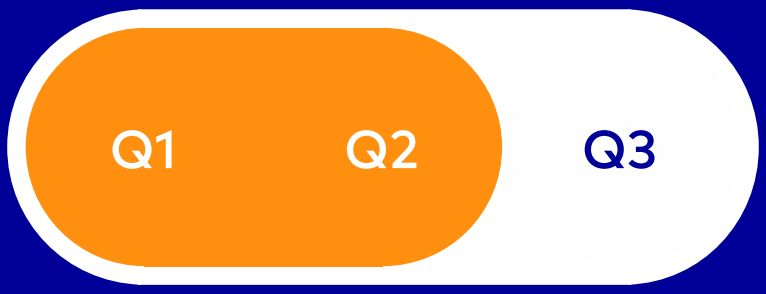
Six-Monthly Financial Report January to June 2024



Performance indicators of the EnBW Group

Financial and strategic performance indicators

in € million	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
External revenue	19,033.5	26,686.1	-28.7	44,430.7
Adjusted EBITDA	2,588.0	3,498.3	-26.0	6,365.2
Share of adjusted EBITDA accounted for by Sustainable Generation Infrastructure in € million/in %	1,450.8/56.1	2,607.0/74.5	-44.3/–	4,647.6/73.0
Share of adjusted EBITDA accounted for by System Critical Infrastructure in € million/in %	1,156.8/44.7	1,021.2/29.2	13.3/–	1,772.0/27.8
Share of adjusted EBITDA accounted for by Smart Infrastructure for Customers in € million/in %	172.7/6.7	20.9/0.6	–/–	239.5/3.8
Share of adjusted EBITDA accounted for by Other/Consolidation in € million/in %	-192.3/-7.5	-150.8/-4.3	-27.5/–	-293.9/-4.6
EBITDA	3,239.3	5,134.0	-36.9	5,738.3
Adjusted EBIT	1,756.0	2,656.1	-33.9	4,678.9
EBIT	2,407.3	3,920.6	-38.6	3,341.3
Adjusted Group net profit [1]	926.9	1,653.4	-43.9	2,779.5
Group net profit [1]	1,344.5	2,525.8	-46.8	1,537.6
Earnings per share from Group net profit (€) [1]	4.96	9.33	-46.8	5.68
Retained cash flow	880.0	2,238.0	-60.7	4,831.5
Net cash investment	2,159.9	1,602.3	34.8	2,739.8

in € million	30/06/2024	31/12/2023	Change in %	
Net debt	12,585.4	11,703.1	7.5	

Non-financial performance indicators [2]

	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
Customers and society goal dimension				
EnBW/Yello Customer Satisfaction Index	111/166	127/170	-12.6/-2.4	130/161
SAIDI (electricity) in min./year	5.9	5.6	5.4	19.3
Employees goal dimension				
LTIF for companies controlled by the Group [3, 4]	2.6	2.2	18.2	2.4
LTIF overall [3]	4.3	3.1	38.7	3.7

Employees [5, 6]

	30/06/2024	30/06/2023	Change in %	31/12/2023
Employees	29,329	27,575	6.4	28,630
Full-time equivalents [7]	27,563	25,932	6.3	26,943

1 In relation to the profit/loss attributable to the shareholders of EnBW AG.
2 The values for the key performance indicators Reputation Index, People Engagement Index (PEI), "Installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE in %" and CO_2 intensity are exclusively collected at the end of the year.
3 The LTIF for companies controlled by the Group excluding waste management and LTIF overall, which includes the area of waste management, only includes companies with more than 100 employees excluding external agency workers and contractors.
4 Newly fully consolidated companies are not included for a maximum transition period of three years.
5 Number of employees excluding apprentices/trainees and inactive employees.
6 The number of employees for the ITOs (ONTRAS Gastransport, terranets bw and TransnetBW) is only updated at the end of the year; for intervals of less than a year, the number of employees from 31/12/2023 is carried forward.
7 Converted into full-time equivalents.

Q1–Q2 2024

Selected performance indicators

€2.6 billion

adjusted EBITDA
More details on p. 26 f.

€2.5 billion

gross investment
More details on p. 31

Over 5,000

public EnBW quick-charging stations in operation in Germany
More details on p. 36

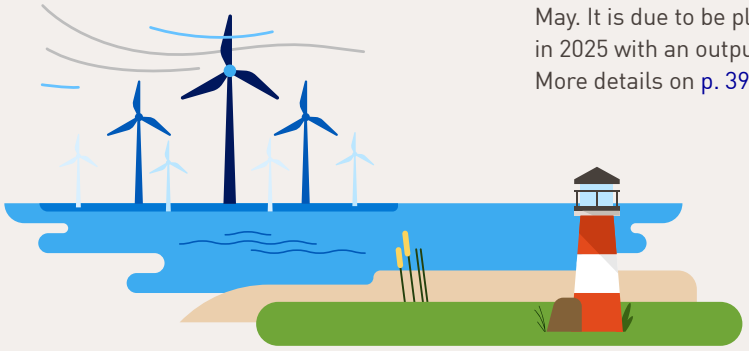
€1.7 billion

in green bonds issued on the capital market in 2024 (as of: 22 July 2024)
More details on p. 29

Expansion of offshore wind energy portfolio

1 GW

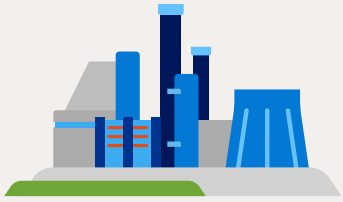
of additional generation capacity secured in June when we were awarded a site in the North Sea for the development of an offshore wind farm in an auction. We also started construction of our He Dreiht offshore wind farm at the end of May. It is due to be placed into operation in 2025 with an output of 960 MW.
More details on p. 39



Gradual phaseout of coal

3 fuel switch projects

with a total **available generation capacity of 1.5 GW** are currently under construction.
More details on p. 40



Almost 890 MW

reduction in generation capacity from hard coal since 31 December 2023. We transferred our RDK 7 coal power plant with an output of 517 MW to the grid reserve in May.
More details on p. 40

Q1–Q2 2024 at a glance

- Adjusted EBITDA for the EnBW Group of €2.6 billion within expected range
- Earnings forecast for whole of 2024 confirmed
- Forecast for CO_2 intensity lowered by 100 g/kWh to between 290 and 350 g/kWh and thus below level in previous year
- Higher gross investment, above all in offshore wind power, hydrogen-ready fuel switch projects and expansion of grids

Contents

All of the Internet links and references to the Integrated Annual Report in this report and the information contained therein were not part of the review carried out by BDO AG.

Interim Group management report

Business activity and strategy

Business activity

EnBW is the largest integrated energy company in Germany and supplies electricity, gas and water together with products and services related to energy and infrastructure to its customers. **Sustainability** is an important element of our business model and our strategy – our EnBW Sustainability Agenda acts as a compass to clearly guide our future strategic alignment.

We believe that we are strongly positioned along the entire value-added chain thanks to our **diversified and integrated business model.** The expansion of renewable energies, of the distribution and transmission grids and of the end customer business forms the cornerstone of our strategy. Our business portfolio is characterized by a high proportion of regulated grid business and renewable energies. In a still challenging market environment, our business model is proving itself resilient and contributes to maintaining a reliable energy supply.

Our roots lie in **Baden-Württemberg,** where we are positioned as a market leader. Alongside EnBW AG, we also rely here on Netze BW and other subsidiaries, who are active throughout the whole of **Germany** and in **selected markets abroad.** We develop and realize wind energy and photovoltaic projects with the French project developer and operator of wind farms and solar parks Valeco. We are represented by our subsidiaries Connected Wind Services (CWS) in Denmark and EnBW Sverige in Sweden. In Turkey, we work together in the renewable energies sector with our partner Borusan. In Great Britain, we plan to build three offshore wind farms through a joint venture with our partner bp that will lie off the coast of Great Britain. They will have a total capacity of 5.9 GW and be placed into operation from 2029. The companies naturenergie 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 the market leader in Germany for the operation of **quick-charging infrastructure** with our subsidiary EnBW mobility+ and provide our customers with access to more than 600,000 charging points in numerous European countries via the EnBW mobility+ app. We also operate quick-charging infrastructure on the Austrian market through SMATRICS EnBW. Our subsidiary SENEC, based in Leipzig, offers holistic energy solutions for customers to meet their own energy needs using solar electricity and home storage. We have bundled together our telecommunications activities, which focus on the **expansion of broadband,** in the company EnBW Telekommunikation GmbH with its subsidiaries NetCom BW and Plusnet.

Our business portfolio is split into **three segments** that encompass the **following activities:**

- The **Sustainable Generation Infrastructure** segment encompasses our activities in the areas of renewable energies and conventional generation, district heating, waste management and energy services. In order to guarantee the security of supply, we also maintain the power plants that have been transferred to the grid reserve. In addition, this segment includes the storage of gas and the trading of electricity, gas, CO_2 allowances and fuels, as well as the direct distribution of renewable energy power plants.
- The transmission and distribution of electricity and gas are the main components of the **System Critical Infrastructure segment.** The activities of our grid subsidiaries 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 **Smart Infrastructure for Customers** segment comprises the sale of electricity and gas, the provision and expansion of quick-charging infrastructure and digital solutions for electromobility, activities in the telecommunications sector and other solutions at a household level such as photovoltaics and home storage systems.

Detailed information on our business model can be found in the Integrated Annual Report 2023 from p. 17↗ onwards.

Allocation of responsibilities at Board of Management level (as of 30/06/2024)

Dr. Georg Stamatelopoulos Chairman	Thomas Kusterer Finance, Deputy Chairman	Colette Rückert-Hennen Sales and Human Resources	Peter Heydecker Sustainable Generation Infrastructure	Dirk Güsewell System Critical Infrastructure
• Corporate development • Sustainability • Strategy and energy economy • Communications • Policy • IT and Digital Office • Corporate security • Enterprise development and transformation	• Accounting and tax • Controlling • Finance • Investor relations • M&A • Digital finance and finance transformation • Equity investment management • Purchasing • Risk management/ICS • Risk management for trading • Venture capital • Performance in growth	• Personnel • HR strategy • Sales, marketing and operations • People-centered transformation • Legal • Auditing • Regulatory management • Compliance management and data protection • Boards and shareholder relationships • Occupational medicine and health management • Real estate management	• Conventional generation / nuclear • Renewable generation • Coordination technology • Waste management / environmental services • Decentralized energy services • Occupational safety, environmental protection and crisis management • Research and development • Trading	• DSO[1] electricity / gas • TSO[2] electricity / gas • Grid technology • Telecommunications • Gas value chain • Innovation management

1 Distribution system operator.
2 Transmission system operator.

As of 30 June 2024, 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 duties of the Chairman of the Board of Management (CEO), the responsibilities of the Board of Management are divided into the "Finance," "Sales and Human Resources," "Sustainable Generation Infrastructure" and "System Critical Infrastructure" remits. In the reporting period, the Chairman of the Board of Management up to the end of 8 March 2024 was Andreas Schell. Dr. Georg Stamatelopoulos has been Chairman of the Board of Management and Thomas Kusterer Deputy Chairman since 9 March 2024. Until 1 May 2024, Dr. Georg Stamatelopoulos was still responsible for the remit "Sustainable Generation Infrastructure" alongside his duties as CEO. Since 1 May 2024, this remit has been the responsibility of Peter Heydecker, who was appointed by the Supervisory Board as a new member of the Board of Management.

Although the Six-Monthly Financial Report usually only reports on the situation as of 30 June 2024 and thus on themes within the reporting period, we want to provide the additional information that after the reporting period the Board of Management **reallocated its responsibilities** effective from 1 September 2024. These changes have already been approved by the Supervisory Board. The "innovation management" and "research and development" areas, which were divided between the "System Critical Infrastructure" and "Sustainable Generation Infrastructure" remits until now, will be assigned to the Chairman of the Board of Management, Dr. Georg Stamatelopoulos, from 1 September 2024. Equally, "occupational safety, environmental protection and crisis management," which currently falls under the remit of "Sustainable Generation Infrastructure," will be assigned to the Chairman of the Board of Management. "Sales, marketing and operations," which was previously in the "Sales and Human Resources" remit, has also been reallocated. Dirk Güsewell will assume responsibility for the gas and electricity end customer business along with the business for e-mobility. Thomas Kusterer will assume responsibility for the EnBW subsidiary SENEC until the conclusion of the restructuring phase, after which it will be integrated into the sales remit taken over by Dirk Güsewell.

Strategy

We formulated our **EnBW 2025 strategy** against the background of the ongoing energy transition with the aim of exploiting the numerous growth opportunities on the market. It is based on a holistic approach to stakeholders and defines specific targets in the dimensions of finance, strategy, customers and society, environment and employees. We have made sustainability an integral part of our corporate strategy because we want to ensure that we create economic, ecological and social added value for our stakeholders.

We had planned to use our portfolio to increase our **adjusted EBITDA** to €3.2 billion by 2025 in accordance with our EnBW 2025 strategy. It was already possible to exceed this target in the 2023 financial year and in our current plans we now also expect to exceed this earnings target in 2025 (p. 44).

To ensure that our business remains profitable in the long term, we aim to increase our **investment** in the short and medium term in a sustainable energy supply. The main focus of this investment will be the **expansion of the grids,** especially the SuedLink and ULTRANET projects of our subsidiary TransnetBW and the construction work for the south German natural gas pipeline (SEL) by our subsidiary terranets bw. Furthermore, we are accelerating the **expansion of renewable energies.** For example, the EnBW He Dreiht offshore wind farm with a total output of 960 MW is due to be placed into operation by 2025. In June 2024, we were able to secure a site in the North Sea for the development of an offshore wind farm with an output of 1 GW. The generation capacity of all of our renewable energy power plants is due to increase from 6.5 to 7.5 GW by 2025 and will account for more than 50% of our total generation portfolio. The H_2-ready gas power plants in Altbach/Deizisau, Stuttgart-Münster and Heilbronn and further developments in the Smart Infrastructure for Customers segment, such as the continuing expansion of electromobility, are other main areas of investment.

Outlook 2030

We want to continue to play a leading role in reshaping the energy sector in Germany. To this end, we are currently working on an **update to the EnBW 2025 strategy with an outlook for the period up to 2030.** Based on our integrated approach, we will rigorously push forward the restructuring and expansion of the energy infrastructure. Our main focus will be placed on the accelerated expansion of renewable energies, of the electricity, gas and water grid infrastructure and of the charging infrastructure for electromobility. We also want to offer our customers smart products and solutions for the energy transition both at home and on the move, such as dynamic electricity tariffs in combination with smart management systems.

In the period from 2024 up to and including 2030, we are planning gross investment totaling around €40 billion. Approximately 60% of this investment will be in the expansion of the grids in the System Critical Infrastructure segment and around 30% will be in the expansion of wind farms and solar parks and the construction of climate-friendly, hydrogen-ready power plants in the Sustainable Generation Infrastructure segment. The remaining amount of around 10% will primarily flow into the expansion of electromobility in the Smart Infrastructure for Customers segment. The vast majority of the **investment** will be made in Germany, while about 10% will be in our other markets. EnBW will further accelerate the pace of the energy transition with its planned investment up to 2030. At the same time, our aim is to comply with the strict sustainability criteria in the EU taxonomy in more than 85% of the investment. We want to continue implementing the projects associated with this investment in cooperation with partners. Taking into account these partnerships, we expect total net investment of around €22 billion by 2030.

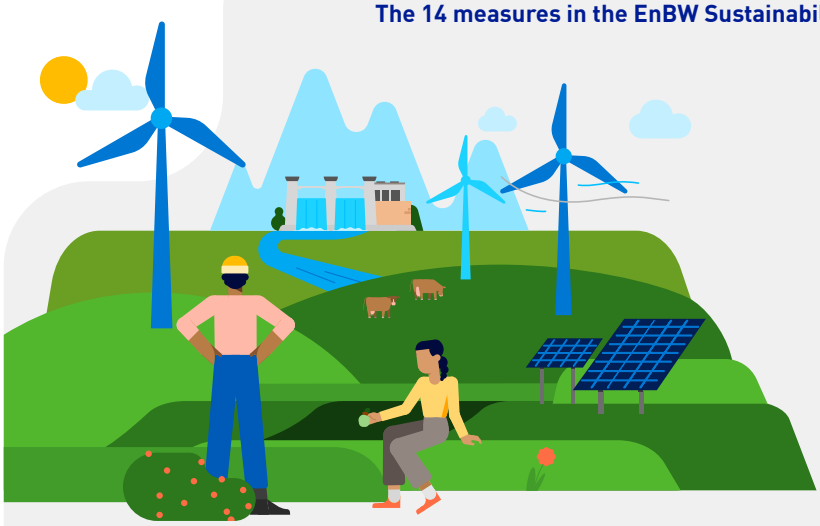
In terms of **adjusted EBTDA,** we expect to increase earnings to between €5.5 billion and €6.3 billion by 2030, of which between €2.7 billion and €3.0 billion will be accounted for by the Sustainable Generation Infrastructure segment, between €2.3 billion and €2.6 billion by the System Critical Infrastructure segment and between €0.7 billion and €1.0 billion by the Smart Infrastructure for Customers segment.

