, primary financial instruments 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.

31/12/2021

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 appli- cation	Carrying amount
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	11,783.0				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	38,878.2	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.

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 (€3,194.9 million), respectively. €336.5 million of the bonds are involved in fair value hedging relationships.

31/12/2020

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 appli- cation	Carrying amount
Financial assets	6,286.4	3,062.4	1,016.8	1,654.3	552.9	658.3	6,944.7
Measured at fair value through profit or loss	(3,872.7)	(1,560.7)	(657.7)	(1,654.3)			(3,872.7)
Measured at fair value in equity	(1,860.8)	(1,501.7)	(359.1)				(1,860.8)
Measured at amortized cost	(552.9)				(552.9)		(552.9)
Trade receivables	5,168.4				5,168.4		5,168.4
Other assets	4,361.8	2.6	3,795.5		563.7	1,248.3	5,610.1
Measured at fair value through profit or loss	(3,695.3)	(0.8)	(3,694.5)				(3,695.3)
Measured at amortized cost	(534.7)				(534.7)		(534.7)
Derivatives designated as hedging instruments	(102.8)	(1.8)	(101.0)				(102.8)
Lease receivables	(29.0)				(29.0)		(29.0)
Cash and cash equivalents	1,252.7				1,252.7		1,252.7
Assets held for sale ¹						35.0	35.0
Total assets	17,069.3	3,065.0	4,812.3	1,654.3	7,537.7	1,941.6	19,010.9
Financial liabilities ²	10,770.0				9,613.2		9,613.2
Trade payables	1,070.4				1,070.4	2,982.7	4,053.1
Other liabilities and subsidies	5,188.5	0.5	3,588.7		1,599.3	2,138.1	7,326.6
Held for trading	(3,440.8)	(0.5)	(3,440.3)				(3,440.8)
Measured at amortized cost	(712.9)				(712.9)		(712.9)
Derivatives designated as hedging instruments	(148.4)		(148.4)				(148.4)
Lease liabilities	(886.4)				(886.4)		(886.4)
Liabilities directly associated with assets classified as held for sale						4.3	4.3
Total liabilities	17,028.9	0.5	3,588.7	0.0	12,282.9	5,125.1	20,997.2

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 (€7,952.6 million) and hierarchical level 2 (€2,817.4 million), respectively. €354.3 million of the bonds are involved in fair value hedging relationships.

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 €10.2 million (previous year: €8.8 million) were reclassified from Level 1 to Level 2 and securities with a fair value of €18.7 million (previous year: €19.1 million) were reclassified from Level 2 to Level 1 in the 2021 financial year.

The fair value of the assets in the “measured at fair value through profit or loss” measurement category amounts to €20,929.6 million (previous year: €7,568.0 million), of which €1,279.5 million (previous year: €1,561.5 million) is allocated to the first hierarchical level, €17,586.7 million (previous year: €4,352.2 million) to the second hierarchical level and €2,063.4 million (previous year: €1,654.3 million) to the third hierarchical level. The assets in the “measured at fair value in equity” measurement category have a fair value of €2,248.1 million (previous year: €1,860.8 million), of which €1,866.2 million (previous year: €1,501.7 million) is allocated to the first hierarchical level and €381.8 million (previous year: €359.1 million) to the second hierarchical level. Assets in the “measured at amortized cost” measurement category amount to €17,226.2 million (previous year: €7,537.7 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 01/01/2021	Changes recognized through profit or loss	Changes recognized in equity	Additions	Disposals	As of 31/12/2021
Financial assets	1,654.3	202.3	-0.9	293.6	-85.9	2,063.4

The changes recognized through profit or loss of €202.3 million (previous year: €-22.2 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 €120.4 million (previous year: €27.7 million), of which €120.4 million (previous year: €28.2 million) is accounted for by financial instruments still held on the reporting date.

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 restated: 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 €100.0 million (previous year: €78.4 million). A decrease of the same amount would have an opposite effect.

Financial liabilities as of 31 December 2021 include bonds with a fair value of €8,924.6 million (previous year: €8,306.9 million) and liabilities to banks with a fair value of €2,076.4 million (previous year: €1,783.7 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 that, 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.

31/12/2021

in € million	Non-netted amounts					
	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	109,574.2	-93,560.9	16,013.3	-8,261.8	-2,927.3	4,824.2
Measured at fair value through profit or loss	(107,553.9)	(-92,468.1)	(15,085.8)	(-7,975.5)	(-2,927.3)	(4,183.0)
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	112,724.7	-93,560.9	19,163.8	-8,261.8	-2,927.3	7,974.7
Held for trading	(107,842.5)	(-90,455.2)	(17,387.3)	(-7,975.5)	(-2,927.0)	(6,484.8)
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)	(-0.3)	(78.6)

31/12/2020

in € million ¹	Non-netted amounts					
	Gross amounts	Netting	Net amounts accounted for	Master netting agreement	Financial collateral received/paid	Net amount
Trade receivables	3,782.2	-2,353.2	1,429.0	-678.8	0.0	750.2
Other assets	6,738.9	-5,321.5	1,417.4	-638.7	-192.9	585.8
Measured at fair value through profit or loss	(6,396.9)	(-4,997.7)	(1,399.2)	(-634.8)	(-192.9)	(571.5)
Measured at amortized cost	(252.1)	(-249.4)	(2.7)	(0.0)	(0.0)	(2.7)
Derivatives designated as hedging instruments	(89.9)	(-74.4)	(15.5)	(-3.9)	(0.0)	(11.6)
Trade payables	3,032.0	-2,353.2	678.8	-678.8	0.0	0.0
Other liabilities and subsidies	7,616.7	-5,321.5	2,295.2	-638.7	-380.2	1,276.3
Held for trading	(7,297.4)	(-5,181.7)	(2,115.7)	(-634.8)	(-377.8)	(1,103.1)
Measured at amortized cost	(228.1)	(-75.6)	(152.5)	(0.0)	(0.0)	(152.5)
Derivatives designated as hedging instruments	(91.2)	(-64.2)	(27.0)	(-3.9)	(-2.4)	(20.7)

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	2021	2020
Financial assets and liabilities measured at fair value through profit or loss	13.1	4.0
Financial assets measured at fair value in equity	-18.4	4.4
Financial assets measured at amortized cost	-40.1	-87.7

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 (as in the previous year) 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 effects.

In the reporting year, the net loss (previous year: net gain) in the "financial assets measured at fair value in equity" measurement category was mainly due to currency effects and loss allowances.

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

The net loss (as in the previous year) in the "financial assets measured at amortized cost" measurement category was mainly due to loss allowances and negative currency effects. In the previous year, the net loss was mainly due to loss allowances and negative currency effects.

In the 2021 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 €20.2 million (previous year: €20.3 million positive impact). Of the changes in market values posted with no impact on income, €2.4 million was transferred with a negative impact on earnings to the income statement (previous year: €3.0 million positive impact).

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 that 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 fluctuations 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 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

Date of the reclassification of the result that was directly recognized in equity to the 2020 income statement

in € million	Fair value	2021	2022 – 2025	> 2025
Currency-related cash flow hedges	-88.5	-0.6	-18.9	-69.0
Commodity cash flow hedges	0.8	-1.6	2.4	0.0
Interest-related cash flow hedges	-20.8	-0.7	-1.6	-18.5

As of 31 December 2021, unrealized gains from derivatives amounted to €332.0 million (previous year: €106.9 million). In the reporting period, the effective portion of the cash flow hedges was recognized directly in equity with a positive impact of €311.6 million (previous year: €137.8 million negative impact). From the ineffective portion of the cash flow hedges in the 2021 financial year, there was income of €6.4 million (previous year: €8.2 million expenses) as well as expenses from reclassifications from other comprehensive income in the amount of €234.2 million (previous year: €116.6 million) to the income statement. The reclassifications were made to revenue (decrease of €515.6 million, previous year: increase of €48.0 million), cost of materials (decrease of €193.1 million, previous year: increase of €50.9 million), other operating income (increase of €69.4 million, previous year: decrease of €85.7 million) and the financial result (increase of €18.9 million, previous year: decrease of €28.0 million). An amount of €107.0 million (previous year: €26.2 million) was reclassified from inventories to other comprehensive income. In the reporting year, this led to a decrease in acquisition costs compared to an increase in the previous year.

As of 31 December 2021, existing hedged transactions that are covered by cash flow hedges with terms of up to around 55 years (previous year: up to 56 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.

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 €17.7 million was recognized in the income statement with a negative impact on earnings in the reporting year (previous year: €8.3 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 €17.8 million that resulted from the underlying transactions were measured through profit or loss with a positive impact on earnings (previous year: €8.3 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 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.

31/12/2021	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.

31/12/2020	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	3,155.3	30.4	148.4		-0.2
Commodity price risks	1,902.0	20.2	28.9	Other assets/ Other liabilities	73.3
Currency risk ¹	943.6	10.2	98.6	Other assets/ Other liabilities	-67.7
Interest rate risk ²	309.7	0.0	20.9	Other assets	-5.8
Fair value hedges	300.0	72.4	0.0		-8.3
Interest rate risk ³	300.0	72.4	0.0	Other assets	-8.3

1 The hedging instruments have a term of up to 5 years (€785.5 million) and more than 5 years (€158.1 million).

2 The figure for the previous year has been restated. The hedging instruments have a term of up to 5 years (€128.7 million) and more than 5 years (€181.0 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:

31/12/2021	Carrying amount of the transaction	Change in value of the hedged transaction that is contained in the carrying amount of the recognized transaction	Balance sheet items containing the transaction	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 underlying transactions are expected transactions.

31/12/2020	Carrying amount of the transaction	Change in value of the hedged transaction that is contained in the carrying amount of the recognized transaction	Balance sheet items containing the transaction	Change in the fair value for the reporting period	Cash flow hedge reserve
in € million	Liabilities	Liabilities			
Cash flow hedges ¹	-	-		0.1	-105.8
Commodity price risks	-	-		-72.7	-37.7
Currency risk	-	-		67.0	-60.6
Interest rate risk ²	-	-		5.8	-7.5
Fair value hedges ²	354.3	54.3		8.3	-
Interest rate risk	354.3	54.3	Financial liabilities	8.3	-

1 The underlying transactions are expected transactions.

2 The figures for the previous year have been restated.

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

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.

2020	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	-137.8	-8.2		-142.8	
Commodity price risks	-73.2	-5.2	Other operating expenses	-114.8	Cost of materials/revenue/other operating expenses
Interest rate risk	-17.5	0.0		-3.7	Financial result
Currency risk	-47.1	-3.0	Other operating expenses	-24.3	Financial result

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

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

in € million ¹	31/12/2021	31/12/2020	Change
Derivatives used in cash flow hedges with a positive fair value	1,520.1	67.4	1,452.7
Derivatives used in cash flow hedges with a negative fair value	670.7	175.9	494.8
	849.4	-108.5	957.9
Deferred tax on change recognized directly in equity in derivatives used in cash flow hedges	-85.0	27.9	-112.9
Hedge ineffectiveness	-6.4	8.2	-14.6
Cascading effects	-1,049.8	-50.1	-999.7
Effects realized from hedged transactions ²	585.0	43.1	541.9
Non-controlling interests	-157.1	1.0	-158.1
Cash flow hedge (recognized in equity)	136.1	-78.4	214.5

¹ Before offsetting financial assets and financial liabilities according to IAS 32.

² Of which €496.1 million (previous year: €7.1 million) will be reclassified to the income statement in the period 2024–2030 (previous year: 2021–2025).

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	31/12/2021		31/12/2020	
	< 1 year	1–5 years	< 1 year	1–5 years
up to A1	1,122.1	429.9	583.9	127.4
up to A3	1,477.6	561.9	300.4	114.8
Baa1	970.4	173.7	322.0	151.6
up to Baa3	303.2	389.2	422.6	185.9
below Baa3	562.1	133.5	43.6	14.6
Total	4,435.4	1,688.2	1,672.5	594.3

Risk management system

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

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, fluctuations 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

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 01/01/2020	1,531.9	-0.9	2,575.1	-3.2	-31.4
Net revaluation of the loss allowances	–	0.2	–	-0.4	-1.2
Newly acquired financial assets	–	-1.9	–	-0.2	-1.1
Repaid financial assets	–	0.0	–	0.6	–
As of 31/12/2020	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

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

Trade receivables		31/12/2021			31/12/2020	
in € million	Carrying amount	Loss allowance	Loss rate (weighted average)	Carrying amount	Loss allowance	Loss rate (weighted average)
Not past due	6,145.3	-50.5	0.8%	5,003.7	-59.3	1.2%
Past due	137.4	-119.0		164.7	-123.1	
Due within 3 months	(58.6)	(-4.4)	6.9%	(67.0)	(-5.6)	7.8%
Due in between 3 and 6 months	(18.2)	(-9.4)	34.1%	(19.4)	(-9.7)	33.3%
Due in between 6 months and 1 year	(20.4)	(-9.0)	30.7%	(25.0)	(-13.9)	35.7%
Due in more than 1 year	(40.2)	(-96.2)	70.5%	(53.3)	(-93.8)	63.8%

In the financial year, income from the recovery of trade receivables that had been written off was €8.2 million (previous year: €11.3 million). Expenses for trade receivables and other assets that were written off stood at €73.3 million in the financial year (previous year: €38.8 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 2021, the maximum default risk amounts to €41.2 billion (previous year: €17.1 billion).

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 surpluses, 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 liquidity management purposes, a finance plan based on cash flows is prepared centrally. As they arise, finance needs are covered by suitable financial instruments as part of the liquidity management. In addition to ensuring that liquidity is available on a daily basis, EnBW maintains further liquidity reserves of €2.7 billion (previous year: €2.4 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 as of the reporting date 31 December 2021 that are disclosed in the balance sheet. Interest and redemption payments are taken into consideration for debt instruments issued and liabilities to banks.

The interest payments on fixed-income financial instruments are based on the contractually agreed interest rates. For financial instruments subject to floating interest, the interest rates last fixed prior to 31 December 2021 were used.

Foreign currency financial instruments are translated at the respective spot price as of 31 December 2021.

For further details on financial liabilities, please refer to note [22] "Liabilities and subsidies."

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 31/12/2021

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	211.4	211.4				
Total	54,939.0	26,548.0	6,572.3	4,504.3	3,698.3	13,616.0

Undiscounted cash flows as of 31/12/2020

in € million	Total	2021	2022	2023	2024	Cash flows > 2024
Non-derivative financial liabilities						
Debt instruments issued	8,695.7	1,200.2	1,112.9	220.3	625.6	5,536.7
Liabilities to banks	1,827.7	465.3	198.3	148.7	387.0	628.4
Other financial liabilities	712.2	40.8	113.7	25.1	18.3	514.4
Trade payables	1,070.4	1,070.4				
Lease liabilities	1,009.4	182.8	149.6	124.4	101.9	450.7
Other financial obligations	473.6	364.8	2.6	2.0	2.0	102.2
Derivatives ¹	18,574.1	7,744.7	3,679.0	2,110.7	1,230.7	3,808.9
Financial guarantees	276.5	276.5				
Total	32,639.6	11,345.5	5,256.1	2,631.2	2,365.5	11,041.2

¹ The figures for the previous year have been restated, after taking into account existing netting agreements.

The increase in the liquidity risk for derivatives is mainly due to the sharp increase in prices for electricity and gas forwards. Derivatives that cause a cash outflow are presented here. 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 €2,611.9 million (previous year: €2,206.2 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

			31/12/2021	31/12/2020
Euros against all currencies	Appreciation (previous year: appreciation)	Profit for the year	-115.9	-41.7
	Appreciation (previous year: depreciation)	Equity	-40.1	-8.5
of which euro/US dollar	+10% (previous year: +8%)	Profit for the year	(-122.7)	(-49.1)
	+10% (previous year: -8%)	Equity	(-40.1)	(-8.5)
of which euro/Swiss franc	-7% (previous year: -8%)	Profit for the year	(-6.8)	(-7.4)

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 €4,680.5 million (previous year restated: €1,471.0 million) and financial liabilities of €2,027.0 million (previous year: €1,943.7 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 quantitative situation is determined by the reporting date for the period; 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

		31/12/2021	31/12/2020
Increase in interest rate +25 basis points (previous year: +30 basis points)	Profit for the year	6.7	-0.9
of which cash at banks with a floating interest rate	Profit for the year	(10.9)	(3.6)
of which floating-rate securities ¹	Profit for the year	(0.8)	(0.8)
of which interest rate derivatives	Profit for the year	(-0.8)	(-1.1)
of which primary financial debt with a floating interest rate	Profit for the year	(-4.2)	(-4.2)
Decrease in interest rate -25 basis points (previous year: -30 basis points)	Profit for the year	-6.5	1.1
of which cash at banks with a floating interest rate	Profit for the year	(-10.9)	(-3.6)
of which floating-rate securities ¹	Profit for the year	(-0.8)	(-0.8)
of which interest rate derivatives	Profit for the year	(0.8)	(1.1)
of which primary financial debt with a floating interest rate	Profit for the year	(4.4)	(4.4)

¹ The figures for the previous year have been restated.

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

			31/12/2021	31/12/2020
Electricity	+60 % (previous year: -25 %)	Profit for the year	-396.6	-62.0
	+60 % (previous year: +25 %)	Equity	-1,141.9	-161.9
Coal	-60 % (previous year: -20 %)	Profit for the year	-204.9	-17.0
	-60 % (previous year: -20 %)	Equity	-248.1	-67.0
Oil	-25 % (previous year: -30 %)	Profit for the year	-6.6	-4.4
	-25 % (previous year: -30 %)	Equity	0.0	-2.2
Gas	+65 % (previous year: -25 %)	Profit for the year	-4.5	-31.5
	+65 % (previous year: -25 %)	Equity	-284.3	0.0
Emission allowances	-50 % (previous year: -50 %)	Profit for the year	-918.4	-89.7
	-50 % (previous year: -50 %)	Equity	-1,180.5	-103.3

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 2021, shares, share-based investment funds, fixed-income securities and investments in private equity companies totaling €6,311.5 million (previous year: €5,607.5 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 €175.1 million (previous year: €151.3 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 €20.1 million (previous year: €18.6 million). Of the hypothetical change in equity, €20.1 million (previous year: €18.6 million) is accounted for by fixed-income securities. The information presented shows only the effects on the net profit/loss for the year and on equity in the case of an increase in the values of shares, share-based investment funds, interest-bearing securities and investments in private equity companies, a reduction of the same amount would have the opposite effect.

(26) Contingent liabilities and other financial commitments

The disclosures on contingent liabilities and other financial commitments relate to 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 has to bear a 25.048% share of the liability coverage, plus 5.0% for costs to settle any claims for damages, as of 31 December 2021, and 17.796% 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.

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

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

EnBW Energie Baden-Württemberg AG (EnBW AG) and EnBW Kernkraft GmbH (EnKK) are members of the European Mutual Association for Nuclear Insurance (EMANI). Comprehensive property insurance has been taken out with EMANI for the nuclear power plants operated by EnBW, except for the Obrigheim nuclear power plant. In the event that the guarantee fund held by EMANI is exhausted, or if EMANI no longer holds the legally stipulated liquidity, EMANI can demand the payment of an amount up to six times the annual net premium from the members in accordance with its statutes. The annual net premium for all nuclear power plant blocks operated by EnBW is currently €0.7 million, of which €0.15 million is for the KKP nuclear power plant blocks.

In addition, there are other contingent liabilities at the EnBW Group amounting to €365.4 million (previous year: €268.1 million). This amount includes sureties of €361.3 million (previous year: €254.5 million). The amount also includes €5.7 million (previous year: €11.3 million) for pending litigations where no provisions were made because the counterparty is unlikely to win the case. A test case is currently before the courts with respect to the exemption from EEG cost allocations for end usage at the nuclear power plants for the year 2017. If we lose this case for the claimed amount of €4 million, there is a risk of further costs of €162 million for subsequent years. 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 €24.4 billion (previous year: €25.4 billion), of which €13.2 billion (previous year: €5.8 billion) is due within one year.