Our long-term business success is oriented towards achieving economic, ecological and social goals. In the first phase, we started implementing the Sustainability Agenda at the beginning of 2022 – strengthening our sustainability profile and anchoring sustainability even more strongly into our core business. We followed this in early 2024 with the planned revision of our Sustainability Agenda, where we reflected, above all, on changed requirements with respect to legislation, competition, the capital market, society and customers. The resulting **EnBW Sustainability Agenda 2.0** provides a strategic framework for sustainability at EnBW. It is founded on requirements in the environment (E), social (S) and governance (G) areas. The measures are specifically designed to deliver added value to the company. The EnBW Sustainability Agenda 2.0 is also being supported by an updated communication and stakeholder concept and is split into **two strategic focus areas ("Energy of change"** and **"Culture of sustainability"),** defining 14 measures within the ESG themes:

More detailed information on the **EnBW Sustainability Agenda 2.0** can be found on our website.

Online

The 14 measures in the EnBW Sustainability Agenda



Energy of change

E

Environment

- M1 Renewable energies
- M2 CO_2 reduction
- M3 Hydrogen and decarbonized gases
- M4 Customer solutions
- M5 Grid expansion and modernization
- M6 Circular economy
- M7 Biodiversity
- M8 Pollutants and water

Culture of sustainability

S

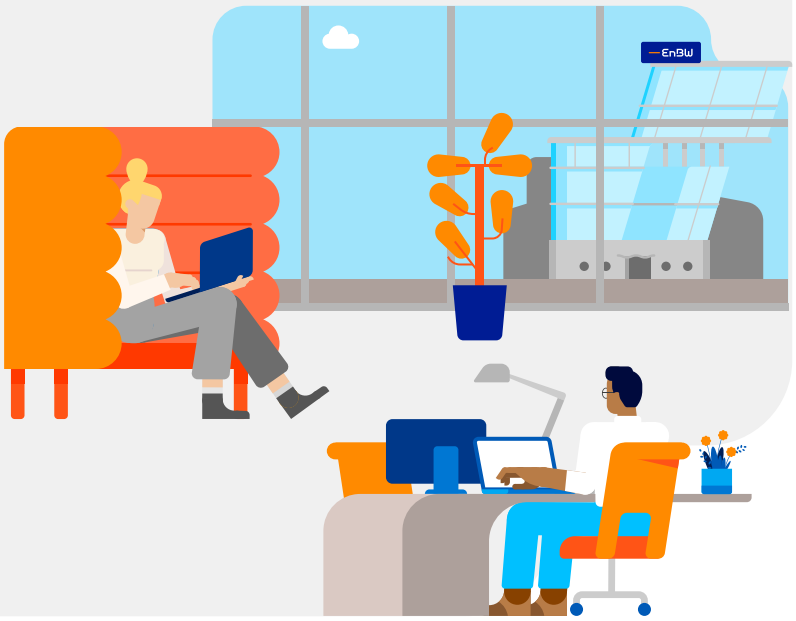
Social

- M9 Diversity and education
- M10 Human rights (esp. supply chain)
- M11 Stakeholder management in affected communities

G

Governance

- M12 Reporting, ratings and sustainable finance
- M13 Corporate management
- M14 Climate resilience



Further information on our **climate protection targets** can be found here.

Online ↗

Further information on the **SBTi** can be found on our website.

Online ↗

More detailed information on the decarbonization of our business model can be found in the **Climate Transition Plan.**

Online ↗

In implementing the EnBW Sustainability Agenda 2.0, measure 2 "CO_2 reduction," measure 3 "Hydrogen and decarbonized gases" and measure 14 "Climate resilience" are critical to our performance in the environment and in the governance.

The achievement of our **climate protection targets** is crucial for the success of the Sustainability Agenda. These targets define the reduction of our Scope 1 and 2 emissions by 83% by 2035 (based on the reference year of 2018). In the same period, we aim to reduce our emissions from gas sales by 43%. These ambitious targets were certified by the independent **Science Based Targets initiative (SBTi).** We will offset any residual Scope 1 and 2 emissions in the period after 2035 on a transitional basis until they have been completely reduced to zero. Along this path we have also defined various intermediate targets and milestones: We will reduce our Scope 1 and 2 emissions by 50% by 2027 and by 70% by 2030 (based on the reference year of 2018). The planned phaseout of coal by 2028 will make a significant contribution. As a further intermediate step, we will convert three of our coal power plants into gas power plants by 2026, which will eventually be powered by decarbonized gases, primarily biogas and low-carbon hydrogen. In April 2024, we published a **Climate Transition Plan** to describe our measures to achieve climate neutrality in detail.

The latest **ESG Factbook 2024** contains all of the facts on our sustainability performance.

Online

Measure 3 promotes our position as a responsible supply partner for sustainably certified hydrogen for the energy industry and for business and industrial customers in Baden-Württemberg and across Germany. By establishing the foundations for providing a solid supply of low-carbon hydrogen, we are strengthening our sales markets and developing long-term business relationships.

Against the background of the growing importance of physical climate risks (for example, extreme weather events such as floods or persistently high temperatures), **measure 14** is especially relevant. We are expanding our previous activities in the area of scenario-based risk analyses, such as local authority emergency and crisis management, by carrying out more targeted analyses and developing action plans based on their findings to adapt to climate change. This should enable EnBW to minimize any material and social damage within its sphere of responsibility.

In dialog with our stakeholders

Shares and capital market

The two major shareholders of EnBW AG, the Federal State of Baden-Württemberg (indirectly via NECKARPRI-Beteiligungsgesellschaft mbH) and OEW Energie-Beteiligungs GmbH, each hold 46.75% of the share capital in the company.

The overall shareholder structure as of 30 June 2024 breaks down as follows:

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-Energieverband (NEV)	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.

The shareholder structure of EnBW AG remains very stable. There are very limited trading volumes in the shares as a result. According to Xetra, the stock market price stood at €69.40 on 30 June 2024.

You can find the latest **financial calendar 2024** in the "Investors" section of our website.

Online

We engage in continuous and open dialog with capital market participants in order to ensure that investors, analysts and rating agencies maintain their trust in the company.

During the course of the annual Investor Update in April 2024, the Chief Financial Officer and Investor Relations team held discussions with around 50 investors from Germany, France, Great Britain, Switzerland and the Netherlands. In the first half of the year, we also provided information on the current development of the company at the Deutsche Bank Issuer & Investor Bond Forum 2024, the UniCredit European Credit Conference and the BBVA European Utilities Day 2024. Discussions with around 35 investors were held at these events.

The ordinary Annual General Meeting was held on 7 May 2024. The shareholders discharged the Board of Management and Supervisory Board by a large majority. The Annual General Meeting also resolved to pay out a dividend of €1.50, which was disbursed on 10 May 2024.

More than 60 external participants took part in the Group Bankers' Day in the middle of June 2024 in Philippsburg. This annual event focused this time on the energy transition and its financing. The agenda included specialist presentations, networking and a tour of the new direct current substation operated by our subsidiary TransnetBW on the premises of the former nuclear power plant.

Corporate citizenship and social activities

More information on our **social engagement** can be found here.

Online

Our commitment to addressing the concerns and interests of society is concentrated on the **core areas** of popular sport, education, social issues, the environment, and art and culture. We place our main focus on overriding social issues with the aim of making a positive contribution to the target groups of end customers, business partners and local authorities.

More information on the **EnBW "Making it happen" bus** can be found on our website.

Online

The **EnBW "Making it happen" bus** went on tour again in 2024. Each winning project is awarded up to €5,000 for the required materials and up to ten employees from the bus help out at the respective charitable organization for one day. This year's winners included the cooperation between the associations Christophorus-Gemeinschaft e. V. and Generationen Netz Müllheim e. V. in the category "Senior and Social," the Adolf-Schmitthenner High School in Neckarbischofsheim in the category "Children and Young People" and TG Sandhausen Wild Bees in the category "Animals and Environment." The EnBW Jury Prize was awarded this year to the gymnastics and sports club Bickelsberg 1913 e. V. for the installation of bicycle parking facilities. The work for all winning projects was completed by the end of July 2024.

In order to promote the **media and technical skills of school students,** EnBW launched the "IT First Aiders" program in Baden-Württemberg in July 2024. It aims to strengthen the media skills of the initial group of around 360 participants from twelve schools with respect to artificial intelligence and fake news, as well as to provide them with more in-depth expertise in the use of digital technologies such as smartboards and tablets. The program was launched in July in Karlsruhe and Biberach and will also be introduced in Freiburg, Neckarsulm, Mannheim and Stuttgart during the 2024/2025 school year. It is aimed at school students from 14 years of age and is being implemented in cooperation with the IT service provider Bechtle and the educational organization BG3000.

During the European Football Championships in Germany, EnBW took part in a **solidarity initiative for the people in Ukraine.** Some 300 veterans and children of fallen soldiers were given the opportunity to attend the three first-round matches of the Ukrainian national team. This solidarity campaign was organized by the state-run Ukrainian energy company Naftogaz and was supported by EnBW and other German energy companies.

In response to the floods in Southern Germany in June 2024, EnBW was immediately on hand to offer **support measures for affected customers.** We set up our own contact channel so that customers could find out about the support options. For example, customers impacted by the floods could benefit from relief measures such as the temporary suspension of prepayments or dunning blocks.

Learn more about our engagement in **art and culture** here.

Online

In the area of **art and culture,** we presented the Sahara Project as part of the "Mack in ZKM" exhibition in cooperation with the Center for Art and Media (ZKM) in Karlsruhe from November 2023 to April 2024. This exhibition in the foyer invited visitors to explore photographs, collages and objects created by Heinz Mack, one of the most important German artists of the post-war generation.

Research, development and innovation

Research and development

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

Further information and impressions of the **"Offshore Drone Challenge"** can be found online.

Online

There are high logistical costs associated with the **servicing and maintenance of offshore wind turbines.** In future, transport drones will play a role in reducing the operating costs of offshore wind farms, increasing safety and guaranteeing the reliability of energy generation from offshore wind turbines. Against this background, EnBW and the German Aerospace Center (DLR) organized a two-day "Offshore Drone Challenge" in June 2024 at DLR's National Experimental Test Center for Unmanned Aircraft Systems in Cochstedt. The manufacturers invited to take part in the challenge were asked to demonstrate flight maneuvers during the air show to prove that the drones were capable of replacing journeys by ship for payloads of 200 kg over distances of around 100 km.

Further details on the **large-scale heat pump in Stuttgart-Münster** are available online.

Online

As part of our sustainability strategy, we are investigating possible ways to reduce the use of fossil fuels in heating networks and decarbonize them altogether in the medium term. In April 2024, we placed the **large-scale heat pump in Stuttgart-Münster** into operation. It recovers waste heat from the cooling water draining from our combined heat and power plant and feeds it into Stuttgart's district heating grid at a higher temperature with an output of up to 24 MW. This should provide an aggregate of 10,000 households with climate-neutral district heating in future and improve the total proportion of climate-neutral district heating in the Stuttgart region by around ten percentage points to about 25%. As one of the first plants of this scale in Germany, it sets new standards in the energy-efficient recovery of industrial waste heat.

Our **Hydrogen Strategy** has been published here.

Online

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

Online

We are investigating how we can provide our customers with carbon-neutral **hydrogen from renewable energy sources** in future in research projects such as the H_2-Wyhlen field lab run by our subsidiary naturenergie hochrhein. Construction work on the second power-to-gas plant at the Wyhlen hydroelectric power plant officially began in June 2024 with the symbolic groundbreaking ceremony. This expansion in production capacities is being funded by the German government and is due to be completed by the end of 2025. Once complete, the production plant will be able to supply industry and mobility customers with up to 700 t of green hydrogen annually. It will use green electricity from the neighboring hydroelectric power plant for the electrolysis process.

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

Online

Our subsidiary Netze BW started a pilot project called **"Hydrogen Island Öhringen"** in 2020 in the City of Öhringen, in the Hohenlohe district, that is unique throughout Germany. The project was successfully concluded in the first half of 2024 and was able to demonstrate that hydrogen can play a role in carbon-free energy supply solutions for heating planning at a local authority level. A natural gas mix with a green hydrogen content of up to 30% is used in a separate island grid during normal operation. This is produced with renewable electricity by an electrolyzer. The mixed gas is used to supply heat to the company premises and 22 other buildings.

Further information on the **extraction of lithium** at the Bruchsal geothermal plant can be found here.

Online

At the existing geothermal power plant in Bruchsal, EnBW has successfully tested its new method for the sustainable extraction of lithium, for which a patent has been registered, at its own **lithium recovery facility.** In cooperation with LevertonHELM, it was possible to produce lithium carbonate with a purity of over 99.5% in the first half of 2024. LevertonHELM was able to enrich the lithium chloride solution extracted from the thermal water in Bruchsal to achieve this level. The lithium salt is so high in quality that it can be directly used for the production of batteries. As a result of this success, EnBW and LevertonHELM agreed in June 2024 to continue their collaboration. The aim is to further improve the sustainable production of battery-quality lithium carbonate and lithium hydroxide and open up local resources for use in electromobility and energy storage solutions.

Innovation

One fundamental aim of our business activities is to develop innovations that push forward the energy transition. Our innovation strategy is designed to promote innovative ideas in a more targeted manner in cooperation with committed company founders, investors and employees. At the same time, we aim to tap into new business fields for EnBW. One important focus is strengthening the entrepreneurial independence of the team and spinning off business models as start-ups as early as possible. In addition, we also invest in start-ups outside of the EnBW Group, in order to push forward existing innovations and establish a strong network of partners. Overall, we are concentrating our activities on **six key themes:** Smart Grid, Digital Energy Management & Trading, Connected Home, Mobility, Urban Infrastructure and Telecommunications & Data Solutions.

Our **innovation strategy is based on three central pillars:**

Learn more about how **Enpulse** supports young start-ups.

Online ↗

Karin Klaus, Managing Director of **Enpulse**, was included in the **"Watchlist 2024: 100 leaders you need to know!"** published by Business Punk.

Online ↗

Find out more about the live data from **metiundo** here.

Online ↗

Venture building: Enpulse is responsible for all of the early-phase activities of EnBW Innovation and develops new business models within the six key themes. It has a broad range of tasks, from analyzing trends and developing and testing initial business ideas through to the foundation of start-ups. Enpulse also offers start-up grants to young people with entrepreneurial ambitions and supports them in the further development of their business model for between six and twelve months. In the first half of 2024, Enpulse invested in **narrowin,** a cybersecurity start-up, and **Zentur.io,** an IT service provider for district heating grid operators. narrowin helps companies combat cyberattacks by creating a digital twin of the grid infrastructure. Zentur.io offers an AI-based software for district heating grid operators that can optimize their value-added processes. Enpulse also made an additional investment in **metiundo** as part of a recent funding round. This company provides property owners with access to live data on their energy and water usage in their real estate portfolio. Enpulse had already invested in metiundo during its seed funding round in 2023.

Further information on **SMIGHT** can be found here.

Online ↗

Venture scaling: EnBW Innovation supports young companies that have successfully entered the market so that they can continue to grow. It assists these companies with financing and also helps them to develop their growth strategy by acting as a strategic sparring partner, while its specialist trainers use their experience to provide them with inspiration in their marketing, sales, operations and organizational development. The aim is to support start-ups as they scale up their business model and open up new segments, countries and fields of application. One example from the EnBW Innovation portfolio is the start-up **SMIGHT.** The company is one of the leading providers of IoT (Internet of Things) grid solutions and contributes to the efficient operation of the grids by collecting real-time data from local grids using its own sensor technology. SMIGHT presented its IQ Copilot solution in February at E-world 2024, a specialist trade fair for the energy and water sectors. This newly developed solution allows small and medium-sized distribution system operators in particular to identify and resolve bottlenecks in the low-voltage grid.

You can find all of the start-ups from **EnBW New Ventures** here.

Online ↗

Venture Capital: EnBW New Ventures (ENV) is responsible for financing external start-ups in line with EnBW's corporate venture capital logic. ENV supports entrepreneurs as they develop solutions for digital and sustainable infrastructure. ENV also offers these entrepreneurs access to professional investor expertise and a network of customers and suppliers in the energy and infrastructure sectors. ENV has so far invested in a total of 20 start-ups and realized four successful exits, while EnBW has also acquired a majority stake in one of the companies. Its evergreen business model had an initial investment volume of €100 million and allows any proceeds from the sale of shares in start-ups to be reinvested in new companies. ENV invested in the companies **Sunhat** and **Cozero** in the first half of 2024. Sunhat offers a software solution that enables companies to identify their sustainability requirements and to quickly make their sustainability data available for various needs. Cozero provides companies with a software solution for measuring, documentation and reducing CO_2 emissions. In addition, ENV invested in its existing portfolio in the Series B funding round for the company **enspired.** This company offers AI-powered trading as a service and automates the electricity trading process for decentralized generation plants.

Theo Schulte, Company Principal of **ENV,** was selected as an **Emerging Leader 2024** by Global Corporate Venturing.

Online ↗

Melanie Beyersdorf, Investment Manager at **ENV,** was selected as a **Rising Star 2024** by Global Corporate Venturing.

Online ↗

Procurement

Efficient and sustainable procurement processes

More information on the **sustainable supply chain** can be found on our website.

Online

The purchasing department at EnBW views itself as a partner for the success of the company. It optimizes the cooperation between business, suppliers and the market from a commercial viewpoint while maintaining high quality standards. Digitalization is our path to developing efficient procurement processes that retain value. Central purchasing strives to achieve sustainable procurement and ensures compliance with applicable laws and EnBW guidelines. It also contributes to the success of the energy transition by applying its expertise in the supplier market and making a commercial contribution to the profitability of projects. As a result, it makes an important contribution to the competitiveness of the company, helping to safeguard its future.

In the first half of 2024, the **situation on the procurement markets** eased and the most important raw materials were once again more readily available. Some important raw material prices fell overall during the first half of the year and were lower than the levels in the same period of the previous year. At the same time, supply bottlenecks and disruptions to supply chains decreased considerably compared to the first half of 2023. There were only a few resources where we still saw a relatively high level of volatility with respect to their prices and availability in the first six months of 2024.

Alongside the easing of the situation on the procurement markets, the **high need for investment** overall, especially for the expansion of the grids and in renewable energies, also had an impact on the purchasing department at EnBW in the first half of 2024. With a view to the high level of investment planned by EnBW over the next few years, central purchasing is already analyzing the best ways to manage this volume of investment on the market and what we will need to purchase for the planned projects. As previously, our objective is still to ensure that sustainability remains an important factor in the procurement process and the selection of suppliers at all times.

In our procurement process, we are issuing an increasing number of invitations to tender in which CO_2 emissions are a relevant award criterion. We are contractually obliging our suppliers, for example, to formulate and document clearly defined **CO_2 reduction targets** that cover both direct and indirect emissions. In this context, we were able to successfully conclude our first pilot projects in the first half of 2024. We have also managed to ensure that the first suppliers in the photovoltaic (PV) sector are now disclosing the carbon footprint per PV module.

Further diversification and improving cooperation with our 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 their performance transparent and also makes continuous optimization in partnership possible. Since the first half of 2024, we have been carrying out a supplier evaluation process as part of a holistic supplier management system using a standardized tool following the conclusion of a joint project. The careful selection of our suppliers is embedded in our risk management system and supports the observance of legal regulations and internally defined quality standards, as well as EnBW's aspiration for sustainable supply chains. 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.

The **Supplier Code of Conduct** forms the basis for our cooperation with our suppliers. The PDF version is available to download here.

Online

Sustainable procurement begins with the careful selection of suppliers. Central purchasing at EnBW AG uses a standardized **prequalification process** for this purpose. Suppliers are required to provide a self-assessment via a 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. Our **Supplier Code of Conduct (SCoC)** acts as a shared set of values and an important criterion for the selection and development of our suppliers. Some 97% of our suppliers (measured by procurement volume) had accepted the SCoC as the basis for our cooperation by the middle of 2024. Suppliers who do not comply with the SCoC are categorically blocked in our purchasing system.

Respecting human rights and protecting the environment are key pillars of our corporate culture. In cooperation with our business partners, we are working to **make the supply chain more sustainable by improving transparency.** In the first half of 2024, we continued to enhance the transparency of our most important partners with the aid of an external partner. The resulting findings will flow in future into, among other things, our invitations to tender. We will continue to align our procurement process even more strongly to social and ecological aspects in the next few years. This can be seen, for example, in the regular audits and updates of our SCoC.

The **EnBW policy statement** can be downloaded in PDF format here.

Online ↗

In the first half of 2024, we continued **implementing the requirements of the Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz or LkSG).** The act requires German companies to establish key elements of corporate due diligence in their own value-added chain and with respect to their suppliers. In this context, we already published a **policy statement** in 2023, which is based above all on the **EnBW Code of Conduct** and also on the **EnBW Declaration of Human Rights.** In the first half of 2024, we concluded our risk analysis on the compliance with human rights due diligence by our suppliers and submitted it to BAFA (Federal Office for Economic Affairs and Export Control). Alongside the risk analyses in accordance with the specifications of LkSG, we carried out a specific analysis of our 400 most important suppliers during the first six months of 2024. We have so far not been forced to terminate any partnerships due to findings from these analyses.

The **EnBW Code of Conduct** can be found on our website.

Online ↗

The **EnBW Declaration on Human Rights** is available to download in PDF format.

Online ↗

Central purchasing at EnBW AG has been working even more closely together with VNG since October 2023 to develop a holistic purchasing strategy. VNG will have fully integrated its processes into the process landscape at EnBW by the end of 2024. Among other things, VNG will then be able to access the Ivalua purchasing system. The aim of this closer cooperation is for all sides to be able to utilize the available knowledge and expertise and allow the further optimization of the purchasing processes overall.

Our suppliers are provided with central access to information and self-service options in our **supplier portal**.

Online ↗

Various **automation and digitalization initiatives** have been introduced in central purchasing at EnBW AG with the aim of simplifying our processes even more and, in particular, ensuring that any recurring procurement tasks can be carried out with the minimal amount of effort. This underlines our commitment to develop efficient and sustainable procurement processes in line with LkSG.

Responsible raw materials procurement in the coal sector

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

Online ↗

With a view to the CO_2 reduction targets set by the German government, we will **gradually replace hard coal with more climate-friendly energy sources.** The most important milestones here will be the realization of the fuel switch projects and the planned phaseout of coal by 2028. The first half of 2024 was characterized by a sharp decrease in the amount of electricity generated from hard coal in Germany, which was also reflected in the total amounts of hard coal delivered to the EnBW power plants. The trend seen in 2023 thus continued into 2024. Despite the significant decrease in deliveries, responsible raw materials procurement, especially in the coal sector, is still extremely important to us.

More detailed information on the **Climate Transition Plan** can be found online.

Online ↗

Origin of coal supplies to EnBW power plants

in million t	01/01–30/06/2024	01/01–30/06/2023	Change in %
Colombia	0.1	0.6	-80.6
USA	0.0	0.5	-93.3
South Africa	0.0	0.1	-100.0
Russia	0.0	0.1	-60.0
Total[1]	0.2	1.3	-84.9

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

The significant **reduction in deliveries** in the first half of 2024 was primarily due to the shutdown of the power plants in Heilbronn and Altbach/Deizisau due to damage and also to extensive inspection work carried out on Block 8 of the Rheinhafen steam power plant in Karlsruhe. Other reasons for this development were the lower electricity generation in Germany overall combined with a higher proportion of renewable energies and higher imports of electricity. Gas prices were also low, especially at the beginning of the year, and this improved the competitiveness of this fuel in comparison to coal.

The **EnBW rules of conduct** can be downloaded in PDF format here.

Online

The sustainability performance of our current and potential coal suppliers is examined and evaluated in accordance with the values of our **EnBW rules of conduct** that govern the responsible procurement of hard coal and other raw materials. We take various measures to ensure our responsibilities with respect to human rights are fulfilled for employees, business partners and other stakeholders. For example, EnBW sent a delegation on a **stakeholder engagement tour** to Colombia in March 2024. The delegation met with the most important coal producers and also with relevant civil society and political actors in the country. This allowed us to manifest and supplement the results of our regular risk analyses and thus achieve the most important aim of our trip. Alongside the measures we are taking internally within the company, we are also networking with other companies externally in sector initiatives so that together we can properly tackle the challenges associated with the responsible procurement of raw materials.

Further information on the international business initiative **RECOSI** can be found here.

Online

We have been a member of the **Responsible Commodities Sourcing Initiative (RECOSI)** – formerly Bettercoal – since July 2020. The independent audits carried out via RECOSI and the monitoring of the progress made by the individual producers with respect to fulfilling the RECOSI Continuous Improvement Plans flow into our process for auditing business partners. Currently, we are primarily active within RECOSI in the Colombian working group because this is where the majority of the coal deliveries are sourced. We have also been actively involved in the South African working group since 2023. We are advocating for other coal producers in various different countries to agree to RECOSI audits. In addition, we use RECOSI 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.

Our **rules of conduct** form the foundations for our business activities. In the sustainability clause that is a fundamental component of all of our contracts with coal producers, we obligate our business partners to observe these rules of conduct. We check compliance with the sustainability clause and the sustainability performance of the coal suppliers on an ongoing basis. When new contracts are concluded, the results of the analyses saved in the sustainability index are presented to an internal **committee for the responsible procurement of hard coal and other raw materials (AVB)** at regular intervals with participation from all relevant specialist areas (especially credit risk trading, compliance, environment and sustainability). 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 monitored.

Responsible raw materials procurement in the gas sector

In the first half of 2024, EnBW mainly sourced its natural gas via **supply contracts with companies in Norway** as well as via the European wholesale market. In June 2024, the EnBW subsidiary VNG extended its long-term contract with the Norwegian company Vår Energi ASA (Vår Energi) for the supply of up to 5 billion m^3 of natural gas for a further twelve years. The contract builds on the long-term relationship between VNG and Vår Energi that stretches back to the early 1990s. Norway has been a reliable energy supplier with a low carbon footprint for many years.

In May 2024, EnBW signed a contractual agreement with the Abu Dhabi National Oil Company (ADNOC) to purchase liquefied natural gas (LNG) over a period of 15 years. ADNOC will supply EnBW with 0.8 billion m^3 of LNG per year once the Ruwais LNG project has been commissioned as planned in 2028. We are thus continuing to pursue our strategy of further expanding our LNG activities and diversifying our sources of gas. Once commissioned, the Ruwais project will have a total capacity of 13.2 billion m^3 and be the first LNG liquefaction plant in the Middle East to cover its electricity needs entirely using low-carbon sources. The electrically powered liquefaction plant will optimize the carbon footprint for LNG production, while the use of state-of-the-art AI technologies will also ensure a high level of energy efficiency in the overall process.

More detailed information on the **Climate Transition Plan** can be found online.

Online ↗

LNG is important for securing Germany's gas supply during the energy transition and will act as a **bridging fuel to a climate-neutral energy supply.** The conversion from liquefied gas to a hydrogen-based energy source, such as ammonia, is already planned at the LNG terminal in Stade. Our cooperation with the Hanseatic Energy Hub thus greatly supports our aim to become climate neutral by 2035. In 2023, EnBW secured the exclusive rights to procure the green ammonia produced at the Skipavika Green Ammonia facility in Norway, which is due to be placed into operation in 2027. We started directly marketing the annual production volume of 100,000 metric tons at the end of July 2024, which has placed us in a good position as the market for green gas infrastructure ramps up.

By diversifying our sources of gas, we are intensifying and developing our **due diligence measures in the gas sector, whereby** the main focus is a comprehensive business partner audit of all the direct gas suppliers before they can be approved as a business partner for EnBW. We are developing this process further within a digitalization process and have made it more transparent and efficient for all areas of the company participating in the AVB using an in-house tool called "Sus-Check." At the same time, we have been able to integrate more data to make the audits even more evidence based. We are also engaged in the so-called "Gas Programme" within RECOSI as a key measure of our human rights due diligence activities in gas procurement. In this program, we will examine whether the continuous improvement process for the procurement of coal can also be transferred to the procurement of LNG. Furthermore, we exchange views on the risks related to our supply and value-added chain, including the gas supply chain, with various different stakeholders within the framework of the **Energy Sector Dialog.**

Further information on the **Energy Sector Dialog** can be found here.

Online ↗

General conditions

Macroeconomic trends

Economies

Despite the slowdown in price increases, the global economy proved to be surprisingly resilient in 2022 and 2023, allaying fears of a global recession. At the same time, the rate of growth is currently restrained by historical standards. Short-term effects, such as continuing high financing costs and declining state funding measures, as well as long-term consequences of the coronavirus pandemic and the war between Russia and Ukraine together with sluggish growth in productivity, acted as a brake on economic growth in 2024.

Since reaching their highest level in 2022, energy prices have fallen overall, which reflects the rise in the global supply of energy and also the impact of tighter monetary policy. The International Monetary Fund (IMF) confirmed its forecast in July 2024 and continues to expect global economic growth of 3.2% in 2024 and 3.3% in 2025. While electricity prices are generally still relatively high, the German Association of Energy and Water Industries (BDEW) has reported that the average electricity price for households in Germany fell slightly in the first half of 2024. At the same time, electricity consumption increased marginally in the first half of the year by 0.3% in comparison to the same period of the previous year. The macroeconomic environment will continue to be impacted by huge uncertainty and volatility this year, which makes it difficult to make specific statements about the impact on our company's business performance.

Development of interest rates

After yields on ten-year German government bonds rose significantly in 2023 and at times exceeded the 3% mark, they fell considerably by the end of the year. In the first half of 2024, yields nevertheless increased again and ended at around 2.4%. The central banks continued to concentrate on returning inflation rates back to their target levels. While the European Central Bank (ECB) lowered the key interest rate for the first time in eight years by 0.25 percentage points to 4.24% in June 2024 and initiated a turnaround, the US Federal Reserve left rates on hold once again, keeping the key interest rate at between 5.25% to 5.50%.

In the first half of 2024, the long end of the yield curve in particular made an upward turn so that actuarial interest rates, which are used to discount the pension provisions, were below the level at the end of 2023 on the reporting date of 30 June 2024. This led to a slight reduction in the present value of the provisions.

Cross-segment framework conditions

Climate protection

The **German Climate Change Act** has been fundamentally reformed. The climate targets post 2030 remain unchanged (–65% by 2030; –88% by 2040), but responsibility is no longer split by sector. In future, the entire German government will be responsible for the achievement of the climate protection targets across all sectors. However, emissions are still being monitored at a sector level. There is thus no longer an obligation to present an emergency climate action program in the event that a sector failed to meet its climate targets in the previous year. Instead of an ex-post analysis, the main focus is being placed on forecasts for the achievement of the climate targets. If the forecasts from two years in a row indicate that a target will be missed, the German government must submit a cross-sector climate action program. The German Environment Agency is responsible for the forecasts. According to the latest Projection Report from the German Council of Experts on Climate Change, the target will be missed slightly in 2030 (455 million t CO_2eq instead of 438), but there will be a significant shortfall in subsequent years. While the energy industry is forecast to exceed its targets, the building sector and especially the transport sector are expected to miss theirs.

To further decarbonize the energy sector, the German government agreed a **power plant strategy** (KWS; now the Power Plant Security Act) with the European Commission in July 2024. The act includes auctions for a total of 12.5 GW of power plant capacity and 500 MW of long-term storage capacity. Auctions for 5 GW of new H_2-ready gas power plants and 2 GW of H_2-ready modernization projects will be held in the first "pillar." The first auctions are due to start at the end of 2024/beginning of 2025. In the second pillar, an auction will be held for 5 GW of new gas power plants to support the security of supply especially in "dark doldrums" (darker, windless periods). The act is still subject to authorization by the EU in accordance with state aid rules, and the public consultation phase with operators, manufacturers and associations still needs to be organized. EnBW will continue to actively contribute to the process – including the design of a future capacity mechanism. This is due to be introduced operationally by 2028. Power plants built as part of KWS will be integrated into the capacity mechanism.