Miscellaneous other financial commitments break down as follows:

in € million	31/12/2021	Of which due in			31/12/2020
		< 1 year	1–5 years	> 5 years	
Financial commitments from rent and lease agreements	229.7	47.0	89.2	93.5	275.8
Purchase commitments	1,489.1	926.7	544.2	18.2	925.9
Investment obligations for intangible assets and property, plant and equipment	2,703.8	955.9	1,633.6	114.3	2,176.6
Financial commitments from corporate acquisitions ¹	737.8	352.7	385.1	0.0	657.2
Other financial commitments	443.7	116.9	215.4	111.4	459.8
Total	5,548.3	2,375.4	2,835.5	337.4	4,495.3

¹ Financial commitments from corporate acquisitions include investments held as financial assets < 1 year amounting to €171.9 million (previous year: €170.8 million) and 1 – 5 years amounting to €191.4 million (previous year: €165.7 million).

(27) Significant restrictions

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

In accordance with the German Energy Industry Act (EnWG), independent transmission operators must possess the financial, technical, material and human resources required to operate the transmission grid. For this purpose, the independent transmission operators must be the owner, either directly or through shareholdings, of all of the assets required to operate the transmission grid. As of 31 December 2021, the EnBW Group held a total of €4,230.9 million (previous year: €3,468.9 million) in assets restricted due to these legal regulations.

(28) Audit fees

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

in € million	2021	2020
Statutory audit	4.0	3.6
Other attestation services	0.6	0.6
Tax advisory services	0.2	0.4
Other services	0.1	0.3
Total	4.9	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 three comfort letters. Agreed investigative measures were also carried out.

In connection with matters relating to value added tax and ongoing income taxes, EnBW AG was also provided with tax advice by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft. In addition, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft advised EnBW AG on matters relating to the grids and also on other economic matters.

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

The following German subsidiaries made use of some or all of the exemption provisions of section 264 (3) HGB or section 264b HGB in the 2021 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
- Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim
- MSE Mobile Schlammmentwässerungs GmbH, Karlsbad-Ittersbach
- Neckarwerke Stuttgart GmbH, Stuttgart
- Netze BW Wasser GmbH, Stuttgart
- NWS Finanzierung GmbH, Karlsruhe
- NWS REG Beteiligungsgesellschaft mbH, Stuttgart
- Plusnet GmbH, Cologne
- RBS wave GmbH, Stuttgart
- symbiotic services GmbH, Karlsruhe
- TPLUS GmbH, Karlsruhe
- u-plus Umweltservice GmbH, Karlsruhe
- Ventelo GmbH, Cologne

Exemptions pursuant to section 264b HGB

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

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

The Board of Management and Supervisory Board of EnBW Energie Baden-Württemberg AG issued the declaration of compliance with the German Corporate Governance Code required by section 161 AktG on 8 December 2021 and made it permanently available to shareholders on the Internet at www.enbw.com/declaration-of-compliance.

(31) Share deals and shareholdings of key management personnel

The company did not receive any notices in the 2021 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).

(32) Notes to the cash flow statement

The cash flow statement is split up into cash flows from operating, investing and financing activities. The balance of the cash flow statement represents the change in cash and cash equivalents during the 2021 financial year amounting to €5,338.8 million (previous year: €-138.5 million).

Cash and cash equivalents almost exclusively relate to bank deposits, largely in the form of time and day-to-day deposits whose term is less than three months and that are only subject to an immaterial risk of fluctuation in value. In the 2021 financial year, operating cash flow amounted to €7,597.8 million (previous year: €1,158.1 million).

The income tax paid in the reporting year totaled €200.6 million (previous year: €207.8 million).

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

in € million	2021	2020
Income from the reversal of construction cost subsidies	-69.9	-67.1
Impairment losses	61.6	80.5
Reversal of impairment losses on property, plant and equipment and intangible assets	-96.4	-16.9
Expense from the reversal of capitalized costs for obtaining contracts	20.3	20.5
Write-ups/write-downs on inventories and valuations of associated derivatives	-82.2	-42.2
Result from the non-operating valuation effects from derivatives	-224.5	-4.3
Other	-11.0	5.8
Total	-402.1	-23.7

In the 2021 financial year, €276.3 million (previous year: €199.5 million) was distributed to third-party shareholders of Group companies.

Capital expenditure on intangible assets and property, plant and equipment includes €149.0 million (previous year: €132.2 million) for intangible assets and €2,212.9 million (previous year: €2,045.9 million) for property, plant and equipment. The acquisition of subsidiaries, entities accounted for using the equity method and interests in joint operations item includes €0.0 million (previous year: €89.6 million) for fully consolidated companies and €287.0 million (previous year: €36.9 million) for entities accounted for using the equity method.

The cash payments made for investments in fully consolidated companies and entities accounted for using the equity method and interests in joint operations totaled €287.0 million in the reporting year (previous year: €143.3 million). The cash payments made in the reporting 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 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 fully consolidated companies and entities accounted for using the equity method as well as interests in joint operations totaled €0.0 million (previous year: €143.3 million). In the reporting year, no cash and cash equivalents were acquired in the course of share purchases (previous year: €16.8 million).

In the previous year, cash payments primarily concerned the acquisition of Gas-Union. Intangible assets of €3.4 million, property, plant and equipment of €73.2 million, other non-current assets of €319.1 million, other current assets of €315.7 million, assets held for sale of €99.1 million, non-current liabilities of €286.5 million, current liabilities of €340.2 million and liabilities held for sale

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.

of €94.4 million were acquired with the purchase of Gas-Union. 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 €0.0 million (previous year: €0.3 million). Cash and cash equivalents of €0.0 million (previous year: €39.9 million) were relinquished in the reporting year as a result of the sale of shares. In the comparative period, this resulted mainly from the sale of the shares in Pegasus Energie GmbH. Assets of €53.8 million and liabilities of €92.5 million were derecognized due to the sale of Pegasus Energie GmbH. In addition, capital reductions at entities accounted for using the equity method were included.

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

in € million	2021	2020
Cash flow from investing activities	-2,859.1	-1,978.5
- Interest and dividends received	-358.0	-264.5
- Cash received/paid for investments in connection with short-term finance planning	-47.3	18.0
- Net investments held as financial assets	208.1	145.2
- Net investments in property held as financial assets	-3.4	-0.6
- Net investments in other assets	445.7	-53.2
- Acquired/relinquished cash	0.0	23.1
+ Payments for alterations of capital in non-controlling interests	-74.6	72.4
+ Cash received/paid for changes in ownership interest without loss of control	224.0	207.7
+ Cash received/paid from participation models	-6.6	3.5
Cash payments for net investments	-2,471.2	-1,826.9

The dedicated financial assets contribution of €184.8 million (previous year: €123.1 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	2021	2020
Interest paid for investing activities (capitalized borrowing costs)	-24.1	-19.4
Interest paid for financing activities	-314.5	-236.1
Total amount of interest paid in the reporting period	-338.6	-255.5

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

in € million	As of 01/01/2021	Cash- relevant changes	Non-cash-relevant changes					As of 31/12/2021
			Changes in the group of con- solidated 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 liabilities²	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.

in € million	As of 01/01/2020	Cash- relevant changes	Non-cash-relevant changes					As of 31/12/2020
			Changes in the group of con- solidated companies	Currency effects	Addition to leases	Accrued interest	Other changes	
Subordinated bonds	2,978.4	493.6	0.0	-22.5		0.0	5.9	3,455.4
Bonds	2,724.1	996.1	0.0	-5.5		0.0	-8.3	3,706.4
Liabilities to banks	2,021.9	-285.6	32.7	-2.1		5.0	0.0	1,771.9
Other financial liabilities ¹	466.3	-26.1	3.4	-1.1		3.8	233.0	679.3
Financial liabilities²	8,190.7	1,178.0	36.1	-31.2	0.0	8.8	230.6	9,613.0
Other liabilities (interest on bonds)	116.4	-88.5	0.0	0.0		94.6	0.0	122.5
Other liabilities (leases) ³	699.5	-174.0	7.0	-2.1	339.9	0.0	16.0	886.3
Total	9,006.6	915.5	43.1	-33.3	339.9	103.4	246.6	10,621.8

1 The other changes to other financial liabilities include €234.8 million from the "EnBW connects" participation model.

2 The cash-relevant changes include €8.8 million from interest payments.

3 The cash-relevant changes include €13.9 million from interest payments.

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

(33) Additional disclosures on capital management

Capital management at EnBW covers both the management of the net debt of €8,786.1 million (previous year: €14,406.5 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.

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 2021, the creditworthiness of EnBW was rated by the rating agencies Moody's and Standard & Poor's with Baa1 / stable and A- / stable, respectively.

(34) Segment reporting

2021 in € million	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue					
External revenue	13,998.2	4,407.2	13,734.8	7.7	32,147.9
Internal revenue	1,127.1	1,471.2	5,498.6	-8,096.9	0.0
Total revenue	15,125.3	5,878.4	19,233.4	-8,089.2	32,147.9
Earnings indicators					
Adjusted EBITDA	323.1	1,288.5	1,535.1	-187.4	2,959.3
EBITDA	254.7	1,177.3	1,370.6	0.9	2,803.5
Adjusted EBIT	161.5	686.8	794.1	-239.5	1,402.9
EBIT	90.5	572.2	-452.7	-51.2	158.8
Income from reversals of impairment losses	0.0	63.4	33.0	0.0	96.4
Scheduled amortization and depreciation	-161.6	-601.7	-741.0	-52.1	-1,556.4
Impairment losses	-2.6	-3.4	-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	1,803.8	10,202.6	6,457.9	656.1	19,120.4
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	248.4	1,614.5	465.2	33.8	2,361.9

2020 in € million ¹	Smart Infrastructure for Customers	System Critical Infrastructure	Sustainable Generation Infrastructure	Other/ Consolidation	Total
Revenue					
External revenue	9,964.9	3,657.5	6,063.8	8.1	19,694.3
Internal revenue	757.2	1,353.1	3,131.6	-5,242.0	0.0
Total revenue	10,722.1	5,010.6	9,195.4	-5,233.9	19,694.3
Earnings indicators					
Adjusted EBITDA	335.0	1,346.6	1,277.8	-178.2	2,781.2
EBITDA	206.1	1,311.0	1,162.0	-15.8	2,663.3
Adjusted EBIT	184.0	793.2	636.7	-222.4	1,391.5
EBIT	53.4	668.6	440.7	-60.0	1,102.7
Income from reversals of impairment losses	0.0	2.6	14.3	0.0	16.9
Scheduled amortization and depreciation	-151.0	-553.4	-641.2	-44.2	-1,389.7
Impairment losses	-1.7	-89.0	-80.2	0.0	-170.9
Net profit/loss from entities accounted for using the equity method	2.8	14.4	78.2	0.0	95.4
Significant non-cash-relevant items	-61.4	-2.1	10.7	-21.4	-74.2
Assets and liabilities					
Capital employed	1,621.3	11,549.8	10,328.1	525.8	24,025.0
of which carrying amount of entities accounted for using the equity method	(95.9)	(450.3)	(422.7)	(0.0)	(968.9)
Capital expenditure on intangible assets and property, plant and equipment	217.4	1,365.2	542.1	45.0	2,169.7

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.

As part of the EnBW 2025 strategy, EnBW has been divided into three new segments since the beginning of 2021 that focus on infrastructure. "Sales" activities have become the new segment "Smart Infrastructure for Customers" and the "Grids" segment has become the "System Critical Infrastructure" segment. Finally, the "Sustainable Generation Infrastructure" segment has been formed from the previous "Renewable Energies" and "Generation and Trading" segments. With respect to capital employed, the method for allocating deferred taxes within the segments was also updated. The figures for the comparative periods have been restated accordingly in each case.

Sales of electricity and gas, energy industry services and energy solutions, telecommunications and electromobility are summarized in the Smart Infrastructure for Customers segment.

The System Critical Infrastructure segment encompasses the value-added stages of transmission and distribution of electricity and gas. In addition, the expansion of the HVDC connections in the transmission grid, the provision of grid-related services and the supply of water is reported in the 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, the trading of gas and electricity, the provision of system services and the operation of reserve power plants for the transmission grids. In addition, the gas midstream business with storage, the dismantling of power plants, district heating and waste management / environmental services are reported here.

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 allocations to provisions 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	2021	2020
Adjusted EBITDA	2,959.3	2,781.2
Non-operating EBITDA	-155.8	-117.9
of which income/expenses relating to nuclear power	(70.5)	(43.7)
of which income from the reversal of other provisions	(8.6)	(38.3)
of which result from disposals	(-6.6)	(2.4)
of which reversals of/additions to the provisions for onerous contracts relating to electricity procurement agreements	(-343.1)	(-56.8)
of which income from reversals of impairment losses	(69.5)	(16.9)
of which restructuring	(-42.3)	(-53.9)
of which other non-operating result	(87.6)	(-108.5)
EBITDA	2,803.5	2,663.3
Amortization and depreciation	-2,644.7	-1,560.6
Earnings before interest and taxes (EBIT)	158.8	1,102.7
Investment result	180.0	206.9
Financial result	174.5	-307.0
Earnings before tax (EBT)	513.3	1,002.6

The components of non-operating EBITDA can be found in the income statement, in particular, in income to the amount of €643.0 million (previous year: €227.2 million), as well as in expenses to the amount of €798.8 million (previous year: €345.1 million).

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	31/12/2021	31/12/2020
Intangible assets	3,417.0	3,498.5
Property, plant and equipment	20,364.4	19,990.9
Investment properties	45.6	27.9
Investments ¹	1,529.0	1,541.0
Loans	274.3	283.7
Inventories	2,290.3	1,151.1
Trade receivables ²	5,864.7	4,749.7
Other assets ³	21,982.1	5,211.3
of which income tax refund claims	(242.1)	(287.5)
of which other tax refund claims	(135.4)	(158.4)
of which derivatives	(17,190.4)	(3,797.8)
of which payments on account	(65.5)	(52.4)
of which prepaid expenses	(238.1)	(153.5)
of which miscellaneous assets	(4,241.2)	(1,106.8)
of which assets held for sale	(54.0)	(35.0)
of which components attributable to net debt	(-184.6)	(-380.1)
Other provisions	-4,038.0	-2,529.2
Trade payables and other liabilities ⁴	-32,693.8	-10,314.4
of which trade payables	(-6,430.6)	(-4,011.2)
of which other deferred income	(-322.8)	(-227.6)
of which derivatives	(-19,134.0)	(-3,588.5)
of which income tax liabilities	(-180.2)	(-283.3)
of which contract liabilities	(-986.5)	(-956.6)
of which other liabilities	(-5,649.9)	(-1,263.7)
of which liabilities directly associated with the assets classified as held for sale	(0.0)	(-4.3)
of which components attributable to net debt	(10.2)	(20.8)
Subsidies	-12.1	-14.2
Deferred taxes ⁵	96.9	428.7
Capital employed	19,120.4	24,025.0
Average capital employed ⁶	21,711.5	23,025.6

1 Including entities accounted for using the equity method, shares in affiliated entities and other investments allocable to operating activities.

2 Excluding affiliated entities, excluding receivables associated with nuclear provisions.

3 Excluding net profit from CTA, excluding valuation effects from interest-induced hedging transactions.

4 Excluding affiliated entities, excluding non-controlling interests in fully consolidated partnerships recognized as liabilities.

5 Deferred tax assets and liabilities netted.

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

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

External revenue by region

in € million	2021	2020
Germany	27,098.4	16,375.5
European currency zone excluding Germany	3,065.9	1,842.6
Rest of Europe	1,982.6	1,475.1
Rest of world	1.0	1.0
	32,147.9	19,694.3

External revenue by product

in € million	2021	2020
Electricity	15,268.2	10,840.4
Gas	14,910.4	7,079.6
Energy and environmental services/other	1,969.3	1,774.3
	32,147.9	19,694.3

Intangible assets and property, plant and equipment by region

in € million	31/12/2021	31/12/2020
Germany	21,117.7	21,010.6
European currency zone excluding Germany	701.5	604.6
Rest of Europe	1,962.2	1,874.1
	23,781.4	23,489.4

(35) Related parties (entities)

Related parties include, above all, the Federal State of Baden-Württemberg and Zweckverband Oberschwäbische Elektrizitätswerke (OEW) as indirect major shareholders of EnBW AG. As of 31 December 2021, 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 2021. 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	2021		2020	
	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	164.3	213.9	161.1	197.1
Expenses	-105.2	-318.6	-116.2	-148.3
Assets	131.6	62.1	134.9	42.9
Liabilities	13.5	636.6	14.7	525.0
Other obligations	199.5	268.4	208.0	135.6

In business relations with joint ventures accounted for using the equity method, receivables and liabilities are almost exclusively due within one year. The other financial obligations mainly comprise guarantees and sureties.

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 the expenses and liabilities in comparison to the previous year. Other obligations to these entities result primarily from long-term purchase obligations in the electricity sector.

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

(36) Related parties (individuals)

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

Total remuneration for members of the Board of Management and Supervisory Board serving in the reporting year was €7.6 million (previous year: €10.9 million).

For members of the Board of Management serving in the reporting year, this included short-term benefits of €4.8 million (previous year: €5.0 million), long-term benefits of €0.0 million (previous year: €3.1 million) and the service and interest costs for defined benefit obligations of €1.2 million (previous year: €1.3 million). Total remuneration according to section 314 (1) no. 6a HGB was €4.8 million (previous year: €8.1 million) and does not include any pension expenses. In addition, there were accrued obligations for short-term benefits, mainly related to the Short Term Incentive (STI) for the financial year, of €2.5 million (previous year: €2.1 million), for long-term benefits of €0.0 million (previous year: €6.2 million), for Long Term Incentives (LTI) for all performance periods that have already begun but have not yet been paid and for defined benefit obligations of €17.4 million (previous year: €16.6 million).

Former members of the Board of Management and their surviving dependents were granted total remuneration according to section 314 (1) no. 6b HGB of €6.7 million (previous year: €6.6 million). A post-contractual non-competition agreement was concluded for a period of two years with a member of the Board of Management who stepped down in the reporting year. This grants him non-competition compensation in the amount of half of his last annual remuneration with a maximum of €1.3 million.

There are defined benefit obligations to former members of the Board of Management and their surviving dependents of €112.6 million (previous year: €116.9 million).

For the 2021 financial year, members of the Supervisory Board were granted total remuneration according to section 314 (1) no. 6a HGB of €1.6 million (previous year: €1.5 million). In addition to fixed components, the short-term remuneration includes attendance fees and board remuneration from subsidiaries.

(37) Additional disclosures

List of shareholdings pursuant to section 313 (2) HGB as of 31 December 2021

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
Smart Infrastructure for Customers segment					
Fully consolidated companies					
1	bmp greengas GmbH, Munich	3	100.00	5,697	–
2	BroadNet Deutschland GmbH, Cologne	3	100.00	4,011	–
3	ED GrünSelect GmbH, Rheinfelden		100.00	499	0
4	EnBW Energy Factory GmbH, Stuttgart	3	100.00	250	–
5	EnBW Mainfrankenpark GmbH, Dettelbach	3	100.00	3,759	–
6	EnBW Telekommunikation GmbH, Karlsruhe	3	100.00	273,334	–
7	EnBW Urbane Infrastruktur GmbH, Karlsruhe	3	100.00	25	–
8	EnBW Vertriebsbeteiligungen GmbH, Stuttgart		100.00	13,702	-2
9	ESD Energie Service Deutschland GmbH, Offenburg		100.00	7,421	1,489
10	eYello CZ k.s., Prague/Czech Republic	5, 13	100.00	264	0
11	G.EN. Gaz Energia Sp. z o.o., Tarnowo Podgórze/Republic of Poland		100.00	44,247	4,039
12	GasVersorgung Süddeutschland GmbH, Stuttgart	3	100.00	65,000	–
13	Gasversorgung Unterland GmbH, Heilbronn	3	100.00	8,225	–
14	goldgas GmbH, Vienna/Austria		100.00	2,975	-365
15	goldgas GmbH, Eschborn	3	100.00	23,190	–
16	HANDEN Sp. z o.o., Warsaw/Republic of Poland		100.00	62,267	6,835
17	HEV Hohenloher Energie Versorgung GmbH, Ilshofen	3	100.00	10,219	–
18	Interconnector GmbH, Karlsruhe	3	100.00	25	–
19	NaturEnergie+ Deutschland GmbH, Mühlacker		100.00	2,867	64
20	NatürlichEnergie EMH GmbH, Platten		100.00	7	214
21	Plusnet GmbH, Cologne	3	100.00	186,930	–
22	Plusnet Infrastruktur GmbH & Co. KG, Cologne		100.00	3,829	-452
23	PREservisní, s.r.o., Prague/Czech Republic	5	100.00	1,796	413
24	PREzakaznicka a.s., Prague/Czech Republic	5	100.00	1,291	878
25	RBS wave GmbH, Stuttgart	3	100.00	503	–
26	Sales & Solutions GmbH, Stuttgart	3	100.00	75,618	–
27	SENEC GmbH, Leipzig		100.00	26,857	11,027
28	SENEC Italia s.r.l., Rome/Italy		100.00	647	8,135
29	TRITEC AG, Aarberg/ Switzerland		100.00	1,436	1,907
30	Ventelo GmbH, Cologne	3	100.00	142,238	–
31	VNG Austria GmbH, Gleisdorf/Austria		100.00	5,620	315
32	VNG Energie Czech s.r.o., Prague/Czech Republic		100.00	3,596	1,962
33	VNG-Erdgascommerz GmbH, Leipzig	3	100.00	162,101	–
34	VOLTCOM spol. s r.o., Prague/Czech Republic	5	100.00	643	499
35	winsun AG, Steg-Hohtenn/Switzerland		100.00	739	134
36	Yello Strom GmbH, Cologne	3	100.00	1,100	–
37	ZEAG Immobilien GmbH & Co. KG, Heilbronn		100.00	2,153	1,357
38	EnBW mobility+ AG & Co. KG, Karlsruhe		99.90	-1,065	-49,749
39	Gas-Union GmbH, Frankfurt am Main	3	98.15	62,550	–
40	FoxlInsights GmbH, Munich (formerly LIV-T GmbH, Munich)		92.00	0	-979
41	WTT CampusONE GmbH, Ludwigsburg		80.00	0	948
42	Erdgas Südwest GmbH, Karlsruhe		79.00	66,548	366
43	NetCom BW GmbH, Ellwangen		74.90	23,553	-618
44	Messerschmid Energiesysteme GmbH, Bonndorf	5	60.00	1,648	493
45	Energieversum GmbH & Co. KG, Gütersloh	6	51.41	5,621	4,261
46	SMATRICS EnBW GmbH, Vienna/Austria (formerly SMATRICS mobility+ GmbH, Vienna /Austria)		51.00	35	-2,735
47	BSH GmbH & Co. KG, Bad Königshofen i. Grabfeld	7	50.10	3,122	3,034
48	Solarmeisterei GmbH, Schwielowsee		50.10	25	1,396
49	Pražská energetika a.s., Prague/Czech Republic	5, 12	41.40	507,642	94,674

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
Non-consolidated affiliated entities¹⁴					
50	010052 Telecom GmbH, Cologne	3, 5	100.00	25	-
51	010088 Telecom GmbH, Cologne	3, 5	100.00	25	-
52	010090 GmbH, Cologne	3, 5	100.00	156	-
53	01012 Telecom GmbH, Cologne	3, 5	100.00	27	-
54	01052 Communication GmbH, Cologne	3, 5	100.00	25	-
55	01098 Telecom GmbH, Cologne	3, 5	100.00	25	-
56	Broadnet Services GmbH, Cologne	3, 5	100.00	25	-
57	Energieversum Verwaltungs GmbH, Gütersloh	5	100.00	25	0
58	EZG Operations GmbH, Stuttgart	5	100.00	557	185
59	F&Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	1	0
60	GIBY GmbH, Leipzig	5	100.00	23	-1
61	mobility + Beteiligungs GmbH, Karlsruhe	5	100.00	26	1
62	NatürlichEnergie Projekte GmbH, Monzelfeld	5	100.00	22	-1
63	NatürlichEnergie Swiss NES GmbH, Laufenburg/Switzerland	5	100.00	10	345
64	Plusnet Verwaltungs GmbH, Cologne	5	100.00	29	1
65	Q-DSL home GmbH, Cologne	3, 5	100.00	1,293	-
66	Q-Süd Immobilien Verwaltungs GmbH, Heilbronn	5	100.00	24	-1
67	Senec Australia PTY Ltd., Sorrento/Australia	5, 7	100.00	-566	-815
68	SENEC Cloud s.r.l., Rome/Italy	5	100.00	48	14
69	T & Q Netzbetriebs GmbH & Co. KG, Cologne	5	100.00	0	37
70	VNG ViertelEnergie GmbH, Leipzig	3, 5	100.00	98	-
71	VNG-Erdgastankstellen GmbH, Leipzig	3, 5	100.00	25	-
72	Yello Solar GmbH, Karlsruhe	5	100.00	-12,465	-3,916
73	ZEAG Immobilien Verwaltungsgesellschaft mbH, Heilbronn	5	100.00	29	2
74	fonial GmbH, Cologne	5	83.27	0	-947
75	effizienzcloud GmbH, Leipzig	5, 6	74.99	35	-7
76	BEN Fleet Services GmbH, Karlsruhe	5	55.00	1,194	-2,330
77	grünES GmbH, Esslingen am Neckar	5	51.00	482	132
78	Stromvertrieb Backnang Verwaltungs GmbH, Backnang	5	51.00	31	1
79	Energie- und Medienversorgung Sandhofer Straße Verwaltungs GmbH, Mannheim i.L.		50.00	-	-
Entities accounted for using the equity method					
80	Fernwärme SBH AG, Grafenhausen	5	40.00	137	-133
81	MITGAS Mitteldeutsche Gasversorgung GmbH, Halle (Saale)	5	24.60	96,400	10,600
Investments¹⁴					
82	AutenSys GmbH, Karlsruhe	5	65.00	110	-171
83	backnangstrom GmbH & Co. KG, Backnang	5	51.00	0	66
84	CleverShuttle Düsseldorf GmbH, Düsseldorf	5	50.00	-1,469	-1,257
85	my-e-car GmbH, Lörrach	5	50.00	148	66
86	Regionah Energie GmbH, Munderkingen	5	50.00	11	-104
87	Einhorn Energie GmbH & Co. KG, Giengen an der Brenz	5	49.90	679	533
88	Einhorn Energie Verwaltungsgesellschaft mbH, Giengen an der Brenz	5	49.90	35	1
89	iQ-Gesellschaft für integrierte Quartierslösungen mbH, Ravensburg	5	49.90	59	-41
90	Stadtwerke Freiberg a.N. GmbH, Freiberg am Neckar	5	49.90	6,313	417
91	Gasversorgung Pforzheim Land GmbH, Pforzheim	5	49.00	1,561	1,912
92	Sautter PE GmbH, Ellhofen	5	49.00	0	-104
93	Silphienergie GmbH, Ostrach	5	40.00	-87	-159
94	caplog-x GmbH, Leipzig	5	37.34	2,432	1,307
95	Visp Infra AG, Visp/Switzerland	5	35.00	5,670	1
96	IDR Infrastrukturdienste Raron AG, Raron/Switzerland	5	33.00	282	50
97	espot GmbH, Stuttgart	5	32.60	584	67
98	Tempus s.r.l., Torri di Quartesolo/Italy	5	30.43	639	14
99	Energie 360 GmbH & Co. KG, Korbach (formerly Korbacher Energiezentrum GmbH & Co. KG, Korbach)	5	30.00	2,241	1,912
100	Schön Verwaltungsgesellschaft mbH, Korbach	5	30.00	27	2

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
101	Gemeinschaft für Energieeffizienz GmbH, Düsseldorf	5	26.40	-669	-25
102	BSH Verwaltungs-GmbH, Bad Königshofen i. Grabfeld	7	25.10	15	0
103	Energieagentur Heilbronn GmbH, Heilbronn	5	25.00	5	-65
104	Stadt- und Überlandwerke GmbH Luckau-Lübbenau, Luckau	5	23.38	32,900	2,281
105	EDSR Energiedienste Staldenried AG, Staldenried/Switzerland	5	20.00	209	13
System Critical Infrastructure segment					
Fully consolidated companies					
106	ED Netze GmbH, Rheinfelden	3	100.00	145,165	-
107	EnBW Kommunale Beteiligungen GmbH, Stuttgart	3	100.00	995,226	-
108	EnBW Netze BW Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	1,643,228	-
109	EnBW REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	405,649	-
110	EVGA Grundstücks- und Gebäudemanagement GmbH & Co. KG, Obrigheim		100.00	91,621	44,156
111	FRONTIER TECHNOLOGIES, s.r.o., Prague/Czech Republic	5	100.00	809	88
112	GDMcom GmbH, Leipzig	3	100.00	23,504	-
113	KORMAK Praha a.s., Prague/Czech Republic	5	100.00	1,053	923
114	Netze BW Wasser GmbH, Stuttgart	3	100.00	32,894	-
115	Netze ODR GmbH, Ellwangen (Jagst) (formerly Netzgesellschaft Ostwürttemberg DonauRies GmbH, Ellwangen Jagst)	3	100.00	174,131	-
116	Netze-Gesellschaft Südwest mbH, Karlsruhe	3	100.00	86,139	-
117	Netzgesellschaft Düsseldorf mbH, Düsseldorf	3, 5	100.00	1,000	-
118	NHF Netzgesellschaft Heilbronn-Franken mbH, Heilbronn	3	100.00	4,000	-
119	NHL Netzgesellschaft Heilbronner Land GmbH & Co. KG, Heilbronn		100.00	1,524	0
120	NWS Grundstücksmanagement GmbH & Co. KG, Obrigheim		100.00	315,333	38,468
121	NWS REG Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	79,988	-
122	ONTRAS Gastransport GmbH, Leipzig	3	100.00	760,000	-
123	PREdistribuce a.s., Prague/Czech Republic	5	100.00	744,071	47,240
124	PREmerení a.s., Prague/Czech Republic	5	100.00	36,692	7,606
125	PREnetcom, a.s., Prague/Czech Republic	5	100.00	916	453
126	Q-Süd Gewerbe GmbH & Co. KG, Heilbronn		100.00	16,753	225
127	Q-Süd Wohnen GmbH & Co. KG, Heilbronn		100.00	16,753	-1
128	terranets bw GmbH, Stuttgart	3	100.00	140,000	-
129	TransnetBW GmbH, Stuttgart	3	100.00	1,478,141	-
130	TransnetBW SuedLink GmbH & Co. KG, Stuttgart		100.00	541,542	15,332
131	ZEAG Engineering GmbH, Heilbronn		100.00	4,542	846
132	EnBW Ostwürttemberg DonauRies AG, Ellwangen	3	99.74	115,439	-
133	ZEAG Energie AG, Heilbronn		98.66	203,823	1,297
134	Netze BW GmbH, Stuttgart	3	86.51	1,130,861	-
135	Stadtwerke Düsseldorf AG, Düsseldorf	5	54.95	527,724	41,136
136	Stromnetzgesellschaft Heilbronn GmbH & Co. KG, Heilbronn	8	49.90	35,694	1,449
137	Neckar Netze GmbH & Co. KG, Esslingen am Neckar	8	49.00	49,539	5,433
Non-consolidated affiliated entities¹⁴					
138	Batteriegesellschaft Kupferzell GmbH & Co. KG, Kupferzell	11	100.00	-	-
139	Elektrizitätswerk Aach GmbH, Aach	5	100.00	3,347	614
140	Energieversorgung Gaildorf OHG der EnBW Kommunale Beteiligungen GmbH und NWS REG Beteiligungsgesellschaft mbH, Gaildorf	5	100.00	2,300	673
141	Energieversorgung Raum Friedrichshafen Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	25	0
142	GDMcom Netze GmbH, Leipzig	5	100.00	0	-66
143	GEOMAGIC GmbH, Leipzig	5	100.00	5,245	1,881
144	IBZ Bau GmbH, Zeulenroda-Triebes	5	100.00	2,256	980
145	IBZ Neubauer GmbH & Co. KG, Zeulenroda-Triebes	5	100.00	250	126
146	IBZ Neubauer Verwaltungs GmbH, Zeulenroda-Triebes	5	100.00	19	1
147	InfraKom GmbH, Rheinfelden (Baden)	11	100.00	-	-
148	MoviaTec GmbH, Leipzig	5	100.00	85	-421
149	Neckar Netze Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	100.00	129	4
150	Netze Regional GmbH, Stuttgart	5	100.00	25	-4

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
151	NHL Verwaltungs-GmbH, Heilbronn	5	100.00	25	0
152	OSG ONTRAS Servicegesellschaft mbH, Leipzig	5	100.00	25	0
153	Schneider GmbH, Cavertitz	5	100.00	2,099	309
154	Transnet BW SuedLink Verwaltungsgesellschaft mbH, Stuttgart	5, 13	100.00	22	-1
155	TransnetBW Ultramet GmbH & Co. KG, Stuttgart	11	100.00	-	-
156	TransnetBW Ultramet Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	-	-
157	Verwaltungsgesellschaft Batteriespeicher Kupferzell mbH, Kupferzell	11	100.00	-	-
158	Wärmegesellschaft Heilbronn GmbH, Heilbronn	5	100.00	18	-7
159	INFRACON Infrastruktur Service GmbH & Co. KG, Leipzig	5	99.50	5,034	2,539
160	Rieger GmbH & Co. KG, Lichtenstein, Kreis Reutlingen	5	74.28	916	647
161	Rieger Beteiligungs-GmbH, Lichtenstein, Kreis Reutlingen	5	74.24	50	1
162	Elektrizitätswerk Weißenhorn AG, Weißenhorn	5	63.24	3,841	303
163	Netze Pforzheim-Region GmbH & Co. KG, Pforzheim	5	60.00	8,117	768
164	Gasnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	3,590	214
165	Gasnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	28	0
166	Netzgesellschaft Elz-Neckar GmbH & Co. KG, Obrigheim	5	50.10	1,184	27
167	Netzgesellschaft Elz-Neckar Verwaltungs GmbH, Obrigheim	5	50.10	34	1
168	Stromnetzgesellschaft Albershausen GmbH & Co. KG, Albershausen	5	50.10	1,233	86
169	Stromnetzgesellschaft Albershausen Verwaltungs GmbH, Albershausen	5	50.10	32	1
170	Stromnetzgesellschaft Heilbronn Verwaltungs-GmbH, Heilbronn	5	50.10	26	0
171	Stromnetzgesellschaft Laupheim GmbH & Co. KG, Laupheim	5	50.10	2,606	88
172	Stromnetzgesellschaft Laupheim Verwaltungs GmbH, Laupheim	5	50.10	29	0
173	Netze Krauchenwies Verwaltungs-GmbH, Krauchenwies	5	50.00	26	1
Entities accounted for using the equity method					
174	Stadtwerke Esslingen am Neckar GmbH & Co. KG, Esslingen am Neckar	5	49.98	65,543	3,523
175	Pražská energetika Holding a.s., Prague/Czech Republic	5, 9	49.00	228,655	37,927
176	GasLINE Telekommunikationsnetzgesellschaft deutscher Gasversorgungsunternehmen mbH & Co. Kommanditgesellschaft, Straelen	5	29.24	92,853	24,455
177	Zweckverband Landeswasserversorgung, Stuttgart	5	27.20	112,751	0
178	Heilbronner Versorgungs GmbH, Heilbronn	4, 5	25.10	51,750	-
179	Stuttgart Netze GmbH, Stuttgart	4, 5, 9	25.10	290,444	-
180	FairEnergie GmbH, Reutlingen	4, 5	24.90	116,166	-
181	Stadtwerke Hilden GmbH, Hilden	3, 4, 5	24.90	19,539	-
182	Energieversorgung Rheinfelden/Grenzach-Wyhlen GmbH & Co. KG, Rheinfelden (Baden)	5	24.00	22	-12
183	Zweckverband Bodensee-Wasserversorgung, Stuttgart	5	20.57	157,703	3,000
184	Stadtwerke Karlsruhe GmbH, Karlsruhe	4, 5	20.00	190,700	-
Investments¹⁴					
185	Netzgesellschaft Sontheim GmbH & Co. KG, Sontheim an der Brenz	5	74.90	1,912	321
186	Netzgesellschaft Sontheim Verwaltungsgesellschaft mbH, Sontheim an der Brenz	5	74.90	25	0
187	Netzgesellschaft Steinheim GmbH & Co. KG, Steinheim am Albuch	5	74.90	411	73
188	Netzgesellschaft Steinheim Verwaltungsgesellschaft mbH, Steinheim am Albuch	5	74.90	25	0
189	Stromnetz Herrenberg Verwaltungsgesellschaft mbH, Herrenberg	5	74.90	34	1
190	Stromnetzgesellschaft Herrenberg mbH & Co. KG, Herrenberg	5	74.90	4,472	607
191	Stadtwerke Sinsheim Versorgungs GmbH & Co. KG, Sinsheim	5	60.00	13,417	-1,019
192	Stadtwerke Sinsheim Verwaltungs GmbH, Sinsheim	5	60.00	32	1
193	Stromnetz Langenau GmbH & Co. KG, Langenau	5	50.10	2,614	109
194	Stromnetz Langenau Verwaltungs-GmbH, Langenau	5	50.10	36	1
195	e.wa riss GmbH & Co. KG, Biberach	5	50.00	34,714	1,251
196	e.wa riss Verwaltungsgesellschaft mbH, Biberach	5	50.00	53	2
197	Flexcess GmbH, Bayreuth	11	50.00	-	-
198	Fränkische Wasser Service GmbH, Crailsheim	5	50.00	54	9
199	lictor GmbH, Leipzig	5	50.00	346	32
200	Netze Krauchenwies GmbH & Co. KG, Krauchenwies	5	50.00	1,500	-7
201	Niederrheinisch-Bergisches Gemeinschaftswasserwerk GmbH, Düsseldorf	5	50.00	3,111	94
202	Ostalbwasser Ost GmbH, Ellwangen	5	50.00	50	5