The establishment of a **national hydrogen infrastructure** is another key element of the strategy for decarbonizing the future electricity and heating supply. The framework conditions are currently being developed with the active involvement of EnBW in several draft laws that have not yet been finalized in some cases. Alongside the legislation to amend the German Energy Industry Act (EnWG) to finance the core hydrogen network and integrate the network development plans for gas and hydrogen, the Hydrogen Acceleration Act, which was agreed by the German Federal Cabinet at the beginning of June 2024 and is now within the parliamentary process, will also make a contribution to the accelerated expansion of generation, import and storage infrastructure.

EnBW will need hydrogen for the generation of electricity and heating from the middle of the 2030s onwards in order to successfully implement its climate-neutrality strategy on time. To ensure that sufficient amounts of hydrogen are available, it will be necessary to import significant volumes of hydrogen – although the conditions for this still need to be defined and/or finalized. Alongside infrastructure issues, EnBW is also helping to answer the question of where these large volumes of hydrogen and its derivatives will be sourced. Detailed plans are being developed in, among other things, the German government's hydrogen import strategy, which was resolved by the German Federal Cabinet on 24 July 2024. The delegated act on low-carbon hydrogen that is currently being developed by the European Commission will also have fundamental significance for imports.

The so-called **Solar Package I** and the **reform of the Federal Immission Control Act (BImSchG)** were passed in May and June 2024 after significant delays. These important laws will substantially accelerate the approval process in a more logical way. The Solar Package in its final version contains regulations for all renewable energy technologies (including recognition of existing wind areas as acceleration zones). The reform of BImSchG will implement some basic demands that should make a valuable contribution to simplifying procedures and reducing bureaucracy with respect to onshore wind energy.

Discussions are currently being held about a so-called **Solar Package II** that could contain, among other things, regulations on energy sharing – i.e., the joint generation and use of renewable electricity within a community in combination with the public electricity grid – and an extension of the obligation for landowners to tolerate installations. Amendments to the German Energy Industry Act (EnWG) with respect to renewable energies and the Offshore Wind Energy Act (WindSeeG) are also being discussed.

The German government has presented it strategy for **Carbon Management (CMS)**. The resulting **Carbon Dioxide Storage Act (KSpG)** is currently being debated in parliament. These two documents could represent a paradigm shift in legislation. While existing laws were designed to limit carbon capture and storage (CCS) and carbon capture and utilization (CCU) technologies, the new legislation aims to facilitate and promote them. The act will create the framework conditions for the planning, construction and operation of commercial carbon dioxide storage facilities on an industrial scale. The storage of CO_2 is in general only permitted offshore under the seabed. However, there will be an opt-in clause that enables federal states to permit onshore storage under certain conditions. CCS and CCU is planned primarily for the treatment of unavoidable emissions, such those generated in waste incineration, industry (e.g., cement and chemical production) or biomass recycling. Using CCS/CCU for coal power plants will still be prohibited, although the act now makes its use with gas power plants an option. However, there is no intention in the act to provide financial support for fossil fuels. This act will also establish a regulatory framework for the construction of

carbon dioxide pipelines to the storage sites and numerous measures to accelerate this process. It should also permit the future transport of carbon dioxide across borders. Expanding the use of CCS/CCU technologies to gas power plants and the option of using them for onshore CO_2 storage are politically controversial issues.

EnBW welcomes the drafts of the CMS and KSpG. In our opinion, the use of CCS/CCU is essential for the achievement of the climate targets (negative emissions) and for the production and use of blue hydrogen until green hydrogen is economically viable and available in sufficient quantities. From today's perspective, however, CCS and CCU do not provide us with a realistic option for achieving climate neutrality in our EnBW power plants. We are focusing instead on fuel switch projects from coal to gas and later on to climate-neutral hydrogen.

European energy policy

In order to strengthen European competitiveness and support industrial policy especially with respect to China and the USA, the legislative proposals for a **Net Zero Industry Act (NZIA)** and a **Critical Raw Materials Act (CRMA)** presented by the EU Commission have been passed and already came into force in June 2024 and May 2024, respectively. Both dossiers aim to ensure that the EU does not lose its competitiveness in key strategic technologies for the green transition and to reduce Europe's dependence on individual states for raw materials. The delegated act and implementing act within the NZIA for the design of renewable energy auctions and public procurement law are still to be published. The legislation that is currently being drawn up will provide more clarity on the non-financial award criteria that will apply to auctions and the award of public contracts in the area of net zero technologies and also harmonize these criteria across the EU. As a predominantly public-sector company, EnBW will be affected by the auction criteria and will also be subject to the public procurement criteria as a public procurement institution.

The **Directive on corporate sustainability due diligence with respect to human rights and environmental protection**, which was the subject of much controversy and debate in Brussels, was passed in May 2024. Once this directive comes into force, member states will have two years to transcribe the regulations into national law. The regulations in this directive will have to be applied gradually from 2027 onwards.

In this context, the **Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz or LkSG)** has already been in force in Germany since the beginning of 2023. The German government is currently discussing how to align the national criteria with the pending framework being introduced by the European directive. These discussions are focusing on, among other things, the extent to which the reporting obligations in the German law will still apply until the European regulations come into force.

The fact that companies will face additional costs and a considerable amount of extra work in order to comply with the **European reporting obligations** was already heavily criticized by several member states before the directive was approved. The criticism in Germany has mainly focused on the planned civil liability provisions, which will lead to legal uncertainty for suppliers and investors and could place an additional burden on business relationships as a result.

Sustainable Generation Infrastructure segment

Installed net output for electricity generation in Germany[1]

in GW	2024	2023	2022	2021	2020
Solar	88.9	82.7	67.6	60.1	54.4
Onshore wind	61.8	61.0	58.0	55.9	54.3
Biomass	9.1	9.0	8.9	8.9	8.7
Offshore wind	8.7	8.5	8.2	7.9	7.9
Hydropower[2]	5.4	5.4	5.4	5.5	5.5
Gas	36.3	36.3	34.3	32.4	32.5
Hard coal	17.5	17.5	19.0	19.0	23.7
Brown coal	15.1	15.1	18.7	19.0	20.9
Nuclear power	–	–	4.1	4.1	8.1
Oil	4.0	4.0	4.7	4.7	4.9
Total[3]	**246.9**	**239.6**	**228.7**	**217.3**	**220.8**

1 The figures for the previous year have been restated.
2 Adjustment to the installed output from hydropower by EnBW. Source: Fraunhofer ISE (www.energy-charts.de) | As of: 30 / 06 / 2024.
3 The figures may not add up due to rounding differences.

Renewable energies

Germany

The proportion of total electricity generation accounted for by renewable energies was around 58% in the first half of 2024 and thus once again higher than in the same period of the previous year (55%). This increase was mainly attributable to higher wind yields and a rise in installed output in photovoltaic power plants in Germany.

Onshore wind

In the first half of 2024, the installed onshore wind capacity in Germany increased by around 1 GW due to the commissioning of new wind farms. The average size of newly approved wind power plants has grown continuously and now stands at around 5.6 MW.

Offshore wind

In the first half of 2024, offshore wind turbines with an output of around 380 MW were placed into operation in Germany. The auctions for 2.5 GW of output on non-centrally pre-investigated sites started on 1 June 2024 and EnBW had its bid for the development of a project with a capacity of 1 GW accepted. Auctions for 5.5 GW of output on centrally pre-investigated sites started on 1 August.

Photovoltaics

The dynamic growth in solar PV power plants continued in the first half of 2024. During this period, photovoltaic power plants with a total output of around 7.5 GW were installed. In order to achieve the ambitious expansion target of 200 GW by 2030, it will nevertheless be necessary to expand the number of useable areas.

France

We have been active on the French market since 2019 through our subsidiary Valeco – a project developer and operator in the renewable energies sector. As a key component of our strategy, we develop, construct and operate wind energy and PV projects in France and expect continued dynamic growth in this country in both generation sectors. Around 22 GW of onshore wind capacity is currently installed in France. The government's target is still to expand this figure to between 33 GW and 35 GW by 2030. It now also aims to expand the installed photovoltaic capacity from the current figure of 18 GW to between 45 GW and 56 GW. The French energy strategy includes ambitious expansion targets for offshore wind power with a total output of at least 40 GW by 2050. We participated in the first auction for a floating wind farm off the coast of Brittany and are already prequalified for the next phase of auctions in the Mediterranean Sea. We are bundling our offshore activities in the company EnBW Valeco Offshore SAS, which was founded in April 2024 in Paris, and will manage our activities in France in this area centrally in future.

Great Britain

The sixth round of auctions in the British CfD scheme (Contracts for Difference, CfD Allocation Round 6) is scheduled to take place in August 2024 with the submission of bids. In comparison to the last round of auctions (CfD AR5), in which none of the bids for offshore wind farms were accepted, the framework conditions have improved considerably. The maximum annual funding budget and the maximum bidding price for offshore wind have been significantly increased.

Sweden

The Swedish energy market offers favorable physical conditions and a still growing and competitive market environment for renewable energies. The further expansion of onshore wind plays an important role in the Swedish generation market. Photovoltaics are becoming an even more attractive proposition, especially in southern Sweden. It remains to be seen whether offshore wind power will also play an increasing role in the Swedish energy mix in future, both as an important source of electricity and in combination with the targets for integrating green hydrogen into the industrial and transport sectors.

Turkey

Our joint venture in Turkey with our Turkish partner Borusan operates wind turbines with a total output of 666 MW and is one of the largest players on the Turkish wind energy market. In addition, the joint venture operates a hydropower plant with an output of 50 MW and two solar parks with a total output of 9 MW. Another solar park with an output of 94 MW will be fully commissioned shortly and two other wind farms with a total output of 116 MW are currently under construction.

Turkey has great untapped potential with respect to renewable energies, primarily in the areas of onshore wind and photovoltaics. We believe that the Turkish market remains an attractive proposition for the future, although we are monitoring the political and economic developments in Turkey very closely.

Conventional generation: market and fuel prices

Electricity wholesale market

Development of prices for electricity (EPEX), base load product[1]

in €/MWh	Average H1 2024	Average H1 2023
Spot	**69.72**	103.99
Rolling front year price	**66.95**	127.39

1 The figures for the previous year have been restated.

In the first half of 2024, the average spot market price of approximately €70/MWh was around €35/MWh below the level in the first half of 2023. The average price on the forward market of approximately €67/MWh was around €60/MWh lower than in the same period of the previous year. The fall in prices was primarily attributable to lower market prices for gas and coal. In addition, the deployment periods for thermal power plants were reduced due to higher generation from renewable energies. The future development of electricity prices will depend on the development of fuel and CO_2 prices and trends in the electricity generation mix. Future developments in energy and climate policy will also have an important influence on the electricity market in the future.

Gas market

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

in €/MWh	Average H1 2024	Average H1 2023
Spot	**29.53**	44.26
Rolling front year price	**33.44**	55.40

Prices fell on the gas market up until the middle of February 2024. This was due to the mild European winter and the relatively full gas storage facilities. Gas prices have since followed an upward trend for a variety of reasons. In the liquefied natural gas (LNG) sector, for example, there were production problems at the Freeport LNG terminal in the USA and at the Gorgon and Wheatstone LNG terminals in Australia, while sanctions were also imposed on the Russian LNG project Arctic 2. It was also reported that Egypt will be importing LNG to some extent again and there was an increase in the demand for LNG in Asia, such as in India. Moreover, global LNG trade was complicated by the Houthi attacks in the Red Sea and by low water levels in the Panama Canal. Due to factors such as lower global production, fewer LNG ships have arrived in northwest Europe since February 2024 than in the previous year.

The contract for the transit of Russian gas through Ukraine expires at the end of 2024. It is currently unclear whether the contract will be renewed. Repeated Russian attacks on the gas storage facilities and gas infrastructure in Ukraine have led to uncertainty on the gas market about whether gas for the coming winter can be stored there for European customers. In April 2024, the European Parliament passed a law that permits member countries to ban imports of gas and LNG from Russia. The 14th package of sanctions against Russia that came into force in June prohibits the transshipment of Russian LNG at EU ports for transport to other countries outside of the EU. Russian gas deliveries to the EU via Turkey and Ukraine are currently frequently at full capacity.

The first major maintenance period began in Norway at the end of April 2024 and production has been scaled back accordingly. In addition, there were temporary production problems in Norway, such as at the Sleipner Riser and Visund facilities. According to the Federal Network Agency, demand from industry in Germany increased between January and June 2024 in comparison to the previous year. Gas storage levels in Europe are currently slightly below the relatively high levels in the previous year.

Russian gas has been and will be replaced to some extent by LNG. This means that an increase in demand for LNG in other parts of the world will now have a bigger impact on the European gas markets than in the past.

Development of prices on the oil markets [1]

in US$/bbl	Average H1 2024	Average H1 2023
Crude oil (Brent) front month (daily quotes)	83.09	82.19
Crude oil (Brent), rolling front year price (daily quotes)	77.33	74.64

1 The figures for the previous year have been restated.

Oil market

In the first half of 2024, the Brent oil price (calculated front-year price) was slightly higher than the level in the first half of 2023. The price fluctuated between US$72/bbl and US$83/bbl. For large parts of the current year, the main price drivers of this development were economic concerns related to the demand for oil and the crisis in the Middle East.

The oil market will presumably continue to be influenced by macroeconomic developments and the balance between supply and demand. Geopolitical conflicts, such as the war between Russia and Ukraine and a possible conflict with Iran, continue to pose risks for the price of oil. Prices on the forward market reflect the expectation that prices will continue to fall slightly over time.

Development of prices on the coal markets

in US$/t	Average H1 2024	Average H1 2023
Coal – API #2 rolling front year price	108.35	133.59
Coal – API #2 spot market price	109.21	135.75

Coal market

Coal prices fell initially up to the middle of February. A clear drop in demand for imports in Europe, South Korea, Japan and Taiwan combined with high stock levels in many important coal import countries put pressure on global coal prices. Colombian coal was also being offered at aggressive prices on the Asian markets. The USA announced at the end of February that it will be imposing sanctions on Russia's largest steam coal producer SUEK after a transition period. The number of Russian coal companies subject to US sanctions has gradually increased to six. Many importers have been searching for alternative sources of coal as a result. Fears of coal shortages were exacerbated by the collapse of a bridge in Baltimore at the end of March because it blocked any coal exports from Baltimore until into June. The front-year prices for coal increased significantly from US$89.17/t on 19 February to US$122.44/t on 12 April, while prices on the spot market even reached US$126.58/t for a short period. The sharp increase in natural gas prices on the TTF also had an influence on coal prices. Participants on the coal market, especially speculative participants, are continuing to base their decisions to a large extent on price developments on the natural gas market. However, coal prices subsequently fell again uo to the end of April but remained volatile overall and fluctuated in a range of between US$108/t and US$128/t (Cal-25) until the end of June.

It can be assumed that the European coal market will continue to be characterized by weak demand. Forward market prices and generation spreads indicate that coal-fired power generation will only increase again in the winter months and then only temporarily. In the first half of 2024, increased import volumes in China and India in comparison to the previous year were able to compensate for the fall in demand in many other import countries. However, there is still a risk of a downward trend in the second half of 2024 as both countries have already accumulated very high stock levels and China is currently discussing measures to increase its own coal production.

Development of prices for emission allowances/daily quotes

in €/t CO_2	Average H1 2024	Average H1 2023
EUA – rolling front year price	65.69	89.19

CO_2 allowances

In the first half of 2024, the average price for EUA certificates of around €65/t CO_2 was about €25/t CO_2 lower than in the first half of 2023. The price fluctuated between €52/t CO_2 and €77/t CO_2. The main price drivers for EUA certificates were lower emissions in the electricity sector due to a fall in fuel switch costs and a drop in fossil-fuel-based generation, as well as high energy prices and the flagging economy in the industrial sector. As a result of further reductions in supply imposed by the market stability reserve (MSR) and the tightening of the climate targets for 2030, price increases are expected in the long term.