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
203	Ostalbwasser Service GmbH, Aalen	5	50.00	35	10
204	Ostalbwasser West GmbH, Schwäbisch Gmünd	5	50.00	50	3
205	regioaqua Gesellschaft für Wasser und Abwasser mbH, Rheinfelden	5	50.00	87	19
206	Stadtwerke Schramberg GmbH & Co. KG, Schramberg	5	50.00	16,334	2,206
207	Stadtwerke Schramberg Verwaltungsgesellschaft mbH, Schramberg	5	50.00	44	2
208	Wasserübernahme Neuss-Wahlscheid GmbH, Neuss	5	50.00	444	12
209	EberstadtWerke GmbH & Co. KG, Eberstadt	11	49.99	–	–
210	Stadtwerke Emmendingen GmbH, Emmendingen	5	49.90	17,393	1,060
211	Stromnetz Blaubeuren GmbH, Blaubeuren	5	49.90	2,766	105
212	Stadtwerke Esslingen-Verwaltungsgesellschaft mbH, Esslingen am Neckar	5	49.80	46	1
213	Energie Sachsenheim GmbH & Co. KG, Sachsenheim	5	49.00	4,683	179
214	Energie Sachsenheim Verwaltungs-GmbH, Sachsenheim	5	49.00	36	2
215	Gemeindewerke Bodanrück GmbH & Co. KG, Allensbach	5	49.00	4,704	162
216	Gemeindewerke Bodanrück Verwaltungs-GmbH, Allensbach	5	49.00	30	1
217	LEO Energie GmbH & Co. KG, Leonberg	5	49.00	9,883	328
218	Netzgesellschaft Marbach GmbH & Co. KG, Marbach am Neckar	5	49.00	2,500	87
219	Rems-Murr Telekommunikation GmbH, Waiblingen	5	49.00	3,986	–5
220	Stadtwerke Backnang GmbH, Backnang	4, 5	49.00	14,940	–
221	Stadtwerke Bad Wildbad GmbH & Co. KG, Bad Wildbad	5	49.00	7,035	1,099
222	Stadtwerke Bad Wildbad Verwaltungs-GmbH, Bad Wildbad	5	49.00	45	1
223	Stadtwerke Eppingen GmbH & Co. KG, Eppingen	5	49.00	8,082	386
224	Energie Calw GmbH, Calw	4, 5	48.82	15,301	–
225	KBB GmbH Kommunalberatung Infrastrukturentwicklung, Baden-Baden	5	45.00	160	52
226	Stadtwerke Münsingen GmbH, Münsingen	5	45.00	6,953	701
227	Stadtwerke Böblingen GmbH & Co. KG, Böblingen	5	41.10	36,723	1,680
228	Stadtwerke Böblingen Verwaltungs GmbH, Böblingen	5	41.10	6	9
229	Energieversorgung Südbaar GmbH & Co. KG, Blumberg	5	40.00	7,081	1,199
230	SUEnergie GmbH & Co. KG, Süßen	5	40.00	2,186	53
231	SUEnergie Verwaltungs GmbH, Süßen	5	40.00	34	1
232	Stadtwerke Weinheim GmbH, Weinheim	5	39.32	31,012	3,863
233	Energieversorgung Rottenburg am Neckar GmbH, Rottenburg am Neckar	4, 5	38.00	7,660	–
234	EVG Grächen AG, Grächen/Switzerland	5	35.00	4,835	93
235	EVN Energieversorgung Nikolai AG, St. Niklaus/Switzerland	5, 7	35.00	1,651	107
236	EVR Energieversorgung Raron AG, Raron/Switzerland	5, 7	35.00	923	86
237	EVWR Energiedienste Visp - Westlich Raron AG, Visp/Switzerland	5	35.00	4,484	378
238	Valgrid SA, Sion/Switzerland	5	35.00	22,758	1,870
239	VED Visp Energie Dienste AG, Visp/Switzerland	5, 7	35.00	3,590	374
240	Seeallianz GmbH & Co. KG, Markdorf	5	33.00	7,067	419
241	Taubernetze GmbH & Co. KG, Tauberbischofsheim	5	33.00	2,004	102
242	Taubernetze Verwaltungs-GmbH, Tauberbischofsheim	5	33.00	28	1
243	ErmstalEnergie Dettingen an der Erms GmbH & Co. KG, Dettingen an der Erms	5	32.60	4,150	362
244	Versorgungsbetriebe Dettingen an der Erms Verwaltungs-GmbH, Dettingen an der Erms	5	32.60	32	1
245	eneREGIO GmbH, Muggensturm	5	32.00	9,265	370
246	Regionalnetze Linzgau GmbH, Pfullendorf	4, 5	31.64	6,462	–
247	Elektrizitätswerk Mittelbaden AG & Co. KG, Lahr	5	31.00	62,338	10,542
248	Elektrizitätswerk Mittelbaden Verwaltungsaktiengesellschaft, Lahr	5	31.00	151	7
249	Stadtwerke Bad Herrenalb GmbH, Bad Herrenalb	5	30.00	10,604	–997
250	Energie- und Wasserversorgung Bruchsal GmbH, Bruchsal	4, 5	27.41	23,002	–
251	Stadtwerke Bad Säckingen GmbH, Bad Säckingen	3, 5	26.30	8,673	–
252	Albwerk GmbH & Co. KG, Geislingen an der Steige	5	25.10	24,893	4,641
253	Albwerk Verwaltungsgesellschaft mbH, Geislingen an der Steige	5	25.10	84	3
254	Energie Kirchheim unter Teck GmbH & Co. KG, Kirchheim unter Teck	5	25.10	11,913	595
255	Energie Kirchheim unter Teck Verwaltungs-GmbH, Kirchheim unter Teck	5	25.10	32	1
256	Energieversorgung Immenstaad GmbH & Co. KG, Immenstaad am Bodensee	5	25.10	882	36
257	Energieversorgung Strohgau GmbH & Co. KG, Gerlingen	5	25.10	8,475	379

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
258	Energieversorgung Strohgäu Verwaltungs GmbH, Gerlingen	5	25.10	28	1
259	Filderstadt Netze GmbH, Filderstadt	5	25.10	71	-8
260	Gasnetzgesellschaft Schorndorf GmbH & Co. KG, Schorndorf	5	25.10	4,696	358
261	Gasnetzverwaltungsgesellschaft Schorndorf GmbH, Schorndorf	5	25.10	34	1
262	Gemeindewerke Brühl GmbH & Co. KG, Brühl	5	25.10	1,442	31
263	Gemeindewerke Brühl Verwaltungs-GmbH, Brühl	5	25.10	33	1
264	Gemeindewerke Plüderhausen GmbH, Plüderhausen	5	25.10	1,941	128
265	Infrastrukturgesellschaft Plochingen GmbH & Co. KG, Plochingen	5	25.10	3,859	247
266	Netzgesellschaft Besigheim GmbH & Co. KG, Besigheim	5	25.10	4,682	200
267	Netzgesellschaft Besigheim Verwaltungs GmbH, Besigheim	5	25.10	33	1
268	Netzgesellschaft Leinfelden-Echterdingen GmbH, Leinfelden-Echterdingen	5	25.10	13,007	472
269	Netzgesellschaft Salach GmbH & Co. KG, Salach	5	25.10	3,683	163
270	Netzgesellschaft Salach Verwaltungs GmbH, Salach	5	25.10	32	1
271	Netzgesellschaft Schwetzingen GmbH & Co. KG, Schwetzingen	5	25.10	2,225	89
272	Netzgesellschaft Schwetzingen Verwaltungs GmbH, Schwetzingen	5	25.10	30	1
273	Netzgesellschaft Vaihingen GmbH & Co. KG, Vaihingen an der Enz	5	25.10	8,268	507
274	Netzgesellschaft Vaihingen Verwaltungs-GmbH, Vaihingen an der Enz	5	25.10	32	1
275	Stadtwerke Ellwangen GmbH, Ellwangen	4, 5	25.10	9,752	-
276	Stadtwerke Giengen GmbH, Giengen	5	25.10	14,068	947
277	Stadtwerke Schwäbisch Gmünd GmbH, Schwäbisch Gmünd	4, 5	25.10	30,751	-
278	Stadtwerke Stockach GmbH, Stockach	5	25.10	13,209	1,662
279	Stadtwerke Weinstadt Energieversorgung GmbH, Weinstadt	4, 5	25.10	7,653	-
280	Stadtwerke Wiesloch - Strom - GmbH & Co. KG, Wiesloch	5	25.10	2,580	86
281	Stromgesellschaft March GmbH & Co. KG, March	5	25.10	959	-3
282	Stromnetzgesellschaft Ebersbach GmbH & Co. KG, Ebersbach an der Fils	5	25.10	3,482	171
283	Stromnetzgesellschaft Ebersbach Verwaltungs GmbH, Ebersbach an der Fils	5	25.10	33	1
284	Stromnetzgesellschaft Östlicher Schurwald GmbH & Co. KG, Rechberghausen	5	25.10	3,150	174
285	Stromnetzgesellschaft Östlicher Schurwald Verwaltungs GmbH, Rechberghausen	5	25.10	32	1
286	Technische Werke Schussental GmbH & Co. KG, Ravensburg	5	25.10	57,532	4,311
287	Technische Werke Schussental Verwaltungsgesellschaft mbH, Ravensburg	5	25.10	23	-3
288	tktVivax GmbH, Backnang	5, 7	25.06	1,128	607
289	Stromversorgung Sulz am Neckar GmbH, Sulz am Neckar	5	24.90	4,245	289
290	Netzeigentumsgesellschaft Rheinstetten GmbH & Co. KG, Rheinstetten	5	24.50	4,710	107
291	Stadtwerke Schopfheim GmbH, Schopfheim	5	24.50	159	-16
292	Stadtwerke Wehr GmbH & Co. KG, Wehr	5	24.50	2,727	172
293	Stadtwerke Wehr Verwaltungs-GmbH, Wehr	5	24.50	23	1
294	Energieversorgung Oberes Wiesental GmbH, Todtnau	5	24.00	4,108	223
295	Netzgesellschaft Edingen-Neckarhausen GmbH & Co. KG, Edingen-Neckarhausen	5	24.00	977	59
296	ENRW Energieversorgung Rottweil GmbH & Co. KG, Rottweil	5	20.00	29,486	2,355
297	ENRW Verwaltungs-GmbH, Rottweil	5	20.00	15	1
298	Stadtwerke Sindelfingen GmbH, Sindelfingen	5	20.00	45,646	3,792
299	Versorger-Allianz 450 Beteiligungs GmbH & Co. KG, Bonn	5	17.63	24,331	-445
Sustainable Generation Infrastructure segment					
Fully consolidated companies					
300	Aletsch AG, Mörel/Switzerland		100.00	24,878	1,184
301	AWISTA Logistik GmbH, Düsseldorf	3, 5	100.00	3,025	-
302	BALANCE Erneuerbare Energien GmbH, Leipzig	3	100.00	39,615	-
303	Barre Energie SARL, Montpellier/France		100.00	-21	-6
304	Biogas Produktion Altmark GmbH, Hohenberg-Krusemark		100.00	21,172	-1,849
305	Cambert Énergie SARL, Montpellier/France		100.00	53	354
306	Centrale Photovoltaïque de Saint Quentin la Tour SAS, Montpellier/France		100.00	-53	-112
307	Centrale Solaire d'Exideuil SARL, Montpellier/France		100.00	-56	-267
308	Centrale Solaire de Châteauvert SARL, Montpellier/France		100.00	-224	-192
309	Centrale Solaire de Coste Cuyère SARL, Montpellier/France		100.00	-29	52
310	Centrale Solaire de Maine SARL, Montpellier/France		100.00	-33	-64

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
311	Centrale Solaire de Montegut SARL, Montpellier/France		100.00	-33	-129
312	Centrale Solaire de Severac SARL, Montpellier/France		100.00	-96	-159
313	Centrale Solaire des Terres Rouges SARL, Montpellier/France		100.00	-966	-1,055
314	Centrale Solaire du Sycala SARL, Montpellier/France		100.00	1	972
315	Centrale Solaire du Tea Fleury-Merogis SARL, Montpellier/France		100.00	-335	-174
316	Centrale Solaire EMA Solar SARL, Montpellier/France		100.00	-107	-132
317	Centrales Solaires de l'Isle sur la Sorgue SAS, Montpellier/France		100.00	-161	-85
318	Connected Wind Services A/S, Balle/Denmark	5	100.00	5,591	-1,981
319	Connected Wind Services Danmark A/S, Balle/Denmark	5	100.00	1,649	359
320	Connected Wind Services Deutschland GmbH, Rantrum	5	100.00	944	-951
321	Connected Wind Services France SAS, Dijon/France	5	100.00	412	-188
322	Connected Wind Services Refurbishment A/S, Balle/Denmark	5	100.00	-170	-56
323	Couffrau Energie SARL, Montpellier/France		100.00	-125	223
324	Deves Énergie SARL, Montpellier/France		100.00	67	597
325	EnBW Biogas GmbH, Stuttgart	3	100.00	52	-
326	EnBW Biomasse GmbH, Karlsruhe		100.00	2,778	480
327	EnBW Etzel Speicher GmbH, Karlsruhe	3	100.00	825	-
328	EnBW France GmbH, Stuttgart	3	100.00	608,417	-
329	EnBW Grundstücksverwaltung Rheinhafen GmbH, Karlsruhe		100.00	2,503	80
330	EnBW He Dreht GmbH, Varel	3	100.00	26,016	-
331	EnBW Holding A.S., Gümüssuyu-Istanbul/Turkey		100.00	232,696	-167
332	EnBW Kraftwerk Lippendorf Beteiligungsgesellschaft mbH, Stuttgart	3	100.00	297,640	-
333	EnBW NAG-Beteiligungsgesellschaft mbH, Stuttgart		100.00	22	0
334	EnBW Offshore 1 GmbH, Stuttgart	3	100.00	28,737	-
335	EnBW Offshore 2 GmbH, Stuttgart	3	100.00	690,453	-
336	EnBW Offshore 3 GmbH, Stuttgart	3	100.00	799,436	-
337	EnBW Offshore Service GmbH, Klausdorf	3	100.00	3,725	-
338	EnBW Renewables International GmbH, Stuttgart	3	100.00	86,809	-
339	EnBW Rückbauservice GmbH, Stuttgart	3	100.00	25	-
340	EnBW Solar GmbH, Stuttgart	3	100.00	94,051	-
341	EnBW Solarpark Alttrebbin GmbH & Co. KG, Stuttgart		100.00	684	-334
342	EnBW Solarpark Gottesgabe GmbH, Stuttgart		100.00	1,032	-334
343	EnBW Solarpark Tuningen GmbH, Stuttgart	3	100.00	3,680	-
344	EnBW Solarpark Weesow-Willmersdorf GmbH, Stuttgart		100.00	98,511	5,376
345	EnBW Sverige AB, Falkenberg/Sweden		100.00	74,338	-2,112
346	EnBW Wind Onshore 1 GmbH, Stuttgart	3	100.00	25	-
347	EnBW Wind Onshore Instandhaltungs GmbH, Karlsruhe	3	100.00	51,915	-
348	EnBW Windkraftprojekte GmbH, Stuttgart	3	100.00	47,211	-
349	EnBW Windpark Eisenach II GmbH, Stuttgart		100.00	17,829	1,034
350	EnBW Windpark Hemme GmbH, Stuttgart		100.00	163	-32
351	EnBW Windpark Prötzel GmbH, Stuttgart		100.00	3,728	-276
352	Energiedienst AG, Rheinfelden		100.00	185,348	10,189
353	ENERGIEUNION GmbH, Schwerin	3	100.00	6,223	-
354	Ferme Éolienne de la Bessière SARL, Montpellier/France		100.00	-2,157	407
355	Ferme Éolienne de Puech de Cambert SARL, Montpellier/France		100.00	516	692
356	Ferme Éolienne de Puech de l'Homme SARL, Montpellier/France		100.00	110	953
357	Gemeinschaftsheizkraftwerk Fortuna GmbH, Düsseldorf	5	100.00	283,134	1,068
358	Gesellschaft für nukleares Reststoffrecycling mbH, Neckarwestheim	3	100.00	1,377	-
359	Gramentes Énergie SAS, Montpellier/France		100.00	-955	-528
360	Grünwerke GmbH, Düsseldorf	3, 5	100.00	38,400	-
361	Heizkraftwerk Stuttgart GmbH, Stuttgart		100.00	5,129	0
362	Kernkraftwerk Obrigheim GmbH, Obrigheim	3	100.00	51,130	-
363	Kraftwerk Lötschen AG, Steg/Switzerland		100.00	28,851	885
364	La Société des Monts de Lacauene SAS, Montpellier/France		100.00	1,426	989
365	Le Val Energie SARL, Montpellier/France		100.00	143	522

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
366	Leipziger Biogasgesellschaft mbH, Leipzig		100.00	1,063	-121
367	MSE Mobile Schlammmentwässerungs GmbH, Karlsbad-Ittersbach	3	100.00	1,171	-
368	Parc Éolien de la Vallée de Belleuse SARL, Montpellier/France		100.00	143	-36
369	Parc Éolien de Marendeuil SARL, Montpellier/France		100.00	-87	-478
370	Parc Éolien du Mont de Maisnil SARL, Montpellier/France		100.00	-147	-276
371	PRE FVE Nové Sedlo, s.r.o., Prague/Czech Republic	11	100.00	-	-
372	PRE FVE Svetlik s.r.o., Leitnowitz/Czech Republic	5	100.00	6,082	1,108
373	PRE VTE Částkov s.r.o., Prague/Czech Republic	5	100.00	-543	108
374	Socpe de Champs Perdus SARL, Montpellier/France		100.00	-705	-268
375	SOLARINVEST - GREEN ENERGY, s.r.o., Prague/Czech Republic	5	100.00	2	42
376	SPIGAS S.r.l., La Spezia/Italy		100.00	17,701	-12,741
377	Svenska Connected Wind Services AB, Falkenberg/Sweden	5	100.00	477	150
378	TAE Thermische Abfallentsorgung Ansbach GmbH, Ansbach		100.00	58,959	-51
379	TPLUS GmbH, Karlsruhe	3	100.00	18,162	-
380	TWS Kernkraft GmbH, Gemmrigheim	3	100.00	149,297	-
381	u-plus Umweltservice GmbH, Karlsruhe	3	100.00	99,979	-
382	Valeco SAS, Montpellier/France		100.00	103,228	-1,289
383	VNG Gasspeicher GmbH, Leipzig	3	100.00	21,311	-
384	VNG Handel & Vertrieb GmbH, Leipzig	3	100.00	37,840	-
385	VNG Italia S.r.l., Bologna/Italy		100.00	43,971	7,942
386	Windpark "Auf der Weißen Trisch" GmbH, Zweibrücken		100.00	1,082	418
387	Windpark Breitenbach GmbH, Düsseldorf		100.00	25	-47
388	Windpark Obhausen/Nemsdorf GmbH & Co. KG, Stuttgart		100.00	4,753	2,902
389	Windpark Rot am See GmbH, Ellwangen (Jagst)	3	100.00	25	-
390	EE Bürgerenergie Braunsbach GmbH & Co. KG, Braunsbach		99.99	7,600	187
391	BürgerEnergie Königheim GmbH & Co. KG, Königheim		99.97	3,000	230
392	EE BürgerEnergie Forchtenberg GmbH & Co. KG, Forchtenberg		99.93	1,500	16
393	EnBW Kernkraft GmbH, Obrigheim	3	99.80	10,000	-
394	EnAlpin AG, Visp/Switzerland		98.60	190,283	6,961
395	Valeco Solar SARL, Montpellier/France		95.20	38	-3
396	EE BürgerEnergie Möckmühl GmbH & Co. KG, Möckmühl		95.17	1,575	17
397	EE BürgerEnergie Jagsthausen GmbH & Co. KG, Jagsthausen		95.11	4,625	55
398	Bürgerenergie Widdern GmbH & Co. KG, Widdern		95.07	7,580	92
399	Südwestdeutsche Nuklear-Entsorgungsgesellschaft mbH, Stuttgart		86.49	9,106	1,733
400	EE Bürgerenergie Hardthausen GmbH & Co. KG, Hardthausen am Kocher		85.36	12,353	115
401	Langenburg Infrastruktur GmbH, Stuttgart		83.33	8,517	-22
402	Neckar Aktiengesellschaft, Stuttgart		82.20	10,179	4,472
403	EE BürgerEnergie Boxberg GmbH & Co. KG, Boxberg		79.50	16,350	1,320
404	Zentraldeponie Hubbelrath GmbH, Düsseldorf		76.00	6,136	1,048
405	JatroSolutions GmbH, Stuttgart		75.30	0	-1,235
406	Geothermie-Gesellschaft Bruchsal GmbH, Bruchsal		74.90	975	-147
407	Saint Laurent Solar SAS, Montpellier/France		72.02	1,584	1,105
408	Energiedienst Holding AG, Laufenburg/Switzerland	10	66.67	1,016,813	31,594
409	Centrale Solaire de la Durance SARL, Montpellier/France		65.00	474	174
410	Parc Éolien de Bel Air SAS, Montpellier/France		63.40	21	-221
411	EE Bürgerenergie Ilshofen GmbH & Co. KG, Ilshofen		60.25	3,950	156
412	EnBW Windpark Aalen-Waldhausen GmbH, Stuttgart		59.00	25,699	348
413	Rheinkraftwerk Neuhausen AG, Neuhausen/Switzerland		56.00	1,199	49
414	EnBW Solarpark Ingoldingen GmbH, Stuttgart		55.00	3,942	89
415	Erneuerbare Energien Neckarwestheim GmbH & Co. KG, Neckarwestheim		51.90	1,050	56
416	AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, Düsseldorf	5	51.00	52,305	19,661
417	Centrale Solaire de Saint Mamet SARL, Montpellier/France		51.00	-673	-76
418	Solarpark Berghülen GmbH, Stuttgart		51.00	2,581	24
419	Solarpark Leutkirch GmbH & Co. KG, Leutkirch im Allgäu		51.00	7,445	633
420	Solarpark Riedlingen-Zwiefaltendorf GmbH, Stuttgart		51.00	4,807	87

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
421	KNG Kraftwerks- und Netzgesellschaft mbH, Rostock		50.40	545	8
422	EnBW Baltic 1 GmbH & Co. KG, Biberach an der Riß		50.32	43,907	5,769
423	EnBW Albatros GmbH & Co. KG, Biberach an der Riß		50.11	453,214	38,073
424	EnBW Hohe See GmbH & Co. KG, Biberach an der Riß		50.11	1,813,777	145,120
425	EnBW Baltic 2 GmbH & Co. KG, Biberach an der Riß		50.10	969,923	54,067
426	EnBW WindInvest GmbH & Co. KG, Stuttgart		50.10	174,877	-5,163
427	EnBW Windpark Buchholz III GmbH, Stuttgart		50.10	20,518	249
428	Windenergie Tautschbuch GmbH, Riedlingen		50.10	622	0
429	EnBW Onshore Portfolio GmbH, Stuttgart		50.02	72,350	3,033
430	Energie Renouvelable du Languedoc SARL, Montpellier/France		50.00	-1,590	-751
431	Joncels Energie SARL, Montpellier/France		50.00	-2,303	-114
Joint operations					
432	Friedeburger Speicherbetriebsgesellschaft mbH "Crystal", Friedeburg	9	50.00	78,589	521
433	Rheinkraftwerk Iffezheim GmbH, Iffezheim	9	50.00	88,533	2,905
434	Rhonewerke AG, Ernen/Switzerland	5, 9	30.00	26,571	0
Non-consolidated affiliated entities¹⁴					
435	BALANCE Management GmbH, Leipzig	5	100.00	19	0
436	Biogas Trelde Berg 1 GmbH, Buchholz	3, 5	100.00	1,125	-
437	Biogas Trelde Berg 2 GmbH, Buchholz	3, 5	100.00	525	-
438	Biogas Trelde Berg 3 GmbH, Buchholz	3, 5	100.00	525	-
439	Biosphärenwindpark Schwäbische Alb GmbH, Stuttgart	5	100.00	150	-1
440	Bliekevare Nät AB, Falkenberg/Sweden	5	100.00	66	0
441	CarbonBW (Thailand) Ltd., Bangkok/Thailand	5	100.00	12,043	1,350
442	CAS de la Plaine SAS, Montpellier/France	11	100.00	-	-
443	Centernach Énergie SARL, Montpellier/France	5	100.00	-1,026	-216
444	Centrale Photovoltaïque Agroénergie SARL, Montpellier/France	5	100.00	-14	-6
445	Centrale Photovoltaïque de Bionne SARL, Montpellier/France	5	100.00	-18	-5
446	Centrale Photovoltaïque de Castelle SARL, Montpellier/France	5	100.00	-2	-2
447	Centrale Photovoltaïque de la demi-lune SARL, Montpellier/France	5	100.00	-2	-2
448	Centrale Photovoltaïque de la Forêt Baignollais SARL, Montpellier/France	5	100.00	-13	-5
449	Centrale Photovoltaïque de la ZA de Gaudet SARL, Montpellier/France	5	100.00	-20	-6
450	Centrale Photovoltaïque de Labastide SARL, Montpellier/France	5	100.00	-13	-6
451	Centrale Photovoltaïque de Pavaiiler SARL, Montpellier/France	5	100.00	-15	-7
452	Centrale Photovoltaïque de Sirius SARL, Montpellier/France	5	100.00	-16	-7
453	Centrale Photovoltaïque des Coteaux de la Braye SARL, Montpellier/France	5	100.00	-28	-19
454	Centrale Photovoltaïque des Gravières SARL, Montpellier/France	5	100.00	-47	-5
455	Centrale Photovoltaïque Domitita SAS, Montpellier/France	11	100.00	-	-
456	Centrale Photovoltaïque du Perche Ornais SARL, Montpellier/France	5	100.00	-17	-6
457	Centrale Photovoltaïque Pont du Casse SARL, Montpellier/France	5	100.00	-1	-2
458	Centrale Photovoltaïque Retour sur l'Isle SARL, Montpellier/France	5	100.00	-6	-1
459	Centrale Sol. de la Foret au Maitre SAS, Montpellier/France	5	100.00	1	0
460	Centrale Solaire d'Algosud SARL, Montpellier/France	5	100.00	-4	-2
461	Centrale Solaire de Beauce SARL, Montpellier/France	5	100.00	0	0
462	Centrale Solaire de Biltagarbi SARL, Montpellier/France	5	100.00	-327	-84
463	Centrale Solaire de Bors de Montmoreau SARL, Montpellier/France	5	100.00	-28	-9
464	Centrale Solaire de Cap Delta SARL, Montpellier/France	5	100.00	-4	-1
465	Centrale Solaire de Carré Sud SARL, Montpellier/France	5	100.00	-59	-16
466	Centrale Solaire de Catreille SARL, Montpellier/France	5	100.00	-12	-7
467	Centrale Solaire de Châteauprouse SARL, Montpellier/France	5	100.00	-5	-1
468	Centrale Solaire de Clave SARL, Montpellier/France	5	100.00	-69	-53
469	Centrale Solaire de Colombiers SARL, Montpellier/France	5	100.00	-206	-84
470	Centrale Solaire de Josse SARL, Montpellier/France	5	100.00	-4	-1
471	Centrale Solaire de la Fourchale SAS, Montpellier/France	5	100.00	1	0
472	Centrale Solaire de la Tastère SARL, Montpellier/France	5	100.00	-10	-11

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
473	Centrale Solaire de les Leches SAS, Montpellier/France	11	100.00	–	–
474	Centrale Solaire de Leyritz-Moncassin SAS, Montpellier/France	5	100.00	-2	-1
475	Centrale Solaire de Lunel SARL, Montpellier/France	5	100.00	-459	29
476	Centrale Solaire de MAGNAC-LAVAL SAS, Montpellier/France	5	100.00	1	0
477	Centrale Solaire de Marignac SARL, Montpellier/France	5	100.00	-13	-5
478	Centrale Solaire de Nohanent SARL, Montpellier/France	5	100.00	-7	-7
479	Centrale Solaire de Peregrine SARL, Montpellier/France	5	100.00	0	0
480	Centrale Solaire de Roubian SARL, Montpellier/France	5	100.00	-56	-57
481	Centrale Solaire de Saint Leger de Balson SARL, Montpellier/France	5	100.00	-22	-5
482	Centrale Solaire de Saint-Just SAS, Montpellier/France	11	100.00	–	–
483	Centrale Solaire de Saumejan SAS, Montpellier/France	5	100.00	1	0
484	Centrale Solaire de Til Chatel 2 SARL, Montpellier/France	5	100.00	-2	-3
485	Centrale Solaire de Til Chatel SARL, Montpellier/France	5	100.00	-14	-5
486	Centrale Solaire des Calottes SARL, Montpellier/France	5	100.00	-10	-8
487	Centrale Solaire des Coëvrons SARL, Montpellier/France	5	100.00	-21	-10
488	Centrale Solaire des Moulins Lodevois SARL, Montpellier/France	5	100.00	-15	-12
489	Centrale Solaire du Bois Comte SARL, Montpellier/France	5	100.00	-2	-3
490	Centrale Solaire du Caussanel SARL, Montpellier/France	5	100.00	-10	-10
491	Centrale Solaire du Lido SARL, Montpellier/France	5	100.00	-29	-5
492	Centrale Solaire du Tertre SAS, Montpellier/France	5	100.00	1	0
493	Centrale Solaire d'Aguessac SAS, Montpellier/France	5	100.00	-1	-12
494	Centrale Solaire EuroPrimeur SARL, Montpellier/France	5	100.00	-2	-2
495	Centrale Solaire Gesim Beau Ciel SARL, Montpellier/France	5	100.00	-4	-1
496	Centrale Solaire la Charme SARL, Montpellier/France	5	100.00	0	0
497	Centrale Solaire la Vidalle SARL, Montpellier/France	5	100.00	-6	-3
498	Centrale Solaires des Oceans SAS, Montpellier/France	5	100.00	1	0
499	Centrales Solaires d'Hyperion SARL, Montpellier/France	5	100.00	-21	-13
500	Centrales Solaires de Iouanacera SARL, Montpellier/France	5	100.00	-6	-3
501	Centrales Solaires de Quirinus SARL, Montpellier/France	5	100.00	20	-1
502	Centrales Solaires de Salles-la-Source SARL, Montpellier/France	5	100.00	-4	-1
503	Centrales Solaires de Terreneuve SARL, Montpellier/France	5	100.00	0	0
504	Centrales Solaires des Terres Rouges 3 SAS, Montpellier/France	11	100.00	–	–
505	Centrales Solaires du Languedoc SARL, Montpellier/France	5	100.00	147	44
506	CP D'ORVAL SASU, Montpellier/France	11	100.00	–	–
507	CS DE COURTENAY SASU, Montpellier/France	11	100.00	–	–
508	CS DE LA GROLLE SASU, Montpellier/France	11	100.00	–	–
509	CS DE MAGNY SUR TILLE SASU, Montpellier/France	11	100.00	–	–
510	CS LAS SERETTES SASU, Montpellier/France	11	100.00	–	–
511	EnBW Albatros Management GmbH, Biberach an der Riß	5	100.00	46	1
512	EnBW Asia Pacific Ltd, Taipei/Taiwan	5	100.00	7,538	-1,638
513	EnBW Baltic 1 Verwaltungsgesellschaft mbH, Biberach an der Riß	5	100.00	27	1
514	EnBW Baltic 2 Management GmbH, Biberach an der Riß	5	100.00	42	13
515	EnBW Baltic Windpark Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	35	1
516	EnBW Bürgerbeteiligung Wind 1 GmbH, Stuttgart	3, 5	100.00	25	–
517	EnBW Hohe See Management GmbH, Biberach an der Riß	5	100.00	30	1
518	EnBW Holm Vind AB, Falkenberg/Sweden	5	100.00	2	0
519	EnBW Neue Energien GmbH, Stuttgart	3, 5	100.00	50	–
520	EnBW North America Inc., Wilmington, Delaware/USA	5	100.00	22,125	-1,650
521	EnBW Norway AS, Oslo/Norway	11	100.00	–	–
522	EnBW Offshore Service Denmark ApS, Balle/Denmark	5	100.00	3,606	-61
523	EnBW Solar Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	26	1
524	EnBW Solarpark Birkenfeld GmbH, Stuttgart (formerly EnBW Omega 119. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	25	0
525	EnBW Solarpark Gickelfeld GmbH & Co. KG, Stuttgart	5	100.00	25	1
526	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€)
527	EnBW Wind Onshore Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	40	0
528	EnBW WindInvest Management GmbH, Stuttgart	5	100.00	24	-1
529	EnBW Windpark Kleinliebringen GmbH, Stuttgart	5	100.00	18	0
530	EnBW Windpark Ober-Ramstadt GmbH, Ober-Ramstadt (formerly EnBW Omega 115. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	25	0
531	EnergieFinanz GmbH, Schwerin	5	100.00	980	-10
532	Ferme Éolienne Beaucamps-le-Jeune SARL, Montpellier/France	5	100.00	-5	-5
533	Ferme Éolienne de Donzère SARL, Montpellier/France	5	100.00	464	-62
534	Ferme Éolienne de la Ferrière-de-Flée SARL, Montpellier/France	5	100.00	-6	-7
535	Ferme Éolienne de la Vallée de Valenne SARL, Montpellier/France	5	100.00	-5	-6
536	Ferme Éolienne de Plo d'Amoures SAS, Montpellier/France	5	100.00	-388	-61
537	Ferme Éolienne de Saint Jean de Pourcharesse SARL, Montpellier/France	5	100.00	-21	-5
538	Ferme Éolienne de Thalys SAS, Montpellier/France	5	100.00	-122	-12
539	Grünwerke Verwaltungs GmbH, Düsseldorf	5	100.00	44	3
540	Mistral SAS, Aix-en-Provence/France	5	100.00	-4	-13
541	Mélagues Energie SAS, Montpellier/France	5	100.00	-214	-11
542	NatürlichSonne Trogen GmbH & Co. KG, Monzelfeld	5	100.00	324	10
543	NatürlichSonne Trogen Verwaltungs GmbH, Ettlingen	5	100.00	20	-1
544	Parc Éolien d'Amfreville-les-Champs SARL, Montpellier/France	5	100.00	-45	-45
545	Parc Éolien d'Argillières SARL, Montpellier/France	5	100.00	-40	-16
546	Parc Éolien d'Hilvern SARL, Montpellier/France	5	100.00	-6	-7
547	Parc Éolien de Barbezières-Lupsault SARL, Montpellier/France	5	100.00	-14	-5
548	Parc Éolien de Bellenioie SAS, Montpellier/France	11	100.00	-	-
549	Parc Éolien de Bornay 2 SARL, Montpellier/France	5	100.00	-34	-14
550	Parc Éolien de Bornay SARL, Montpellier/France	5	100.00	-26	-5
551	Parc Éolien de Boussais SARL, Montpellier/France	5	100.00	-7	-7
552	Parc Éolien de Breuillac SARL, Montpellier/France	5	100.00	-25	-6
553	Parc Éolien de Champ Serpette SARL, Montpellier/France	5	100.00	-32	-24
554	Parc Éolien de Champs Perdus 2 SARL, Montpellier/France	5	100.00	-21	-9
555	Parc Éolien de Chan des Planasses SARL, Montpellier/France	5	100.00	-21	-15
556	Parc Éolien de Chasseneuil SARL, Montpellier/France	5	100.00	-85	-29
557	Parc Éolien de Combaynart SARL, Montpellier/France	5	100.00	-8	-8
558	Parc Éolien de Houarn SAS, Montpellier/France	5	100.00	1	-10
559	Parc Éolien de Keranflech SARL, Montpellier/France	5	100.00	-10	-10
560	Parc Éolien de Kerimard SARL, Montpellier/France	5	100.00	-7	-7
561	Parc Éolien de l'Épinette SARL, Montpellier/France	5	100.00	-23	-14
562	Parc Éolien de la Bussière SARL, Montpellier/France	5	100.00	-53	-10
563	Parc Éolien de la Cote du Moulin SARL, Montpellier/France	5	100.00	-4	-4
564	Parc Éolien de la Cressionnière SARL, Montpellier/France	5	100.00	-9	-8
565	Parc Éolien de la Fougère SARL, Montpellier/France	5	100.00	-75	-29
566	Parc Éolien de la Haute Charmoie SARL, Montpellier/France	5	100.00	-13	-5
567	Parc Éolien de la Lanques-sur-Rognon SARL, Montpellier/France	5	100.00	-14	-5
568	Parc Éolien de la Lorie SAS, Montpellier/France	11	100.00	-	-
569	Parc Éolien de la Naulerie SARL, Montpellier/France	5	100.00	-2	-3
570	Parc Éolien de la Pezille SARL, Montpellier/France	5	100.00	-6	-7
571	Parc Éolien de la Queille SARL, Montpellier/France	5	100.00	-2	-3
572	Parc Éolien de la Roche SARL, Montpellier/France	5	100.00	-8	-8
573	Parc Éolien de la Vallée Berlure SARL, Montpellier/France	5	100.00	-11	-5
574	Parc Éolien de la Vingeanne SARL, Montpellier/France	5	100.00	-14	-5
575	Parc Éolien de le Quesnel SARL, Montpellier/France	5	100.00	-28	-9
576	Parc Éolien de Lupsault SARL, Montpellier/France	5	100.00	-5	-5
577	Parc Éolien de l'Étourneau SARL, Montpellier/France	5	100.00	-11	-5
578	Parc Éolien de Mandres la Cote SAS, Montpellier/France	5	100.00	-13	-5
579	Parc Éolien de Monsures SARL, Montpellier/France	5	100.00	-80	-42
580	Parc Éolien de Mouterre-Silly SARL, Montpellier/France	5	100.00	-6	-7

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
581	Parc Éolien de Nongée SARL, Montpellier/France	5	100.00	-32	-24
582	Parc Éolien de Noroy SARL, Montpellier/France	5	100.00	-15	-6
583	Parc Éolien de Picoud SARL, Montpellier/France	5	100.00	-7	-8
584	Parc Éolien de Pistole SARL, Montpellier/France	5	100.00	-12	-5
585	Parc Éolien de Prinquies SAS, Montpellier/France	5	100.00	-17	-382
586	Parc Éolien de Pugny SARL, Montpellier/France	5	100.00	-5	-5
587	Parc Éolien de Ravery SARL, Montpellier/France	5	100.00	-8	-8
588	Parc Éolien de Revelles SAS, Montpellier/France	5	100.00	-34	-5
589	Parc Éolien de Ribemont SARL, Montpellier/France	5	100.00	-10	-5
590	Parc Éolien de Saint-Fraigne SARL, Montpellier/France	5	100.00	-5	-6
591	Parc Éolien de Sery-les-Mezières SARL, Montpellier/France	5	100.00	-7	-7
592	Parc Éolien de Severac d'Aveyron SARL, Montpellier/France	5	100.00	-10	-5
593	Parc Éolien de Thennes SARL, Montpellier/France	5	100.00	-20	-7
594	Parc Éolien de Vellexon SARL, Montpellier/France	5	100.00	-14	-5
595	Parc Éolien de Vervant et Lea SARL, Montpellier/France	5	100.00	-31	-16
596	Parc Éolien de Warlus SARL, Montpellier/France	5	100.00	-46	-11
597	Parc Éolien des Bouiges SARL, Montpellier/France	5	100.00	-78	-19
598	Parc Éolien des Brandes de l'Ozon Sud SARL, Montpellier/France	5	100.00	-59	-45
599	Parc Éolien des Cours SAS, Montpellier/France	11	100.00	-	-
600	Parc Éolien des Ecoulottes SARL, Montpellier/France	5	100.00	-88	-20
601	Parc Éolien des Gaudines SARL, Montpellier/France	5	100.00	-13	-5
602	Parc Éolien des Gours SARL, Montpellier/France	5	100.00	-5	-6
603	Parc Éolien des Moussières SARL, Montpellier/France	5	100.00	-14	-5
604	Parc Éolien des Navarros SARL, Montpellier/France	5	100.00	-31	-19
605	Parc Éolien des Quatre Chemins SARL, Montpellier/France	5	100.00	-14	-5
606	Parc Éolien des Rapailles SARL, Montpellier/France	5	100.00	-14	-5
607	Parc Éolien des Rieux SARL, Montpellier/France	5	100.00	-6	-6
608	Parc Éolien des Saules SARL, Montpellier/France	5	100.00	-23	-15
609	Parc Éolien des Smermesnil SAS, Montpellier/France	11	100.00	-	-
610	Parc Éolien des Terres de Caumont SARL, Montpellier/France	5	100.00	-28	-20
611	Parc Éolien du Bel Essart SARL, Montpellier/France	5	100.00	-30	-16
612	Parc Éolien du Bois de la Motte SARL, Montpellier/France	5	100.00	-7	-7
613	Parc Éolien du Bois du Piné SARL, Montpellier/France	5	100.00	-7	-7
614	Parc Éolien du Bois du Raz SAS, Montpellier/France	11	100.00	-	-
615	Parc Éolien du Commandeur SARL, Montpellier/France	5	100.00	-7	-7
616	Parc Éolien du Fresnay SARL, Montpellier/France	5	100.00	-5	-6
617	Parc Éolien du Frestoy SARL, Montpellier/France	5	100.00	-9	-5
618	Parc Éolien du Houssais SARL, Montpellier/France	5	100.00	-5	-6
619	Parc Éolien du Mecorbon SARL, Montpellier/France	5	100.00	-22	-13
620	Parc Éolien du Mont de l'Echelle SARL, Montpellier/France	5	100.00	-23	-7
621	Parc Éolien du Moulin a Vent SARL, Montpellier/France	5	100.00	-2	-3
622	Parc Éolien du Puy Peret SARL, Montpellier/France	5	100.00	-81	-36
623	Parc Éolien du Vallon de Sancey SARL, Montpellier/France	5	100.00	-46	-15
624	Parc Éolien le Mont du Bouillet SAS, Montpellier/France	11	100.00	-	-
625	PE Alexandre Millerand SAS, Montpellier/France	11	100.00	-	-
626	PE de Brion SAS, Montpellier/France	11	100.00	-	-
627	PE DES LANDES DE LA GRENOUILLERE SASU, Montpellier/France	11	100.00	-	-
628	PE DES LAVIERES SAS, Montpellier/France (formerly Parc Éolien des Hauts Poiriers SARL, Montpellier/France)	5	100.00	-2	-3
629	PE des Paquieries SAS, Montpellier/France	11	100.00	-	-
630	PE du Bois Breton SAS, Montpellier/France	11	100.00	-	-
631	P² Plant & Pipeline Engineering GmbH, Essen	5, 6	100.00	1,765	654
632	Röbergsfjället Nät AB, Falkenberg/Sweden	5	100.00	9	0
633	Sepe de la Gare SAS, Montpellier/France	5	100.00	79	85