System Critical Infrastructure segment

In March 2024, the Federal Network Agency confirmed the **Network Development Plan Electricity 2037 with Outlook 2045** (NDP Version 2023). The plan includes three scenarios describing the envisaged grid in 2037 and the "climate-neutral grid" for Germany in 2045. The plan not only factors in the phaseout of coal and nuclear energy but also the national hydrogen strategy, the highly ambitious policies for the expansion of renewable energies and an increasingly integrated internal energy market in Europe as the main drivers of the transformation of the energy system. The three scenarios reflect different degrees of hydrogen uptake and electrification. The anticipated installed generation capacities from renewable energies (above all photovoltaic and wind) in 2045 of almost 640 to over 700 GW would represent about a five-fold increase in comparison to 2023. This and – according to forecasts – a doubling in gross electricity consumption will require a huge increase in the rate at which the grids are currently being expanded. The expected investment up to 2045 in the German transmission grid and the offshore grid necessary for the integration of offshore wind turbines comes to more than €300 billion in total.

TransnetBW is participating with other transmission system operators (TSO) in two major projects to push forward the development of high-voltage DC (HVDC) transmission lines for the future transport of wind energy from the north of Germany to the centers of consumption in the south. TransnetBW is responsible for the most southern section of the **ULTRANET** project that will connect North Rhine-Westphalia and Philippsburg. Construction work on the transmission line has now begun. In the **SuedLink** project, two HVDC transmission lines from Schleswig-Holstein to Bavaria and Baden-Württemberg are being realized in cooperation with TenneT. The construction work for the SuedLink converter in Leingarten started at the end of July 2023. The other seven sections are still in the planning approval process. NDP Version 2023 includes other investments by TransnetBW in the HVDC transmission technology projects DC41 (NordWestLink) and DC42 (SuedWestLink) that are due to be placed into operation in 2037.

As the largest distribution system operator in Baden-Württemberg, Netze BW published the **grid expansion plan for its high-voltage grid** in May 2024. It includes planned construction measures for the period up to 2045 – the legally defined target for Germany to become climate neutral – which have been derived from the southwest regional scenario in the NDP issued by the TSOs. The energy transition will also require comprehensive expansion of the high-voltage lines and transformer stations at the distribution grid levels. Investment of €14.5 billion by 2045 will be necessary in the high-voltage grid operated by Netze BW alone. The southwest regional scenario assumes, for example, that the installed output from renewable energies in Baden-Württemberg will rise from 10 GW to 66 GW and the number of electric cars will increase from the current figure of 0.3 million to 5.3 million.

In December 2023, the **Network Development Plan (NEP) Gas 2022–2032** from the gas transmission system operators (FNB) was approved with one request for a change by the Federal Network Agency. It contains a binding expansion proposal that takes into account significant changes to the framework conditions in the gas industry. Three variants are considered for 2032 based on LNG deliveries and also allow for the complete loss of Russian gas volumes both for the supply to Germany and also for transmission through Germany. The approved grid expansion measures will require investment of around €4 billion, of which almost €2 billion will be on LNG facilities. On 22 July 2024, the gas transmission system operators submitted their application for the approval of the German core hydrogen network. In the next two months, BNetzA will carry out the necessary consultations before approving and appointing the respective project developers. The core hydrogen network will have a length of up to 9,700 km and by 2032 will largely consist of redeployed natural gas lines that will no longer be required for their original purpose by this time.

The current NDP Gas runs until 2030 and envisages increasing gas transmission capacities in Baden-Württemberg, especially for the supply of new gas power plants, which will make a needs-based expansion of the gas transmission grid of terranets bw necessary. The **south German natural gas pipeline (SEL)** will form part of the required expansion. As the first major natural gas pipeline in Baden-Württemberg to be connected to the European gas transmission routes, it will be constructed as a hydrogen-ready pipeline. As a result, the SEL pipeline will satisfy the requirements for providing the business location Baden-Württemberg with a CO_2-neutral energy supply. Construction of the first 24 km section began in March 2024. EnBW intends to integrate SEL into the hydrogen core network through its subsidiary terranets bw.

Smart Infrastructure for Customers segment

The growth trend on the **home storage market** in Germany continued in 2023. According to the Energy Storage Systems Association (BVES) and HTW Berlin – University of Applied Sciences, the demand for private solar systems and also home storage systems rose again sharply in comparison to the previous year. More than 500,000 new home storage systems were installed by the end of 2023, which meant that the total number of home storage systems in Germany had increased to around 1.1 million. BVES believes that this trend is continuing in 2024, with significant growth already noticeable in the first few months of the year. The number of installed home storage systems is expected to exceed the two million mark by the end of 2024. The main drivers for the installation of energy storage systems in private buildings are the customers' desire to meet their own energy needs and to charge e-vehicles with self-generated electricity. Electricity storage systems are now standard for the installation of new solar power plants – around 80% of customers are currently installing a battery storage system together with new PV power plants.

According to the Federal Motor Transport Authority, there were 184,125 newly registered **electric vehicles** in the first half of 2024 – which was 16.4% fewer than in the same period of the previous year. This meant that the share of total new registrations accounted for by purely electric vehicles reached 12.5%. However, the first signs of a recovery could already be seen in June 2024 when the number of newly registered vehicles was at its highest level since the environmental bonus was terminated in December 2023. In the first half of the year, there were 89,549 newly registered plug-in hybrid vehicles, which was 13.3% higher than the figure in the same period of the previous year. The German government has set a target of 15 million electric cars by 2030. EnBW mobility+ is ensuring there will be sufficient charging infrastructure to achieve this target. It already operates the largest quick-charging network in Germany, is investing in its further expansion and provides drivers with the opportunity to charge their vehicles throughout large areas of Europe using the EnBW mobility+ app. There are plans to significantly expand the infrastructure for cars, commercial vehicles and ships with alternative drive systems at a European level. The Alternative Fuel Infrastructure Regulation (AFIR), which came into force on 13 April 2024, aims to push forward the development of a uniform charging infrastructure in the European Union. It will lay the foundations for a comprehensive public charging infrastructure to support the transition to emission-free vehicles and help achieve the EU's aim of becoming climate neutral by 2050.

The development of a comprehensive **broadband infrastructure** also remains an important theme. As part of its Gigabit Strategy, the German government has set itself the target of developing a nationwide fiber-optic network in Germany by 2030. In those areas where the expansion of the network is not economically viable for private companies, the German government will fund the expansion of the digital infrastructure. After halting its funding in fall 2023, the government is now offering funding to fiber-optic projects again since the publication of the amended version of the Gigabit Ordinance 2.0 on 30 April 2024. At a European level, the Gigabit Infrastructure Act (in short: GIA) came into force on 11 May 2024. It regulates, among other things, the right of shared use and enables telecommunication companies to access the existing fiber-optic networks. According to a study published by the Federation of Telecommunications and Value-Added Service Providers (VATM) and Dialog Consult on 15 April 2024, there were 45.9 million households and small and medium-sized companies with access to a gigabit connection via a fiber-optic and/or TV cable network in Germany by the end of June 2024. This represents an increase of two million households since the beginning of 2024, primarily achieved using fiber-optic technology. In order to benefit from this transformation to a gigabit-ready infrastructure, our subsidiaries are active in this sector with Plusnet offering its services across Germany and NetCom BW focusing on Baden-Württemberg.

The EnBW Group

Finance and strategy goal dimensions

Results of operations

Electricity sales increase considerably, gas sales slightly higher than previous year

Electricity sales volume (without System Critical Infrastructure)

in billion kWh	Sustainable Generation Infrastructure		Smart Infrastructure for Customers		Total (without System Critical Infrastructure)		Change in %
	01/01–30/06/2024	01/01–30/06/2023	01/01–30/06/2024	01/01–30/06/2023	01/01–30/06/2024	01/01–30/06/2023	
Retail and commercial customers (B2C)	0.0	0.0	6.9	7.3	6.9	7.3	-5.5
Business and industrial customers (B2B)	0.0	0.0	9.2	10.9	9.2	10.9	-15.6
Trade	36.0	25.9	0.0	0.0	36.0	25.9	39.0
Total	**36.0**	**25.9**	**16.1**	**18.2**	**52.1**	**44.1**	**18.1**

Electricity sales in the first half of 2024 increased considerably compared to the previous year. Electricity sales to retail and commercial customers (B2C) were slightly lower than in the same period of the previous year because of lower average consumption by customers. Sales to business and industrial customers (B2B) decreased, primarily as a result of a foreign subsidiary ceasing sales activities. Sales in the trading sector increased significantly in comparison to the same period of the previous year due to expanded trading activities. However, their effect on the earnings potential of the company is limited.

Gas sales volume (without System Critical Infrastructure)

in billion kWh	Sustainable Generation Infrastructure		Smart Infrastructure for Customers		Total (without System Critical Infrastructure)		Change in %
	01/01–30/06/2024	01/01–30/06/2023	01/01–30/06/2024	01/01–30/06/2023	01/01–30/06/2024	01/01–30/06/2023	
Retail and commercial customers (B2C)	0.0	0.0	7.4	8.9	7.4	8.9	-16.9
Business and industrial customers (B2B)	0.0	0.0	47.3	59.5	47.3	59.5	-20.5
Trade	203.9	185.6	1.7	0.8	205.6	186.4	10.3
Total	**203.9**	**185.6**	**56.4**	**69.2**	**260.3**	**254.8**	**2.2**

In the first half of 2024, gas sales were slightly higher than the level in the same period of the previous year. Adjusted for the effects of changes in the consolidated companies, gas sales were 2.5% higher than the figure in the previous year. Gas sales to retail and commercial customers (B2C) fell due to weather conditions and lower average consumption by customers. There was a significant decrease in sales to business and industrial customers (B2B) in comparison to the same period of the previous year, which can be attributed to reduced sales activities at GVS and VNG Handel & Vertrieb. In contrast, sales in the trading sector increased due to expanded trading activities, including in the area of LNG.

External revenue significantly lower than previous year

External revenue by segment

in € million[1]	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
Sustainable Generation Infrastructure	8,841.4	12,807.6	-31.0	20,832.4
System Critical Infrastructure	2,937.9	3,525.7	-16.7	6,327.9
Smart Infrastructure for Customers	7,236.2	10,339.3	-30.0	17,249.2
Other/Consolidation	18.0	13.5	33.3	21.2
Total	**19,033.5**	**26,686.1**	**-28.7**	**44,430.7**

1 After deduction of electricity and energy taxes.

Adjusted for the effects of changes in the consolidated companies, external revenue was also 28.7% lower than the level in the previous year. The fall in revenue was accompanied by a corresponding reduction in the cost of materials in all segments.

Sustainable Generation Infrastructure: Revenue in the Sustainable Generation Infrastructure segment fell significantly in the first half of 2024 by 31.0% in comparison to the same period of the previous year, which was mainly due to lower prices in trading activities combined with higher sales volumes. Adjusted for the effects of changes in the consolidated companies, the decrease in revenue is 31.1%.

System Critical Infrastructure: Revenue in the System Critical Infrastructure segment was 16.7% lower in the first half of 2024 than in the same period of the previous year. Income from the settlement of redispatch measures with other transmission system operators that has no impact on the result decreased. This was offset to some extent by higher income from the use of the grids, especially as a result of factoring higher expenses for the grid reserve into prices, including redispatch to maintain the security of supply. Adjusted for the effects of changes in the consolidated companies, the decrease in revenue is 16.9%.

Smart Infrastructure for Customers: Revenue in the Smart Infrastructure for Customers segment decreased by 30.0% in the first half of 2024 in comparison to the previous year. The fall in revenue was mainly due to the decrease in sales to business and industrial customers (B2B) attributable to reduced sales activities at GVS and VNG Handel & Vertrieb. Adjusted for the effects of changes in the consolidated companies, revenue was 29.9% lower than the figure in the previous year.

Material developments in the income statement

The decrease in revenue by €7,652.6 million in comparison to the same period of the previous year to €19,033.5 million was primarily the result of lower trading prices in the electricity and gas sectors combined with higher sales volumes. Lower sales volumes to B2B customers in the gas sector also led to a decrease in revenue. Against this background, the cost of materials fell significantly in comparison to the figure in the previous year by €6,844.9 million. Other operating income decreased by €1,667.5 million in comparison to the same period of the previous year to €1,869.1 million. This was mainly attributable to lower income from derivatives. Other operating expenses decreased by €567.5 million to €2,086.3 million which was also a result of the valuation of derivatives in comparison to the previous year. The net result from derivatives fell by €1,171.5 million. Amortization and depreciation fell by €381.4 million compared to the previous year. This was mainly due to impairment losses on conventional power plants and two offshore wind farms in the same period of the previous year.

The investment result in the reporting period stood at €29.6 million, which was €4.0 million lower than the figure of €33.6 million in the previous year. This decrease was primarily attributable to impairments and a fall in income from the dedicated financial assets. This was offset to some extent by the effect of the impairment made to a company accounted for using the equity method in the previous year. The financial result improved in the reporting period in comparison to the same period of the previous year by €65.5 million to € -81.5 million (previous year: € -147.0 million) and was primarily influenced by the result from the market valuation of securities and bank interest. This was offset to some extent by expenses related to bonds and changes in interest rates for nuclear provisions. A decrease in the interest rate in the current year resulted in expenses, while the increase in the interest rate in the same period of the previous year resulted in income.

Overall, earnings before tax (EBT) were less impacted by extraordinary effects in the first six months of the 2024 financial year and stood at €2,355.4 million, compared to €3,807.2 million in the same period of the previous year.

Earnings

The Group net profit/loss attributable to the shareholders of EnBW AG fell substantially from €2,525.8 million in the same period of the previous year by €1,181.3 million to €1,344.5 million in the reporting period. Earnings per share decreased accordingly to €4.96, compared to €9.33 in the same period of the previous year.

Adjusted earnings and non-operating result

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

Adjusted EBITDA by segment

in € million	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
Sustainable Generation Infrastructure	1,450.8	2,607.0	-44.3	4,647.6
System Critical Infrastructure	1,156.8	1,021.2	13.3	1,772.0
Smart Infrastructure for Customers	172.7	20.9	–	239.5
Other/Consolidation	-192.3	-150.8	-27.5	-293.9
Total	**2,588.0**	**3,498.3**	**-26.0**	**6,365.2**

Share of adjusted EBITDA accounted for by the segments

in %	01/01–30/06/2024	01/01–30/06/2023	01/01–31/12/2023
Sustainable Generation Infrastructure	56.1	74.5	73.0
System Critical Infrastructure	44.7	29.2	27.8
Smart Infrastructure for Customers	6.7	0.6	3.8
Other/Consolidation	-7.5	-4.3	-4.6
Total	**100.0**	**100.0**	**100.0**

In the first half of 2024, the adjusted EBITDA for the EnBW Group stood at €2,588.0 million, which represented a decrease of 26.0% in comparison to the adjusted EBITDA in same period of the previous year of €3,498.3 million. Adjusted for the effects of changes in the consolidated companies, the adjusted EBITDA for the EnBW Group decreased by 31.0%.

Sustainable Generation Infrastructure: The adjusted EBITDA in the Sustainable Generation Infrastructure segment stood at €1,450.8 million and, in line with our expectations, was 44.3% lower than the result in the same period of the previous year. Adjusted for the effects of changes in the consolidated companies, the adjusted EBITDA decreased by 44.7%.

Adjusted EBITDA Sustainable Generation Infrastructure

in € million[1]	01/01–30/06/2024	01/01–30/06/2023	Change in %
Renewable Energies	595.8	912.0	-34.7
Thermal Generation and Trading	855.0	1,695.0	-49.6
Sustainable Generation Infrastructure	**1,450.8**	**2,607.0**	**-44.3**

1 The figures for the previous year have been restated.

In the Renewable Energies area, the adjusted EBITDA fell by 34.7% to €595.8 million, which was due in particular to lower earnings from pumped storage as a result of falling prices. All pumped storage power plants are now allocated to the Renewable Energies area from 2024 onward after they were classified as environmentally sustainable in accordance with the EU Taxonomy Regulation; the figures for the previous year have been adjusted accordingly. In the Thermal Generation and Trading area, the adjusted EBITDA fell by 49.6% to €855.0 million, which was mainly due to decreasing volatility in gas trading and falling income from power plant distribution as a result of lower prices.

System Critical Infrastructure: In the System Critical Infrastructure segment, the adjusted EBITDA stood at €1,156.8 million and was thus 13.3% higher than the result in the first half of 2023. This increase was attributable to higher income from the use of the grids as a result of returns on increased investment activity, which was offset to some extent by higher personnel expenses. Adjusted for the effects of changes in the consolidated companies, the adjusted EBITDA increased by 13.3%.