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
634	Solarpark Gickelfeld Verwaltungsgesellschaft mbH, Stuttgart (formerly EnBW Omega 114. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	25	0
635	SP XIV GmbH & Co. KG, Cottbus	5	100.00	21	-9
636	SP XV GmbH & Co. KG, Cottbus	5	100.00	21	-9
637	Valeco Énergie Québec Inc., Montréal/Canada	5	100.00	-954	-62
638	ZEAG Erneuerbare Energien GmbH, Heilbronn	5	100.00	44	19
639	Valeco Energía México S.A. de C.V., Mexico City/Mexico	5	99.99	-101	-24
640	JATROSELECT-Paraguay Sociedad de Responsabilidad Limitada, Volendam/Paraguay	5	99.98	172	0
641	EE BürgerEnergie Krautheim GmbH & Co. KG, Krautheim	5	99.90	884	-17
642	EE BürgerEnergie Adelsheim GmbH & Co. KG, Adelsheim	11	99.00	-	-
643	EE Bürgerenergie Bühlerzell GmbH & Co. KG, Bühlerzell	5	99.00	52	-10
644	EE Bürgerenergie Frankenhardt GmbH & Co. KG, Frankenhardt	5	99.00	72	-3
645	EE Bürgerenergie Hardheim GmbH & Co. KG, Hardheim	5	99.00	39	-20
646	EE Bürgerenergie Höpfingen GmbH & Co. KG, Höpfingen	5	99.00	52	-12
647	EE BürgerEnergie Neudenaу GmbH & Co. KG, Neudenaу	5	99.00	65	3
648	EE BürgerEnergie Roigheim GmbH & Co. KG, Roigheim	5	99.00	100	0
649	EE BürgerEnergie Rosenberg GmbH & Co. KG, Rosenberg	11	99.00	-	-
650	EE Bürgerenergie Sulzbach-Laufen GmbH & Co. KG, Sulzbach-Laufen	5	99.00	73	-4
651	Neue Energie Billigheim GmbH & Co. KG, Billigheim	11	99.00	-	-
652	Erneuerbare Energien Tauberbischofsheim GmbH & Co. KG, Tauberbischofsheim	5	98.00	97	-3
653	EnPV GmbH, Karlsruhe	5	95.00	0	-484
654	Parc Éolien de Saint-Ygeaux SAS, Montpellier/France	5	95.00	-6	-14
655	Holzkraft Plus GmbH i.L., Düsseldorf		90.00	-	-
656	Parc Éolien des Bruyères SAS, Montpellier/France	5	90.00	2	-8
657	Parc Éolien de Brebières SAS, Montpellier/France	5	87.86	-7	-8
658	Parc Éolien de la Celle Saint CYR SAS, Montpellier/France	11	87.00	-	-
659	JatroGreen S.A.R.L., Antananarivo/Madagascar	5	70.00	136	5
660	Powderis SARL, Montpellier/France	5	70.00	-868	-15
661	Nahwärme Düsseldorf GmbH, Düsseldorf	5	66.00	2,703	308
662	Labruguière Énergies SAS, Montpellier/France	5	63.00	2,112	1,495
663	Hydro Léman SARL, Montpellier/France	5	57.00	-9	-2
664	Alb-Windkraft Verwaltungs GmbH, Geislingen an der Steige	5	51.00	36	9
665	Solarpark Leutkirch Verwaltungsgesellschaft mbH, Leutkirch im Allgäu	5	51.00	28	1
666	Kemberg Windpark Management GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	33.33	1,182	56
Entities accounted for using the equity method					
667	Valeco Ren SAS, Montpellier/France	5, 9	51.00	-1,006	1,331
668	Borusan EnBW Enerji yatırımları ve Üretim Anonim Şirketi, Istanbul/Turkey	5, 9	50.00	189,169	-21,444
669	Elektrizitätswerk Rheinau AG, Rheinau/Switzerland	5, 7	50.00	21,847	789
670	Erdgasspeicher Peissen GmbH, Halle (Saale)	5, 9	50.00	118,068	2,478
671	Fernwärme Ulm GmbH, Ulm	5, 7, 9	50.00	37,564	5,489
672	Mona Offshore Wind Holdings Limited, Sunbury-On-Thames/United Kingdom	11	50.00	-	-
673	Morgan Offshore Wind Holdings Limited, Sunbury-On-Thames/United Kingdom	9, 11	50.00	-	-
674	Schluchseewerk Aktiengesellschaft, Laufenburg (Baden)	5	50.00	70,575	2,809
675	REMONDIS Rhein-Wupper GmbH & Co. KG, Düsseldorf	5	49.00	15,996	9,519
676	Bayerische-Schwäbische Wasserkraftwerke Beteiligungsgesellschaft mbH, Gundremmingen	5	37.80	58,887	4,485
677	Grosskraftwerk Mannheim AG, Mannheim	5	32.00	140,729	6,647
678	KW Ackersand I AG, Stalden/Switzerland	5	25.00	1,933	0
Investments¹⁴					
679	Netzanschlussgesellschaft Windparks Ostercappeln/Bohnte mbH, Kirchdorf	5	66.66	25	10
680	UW Obhausen GmbH & Co. OHG, Stuttgart	5	58.06	42	-8
681	BALANCE EnviTec Bio-LNG GmbH, Ahrensfelde	11	51.00	-	-
682	Aranea Battery Solutions GmbH, Stuttgart (formerly Kraftwerksbatterie Heilbronn GmbH, Stuttgart)	5	50.00	5,117	-339
683	biogasNRW GmbH i.L., Düsseldorf		50.00	-	-
684	Centrale Electrique Rhénane de Gambsheim SA, Gambsheim/France	5	50.00	9,326	0
685	Centrale Solaire Lac Bedorede SAS, Montpellier/France	5	50.00	-3	-4

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
686	EnergyIncore GmbH, Schwerin	5, 6	50.00	90	25
687	Holding de la Montagne Noire SARL, Montpellier/France	5	50.00	5,776	6,360
688	KDM Kompostierungs- und Vermarktungsgesellschaft für Stadt Düsseldorf/Kreis Mettmann mbH, Ratingen	5	50.00	2,441	116
689	Kraftwerk Aegina A.G., Obergoms/Switzerland	5, 7	50.00	12,650	0
690	Kraftwerk Reckingen AG, Reckingen	5	50.00	3,203	72
691	Parc Éolien des Quintefeulles SAS, Montpellier/France	5	50.00	-32	-15
692	Parc Éolien Vallée de l'Escrebieux SAS, Montpellier/France	5	50.00	-7	-8
693	Powerment GmbH & Co. KG, Ettlingen	5	50.00	4,708	846
694	REEFUELERY GmbH, Bakum	11	50.00	-	-
695	Rheinkraftwerk Säckingen AG, Bad Säckingen	5	50.00	8,404	300
696	RheinWerke GmbH, Düsseldorf	5	50.00	5,000	-58
697	Wasserkraftwerk Hausen GbR, Hausen im Wiesental	5, 13	50.00	342	-54
698	WKM Wasserkraftwerke Maulburg GmbH, Maulburg	5	50.00	510	13
699	KW Jungbach AG, St. Niklaus/Switzerland	5	49.00	4,105	325
700	MOWA Mobile Waschanlagen GmbH, Neunkirchen-Seelscheid	5	49.00	474	440
701	Projektentwicklung Waldeck-Frankenberg GmbH & Co. KG, Korbach	5	49.00	284	-19
702	Projektentwicklung Waldeck-Frankenberg Verwaltungs GmbH, Korbach	5	49.00	27	1
703	REMONDIS Rhein-Wupper Verwaltungs GmbH, Düsseldorf	5	49.00	38	-1
704	Norseman Wind AS, Oslo/Norway	11	47.50	-	-
705	HWM Holzwärme Müllheim GmbH, Müllheim	5	45.00	478	55
706	Centrale Solaire de la Petite Vicomté SAS, Montpellier/France	5	44.00	-523	-272
707	Obere Donau Kraftwerke AG, Munich	5	40.00	3,180	0
708	Segalasses Énergie SARL, Toulouse/France	5	40.00	3,801	1,789
709	TWKW Trinkwasserkraftwerke Niedergesteln AG, Niedergesteln/Switzerland	5	40.00	1,779	155
710	Untergrundspeicher- und Geotechnologie-Systeme Gesellschaft mit beschränkter Haftung, Mittenwalde	5	40.00	6,173	-1,442
711	Kraftwerk Ryburg-Schwörstadt AG, Rheinfelden/Switzerland	5, 7	38.00	36,036	1,710
712	MIOGAS & LUCE S.r.l., Rozzano/Italy	5	38.00	11,555	1,596
713	Parc Éolien de Montelu SAS, Montpellier/France	5	34.00	-53	-21
714	Parc Éolien des Gassouillis SAS, Montpellier/France	5	34.00	-67	-19
715	GEIE Exploitation Minière de la Chaleur, Kutzenhausen/France	5, 13	33.33	0	-1,177
716	Windpark Hemme Infrastrukturgesellschaft GmbH & Co. KG, Walddorfhäslach	5	33.33	3	2
717	Windpark Prütze II GmbH & Co. KG, Düsseldorf	5	33.33	1,220	21
718	Beteiligungsgesellschaft der EVU an der Kerntechnischen Hilfsdienst GmbH - GbR, Karlsruhe	5, 13	30.77	0	0
719	KWT Kraftwerke Töbel-Moosalp AG, Töbel/Switzerland	5	30.00	932	46
720	Baltic Windpark Beteiligungen GmbH & Co. KG, Stuttgart	5	29.17	25,667	5,945
721	Kraftwerke Gougra AG, Sierre/Switzerland	5	27.50	54,679	2,320
722	EE Bürgerenergie Heilbronn GmbH & Co. KG, Heilbronn	5	26.00	1,000	75
723	Parc Éolien de Lavacquerié SAS, Montpellier/France	5	26.00	293	482
724	Windpark Lindtorf GmbH, Rheine	5	26.00	3,178	193
725	Alb-Windkraft GmbH & Co. KG, Geislingen an der Steige	5	25.50	534	650
726	Haiding One International Investment Co., Ltd., Taipei/Taiwan	5	25.00	122	-217
727	Haiding Three International Investment Co., Ltd., Taipei/Taiwan	5	25.00	123	-216
728	Haiding Two International Investment Co., Ltd., Taipei/Taiwan	5	25.00	98	-248
729	ANOG Anergienetz Obergoms AG, Obergoms/Switzerland	5	24.50	201	12
730	KWOG Kraftwerke Obergoms AG, Obergoms/Switzerland	5	24.10	12,893	780
731	CANARBINO S.p.A., Milan/Italy	5, 7	20.00	62,499	9,601
732	Ferme Éolienne de Muratel SAS, Montpellier/France	5	20.00	691	649
733	Kooperation Erneuerbare Energien im Landkreis Rottweil GmbH, Schramberg	5	20.00	71	-6
734	Montagnol Energie SAS, Montpellier/France	5	20.00	-389	1,013
735	Tauriac Energie SAS, Montpellier/France	5	20.00	-2,602	149
736	Wasserkraftwerk Pfinztal GmbH & Co. KG, Pfinztal	5	20.00	203	-12
737	Éolienne de Murasson SAS, Montpellier/France	5	20.00	184	144

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
Other					
Fully consolidated companies					
738	Der neue Stöckach GmbH & Co KG, Obrigheim	3	100.00	56,954	-
739	ED Immobilien GmbH & Co. KG, Rheinfelden		100.00	0	211
740	ED Immobilien Verwaltungsgesellschaft mbH, Rheinfelden		100.00	32	0
741	EnBW Betriebs- und Servicegesellschaft mbH, Karlsruhe	3	100.00	25	-
742	EnBW Central and Eastern Europe Holding GmbH, Stuttgart (formerly EnBW Omega Fünfundfünfzigste Verwaltungsgesellschaft mbH, Stuttgart)	3	100.00	1,395,025	-
743	EnBW City GmbH & Co. KG, Obrigheim		100.00	8,885	6,348
744	EnBW Immobilienbeteiligungen GmbH, Karlsruhe		100.00	495,187	3,066
745	EnBW International Finance B.V., Amsterdam/The Netherlands		100.00	311,755	14,471
746	EnBW New Ventures GmbH, Karlsruhe	3	100.00	46,780	-
747	EnBW Perspektiven GmbH, Karlsruhe	3	100.00	1,500	-
748	Facilma Grundbesitzmanagement und -service GmbH & Co. Besitz KG, Obrigheim		100.00	199,595	11,461
749	Neckarwerke Stuttgart GmbH, Stuttgart	3	100.00	1,880,237	-
750	NWS Finanzierung GmbH, Karlsruhe	3	100.00	1,237,605	-
751	symbiotic services GmbH, Karlsruhe	3	100.00	25	-
752	MURVA Grundstücks-Verwaltungsgesellschaft mbH & Co. KG, Grünwald	5	95.00	-6,791	1,088
753	VNG AG, Leipzig		74.21	1,010,751	155,202
754	ED Kommunal GmbH, Rheinfelden		73.00	37,526	1,332
755	EnBW Versicherungsvermittlung GmbH, Stuttgart		51.00	51	4,085
Non-consolidated affiliated entities¹⁴					
756	EnBW Bürgerbeteiligung Solar 1 GmbH, Stuttgart	3, 5	100.00	25	-
757	EnBW France SAS, Boulogne-Billancourt/France	5	100.00	13	-37
758	EnBW Omega 103. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
759	EnBW Omega 104. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
760	EnBW Omega 105. Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
761	EnBW Omega 107. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
762	EnBW Omega 108. Verwaltungsgesellschaft mbH, Stuttgart	3, 5	100.00	25	-
763	EnBW Omega 121. Verwaltungsgesellschaft mbH, Karlsruhe	3, 11	100.00	-	-
764	EnBW Omega 122. Verwaltungsgesellschaft mbH, Karlsruhe	3, 11	100.00	-	-
765	EnBW Omega 123. Verwaltungsgesellschaft mbH, Stuttgart	3, 11	100.00	-	-
766	EnBW Omega 124. Verwaltungsgesellschaft mbH, Stuttgart	3, 11	100.00	-	-
767	EnBW Omega 125. Verwaltungsgesellschaft mbH, Stuttgart	3, 11	100.00	-	-
768	EnBW Omega 126. Verwaltungsgesellschaft mbH, Stuttgart	3, 11	100.00	-	-
769	EnBW Omega 127. Verwaltungsgesellschaft mbH, Stuttgart	11	100.00	-	-
770	EnBW Omega 128. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
771	EnBW Omega 129. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
772	EnBW Omega 130. Verwaltungsgesellschaft mbH, Karlsruhe	11	100.00	-	-
773	EnBW Omega Dreundsiebzigste Verwaltungsgesellschaft mbH, Karlsruhe	5	100.00	23	0
774	EnBW Omega Fünfundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
775	EnBW Omega Neunundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
776	EnBW Omega Sechsendachtzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
777	EnBW Omega Vierundneunzigste Verwaltungsgesellschaft mbH, Karlsruhe	3, 5	100.00	25	-
778	EnBW Real Estate GmbH, Obrigheim	5	100.00	122	8
779	EnBW Senergi Immobilien GmbH, Karlsruhe	5	100.00	73	0
780	EnBW UK Limited, London/United Kingdom	11	100.00	-	-
781	EnBW vernetzt Beteiligungsgesellschaft mbH, Stuttgart	5	100.00	249	0
782	EnPulse Ventures GmbH, Karlsruhe (formerly EnBW Omega Achtundachtzigste Verwaltungsgesellschaft mbH, Karlsruhe)	3, 5	100.00	25	-
783	KMS Verwaltungsgesellschaft mbH, Stuttgart	5	100.00	44	0
784	MGMTree GmbH, Leipzig	5	100.00	104	-12
785	Regionalnetze Verwaltungs-GmbH, Stuttgart (formerly EnBW Omega 120. Verwaltungsgesellschaft mbH, Karlsruhe)	5	100.00	25	0
786	Rheintal PE GmbH & Co. KG, Bad Homburg v. d. Höhe	5	100.00	50,787	301
787	VNG Innovation Consult GmbH, Leipzig	5	100.00	35	20

		Footnote	Capital share ¹ (in %)	Equity ² (in T€)	Earnings ² (in T€)
788	VNG Innovation GmbH, Leipzig	3, 5	100.00	2,651	–
789	GDiesel Technology GmbH, Leipzig	5	60.00	275	–20
790	DZ-4 GmbH, Hamburg	5	57.50	0	–3,720
Investments¹⁴					
791	UnigestionFLEX SCS SICAV RAIF, Luxembourg/Luxembourg	5	100.00	273,583	–2,911
792	WP Global Germany Private Equity L.P., Wilmington, Delaware/USA	5, 13	100.00	168,105	11,975
793	Sirius EcoTech Fonds Düsseldorf GmbH & Co. KG i.L., Düsseldorf		78.15	–	–
794	ID Quadrat Verwaltungsgesellschaft mbH, Düsseldorf	5	50.00	25	2
795	Innovative Immobilien Duisburg Düsseldorf ID Quadrat GmbH & Co. Betriebsgesellschaft KG, Düsseldorf	5	50.00	1,906	–52
796	Intelligent Energy System Services GmbH, Ludwigsburg	9, 11	50.00	–	–
797	Neuss-Düsseldorfer Häfen GmbH & Co. KG, Neuss	5	50.00	88,052	5,077
798	Neuss-Düsseldorfer Häfen Verwaltungs-GmbH, Neuss	5	50.00	61	2
799	regiodata GmbH, Lörrach	5	35.00	1,650	1,085
800	EFR Europäische Funk-Rundsteuerung GmbH, Munich	5	25.10	4,669	2,815
801	vialytics GmbH, Stuttgart	5	24.40	0	–645
802	GasLINE Telekommunikationsnetz-Geschäftsführungsgesellschaft deutscher Gasversorgungs-unternehmen mbH, Straelen	5	23.39	72	2

1 Shares of the respective parent company calculated in accordance with section 313 (2) HGB (as of 31/12/2021).

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.

(38) Disclosures concerning concessions

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

(39) Significant events after the reporting date

We issued a call notification for two subordinated bonds issued in September 2016 with volumes of €725 million and US\$300 million on 5 December 2021 and the bonds were redeemed at the earliest possible date on 5 January 2022 in accordance with their terms at their principal amounts plus interest accrued.

In January 2022, EnBW and bp had a bid accepted for the rights to develop a 2.9 gigawatt offshore wind farm off the east coast of Scotland. The around 860 square kilometer site is located almost 60 kilometers off the coast of Aberdeen. Construction of the “Morven” wind farm is due to start at the site in 2026/2027. Environmental audits and approval processes still need to be completed before a final investment decision can be taken.

At the end of February 2022, EnBW had another bid accepted for offshore wind rights off the coast of New York that was submitted by its American joint venture with its partner TotalEnergies. Following the successful auction, EnBW sold its entire portfolio of US offshore wind activities to its partner TotalEnergies and will now focus more strongly on European projects. The US offshore wind activities are reported under assets classified as held for sale.

There was a fire on a coal conveyor belt at the Heilbronn power plant on 18 February 2022. The fire was quickly extinguished and the extent of the damage is still being determined. As things currently stand, we do not expect any material financial impact.

At the beginning of March, EnBW drew a total of €1.5 billion on its sustainability-linked syndicated credit facility. In view of the volatile situation on the market, this will further strengthen the company's liquidity position in the future.

Far-reaching EU sanctions have been imposed on Russia in response to the war between Russia and the Ukraine. However, these sanctions do not affect the import of coal and gas from Russia at this point in time. The ongoing developments are being continuously analyzed and evaluated with respect to their potential impact on the EnBW Group using various different scenarios. In particular, the procurement of raw and other materials, the increased need for liquidity as a result of rising energy prices and the even greater risk of cyberattacks have a significant impact on the overall risk position. Nevertheless, we do not believe that the current situation endangers the company's ability to continue as a going concern, even if deliveries of Russian coal and gas are halted. For further information, please refer to the explanations in the section "Overall assessment by the management" in the "Report on opportunities and risks."

Karlsruhe, 9 March 2022

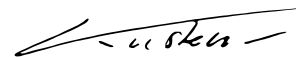
EnBW Energie Baden-Württemberg AG



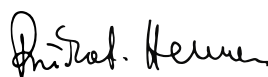
Dr. Mastiaux



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 combined 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, the statement of comprehensive income for the financial year from 1 January to 31 December 2021, the balance sheet as of 31 December 2021, the cash flow statement and the statement of changes in equity for the financial year from 1 January to 31 December 2021 as well as the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of EnBW Energie Baden-Württemberg AG that has been amalgamated with the management report of EnBW Energie Baden-Württemberg AG for the financial year from 1 January to 31 December 2021. We did not audit the contents of the sections of the combined management report stated in the appendix to the auditor's report and the information about the company outside of the Annual Report that can be found there, which is referred to in the combined management report, in compliance with German legal requirements.

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 section 315e (1) HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as of 31 December 2021, and of its financial performance for the fiscal year from 1 January to 31 December 2021, and
- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined management report does not cover the sections of the combined management report that are stated in the appendix to the auditor's report and which are not included within the scope of the audit.

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

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with section 317 HGB and the EU Audit Regulation (no. 537/2014, referred to subsequently as "EU 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 combined 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 combined 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 2021. 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. Evaluation of the cash-generating unit conventional power plants**Reasons why the matter was determined to be a key audit matter**

We classified the evaluation 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 management 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 management 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, CO₂ allowances and electricity, the discount rates used and the determination of the remaining service lives of the coal power plants, which are especially influenced by the law for reducing and ending coal-fired generation and amending other laws (Coal Phaseout Act) and the decision issued by the German Federal Constitutional Court on climate protection on 24 March 2021. The German government responded to this decision by agreeing stricter national climate protection targets on 24 June 2021. In addition, the EU Commission presented its "Fit for 55" legislative package on 14 July 2021 to help achieve the climate protection targets set in the European Green Deal. Following the election of the 20th German parliament on 26 September 2021, a new coalition agreement was reached at the end of November 2021. A key focus of the agreement was climate protection and it also called for an accelerated phaseout of coal-fired generation. The assessments made by management on this basis with respect to the planned phaseout path for coal power plants at EnBW have a significant influence on the evaluation.

Auditor's response

As part of our audit procedures, 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 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 2021, which was characterized by a sharp increase in prices and 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 CO₂ 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 previous 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, we tested the approach and interpretation of management to the phaseout path taking into account the current energy policy conditions. 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.

Our audit procedures did not raise any objections with respect to the evaluation of the cash-generating unit conventional power plants.

Reference to related disclosures

For information on the accounting policies and valuation methods used to evaluate the cash-generating unit conventional power plants, please refer to the information in the notes to the consolidated financial statements in section "Significant accounting policies / Property, plant and equipment" and section "Exercise of 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 section "Amortization and depreciation" for explanations of the reported impairment losses.

2. Valuation of the EnBW offshore wind farms

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

We classified the valuation of the EnBW offshore wind farms as a key audit matter because the determination of the recoverable amount is highly dependent on the assessment of future cash flows by management 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 management 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 Renewable Energies Act (EEG) funding in the future has an effect on the value of the individual offshore wind farms. The assessments made by management 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 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 2021, which was characterized by a sharp increase in prices and 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 previous 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 last few financial years for one EnBW offshore wind farm and the latest findings 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 with the support of our own valuation specialists on the basis of an analysis of market indicators. Furthermore, we tested the accuracy of the calculations in the valuation model.

Our audit procedures did not raise any objections with respect to the evaluation of the cash-generating units of the EnBW offshore wind farms.

Reference to related disclosures

For information on the accounting policies and valuation methods used to evaluate EnBW offshore wind farms, please refer to the information in the notes to the consolidated financial statements in section "Significant accounting policies / Property, plant and equipment" and section "Exercise of 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 business

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

The energy trading business unit at EnBW secures 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 CO₂ allowances, as well as structured contracts and gas storage.

We have classified the accounting and valuation methods for energy trading business 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 prices and 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 2021, 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 EnBW 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 tested 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 the energy trading business, 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 increased requirements placed on liquidity management, we obtained bank confirmations for the clearing accounts. To assess the foreign currency translation of procurement transactions (especially for oil and coal) and their hedging instruments, we carried out analytical and substantial audit procedures. In this context, we reevaluated foreign currency derivatives on a random 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 form provisions for onerous contracts according to IAS 37. We assessed 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). To assess complex energy trading transactions, the energy trading department uses a series of internally developed valuation models. Complex stochastic models are necessary, for example, to assess flexibilities such as swing options and storage capacities. Our internal valuation experts analyzed these models and also assessed them with respect to their consistency and merchantability. Our evaluation also covered the risk that not all of the contractual components relevant to the valuation were taken into account in the respective valuation model.

Our audit procedures did not raise any objections with respect to the accounting and valuation methods for energy trading business.

Reference to related disclosures

For information on the accounting policies and valuation methods used for energy trading business accounting, please refer to the information in the notes to the consolidated financial statements in section “Significant accounting policies / Derivatives” and 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 (25) “Accounting for financial instruments.”

Emphasis of matter

We draw attention to the information provided in the sections of the combined management report “Report on opportunities and risks” (subsection “Overall assessment by the management”) and “Business report” (subsections “General conditions” / “Sustainable Generation Infrastructure segment” / “Gas market”), in which the company evaluates the impact of the escalating situation in the Ukraine, which started at the end of February 2022, on its risk assessment.

In these sections, the Board of Management explains, in particular, how the procurement of raw and other materials, the increased need for liquidity as a result of rising energy prices and the even greater risk of cyberattacks have a significant impact on the overall risk position.

Our opinions on the consolidated financial statements and on the combined management report is not modified in this regard.

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 management in the section "EU taxonomy" of the combined management report, which has been amalgamated 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. Management describes how they have interpreted the requirements in the EU Taxonomy Regulation and the associated delegated acts. Due to the immanent risk that vague legal concepts could be interpreted differently, there is some uncertainty as to whether the company's interpretation complies with the law. Our opinion on the combined management report, which has been amalgamated with the management report of EnBW Energie Baden-Württemberg AG, is not modified in this regard.

Other information

The Supervisory Board is responsible for the Report of the Supervisory Board. Management and the Supervisory Board are responsible for the declaration of compliance with the German Corporate Governance Code pursuant to section 161 AktG, which is part of the declaration of corporate management. In all other respects, management is responsible for the other information. The other information comprises the components of the Annual Report listed in the appendix to the auditor's report.

Our opinions on the consolidated financial statements and on the combined 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 combined management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of management and the Supervisory Board for the consolidated financial statements and the combined management report

Management is 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 section 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, management is responsible for such internal control as management has determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. It also has the responsibility for disclosing, as applicable, matters related to going concern. In addition, management is 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, management is responsible for the preparation of the combined 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, management is responsible for such arrangements and measures (systems) as management has considered

necessary to enable the preparation of a combined 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 combined management report.

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

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

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with section 317 HGB and 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 combined 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 combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective 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 section 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the 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, 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 combined management report prepared for publication purposes in accordance with section 317 (3a) HGB

Opinion

We have performed assurance work in accordance with section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the combined management report (hereinafter the "ESEF documents") contained in [EnBW_AG_KAuKLB_ESEF-2021-12-31.zip (SHA-256 checksum: 61997af2321b452a072bcbe6672ec108ce52abff4da51fe63a92be5d1 14fb60a)] and prepared for publication purposes complies in all material respects with the requirements of section 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 combined 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 combined management report contained in the file identified above and prepared for publication purposes complies in all material respects with the requirements of section 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 combined management report for the fiscal year from 1 January to 31 December 2021 contained in the "Report on the audit of the consolidated financial statements and of the combined 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 combined management report contained in the file identified above in accordance with section 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 section 317 (3a) HGB (IDW AsS 410) (10.2021). 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).

Responsibility of management and the Supervisory Board for the ESEF documents

Management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the combined management report in accordance with section 328 (1) sentence 4 no. 1 HGB and for the tagging of the consolidated financial statements in accordance with section 328 (1) sentence 4 no. 2 HGB.

In addition, management is responsible for such internal control as it has determined necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of section 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 section 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 section 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 combined management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL), in accordance with the requirements of Arts. 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 2021. We were engaged by the audit committee of the supervisory board on 22 November 2021. 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 combined management report as well as the assured ESEF documents. The consolidated financial statements and the combined management report converted to the ESEF format – including the versions to be published in the Bundesanzeiger [German Federal Gazette] – are merely electronic renderings of the audited consolidated financial statements and the audited combined 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, 11 March 2022

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Prof. Dr. Wollmert
German Public Auditor

Prof. Dr. Kuhn
German Public Auditor

Appendix to the auditor's report:

1. Parts of the combined management report, whose contents are unaudited

The following parts of the combined management report, which are part of the "Other information," were not included within the scope of the audit:

- The Group declaration of corporate management made available to the public on the website stated in the combined management report.
- The declaration of the legal representatives according to section 297 (2) sentence 4 HGB, which is part of the combined 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"
- "Service – About this report"
- "EnBW at a glance"
- "Letter to shareholders"
- "Report of the Supervisory Board (condensed)"
- "The Board of Management"
- "A peek into the future"
- "Declaration of corporate management including the corporate governance report"
- "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, the information in the combined management report included within the scope of the audit or our associated auditor's report.

3. Information about the company outside of the Annual Report that is referred to in the combined Group management report

Alongside the cross reference to the "Parts of the combined management report, whose contents are unaudited" stated under number 1., the combined management report contains other cross references to websites of the Group. The information available via the latter cross references is not part of the Annual Report."

Corporate bodies

281 The Supervisory Board

284 Offices held by members of the
Board of Management

285 Other offices held by members of the
Supervisory Board

The Supervisory Board

Members

Status

- Active member
- Inactive member

As of 9 March 2022

Further information on our **Supervisory Board** can be found here.

[Online ↗](#)

- **Lutz Feldmann, Bochum**
Independent business consultant
Chairman
- **Dietrich Herd, Philippsburg**
Chairman of the Group works council for the EnBW Group as well as Chairman of the central works council for the “generation sector” and Chairman of the Philippsburg nuclear power plant works council for the “generation sector” of EnBW Energie Baden-Württemberg AG, Karlsruhe
Deputy Chairman
- **Dr. Danyal Bayaz, MdL, Munich/Stuttgart**
Minister for Finance of the Federal State of Baden-Württemberg
(since 16 September 2021)
- **Achim Binder, Stuttgart**
Deputy Chairman of the Group works council for the EnBW Group, Chairman of the central works council “grids sector” of EnBW Energie Baden-Württemberg AG and Chairman of the regional service works council of Netze BW GmbH, Stuttgart
- **Dr. Dietrich Birk, Göppingen**
Managing Director of Verband Deutscher Maschinen- und Anlagenbau e. V. Baden-Württemberg (VDMA)
- **Stefanie Bürkle, Sigmaringen**
District Administrator of the Sigmaringen district
- **Stefan Paul Hamm, Gerlingen**
Union Secretary/Head of the Department for Utilities and Waste Management, ver.di Baden-Württemberg
- **Michaela Kräutter, Stutensee**
Union Secretary for Utilities and Waste Management and State Union Secretary for Employees, ver.di Central Baden/North Black Forest district
- **Thomas Landsbek, Wangen im Allgäu**
Member of the Group works council for the EnBW Group as well as Chairman of the central works council for the “market sector” and Chairman of the Stuttgart works council for the “market sector” of EnBW Energie Baden-Württemberg AG, Karlsruhe
- **Dr. Hubert Lienhard, Heidenheim an der Brenz**
Supervisory Board
- **Marika Lulay, Heppenheim**
Chairwoman of the Managing Directors (CEO) and member of the Board of Directors at GFT Technologies SE, Stuttgart
- **Dr. Wolf-Rüdiger Michel, Rottweil**
District Administrator of the Rottweil district
- **Dr. Nadine Müller, Berlin**
Head of the Department for Innovation and Good Work at ver.di Central Administration, Berlin
- **Gunda Röstel, Flöha**
Commercial Director of Stadtentwässerung Dresden GmbH and Authorized Officer of Gelsenwasser AG
- **Jürgen Schäfer, Bissingen**
Member of the works council (since 27 October 2021), member of the Group works council for the EnBW Group (until 4 November 2021) and Deputy Chairman of the works council for TransnetBW GmbH, Stuttgart (until 27 October 2021)
- **Harald Sievers, Ravensburg**
District Administrator of the Ravensburg district
- **Jürgen Umlauf, Düsseldorf**
Member of the Group works council for the EnBW Group and Chairman of the works council of Stadtwerke Düsseldorf AG (since 5 May 2021)
- **Ulrike Weindel, Karlsruhe**
Member of the Group works council for the EnBW Group as well as Chairwoman of the central works council for the “functional units” and Chairwoman of the Karlsruhe works council for the “functional units” of EnBW Energie Baden-Württemberg AG, Karlsruhe
- **Lothar Wölflé, Friedrichshafen**
District Administrator of the Lake Constance district

Status

- **Active member**
- **Inactive member**

As of 9 March 2022

Further information on our **Supervisory Board** can be found here.

[Online ↗](#)

- **Dr. Bernd-Michael Zinow, Karlsruhe**
Head of the functional unit Legal Services, Auditing, Compliance and Regulation (General Counsel) at EnBW Energie Baden-Württemberg AG, Karlsruhe
- **Volker Hüsgen, Essen**
Personal Development Trainer / Coach (until 5 May 2021)
- **Edith Sitzmann, Freiburg**
Minister for Finance of the Federal State of Baden-Württemberg until 12 May 2021 and member of the State Parliament of Baden-Württemberg until 30 April 2021 (until 15 September 2021)

Status

- **Active member**
- Inactive member

As of 9 March 2022

Further information on our **Supervisory Board** can be found here.

[Online [↗]](#)
Committees**Personnel committee**

- **Lutz Feldmann**
Chairman
- **Dr. Danyal Bayaz**
(since 30 September 2021)
- **Achim Binder**
- **Stefan Paul Hamm**
- **Dietrich Herd**
- **Lothar Wölflle**
- **Edith Sitzmann**
(until 15 September 2021)

Audit committee

- **Gunda Röstel**
Chairwoman
- **Stefanie Bürkle**
- **Michaela Kräuter**
- **Thomas Landsbek**
- **Dr. Hubert Lienhard**
- **Dr. Wolf-Rüdiger Michel**
- **Jürgen Schäfer**
(since 5 May 2021)
- **Ulrike Weindel**
- **Volker Hüsgen**
(until 5 May 2021)

**Ad hoc committee
(since 7 June 2010)**

- **Dr. Bernd-Michael Zinow**
Chairman
- **Dietrich Herd**
- **Gunda Röstel**
- **Harald Sievers**

Finance and investment committee

- **Lutz Feldmann**
Chairman
- **Dr. Danyal Bayaz**
(since 30 September 2021)
- **Achim Binder**
- **Dr. Dietrich Birk**
- **Stefan Paul Hamm**
- **Dietrich Herd**
- **Lothar Wölflle**
- **Dr. Bernd-Michael Zinow**
- **Edith Sitzmann**
(until 15 September 2021)

Nomination committee

- **Lutz Feldmann**
Chairman
- **Dr. Danyal Bayaz**
(since 30 September 2021)
- **Dr. Dietrich Birk**
- **Dr. Wolf-Rüdiger Michel**
- **Gunda Röstel**
- **Lothar Wölflle**
- **Edith Sitzmann**
(until 15 September 2021)

**Mediation committee
(committee pursuant to section 27 (3) German Co-determination Act (MitbestG))**

- **Lutz Feldmann**
Chairman
- **Dr. Danyal Bayaz**
(since 30 September 2021)
- **Dietrich Herd**
- **Jürgen Umlauf**
(since 5 May 2021)
- **Thomas Landsbek**
(until 5 May 2021)
- **Edith Sitzmann**
(until 15 September 2021)

**Digitalization committee
(since 1 January 2019)**

- **Dr. Hubert Lienhard**
Chairman
- **Marika Lulay**
- **Dr. Nadine Müller**
- **Jürgen Schäfer**
- **Harald Sievers**
- **Ulrike Weindel**

Offices held by members of the Board of Management

Status

- Active member
- Inactive member

Disclosures of office holders pursuant to section 285 no. 10 German Commercial Code (HGB)

- Membership in other statutory supervisory boards
- Membership in comparable domestic and foreign control bodies of business enterprises

As of 9 March 2022

Further information on our **Board of Management** can be found here.

[Online ↗](#)

- **Dr. Frank Mastiaux**
 - Alstom S. A.
- **Dirk Güsewell** (since 1 June 2021)
 - Netze BW GmbH (Chairman) (since 1 June 2021)
 - terranets bw GmbH (since 1 June 2021) (Chairman since 13 July 2021)
 - TransnetBW GmbH (Chairman) (since 1 June 2021)
- **Thomas Kusterer**
 - Energiedienst AG (Chairman)
 - Netze BW GmbH (until 18 March 2021)
 - VNG AG (Chairman)
 - Energiedienst Holding AG (President of the Administrative Board)
- **Colette Rückert-Hennen**
 - EnBW Kernkraft GmbH (Chairwoman) (until 30 April 2021)
 - Pražská energetika a.s. (Deputy Chairwoman)
- **Dr. Georgios Nikolaos Stamatelopoulos** (since 1 June 2021)
 - Energiedienst AG (until 27 April 2021)
 - EnBW Kernkraft GmbH (Chairman) (since 30 April 2021)
 - Fernwärme Ulm GmbH (Chairman) (until 30 June 2021)
 - Rheinkraftwerk Iffezheim GmbH (Chairman) (until 25 June 2021)
 - Neckar Aktiengesellschaft (Chairman) (until 18 November 2021)
 - Illwerke vkw AG (since 18 June 2021)
 - Schluchseewerk Aktiengesellschaft (Chairman)
 - Großkraftwerk Mannheim AG
 - Obere Donau Kraftwerke AG (Chairman) (until 17 June 2021)
 - Centrale Electrique Rhénane de Gamsheim SA (Deputy Chairman) (until 25 June 2021)
 - Energiedienst Holding AG (Administrative Board) (until 27 April 2021)
 - Rhein-Main-Donau GmbH, Shareholders' Committee (until 28 September 2021)
- **Dr. Hans-Josef Zimmer** (until 31 May 2021)
 - Stadtwerke Düsseldorf AG (Chairman)
 - EnBW Kernkraft GmbH
 - Netze BW GmbH (Chairman)
 - terranets bw GmbH (Chairman)
 - TransnetBW GmbH (Chairman)
 - Vorarlberger Illwerke AG

Other offices held by members of the Supervisory Board

Status

- Active member
- Inactive member

Disclosures of office holders pursuant to section 285 no. 10 German Commercial Code (HGB)

- Membership in other statutory supervisory boards
- Membership in comparable domestic and foreign control bodies of business enterprises

As of 9 March 2022

Further information on our **Supervisory Board** can be found here.