Smart Infrastructure for Customers: In the Smart Infrastructure for Customers segment, the adjusted EBITDA increased significantly to €172.7 million compared to €20.9 million in the same period of the previous year. This positive development was primarily due to the negative effects of the deconsolidation of bmp greengas in the previous year, which was offset to some extent by larger negative effects from the operating business at SENEC as an indirect consequence of incidents with their storage systems. Adjusted for the effects of changes in the consolidated companies, the adjusted EBITDA decreased by 32.0%.

Non-operating EBITDA

in € million	01/01–30/06/2024	01/01–30/06/2023	Change in %
Expenses/income relating to nuclear power	-59.2	-173.0	-65.8
Income from the reversal of other provisions	1.5	32.4	-95.4
Result from disposals	-3.6	3.1	–
Additions to the provisions for onerous contracts relating to electricity procurement agreements	0.0	-148.9	-100.0
Income from reversals of impairment losses	0.0	28.4	-100.0
Restructuring	-11.7	-14.0	-16.4
Valuation effects	744.4	1,691.0	-56.0
Other non-operating result	-20.1	216.7	–
Non-operating EBITDA	**651.3**	**1,635.7**	**-60.2**

The decrease in non-operating EBITDA was primarily due to valuation effects from derivatives. In addition, there was, in line with our forecast, a significant reduction in subsidies for network user charges that were reported in the other non-operating result in the previous year. In the reporting period, they were reduced by corresponding expenses.

This was offset to some extent by the effect of a provision for an onerous contract in the same period of the previous year – which was necessary as a result of poorer medium-term earnings forecasts due to falling electricity prices.

Group net profit

in € million	01/01–30/06/2024			01/01–30/06/2023		
	Total	Non-operating	Adjusted	Total	Non-operating	Adjusted
EBITDA	**3,239.3**	**651.3**	**2,588.0**	**5,134.0**	**1,635.7**	**3,498.3**
Amortization and depreciation	-832.0	0.0	-832.0	-1,213.4	-371.2	-842.2
EBIT	**2,407.3**	**651.3**	**1,756.0**	**3,920.6**	**1,264.5**	**2,656.1**
Investment result	29.6	-52.9	82.5	33.6	-55.9	89.5
Financial result	-81.5	-2.2	-79.3	-147.0	75.7	-222.7
EBT	**2,355.4**	**596.2**	**1,759.2**	**3,807.2**	**1,284.3**	**2,522.9**
Income tax	-653.9	-199.2	-454.7	-1,056.3	-405.5	-650.8
Group net profit	**1,701.5**	**397.0**	**1,304.5**	**2,750.9**	**878.8**	**1,872.1**
of which profit/loss shares attributable to non-controlling interests	(357.0)	(-20.6)	(377.6)	(225.1)	(6.4)	(218.7)
of which profit/loss shares attributable to the shareholders of EnBW AG	(1,344.5)	(417.6)	(926.9)	(2,525.8)	(872.4)	(1,653.4)

The substantial fall in Group net profit in the reporting period in comparison to the same period of the previous year is mainly attributable to the decrease in EBITDA. Please refer to the explanations in the section "Adjusted and non-operating EBITDA" for more information on the reasons for these developments.

In contrast to the decrease in EBITDA, lower impairment losses had a positive impact on Group net profit. Conventional generation plants were impaired in the same period of the previous year. This write-down was mainly the result of poorer medium-term earnings forecasts due to falling electricity prices at the time. In the same period of the previous year, impairment losses were also recognized on two offshore wind farms. The main reason for these impairments was successively fewer operating years with EEG funding.

Income taxes change according to the development of EBT.

Financial position

Financial management

Financing strategy

Further information on our **financing strategy** is available on our website.

Online ↗

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 of the operating business (as of 30 June 2024):

- Debt Issuance Program (DIP), via which bonds are issued: €~8.8 billion of €10.0 billion drawn
- US private placement: Equivalent value of US$~850 million (translation on the pricing day)
- Promissory notes: €0.5 billion
- Hybrid bonds: €~3.0 billion
- Commercial paper (CP) program: €~2.0 billion undrawn
- Sustainability-linked syndicated credit facility: €1.5 billion undrawn. The credit line was renewed on 5 July 2024 in the amount of €2.0 billion with a term until July 2029 and replaces the previous credit line of €1.5 billion. The credit line can be extended by a further year after the first and second year with the agreement of the banks for a maximum period of up to July 2031.
- Committed credit lines: €~0.3 billion of €~3.9 billion drawn
- Uncommitted credit lines, which can be utilized in agreement with our banks: €~0.1 billion of €~1.8 billion drawn

- Bank loans: For the financing of the EnBW He Dreiht offshore wind farm, a bank loan of €500 million was signed with a consortium of banks in May 2023 and a partial amount of €250 million was drawn. The loan is being guaranteed by the Danish export credit agency EIFO.
- In addition, subsidiaries have other financing activities in the form of bank loans and promissory notes.

Credit ratings

We aim to hold solid investment-grade ratings. EnBW currently has the following issuer ratings:

- Moody's: Baa1/stable
- Standard & Poor's (S&P): A–/stable

As of 30 June 2024, the creditworthiness of EnBW was rated by the rating agencies Moody's and Standard & Poor's with "Baa1" and "A–," respectively. The rating outlook is stable in both cases.

In general, both rating agencies have praised the company's solid financial basis and its balanced, integrated portfolio with a high proportion of regulated income. EnBW continues to have one of the strongest credit ratings among energy supply companies in Europe.

Capital market activities

A current overview of the **EnBW bonds** can be found here.

Online ↗

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.

On 23 January 2024, EnBW issued a green hybrid bond with a total volume of €500 million and a term of 60 years. EnBW has the right to redeem the bond with a starting coupon of 5.250% at the first call date on 23 October 2029. The bond is subordinate to all other financial liabilities but has an equal ranking to the existing hybrid bonds of EnBW.

On 15 July 2024, we issued two green corporate bonds with a total volume of €1.2 billion. This meant that we were able to successfully implement our planned capital market financing for 2024 already by the middle of the year. The green bonds have a term of seven and twelve years and coupons of 3.500% and 4.000%, respectively. Including these two bonds, we have now issued green bonds with a total volume of €6.7 billion.

In July 2024, EnBW published its updated Green Financing Framework, which provides a framework for the financing of all climate-friendly projects. This framework complies with the Green Bond Principles from the International Capital Market Association (ICMA) and the Green Loan Principles from the Loan Market Association (LMA) and is thus in line with all relevant standards for the market.

The Green Financing Framework stipulates that all funds from green financing may only be used for projects that fulfill the EU criteria for a taxonomy-aligned activity and at the same time make a contribution to at least one of the 17 UN Sustainable Development Goals (SDGs). We focus on making a contribution to four central SDGs: 7: Affordable and clean energy, 9: Industry, innovation and infrastructure, 11: Sustainable cities and communities, 13: Climate action.

Net debt

Net debt

in € million [1]	30/06/2024	31/12/2023	Change in %
Cash and cash equivalents available to the operating business	-4,160.8	-5,632.4	-26.1
Current financial assets available to the operating business	-2,782.3	-2,941.7	-5.4
Long-term securities available to the operating business	-5.3	-4.8	10.4
Bonds	12,518.6	12,035.3	4.0
Liabilities to banks	2,462.1	3,157.4	-22.0
Other financial liabilities	1,362.8	1,275.1	6.9
Lease liabilities	1,221.4	986.4	23.8
Valuation effects from interest-induced hedging transactions	-22.0	-25.0	-12.0
Restatement of 50% of the nominal amount of the hybrid bonds [2]	-1,500.0	-1,250.0	20.0
Net financial debt directly associated with assets classified as held for sale	-4.8	0.0	–
Other	-83.4	-42.1	98.1
Net financial debt	**9,006.3**	**7,558.2**	**19.2**
Provisions for pensions and similar obligations [3]	5,681.3	6,030.6	-5.8
Provisions relating to nuclear power	4,656.7	4,768.4	-2.3
Receivables relating to nuclear obligations	-386.2	-414.4	-6.8
Net pension and nuclear obligations	**9,951.8**	**10,384.6**	**-4.2**
Long-term securities and loans to cover the pension and nuclear obligations [4]	-5,911.9	-5,829.5	1.4
Cash and cash equivalents to cover the pension and nuclear obligations	-153.3	-171.7	-10.7
Current financial assets to cover the pension and nuclear obligations	-141.3	-90.2	56.7
Surplus cover from benefit entitlements	-135.7	-113.9	19.1
Other	-30.5	-34.4	-11.3
Dedicated financial assets	**-6,372.7**	**-6,239.7**	**2.1**
Net debt relating to pension and nuclear obligations	**3,579.1**	**4,144.9**	**-13.7**
Net debt	**12,585.4**	**11,703.1**	**7.5**

1 The restricted liquid assets in the EEG account and Heat and Power Co-Generation Act (KWKG) account, which are only held in custody by the transmission grid operator, cannot be used for the operating business and are thus not allocated to net debt but rather to capital employed.
2 The structural characteristics of our hybrid 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 €650.9 million (31 / 12 / 2023: €700.3 million).
4 Includes equity investments held as financial assets.

As of 30 June 2024, net debt had risen by €882.3 million compared to the figure posted at the end of 2023. The increase in net financial debt in comparison to that reporting date was mainly due to the increase in payments made within net investment. It was not possible to fully finance this investment from retained cash flow, which was impacted by dividend payments in the second quarter. This was offset to some extent by the issuing of a hybrid bond, half of which is classified as equity. The decrease in net debt relating to pension and nuclear obligations resulted primarily from the increase in the interest rate for the pension provisions.

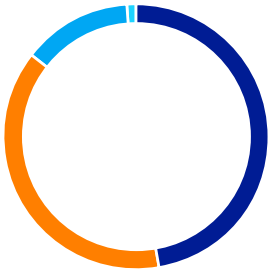
Investment analysis

Net cash investment

in € million [1]	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
Investments in growth projects [2]	2,145.1	1,178.6	82.0	3,917.2
Investments in existing projects	334.8	405.5	-17.4	985.4
Total gross investment	**2,479.9**	**1,584.1**	**56.5**	**4,902.6**
Divestitures	-1.3	-1.2	8.3	-13.3
Participation models [3]	-251.2	102.6	–	-1,976.3
Disposals of long-term loans	-6.9	-12.1	-43.0	-18.0
Other disposals and subsidies	-60.6	-71.1	-14.8	-155.2
Total divestitures	**-320.0**	**18.2**	**–**	**-2,162.8**
Net (cash) investment	**2,159.9**	**1,602.3**	**34.8**	**2,739.8**

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 €138.5 million in the reporting period (01/01–30/06/2023: €5.1 million, 01/01–31/12/2023: €28.5 million).
3 This includes capital reductions in non-controlling interests with short-term receivables to foreign companies. The latter was due to advance payments made in the previous year as a result of contractual regulations.

Investments by segment in % [1]



- 47.5 Sustainable Generation Infrastructure (01/01–30/06/2023: 38.4)
- 38.2 System Critical Infrastructure (01/01–30/06/2023: 48.6)
- 13.4 Smart Infrastructure for Customers (01/01–30/06/2023: 9.8)
- 0.9 Other (01/01–30/06/2023: 3.2)

Investments in Sustainable Generation Infrastructure

in %	01/01–30/06/2024	01/01–30/06/2023
Renewable Energies	35.0	27.7
Thermal Generation and Trading	12.5	10.7
Sustainable Generation Infrastructure	**47.5**	**38.4**

Gross investment by the EnBW Group increased substantially as expected in the first half of 2024 to €2,479.9 million compared to €1,584.1 million in the same period of the previous year. Some 86.5% of overall gross investment was attributable to growth projects; the proportion of investment in existing facilities stood at 13.5%.

There was gross investment of €1,177.1 million in the **Sustainable Generation Infrastructure** segment, which was considerably higher than in the same period of the previous year (€606.9 million). A total of €866.1 million of this investment was made in the area of Renewable Energies, compared to €438.1 million in the same period of the previous year. This significant increase was mostly attributable to the offshore wind sector for investment in our planned wind farms in Great Britain and for the EnBW He Dreiht wind farm that is already under construction in the German North Sea. Investment in the Thermal Generation and Trading area stood at €311.0 million and was thus markedly higher than the level in the same period of the previous year of €168.8 million. This was largely due to the investment in our fuel switch projects for converting three of our thermal power plants in Baden-Württemberg from coal to gas (also making them hydrogen-ready in the process). All three of the projects are currently under construction.

Gross investment in the **System Critical Infrastructure** segment of €948.1 million was also significantly higher than the level in the same period of the previous year (previous year: €770.0 million). This increase was mainly the result of higher investment made by our subsidiary TransnetBW as part of the Network Development Plan Electricity.

Gross investment in the **Smart Infrastructure for Customers** segment stood at €332.5 million and was again significantly higher than the level in same period of the previous year (previous year: €156.0 million). Contained within the gross investment is an investor contribution to satisfy creditor claims as part of the insolvency proceedings for bmp greengas GmbH. Investment in this segment was still largely made in the area of electromobility which was higher than in the same period of the previous year.

Other gross investment fell from €51.2 million in the same period of the previous year to €22.2 million in the first quarter of 2024. This mainly comprised capital contributions at other investments.

Total **divestitures** increased in comparison to the same period of the previous year. This was mainly due the inflow of capital from third parties as part of our participation models at our Group subsidiary TransnetBW and our He Dreiht offshore wind farm that were implemented in the previous year.

Liquidity analysis

Condensed cash flow statement

in € million	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
Cash flow from operating activities	1,360.8	-76.1	–	899.7
Cash flow from investing activities	-2,144.8	-1,121.2	91.3	-5,797.0
Cash flow from financing activities	-775.3	1,184.0	–	4,419.3
Net change in cash and cash equivalents	**-1,559.3**	**-13.3**	**–**	**-478.0**
Change in cash and cash equivalents due to changes in the consolidated companies	27.2	4.3	–	6.4
Net foreign exchange difference and other changes in cash and cash equivalents	17.7	-4.0	–	-8.9
Change in cash and cash equivalents[1]	**-1,514.4**	**-13.0**	**–**	**-480.5**

1 Includes cash and cash equivalents in assets held for sale.

Cash flow from operating activities increased substantially in the reporting period, despite the fall in cash-relevant EBITDA, in comparison to the same period of the previous year. This development is largely due to a lower outflow of cash in net current assets, which was primarily attributable to a lower increase in the net balance of trade receivables and payables for reasons related to the reporting date. A reduction in inventories due to seasonal and pricing effects had an impact in both the reporting period and in the same period of the previous year. In the same period of the previous year, however, this was offset to some extent by a cash outflow for the acquisition of emission allowances.

Cash flow from investing activities returned a significantly higher outflow of cash in the reporting period compared to the same period of the previous year. The main reason for this development was higher capital expenditure on property, plant and equipment, especially in the System Critical Infrastructure and Sustainable Generation Infrastructure segments. Cash flow from investing activities was also impacted by higher net investment as part of the portfolio management of securities and financial investments and higher cash payments for capital increases at entities accounted for using the equity method.

There was a cash outflow from financing activities in the reporting period compared to a cash inflow in the same period of the previous year. This was due mostly to higher dividends paid and net repayments of financial liabilities as part of liquidity management, whereas in the same period of the previous year there was a high net increase in financial liabilities primarily due to the issuing of bonds. This was offset to some extent by higher cash received for capital increases made by minority shareholders.

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	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
EBITDA	**3,239.3**	**5,134.0**	**-36.9**	**5,738.3**
Change in provisions excluding obligations from emission allowances	**-350.4**	-147.4	137.7	203.9
Non-operating valuation effects from derivatives [1]	**-744.4**	-1,691.0	-56.0	-481.5
Other non-cash-relevant expenses/income [1]	**-81.6**	-96.3	-15.2	735.2
Income tax paid	**-527.8**	-426.2	23.8	-906.7
Interest and dividends received	**241.5**	213.0	13.4	529.8
Interest paid for financing activities	**-222.6**	-161.5	37.8	-421.2
Dedicated financial assets contribution	**55.6**	52.3	6.4	104.9
Funds from operations (FFO)	**1,609.6**	**2,876.9**	**-44.1**	**5,502.7**
Declared dividends	**-729.6**	-638.9	14.2	-671.3
Retained cash flow	**880.0**	**2,238.0**	**-60.7**	**4,831.5**

1 The non-operating valuation effects from derivatives contain effects on the cash flow statement of €81.9 million (01/01–30/06/2023: €–455.2 million, 01/01–31/12/2023: €-108.2 million) in the item "Other non-cash-relevant expenses/income". Other non-cash-relevant expenses/income included in the calculation of the retained cash flow were adjusted by the corresponding amount.

Valuation effects due to temporary fluctuations in the value of certain derivatives are recognized in non-operating EBITDA. Therefore, such effects cannot be taken into account when calculating the operational earnings power of EnBW. Funds from operations (FFO) and retained cash flow will thus be adjusted for the described effects from this reporting period onwards.

FFO was lower than in the previous year, which was mostly caused by the fall in EBITDA. The change in provisions and higher income tax paid also had a negative effect on FFO in the reporting period. The reduction in non-operating valuation effects from derivatives had a positive impact in comparison to the same period of the previous year.

Higher declared dividends reduced the retained cash flow, which was significantly lower than the level in the same period of the previous year. 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.

Adjusted working capital

in € million [1]	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
Change in assets and liabilities from operating activities [2]	**-1,000.6**	**-4,085.0**	**-75.5**	**-4,762.8**
Change in liquid assets in the EEG and the KWKG account	**29.1**	1,034.5	-97.2	2,098.5
Non-operating valuation effects from derivatives	**826.3**	1,235.8	-33.1	373.3
Adjusted change in operating assets and liabilities	**-145.2**	**-1,814.7**	**-92.0**	**-2,291.0**
Net balance of inventories and obligations from emission allowances	**(600.3)**	(37.9)	–	(-398.9)
Net balance of trade receivables and payables, services not yet invoiced and payments on account that have been made and received	**(-615.5)**	(-2,147.4)	(-71.3)	(-1,053.7)
Net balance of other assets and liabilities	**(-130.0)**	(294.8)	–	(-838.4)

1 The table shows the reconciliation of the cash-relevant change in adjusted working capital.
2 The cash flow statement provides a further breakdown of the cash-relevant change in operating assets and liabilities.

Alongside the retained cash flow and net investment, the change in cash-relevant working capital has a major influence on net debt. As the liquid assets in the EEG account and Heat and Power Co-Generation Act (KWKG) account are only held in custody by the transmission system operators, they are not included in the calculation of net debt. Therefore, the adjusted working capital is corrected for any changes in the liquid assets in the EEG account and KWKG account.

The change in liquid assets for received and deposited collateral relating to non-operating valuation effects which arise due to temporary fluctuations in the value of derivatives is not a component of the retained cash flow but nevertheless has an influence on net debt. The adjusted working capital is corrected to properly take the change in liquid assets into account.

Net assets

Condensed balance sheet

in € million	30/06/2024	31/12/2023	Change in %
Non-current assets	40,983.3	39,512.0	3.7
Current assets	21,743.0	25,206.9	-13.7
Assets held for sale	18.9	0.0	–
Assets	**62,745.2**	**64,718.9**	**-3.0**
Equity	16,840.6	15,853.0	6.2
Non-current liabilities	29,669.2	30,712.7	-3.4
Current liabilities	16,223.7	18,153.2	-10.6
Liabilities directly associated with assets classified as held for sale	11.7	0.0	–
Equity and liabilities	**62,745.2**	**64,718.9**	**-3.0**

As of 30 June 2024, total assets were lower than the figure at the end of the previous year. Non-current assets increased by €1,471.3 million to €40,983.3 million between the two reporting dates, which was mainly due to payments on account. The fall in current assets by €3,463.9 million to €21,743.0 million was primarily attributable to the decrease in short-term derivatives and fall in cash and cash equivalents. This was offset to some extent by an increase in trade receivables for reasons related to the reporting date.

Equity increased by €987.6 million to €16,840.6 million as of 30 June 2024. The primary reason for this development was the Group net profit achieved in the reporting period. The equity ratio increased accordingly from 24.5% at the end of 2023 to 26.8% on the reporting date.

Non-current liabilities decreased slightly by €1,043.5 million, which was mainly due to a change in the terms to maturity of financial liabilities. Current liabilities fell by €1,929.5 million in comparison to the end of the previous year, which was primarily attributable to the decrease in short-term derivatives. This was offset to some extent by the increase in current financial liabilities due to a change in the terms to maturity. Trade payables also increased for reasons related to the reporting date.

Related parties

Relationships with related parties (entities and individuals) have not changed significantly in comparison to the reporting date of 31 December 2023.

Customers and society goal dimension

We report on the non-financial goal dimensions of EnBW in the areas of customers and society, the environment and employees at the six-month stage on the basis of the key non-financial performance indicators presented in the Group management report 2023 (Integrated Annual Report 2023 from p. 87 onwards). Exceptions are the Reputation Index in the customers and society goal dimension, the key performance indicators of "installed output of renewable energies (RE) in GW and the share of the generation capacity accounted for by RE" in the environment goal dimension, as well as the CO_2 intensity, and the People Engagement Index (PEI) in the employees goal dimension. The values for these key indicators are exclusively collected at the end of the year.

Customer proximity

You can find our **company website** here.

Online

In the first half of 2024, **digitalization** became even more important for our end customer business both with respect to electricity and gas sales and also e-mobility. We are communicating and interacting more and more with our customers via digital channels and the main focus is shifting here from customer acquisition via digital channels to digital customer communication. This increasingly covers the provision of digital services for existing customers and includes, for example, the EnBW zuhause+ app. It helps our customers monitor their energy consumption and keep an eye on the resulting costs. Customers have now installed the app more than 360,000 times on their mobile devices. In the first half of 2024, the app was updated with, among other things, a new user interface, which makes it easier and more intuitive to use for customers. Alongside digitalization, **sustainability** is another theme that is increasingly important to us and our customers. Our aim is to rigorously anchor sustainability in our sales processes (e.g., with respect to our products and services). In doing so, we hope to generate economic, ecological and social value and strengthen our market position even further. In the "Selected activities" section below, we present some of the projects that shape our contact with customers and have a positive influence on climate protection.

Customer Satisfaction Index

Our customers lie at the heart of our philosophy and actions. We aim to build long-term customer relationships by offering an intelligent combination of products and services, developing new product worlds, communicating transparently and delivering the highest-quality service possible. This will be achieved based on high customer satisfaction, which is measured in accordance with the requirements of the EnBW Group standard for market research and surveys. The Customer Satisfaction Indices for EnBW and Yello are compiled from customer surveys of retail customers carried out by an external provider.

Key performance indicator

	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
Customer Satisfaction Index for EnBW/Yello	111/166	127/170	-12.6/-2.4	130/161

The key performance indicator Customer Satisfaction Index for EnBW achieved a value of 111 in the first half of 2024. The satisfaction of EnBW customers was thus at a moderately good level and slightly below our expected target corridor for the entire year (114–125). A moderately good level is reached when 40% to 49% of those surveyed indicate that overall they are particularly satisfied with EnBW. This is the case for between 91 and 113 points. We expect the value of the Customer Satisfaction Index to recover over the entire year and return to a good level within the target corridor.

As a result of the sharp decrease in the procurement price for energy, pricing levels for new and existing customer contracts are diverging on the market. This is fostering a more critical opinion of energy companies among customers (Integrated Annual Report 2023, p. 127). According to our findings, the measures to adjust electricity prices for EnBW customers in early 2024 also dampened the performance of the Customer Satisfaction Index. Against this background, the Customer Satisfaction Index for EnBW was lower than the comparative figure from the first half of 2023 (127).

To improve customer satisfaction, we are expanding our range of new sustainable products, smart product bundles and user-friendly digital services across the whole ecosystem. In addition, we are offering new advisory services for energy renovation projects and sustainable heating technologies.

The Customer Satisfaction Index for Yello achieved a value of 166 in the first half of 2024. This value was slightly below the figure for the first half of 2023 (170) but higher than the value of the whole of 2023 (161). The Customer Satisfaction Index for Yello of 166 points was still at an outstanding level. An outstanding level is reached when 70% of those surveyed indicate that overall they are particularly satisfied with Yello (from 159 points).

Further information on the **Online Customer Service Ranking** from the SZ Institute can be found here.

Online ↗

In the first half of 2024, the customer service provision of EnBW and Yello was once again commended in independent tests. In this year's analysis by the SZ Institute to find out which companies in Germany offer "really outstanding customer service," EnBW received the highest score among the 37 energy supply companies tested and was thus rated as having the "highest service quality." Yello also received a score that was significantly better than average for the sector and was rated as having "very high service quality."

Selected activities

Yello launched a new marketing campaign in February 2024 with the **advertising character "Klyma Wandl**." More information is available here.

Online ↗

Green electricity has become the standard in the product portfolio of the EnBW and Yello brands. The proportion of the electricity supplied to new customers by EnBW and Yello that is accounted for by green energy now stands at 100% (EnBW excluding the basic supply of energy). Some 69% of the total customer base is now supplied with green electricity by both brands. Taking offsetting measures into account, Yello and EnBW were able to save a total of around 760,000 t of CO_2 emissions in the first half of 2024.

To help people in Germany make the **switch over to sustainable heating technology**, EnBW has been working together with Viessmann Climate Solutions, one of the leading suppliers of sustainable heating technology, since April 2024. This has enabled us to further expand our advisory services for homeowners in particular. This new cooperation supplements the existing partnership with Vaillant, who also specialize in sustainable heating solutions, which has been running since May 2023. In the first half of 2024, EnBW developed additional new advisory services for energy renovation projects and sustainable heating technologies. These free services include, for example, an individual modernization check and a virtual "ask the expert" service and have been available to customers since May 2024.

Further information on **electromobility** is available online.

Online ↗

As we **expand the charging infrastructure for electromobility**, we are focusing on quick charging with capacities of up to 400 kW and operate our charging stations using 100% green electricity. We already operate the largest quick-charging network in Germany and placed more than 4.5 new quick-charging stations into operation on average per day in the first half of 2024. By the end of the first half of 2024, there were more than 5,000 EnBW public quick-charging points in operation overall. This meant we were able to consolidate our leading role on the market. Alongside smaller sites, we are also installing large quick-charging parks with eight or more high-capacity charging points and quick-charging parks with solar roofs. We opened three new roofed charging parks across Germany in the first half of 2024.

More information on the **EnBW Wallbox** for charging e-cars at home can be found under the following link.

Online ↗

In our role as an **electromobility provider**, we now offer our customers access to more than 600,000 charging points in 17 European countries via the EnBW HyperNetwork operated by our subsidiary **EnBW mobility+**. The EnBW mobility+ app has now been downloaded more than 2.7 million times. EnBW updated its EnBW mobility+ charging tariffs in June 2024 and introduced variable prices for charging with other operators. This will make it easier for EnBW to respond to price changes on the market more quickly than before – which is also to the benefit of customers. In contrast, customers using EnBW's own charging stations are still offered a fixed price per kilowatt hour.

In the first half of 2024, we continued our national campaign **"Charging power for everyone"** with the brand ambassadors Elif and Nico Rosberg and supplemented our digital advertising with television ads. The aim of this campaign it to raise awareness for the EnBW brand in Germany and highlight how simple it is to use electromobility in everyday life. The campaign will continue in the second half of the year.

Our subsidiary **SENEC**, based in Leipzig, is a specialist in equipping customers so that they are able to meet their own energy needs with solar electricity. EnBW and SENEC offer a complete integrated home energy management system called "Cloud pro" that allows homeowners to directly sell their surplus electricity at the green electricity tariffs offered by EnBW. In November 2023, SENEC made the decision to replace a large number of existing storage systems with a new battery technology based on lithium iron phosphate (LFP). This decision was taken in response to a total of six incidents with SENEC storage systems based on lithium ion batteries in 2022 and 2023. SENEC started replacing the affected modules free of charge in July 2024.

Our business unit **EnBW Utility Services** offers energy industry settlement services and system solutions as a full service or as software as a service for energy supply companies. This includes services that can be flexibly combined, such as meter readings, market communication, billing or customer contact management. The modular services offered by EnBW Utility Services can be utilized both by affiliated and also non-affiliated companies. EnBW is one of the leading settlement service providers in Germany with around seven million metering points. A regulatory requirement from the Federal Network Agency with respect to communication processes on the German electricity market was successfully implemented in the first half of 2024. This requirement means that from April 2024 market communication may only be carried out using the AS4 communication protocol. We were able to complete this transition on time for both internal and external clients. Another focus of EnBW Utility Services in the first half of 2024 was the ongoing implementation of the new grid platform ONE! in cooperation with Netze BW. ONE! is a new customer-oriented solution for grid-related settlement services, which will above all enable improvements in efficiency, standardization and the harmonization of processes.

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 with our participating interests and other public utilities. Local authorities are also able to invest in Netze BW using our **"EnBW connects"** participation model. A total of 214 local authorities have currently indirectly invested in Netze BW by acquiring shares in the local authority holding company Netze BW GmbH & Co. KG. Almost 14% of the shares in Netze BW are now held by local authorities. Furthermore, an initiative launched by "EnBW Kommunale Beteiligungen" now allows local authorities to invest in the company **"Klima vernetzt Südbaden GmbH & Co. KG"** and push forward generation from renewable energies at a local level. One example of the local generation of green energy is the new hydropower plant in Rheinhausen, which was placed into operation in April 2024. This plant will now produce around 1 million kWh of green electricity per year, which is equivalent to the annual electricity requirements of about 250 households. Cities and local authorities have been obligated to develop a heating plan since 1 January 2024. In the first half of the year, we supported them by offering a quick check service to determine their heating grid requirements and providing them with ongoing advice on the efficient implementation of their heating concepts. In light of the floods in Southern Germany, several local authorities simultaneously started using the **NOYSEE early warning system for floods** for the first time in the first half of the year. This system detects rising water levels at an early stage and monitors them.

Further information on the **NOYSEE early warning system for floods** can be found here.

Online ↗

In the area of **contracting**, we provide industry, the real estate sector and public clients with sustainable and efficient energy infrastructure implemented directly at the customer's site. We create customized energy concepts for the provision of energy with either no CO_2 emissions or only low CO_2 emissions – a service that is now in ever greater demand. Since February 2024, we have been developing a primarily renewable heating supply for around 300 apartments in Cologne for a renowned property developer in northern Europe and Germany. This solution is mainly based on heat pumps but is supplemented by a combined heat and power plant and a photovoltaic power plant. In April 2024, we concluded a project to provide energy, heating, cooling and air conditioning to a hotel and office building in Karlsruhe. As well as providing the site with heating and air conditioning, we will also be responsible for operating the ventilation systems and photovoltaic power plant for the next 15 years.

You can find information on our **contracting services and example projects** on the following website.

Online ↗

This website provides an overview of the portfolio of telecommunication and Internet services offered by **NetCom BW**.

Online

The main telecommunications activities at EnBW AG are bundled together in **EnBW Telekommunikation** with its subsidiaries NetCom BW and Plusnet. The main focus of the corporate strategy at **NetCom BW** is the ongoing expansion of a comprehensive fiber-optic network across Baden-Württemberg and neighboring parts of Bavaria. NetCom BW is following a hybrid approach of self-financed expansion of the network and, where this is not possible due to economic reasons, funded projects in cooperation with cities, local authorities and associations. A total of 419 municipalities have now been successfully connected up to the fiber-optic network, while by 30 June 2024 the expansion projects in another 37 cities and municipalities were in the planning and implementation phase. NetCom BW is working intensively to push forward the digitalization of its self-financed expansion process so that it can manage its growing number of expansion projects effectively. For this purpose, it has been installing several new IT systems since the beginning of the year. The aim is to improve the efficiency of area planning and the recording, processing and management of customer contracts, as well as to accelerate operating processes. Due to its continuous improvement of business processes and procedures, NetCom BW was successfully certified for the first time in accordance with the DIN ISO 9001 standard at the end of 2023.

Further information on the products and services offered by **Plusnet** can be found here.

Online

Plusnet continued to transform its business with a focus on fiber-optics as the technology of the future in the first half of 2024: Alongside the self-financed expansion of its fiber-optic network in North Rhine-Westphalia, Hesse, Rhineland-Palatinate and Bavaria, Plusnet was able to expand the reach of its fiber-optic network for business customers above all via further network cooperation projects. For example, the company, based in Cologne, established technical access to the Magenta fiber-optic network in Germany – based on the existing fiber-optic framework contract with Telekom Deutschland – in February 2024. As a result, Plusnet will now be able to market fiber-optic connections throughout the whole of Germany that had previously been installed by Deutsche Telekom. Plusnet also expanded its nationwide fiber-optic network via another collaboration: After signing an agreement with the Deutsche GigaNetz GmbH, Plusnet now has access to around 500,000 marketable fiber-optic connections stretching across 11 federal states in the Deutsche GigaNetz network to develop its own business customer portfolio.