[Online ↗](#)

- **Lutz Feldmann**
 - Villa Claudius gGmbH (Chairman)
 - Thyssen'sche Handelsgesellschaft mbH (Chairman since 19 June 2021)
- **Dietrich Herd**
 - EnBW Kernkraft GmbH
- **Dr. Danyal Bayaz**
 - Baden-Württemberg Stiftung gGmbH (since 27 October 2021)
 - Landesbank Baden-Württemberg, Anstalt des öffentlichen Rechts (Deputy Chairman) (since 17 August 2021)
 - Landeskreditbank Baden-Württemberg, Förderbank, Anstalt des öffentlichen Rechts (Chairman of the Administrative Board) (since 6 July 2021)
 - Kreditanstalt für Wiederaufbau, Anstalt des öffentlichen Rechts (since 8 October 2021)
- **Achim Binder**
 - Netze BW GmbH (Deputy Chairman since 25 March 2021)
- **Dr. Dietrich Birk**
 - Netze BW GmbH (since 25 March 2021)
 - SRH Holding (SdbR)
- **Stefanie Bürkle**
 - SWEG Südwestdeutsche Landesverkehrs-AG
 - Hohenzollerische Landesbank Kreissparkasse Sigmaringen, Anstalt des öffentlichen Rechts (Chairwoman)
 - Flugplatz Mengen-Hohentengen GmbH (Chairwoman)
 - SRH Kliniken Landkreis Sigmaringen GmbH (Chairwoman)
 - Sparkassenverband Baden-Württemberg, Anstalt des öffentlichen Rechts
 - Verkehrsverbund Neckar-Alb-Donau GmbH (naldo) (Chairwoman)
 - Wirtschaftsförderungs- und Standortmarketinggesellschaft Landkreis Sigmaringen mbH (Chairwoman)
 - Zweckverband Oberschwäbische Elektrizitätswerke (Deputy Chairwoman)
- Zweckverband Thermische Abfallverwertung Donautal (TAD) (Deputy Chairwoman)
- **Stefan Paul Hamm**
 - Netze BW GmbH
- **Michaela Kräutter**
 - EnBW Kernkraft GmbH
 - Netze BW GmbH
- **Thomas Landsbek**
 - BürgerEnergiegenossenschaft Region Wangen im Allgäu eG
 - EnBW mobility+ AG & Co. KG
 - Gemeindewerke Bodanrück GmbH & Co. KG (until 31 May 2021)
- **Dr. Hubert Lienhard**
 - Heraeus Holding GmbH
 - Siemens Energy AG
 - SMS group GmbH
 - TransnetBW GmbH
 - Voith GmbH & Co. KGaA
 - Voith Management GmbH
- Heitkamp & Thumann KG
- Siemens Gas and Power Management GmbH
- **Marika Lulay**
 - Wüstenrot & Württembergische AG
 - GFT Technologies SE
- **Dr. Wolf-Rüdiger Michel**
 - Kreisbaugenossenschaft Rottweil e. G. (Chairman)
 - SV SparkassenVersicherung Holding AG
 - Komm.ONE, Anstalt des öffentlichen Rechts (formerly ITEOS)
 - Kreissparkasse Rottweil, Anstalt des öffentlichen Rechts (Chairman)
 - Schwarzwald Tourismus GmbH
 - SMF Schwarzwald Musikfestival GmbH
 - Sparkassen-Beteiligungen Baden-Württemberg GmbH
 - Sparkassenverband Baden-Württemberg, Körperschaft des öffentlichen Rechts
 - Wirtschaftsförderungsgesellschaft Schwarzwald-Baar-Heuberg mbH
 - Zweckverband Bauernmuseum Horb/Sulz
 - Zweckverband Oberschwäbische Elektrizitätswerke (Deputy Chairman)

Status

- Active member
- Inactive member

Disclosures of office holders pursuant to section 285 no. 10 German Commercial Code (HGB)

- Membership in other statutory supervisory boards
- Membership in comparable domestic and foreign control bodies of business enterprises

As of 9 March 2022

Further information on our **Supervisory Board** can be found here.

[Online ↗](#)

- Zweckverband Ringzug Schwarzwald-Baar-Heuberg
- Zweckverband RBB Restmüllheizkraftwerk Böblingen (Deputy Chairman)
- ZTN-Süd Warthausen
- **Dr. Nadine Müller**
- **Gunda Röstel**
 - Universitätsklinikum Carl Gustav Carus Dresden an der Technischen Universität Dresden, Anstalt des öffentlichen Rechts (Deputy Chairwoman)
 - VNG AG
 - Netze BW GmbH
 - Hochschulrat der Technischen Universität Dresden, Körperschaft des öffentlichen Rechts (Chairwoman)
 - Stadtwerke Burg GmbH
- **Jürgen Schäfer**
- **Harald Sievers**
 - Oberschwabenklinik gGmbH (Chairman)
 - SV SparkassenVersicherung Lebensversicherung AG (until 31 July 2021)
 - Gesellschaft für Wirtschafts- und Innovationsförderung Landkreis Ravensburg mbH (WiR) (Chairman)
 - Ravensburger Entsorgungsanlagen-gesellschaft mbH (REAG) (Chairman)
 - Bodensee-Oberschwaben Verkehrsverbund GmbH (Chairman since 1 January 2021)
 - Kreissparkasse Ravensburg (Chairman of the Administrative Board)
 - Landesbausparkasse Südwest, Anstalt des öffentlichen Rechts (since 1 July 2021)
 - Zweckverband Oberschwäbische Elektrizitätswerke
- **Jürgen Umlauf**
 - Stadtwerke Düsseldorf AG (Deputy Chairman)
 - Netzgesellschaft Düsseldorf mbH
 - RheinWerke GmbH
- **Ulrike Weindel**
- **Lothar Wölfe**
 - Abfallwirtschaftsgesellschaft der Landkreise Bodenseekreis und Konstanz (Deputy Chairman since 1 January 2021)
 - Bodensee-Oberschwaben Verkehrsverbund GmbH (Deputy Chairman since 1 January 2021)
 - Bodensee-Oberschwaben-Bahn Verkehrsgesellschaft mbH (Chairman)
 - Sparkasse Bodensee (Chairman since 1 January 2022)
 - Zweckverband Oberschwäbische Elektrizitätswerke (Chairman)
 - Zweckverband Breitband Bodensee (Deputy Chairman)
 - Wirtschaftsförderungsgesellschaft Bodenseekreis GmbH (Chairman)
 - Regionales Innovations- und Technologietransfer Zentrum GmbH (RITZ) (Chairman since 1 January 2021)
- **Dr. Bernd-Michael Zinow**
 - TransnetBW GmbH
 - VNG AG
 - TransnetBW SuedLink GmbH & Co. KG
- **Volker Hüsgen**
 - AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung GmbH (until 1 September 2021)
 - Netzgesellschaft Düsseldorf mbH (until 1 September 2021)
 - Stadtwerke Düsseldorf AG (until 1 September 2021)
 - RheinWerke GmbH (until 30 September 2021)
- **Edith Sitzmann**
 - Landesbank Baden-Württemberg, Anstalt des öffentlichen Rechts (Deputy Chairwoman) (until 12 May 2021)
 - Landeskreditbank Baden-Württemberg, Förderbank, Anstalt des öffentlichen Rechts (Chairwoman of the Administrative Board) (until 12 May 2021)
 - Kreditanstalt für Wiederaufbau, Anstalt des öffentlichen Rechts (until 12 May 2021)
 - Baden-Württemberg Stiftung gGmbH (until 12 May 2021)

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Multi-year overview

Financial and strategic performance indicators

EnBW Group		2021	2020	2019	2018	2017
Earnings						
External revenue	in € million	32,148	19,694	19,436	20,815	21,974
TOP Adjusted EBITDA	in € million	2,959	2,781	2,433	2,158	2,113
EBITDA	in € million	2,804	2,663	2,245	2,090	3,752
Adjusted EBIT	in € million	1,403	1,392	945	958	999
EBIT	in € million	159	1,103	597	876	2,504
Adjusted Group net profit ¹	in € million	1,203	683	787	438	793
Group net profit ¹	in € million	363	596	734	334	2,054
EnBW share price as of 31/12	in €	76.00	56.00	50.50	29.20	28.78
Earnings per share from Group net profit ¹	in €	1.34	2.20	2.71	1.23	7.58
Dividend per share/dividend payout ratio ^{2,3}	in €/in %	1.10/36	1.00/40	0.70/40	0.65/40	0.50/17
Balance sheet						
Non-current assets	in € million	31,544	30,644	29,321	24,643	24,878
Total assets	in € million	71,273	45,965	43,288	39,609	38,785
Equity	in € million	8,499	7,769	7,445	6,273	5,863
Equity ratio	in %	11.9	16.9	17.2	15.8	15.1
Net debt ⁴	in € million	8,786	14,407	12,852	9,587	8,418
Net financial debt ⁴	in € million	2,901	7,232	6,022	3,738	2,918
Cash flow						
Retained cash flow	in € million	1,784	1,639	1,241	999	3,050
TOP Debt repayment potential in % ^{4,5}	in %	20.3	11.4	–	–	–
Internal financing capability ⁵	in %	–	102.8	90.0	92.2	111.9
Net cash investment	in € million	2,471	1,827	2,481	1,300	1,367
Profitability						
TOP Return on capital employed (ROCE)	in %	7.0	6.3	5.2	6.5	7.3
Weighted average cost of capital before tax	in %	4.9	5.2	5.2	6.3	6.3
Average capital employed	in € million	21,712	23,026	19,315	16,053	15,120
Value added	in € million	456	253	0	32	151
Sales						
Electricity	in billion kWh	108	107	153	137	122
Gas	in billion kWh	495	442	362	329	250
Smart Infrastructure for Customers						
TOP Adjusted EBITDA	in € million	323	335	326	268	330
External revenue	in € million	13,998	9,965	9,350	7,348	7,354
System Critical Infrastructure						
TOP Adjusted EBITDA	in € million	1,289	1,347	1,355	1,177	1,046
External revenue	in € million	4,407	3,657	3,460	3,215	7,472
Sustainable Generation Infrastructure						
TOP Adjusted EBITDA	in € million	1,535	1,278	925	729	709
External revenue	in € million	13,735	6,064	6,623	10,246	7,139

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

² For 2021, subject to approval from the ordinary Annual General Meeting on 05/05/2022.

³ Adjusted for the valuation effects of IFRS 9 in 2021 and 2019.

⁴ For the calculation of the adjusted net debt and adjusted debt repayment potential, please refer to the section "The EnBW Group" of the management report.

⁵ The debt repayment potential replaces the internal financing capacity as a key performance indicator in 2021.

Non-financial performance indicators

		2021	2020	2019	2018	2017
Customers and society goal dimension						
TOP Reputation Index		55	56	53	51	52
TOP EnBW/Yello Customer Satisfaction Index		127/159	132/159	116/157	120/152	143/161
TOP SAIDI (electricity) in min./year		16	15	15	17	19
SAIDI (gas) in min./year ¹		< 1	< 1	–	–	–
Environment goal dimension						
TOP Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE	in GW / in %	5.1/40.1	4.9/39.0	4.4/31.8	3.7/27.9	3.4/25.8
TOP CO ₂ intensity excluding nuclear generation ²	in g/kWh	478	342	419	553	556
CO ₂ intensity including nuclear generation ³	in g/kWh	386	268	235	340	362
Own electricity generation ^{4, 5}	in GWh	42,399	35,149	47,807	53,492	50,194
Total final energy consumption ⁶	in GWh	2,741	2,799	2,929	3,252	3,254
Proportion of RE in final energy consumption ⁷	in %	60.5	54.6	53.2	51.1	48.8
Direct CO ₂ emissions (Scope 1) ⁸	in million t CO ₂ eq	16.3	9.5	10.8	16.6	16.7
Indirect CO ₂ emissions (Scope 2) ⁹	in million t CO ₂ eq	0.4	0.8	0.9	1.0	1.2
Upstream indirect CO ₂ emissions (Scope 3) ⁸	in million t CO ₂ eq	8.9	7.2	6.0	3.3	2.1
Downstream indirect CO ₂ emissions (Scope 3)	in million t CO ₂ eq	52.0	42.6	36.0	13.6	21.6
CO ₂ emissions avoided ¹⁰	in million t CO ₂ eq	9.8	8.9	7.9	6.9	6.3
SO ₂ intensity of own electricity generation ⁵	in mg/kWh	185	172	105	184	193
NO _x intensity of own electricity generation ⁵	in mg/kWh	219	198	133	211	230
Carbon monoxide (CO) intensity of own electricity generation ¹¹	in mg/kWh	20	12	–	–	–
Particulate matter (total) intensity of own electricity generation ¹¹	in mg/kWh	4	2	–	–	–
Extracted water ¹²	in million m ³	1,076	972	1,661	1,999	2,021
Water consumption ¹³	in million m ³	40	34	40	54	43
Total waste	in t	1,062,477	653,273	691,115	649,062	719,570
Hazardous waste	in t	71,003	69,539	60,429	64,154	59,701
Non-hazardous waste	in t	991,474	583,734	630,686	584,909	659,869
Recycling rate	in %	97	94	96	96	96
Radioactive waste	in g/kWh	0.0006	0.0008	0.0012	0.0010	0.0009
Coverage ISO 14001 or EMAS ¹⁴	in %	73.3	74.8	75.5	76.9	76.7
Coverage ISO 50001 ¹⁴	in %	43.5	47.8	47.2	46.5	45.9

¹ The performance indicator was reported for the first time in 2021. There are no values available for the comparative periods 2017 to 2019.

² The calculation method for the key performance indicator CO₂ intensity will be restricted in future to include only factors that can be controlled by the company. In contrast to previous years, the share related to redispatch that cannot be controlled by EnBW is no longer included. Using the previous calculation method, the CO₂ intensity for the 2021 financial year would have been 492 g/kWh (previous year: 372 g/kWh). This performance indicator still excludes nuclear generation. The CO₂ intensity including nuclear generation for the reporting year was 386 g/kWh (previous year: 268 g/kWh).

³ The performance indicator will be reported until nuclear energy is finally phased out in 2022.

⁴ The generation volumes are reported without the controllable volumes for redispatch deployment since 2020.

⁵ Includes long-term procurement agreements and partly owned power plants.

⁶ Includes final energy consumption of production including pump energy, energy consumption of grid facilities (electricity, gas and water) excluding grid losses, energy consumption of buildings and vehicles.

⁷ For electricity consumption for which the proportion of renewable energies is unknown, the Bundesmix (federal mix) label for electricity of the respective reporting year is assumed. For fuels, a proportion of 5% bioethanol is generally assumed.

⁸ The figures for the previous year have been restated.

⁹ Market-based method. According to the location-based method, the Scope 2 emissions were 803 thousand t CO₂eq in 2020 and 753 thousand t CO₂eq in 2021.

¹⁰ Through the expansion of renewable energies, energy efficiency projects at the sites of customers/partners and the generation and sale of biogas.

¹¹ Variations in the group of consolidated companies (excluding GKM, Fernwärme Ulm and contracting plants). The performance indicator was reported for the first time in 2020. There are no values available for the comparative periods 2017 to 2019.

¹² Total extracted water from surface/river water and drinking water. Does not include water for the drinking water supply.

¹³ Includes evaporation and wastewater.

¹⁴ Measured in % of employees.

Non-financial performance indicators

		2021	2020	2019	2018	2017
Employees goal dimension						
TOP People Engagement Index (PEI) ¹		82	83	–	–	–
TOP LTIF for companies controlled by the Group ^{2,3/} LTIF overall ^{3,4}		2.3/3.3	2.1/3.6	2.1/3.8	2.3/3.6	3.0/–
Number of employees as of 31/12		26,064	24,655	23,293	21,775	21,352
Number of full-time equivalents ⁵		24,519	23,078	21,843	20,379	19,939
Number of employees in Germany	in %	90.0	89.9	89.7	90.1	89.7
Number of employees abroad	in %	10.0	10.1	10.3	9.9	10.3
Employees covered by collective bargaining agreement	in %	85.3	87.6	88.6	90.8	90.3
Number of deaths after work accidents		2	0	1	1	1
Sickness ratio	in %	4.1	4.3	4.9	5.1	5.0
Proportion of women in the overall workforce	in %	27.7	27.0	26.8	26.4	26.2
Proportion of women in management positions	in %	18.1	17.2	17.4	15.3	15.2
Employee turnover ratio ⁶	in %	6.2	5.9	6.3	6.5	7.0
Time spent on further training and education per employee	in days	7.3	6.8	5.3	5.6	5.0

1 Variations in the group of consolidated companies (all companies with more than 100 employees are considered [except ITOs]). Companies that were fully consolidated for the first time in the fourth quarter of 2021 were not included in the employee surveys for the PEI. The performance indicator was reported for the first time in 2020. No figures are available for the comparative periods 2017 to 2019.

2 Except for companies in the area of waste management.

3 LTIF indicates how many LTI occurred per one million working hours performed. Variations in the group of consolidated companies (all companies with more than 100 employees are generally considered, excluding agency workers and contractors). Companies that were fully consolidated for the first time during the 2021 financial year were not included in the calculations for the LTIF performance indicators.

4 There are no values available for this performance indicator for the comparative period 2017.

5 Converted into full-time equivalents.

6 There are no mass redundancies included in the stated figures. There have been no compulsory redundancies at EnBW during this period.

Important notes

Publication in the German Federal Gazette

The complete consolidated financial statements prepared by EnBW Energie Baden-Württemberg AG and audited by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft and the management report, which is combined with the Group management report, will be published in the German Federal Gazette ("Bundesanzeiger") together with the unqualified audit opinion. The necessary documents will be submitted to the German Federal Gazette ("Bundesanzeiger") by 30 April 2022 at the latest.

No offer or investment recommendation

This report has been prepared for information purposes only. It does not constitute an offer, an invitation or a recommendation to purchase or sell securities issued by EnBW Energie Baden-Württemberg AG (EnBW), a company of the EnBW Group or any other company. This report also does not constitute a request, invitation or recommendation to vote or give consent. All descriptions, examples and calculations are included in this report for illustrative purposes only.

Forward-looking statements

This report contains forward-looking statements that are based on current assumptions, plans, estimates and forecasts made by the management of EnBW. Forward-looking statements of this kind are therefore only valid at the time they were first published. Forward-looking statements are indicated by the context, but may also be identified by the use of the words "can," "will," "should," "plans," "intends," "expects," "thinks," "estimates," "forecasts," "potential," "continued" and similar expressions.

By nature, forward-looking statements are subject to risks and uncertainties that cannot be controlled or accurately predicted by EnBW. Actual events, future results, the financial position, development or performance of EnBW and the companies of the EnBW Group may thus diverge considerably from the forward-looking statements made in this report. Therefore, it cannot be guaranteed nor can any liability otherwise be assumed that these forward-looking statements will prove complete, correct or precise, or that expected and forecast results will actually occur in the future.

No obligation to update the information

EnBW assumes no obligation of any kind to update the information contained in this report or to adjust or otherwise update forward-looking statements to future events or developments. This Annual Report can be downloaded from the Internet in German or English. In cases of doubt, the German version shall be authoritative.

Financial calendar 2022



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and Supervisory Board**

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