We present our **services in the area of sustainable districts and our latest projects** here.

Online

In the area of **sustainable districts**, we develop holistic, future-proof and economic concepts for heating, electricity and mobility in new and existing districts. EnBW acts here as the planner, implementer, operator and supplier and covers the entire energy value chain in the district. In the first half of 2024, we received the first orders for seven new projects covering more than 600 residential units. We also successfully concluded follow-up orders for the detailed planning of four projects, including the large "Hangweide" district in Kernen im Remstal. A total of 650 apartments and additional commercial units will be built on a site covering more than 8 ha, which will be supplied with climate-friendly energy via heat pumps and photovoltaic power plants. One of our planning projects is the new industrial park "RTunlimited," which is being built on an 11.3 ha site in Reutlingen. A so-called cold local heating network will be constructed here using decentralized heat pumps and approximately 200 geothermal probes. The system will function at a low flow temperature and provide both heating and cooling to the site. In addition, photovoltaic power plants will be installed to supply both the commercial units and also the planned approx. 450 charging points on the site with locally generated electricity. We have also implemented an energy concept in the "Schwetzinger Höfe" district that will be operated as a tenant electricity model. It contains photovoltaic modules with a total output of around 300 kWp and a charging infrastructure with dynamic load management. Generating the electricity locally will save 114 t of CO_2 emissions in comparison to districts with a conventional electricity supply.

Supply reliability

SAIDI

Key performance indicator

	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
SAIDI (electricity) in min./year[1]	5.9	5.6	5.4	19.3

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

The grid subsidiaries of EnBW have always achieved a high level of supply reliability throughout their grid areas 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 a very good level of 5.9 minutes in the first half of 2024. Due to the heavy rainfall situation with local flooding, our grid subsidiaries were faced with some severe challenges during operations but they were nevertheless able to keep the scope and duration of the associated faults to a minimum.

The grid subsidiaries of EnBW still have the aim of achieving a value of below 20 minutes per end consumer for the whole of 2024.

Environment goal dimension

Detailed information on the **environment goal dimension** can be found in our **Integrated Annual Report 2023.**

Online ↗

As a large energy company, we share responsibility for our environment and climate protection. Supplying our customers with energy causes emissions, above all through the operation of power plants, and uses natural resources and space. In consideration of this fact, environmental and climate protection form an integral part of our corporate strategy.

The long-term success of an energy supply company's activities hinges on acceptance by society. We strive to achieve a credible balance between respecting the environment and achieving corporate, political and social goals, and underpin this commitment with a diverse range of activities.

A detailed presentation of the **EnBW Sustainability Agenda 2.0** and our **climate neutrality strategy** can be found here.

Online ↗

The main aim of our comprehensive Sustainability Agenda is to make EnBW climate neutral with respect to its own CO_2 emissions by 2035. 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.

Installed output

The installed output of renewable energies at the EnBW Group stood at 5.7 GW at the end of 2023. Alongside hydropower, this included 976 MW of offshore wind power, 1,212 MW of onshore wind power and 956 MWp of photovoltaics. Wind farms and solar parks with a total output of around 200 MW were added in Germany and abroad in the first half of 2024 – including the solar parks in Haiterbach, Gutenzell-Hürbel and Billigheim. Alongside these projects, the Valeco Group was also able to increase its installed output of renewable energies by around 50 MW through the first-time integration of other companies.

You can find a **video on the construction of offshore wind farms** such as EnBW He Dreiht here.

Online ↗

With respect to the further planned expansion of renewable energies, we were able to initiate new major projects and push forward ongoing projects as planned in the first half of 2024. In June 2024, EnBW had its bid for a site to develop a 1 GW offshore wind farm in the North Sea accepted in an auction held by the Federal Network Agency. The wind farm is set to enter into operation 120 km northwest of Helgoland in 2031 and will cover the electricity needs of 1.35 million households. We are currently realizing another flagship project for the uptake of renewable energies in the North Sea: the EnBW He Dreiht offshore wind farm. It will consist of 64 wind turbines with a total output of 960 MW and generate green electricity for an aggregate of 1.1 million households. Construction work for this wind farm located 85 km northwest of Borkum has been ongoing since May 2024 and it is due to be commissioned by the end of 2025. Several long-term power purchase agreements (PPAs) have already been concluded for the distribution of more than half of the 960 MW of output.

In the first half of 2024, an agreement for a further 50 MW was concluded with SHS – Stahl-Holding-Saar. In terms of new onshore wind projects, Valeco was successful in an auction in France and will now be able to develop 115.8 MW of output within six projects in the future.

Further information on the **solar park in Langenenslingen** can be found here.

Online

In the photovoltaic sector, EnBW started construction of, among other things, a major solar project in Baden-Württemberg in February 2024. The solar park, located in Langenenslingen in the Biberach district, will have an installed output of 80 MWp and is due to be placed into operation by the middle of 2025. In order to accelerate the expansion of renewable energies, we will also be modernizing the Forbach hydropower plant to transform it into a fully-fledged pumped storage power plant. In this context, the first ceremonial blast to mark the start of the underground blasting and demolition work took place in June 2024. The new power plant is expected to be commissioned in fall 2027.

The generation capacity of hard coal power plants has decreased on the market by almost 890 MW since 31 December 2023. Amongst other things, our RDK 7 coal-fired power plant with an output of 517 MW was transferred to the grid reserve in May 2024, which decreased our thermal output as a result. We will be investing around €1.6 billion in three fuel switch projects as part of the gradual phaseout of coal. Alongside the power plants in Altbach/Deizisau and Stuttgart-Münster, this includes the power plant in Heilbronn, where we started construction work in the first half of 2024. We plan to be operating all three power plants using climate-neutral hydrogen by the middle of the 2030s.

Current selected activities

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

Online

Biodiversity: To promote biodiversity and the preservation of species, we carried out a number of activities in the first half of 2024 **to protect birds and conserve forests.** For example, Netze BW supported a ringing scheme for young storks in the Karlsruhe region and made a cherry picker and two employees available to the local stork protection officers for one week. Ringing the birds makes it possible to record data on the threats to this bird species and on their proliferation and migratory behavior. Our subsidiary naturenergie netze also supported bird conservation measures and installed a wooden mast with a platform in Liel that will serve as nesting place for a pair of storks in the future. In addition, EnBW ODR donated 4,000 young trees ready for planting to the City of Ellwangen in cooperation with the German Forest Protection Association, Regional Association for Baden-Württemberg e. V., in April 2024. As a result, EnBW ODR has now donated a total of 20,000 trees since 2016 to support climate-stable forest restoration.

Further information on how we contribute to the **protection of species** using our **solar parks** can be found here.

Online

As part of the **blooming transformer station** project, our subsidiary Netze BW has been using the free spaces around transformer stations to promote biodiversity and help preserve species 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 usually found in the natural environment at the respective sites. A further two transformer stations were transformed into "buzzing transformer stations" using seeds typical to the region in the first half of 2024 and are now providing a rich habitat for more than 3,000 species of butterflies, 500 species of wild bees and thousands of other species of insects native to Germany. These habitats boast up to 60 different plant species per 10 m², providing food, protection and a place of retreat for native insects. Netze BW has already created flower meadows at 51 sites covering a total area of almost 134,000 m² and is thus actively contributing to the conservation and proliferation of flower-pollinating insects.

EnBW placed a new **hydropower plant in Rheinhausen** into operation in April 2024. The hydropower plant is one of the most modern of its kind and has a new fish ladder to help fish ascend and descend the river. This helps to protect fish fauna and microorganisms in the waterways. The hydropower plant in Rheinhausen serves as a platform for a local authority participation model to promote climate-friendly energy generation. Further details on the power plant can be found on p. 38.

The EnBW funding program **"Stimuli for Diversity"** has been successfully supporting social engagement for the protection of amphibians since 2011 and the protection of reptiles since 2016 in Baden-Württemberg. This funding program was jointly launched by the Baden-Württemberg State Institute for the Environment, Measurements and Nature Conservation (LUBW) and EnBW. It is part of the project "The economy and business for nature," which is a component of the initiative "Active for biological diversity" that has been developed by the state government of Baden-Württemberg. The application period for the 2024 funding year ended in May. Numerous well-founded project applica-

tions were received once again. The winning projects selected by a specialist jury will be funded by us and realized between October and December 2024. Over the last year, we also supported, among other things, the **renaturation of spawning waters in the Ravenstein city forest**. This is helping to curb the declining numbers of amphibians and promote the populations of grass frogs, crested newts, yellow-bellied toads and agile frogs by providing them with larger natural habitats. The project was successfully concluded in June 2024 with a final tour of the site.

Environmentally friendly grid operation: The company naturenergie netze has invested in an **environmentally friendly medium-voltage switching station** in Remetschwiel. The original switching station built in the 1950s has been replaced with a modern building and a new medium-voltage switching station. The special thing about this switching station is that it uses a combination of clean air and vacuum switches instead of the greenhouse gas SF_6, and thus reduces the negative impact on the environment.

Energy-efficient real estate management: In the first half of 2024, a number of projects in our newly launched program of measures entitled **"climate-neutral real estate portfolio"** entered the planning and implementation stages. In this context, we commissioned external energy consultants to evaluate around 30 energy-focused building refurbishments with respect to the achievable energy standard and prospective costs. We also completed the installation of PV power plants in Ettlingen and Karlsruhe with a total output of around 700 kWp and they will be connected to the grid before the end of the year. In addition, we started construction of other PV power plants, such as those at the sites in Biberach and Stuttgart EnBW City. Another main focus of our program of measures is a comprehensive switch to LED lighting. In the first half of the year, we repurposed the trial areas at Stuttgart EnBW City as test areas. Following a test phase, we will start the extensive conversion work. The sites in Esslingen and Biberach and other smaller locations will also be gradually converted to LED lighting.

Employees goal dimension

Selected activities

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 encourage their employees to proactively embrace change, empower them to do so and lead their teams with conviction into a more complex world. Our HR policy will support managers and 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. Our sustainable HR strategy is also part of the strategic theme 2 "Culture of sustainability" in the EnBW Sustainability Agenda (p. 7↗).

The HR strategy focuses here on six strategic themes: People-centered transformation, Employer brand & recruiting, Leadership & skills, Qualification@EnBW, Diversity, Equity & Inclusion as well as HR processes, services & digitalization. We provided detailed information on these individual themes in our Integrated Annual Report 2023 from p. 101↗.

As part of the **"BestWork"** initiative, we have been reshaping our working world and making it fit for the future with the aim of safeguarding both the quality of our work and ensuring the satisfaction of employees. A special focus was 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 requirements of a more flexible and hybrid way of working. In the second stage under the motto "Cooperation-Spaces," we optimized workspaces and technical equipment for the form of cooperation selected by each team and for hybrid collaboration. Employees then started moving into their newly designed workspaces in the first half of 2024. We are also currently expanding our company healthcare services for employees.

Our corporate video for the **employer campaign "A job transition for the energy transition"** can be found here.

Online

Further information on the current **employer campaign** can also be viewed online.

Online

In order to further improve our attractiveness as an employer, we are not only offering our employees the flexibility intrinsic in BestWork but also the opportunity to work temporarily abroad. EnBW employees are able to take a workation and work for a maximum of 84 calendar days abroad, at a maximum of 28 calendar days at a time, in 19 currently approved countries in the European Union. The list of countries is being continuously monitored and updated as necessary.

Diversity is a fixed component of our corporate culture and a key element of the HR strategy. Against the background of demographic change and the associated shortage of qualified workers, we not only need new recruitment strategies but also diverse and resilient teams. In this context, our strategy for Diversity, Equity & Inclusion, in short **the DE&I strategy,** is designed above all to support our attractiveness as an employer and strengthen the innovative strength of EnBW, as well as to push forward the sustainability and competitiveness of the company. In April 2024, the Board of Management defined a target of 30% for the proportion of women in management functions by 2030. In particular, the aim is to recruit more women in technical occupations and qualify female talent for management functions at an early stage.

Further training and education is an important pillar for tackling the skills shortage. In this context, we launched two new trainee programs that will begin in October 2024. Our 20-month trainee program "Tech Generation" is designed for IT-savvy university graduates who will gain experience in various IT disciplines along the value-added chain, while our 20-month trainee program "Power Generation" has been specially developed to qualify participants for jobs in energy generation. Our new **digital recruitment campaign** was also launched in May 2024. We are offering places in more than 30 different apprenticeship trades and dual study programs that will begin in 2025.

Further information on the **Dual Vocational Training Preparation Program** can be found here.

Online

We have been offering a multi-stage **career integration program** to refugees and migrants since 2016, in which 29 people are currently serving a technical apprenticeship. A total of 67 participants have now completed their training as either an industrial mechanic, electronics technician, plant mechanic or mechatronics engineer and 60 of them have been awarded a permanent contract. As part of this program, Netze BW has been participating in the **Dual Vocational Training Preparation Program (AVdual)** initiated by the Baden-Württemberg Training Alliance since 2023. AVdual aims to provide more young people with the opportunity to start their training or apprenticeship immediately after leaving school. Two of the eight participants in the AVdual program have been accepted on the career integration program so far. As part of our social engagement activities, we will continue the career integration program over the next few years and also continue to use it as an additional tool for recruiting young talent.

The Employers' Association for Electricity Power Plants in Baden-Württemberg and the services trade union ver.di agreed a total **wage increase** of 8.8%. Monthly wages in the collective bargaining agreement increased as a result by 6.0% on 1 May 2024 and will increase again by a further 2.8% on 1 May 2025. This also applies to remuneration for apprentices. The collective bargaining agreement is valid for at least 21 months and can be terminated at the earliest on 31 January 2026.

EnBW achieved a record result in 2023. Against this background, employees were paid a **profit sharing bonus** in the amount of 115% of one month's salary in their salary check for May 2024. In addition, part-time and full-time employees received a special bonus of €2,500 and apprentices and dual students a bonus of €1,250.

Performance indicators for employees

Employees [1, 2]

	30/06/2024	31/12/2023	Change in %
Sustainable Generation Infrastructure	7,657	7,563	1.2
System Critical Infrastructure	12,013	11,635	3.2
Smart Infrastructure for Customers	5,797	5,711	1.5
Other	3,862	3,721	3.8
Total	**29,329**	**28,630**	**2.4**
Number of full-time equivalents [3]	27,563	26,943	2.3

1 Number of employees excluding apprentices/trainees and inactive employees.
2 The number of employees for the ITOs (ONTRAS Gastransport, terranets bw and TransnetBW) is only updated at the end of the year; for intervals of less than a year, the number of employees from 31/12/2023 is carried forward.
3 Converted into full-time equivalents.

As of 30 June 2024, the EnBW Group had 29,329 employees, which was 699 more than at the end of 2023. This increase was primarily due to the intake of new employees in strategic growth fields. In the Sustainable Generation Infrastructure segment, this increase was in the Thermal Generation and Trading area. In the System Critical Infrastructure segment, the main increase in the number of employees was in the area of electricity distribution. The increase in the number of employees in the Smart Infrastructure for Customers segment was attributable to growing demand in the area of electricity sales due to the billing service and restructuring measures. Digitalization and transformation processes increased the number of employees in "Other."

Occupational safety

LTIF

Key performance indicator

	01/01–30/06/2024	01/01–30/06/2023	Change in %	01/01–31/12/2023
LTIF for companies controlled by the Group [1, 2, 3]	2.6	2.2	18.2	2.4
LTIF overall [1, 2]	4.3	3.1	38.7	3.7

1 LTIF indicates how many LTI occurred per one million working hours performed.
2 The LTIF for companies controlled by the Group excluding waste management and LTIF overall, which includes the area of waste management, only includes companies with more than 100 employees excluding external agency workers and contractors.
3 Newly fully consolidated companies are not included for a maximum transition period of three years.

The key performance indicator LTIF (Lost Time Injury Frequency) for companies controlled by the Group increased significantly in the first six months of 2024 in comparison to the same period of the previous year and also proportionally compared to the figure for the whole of 2023. The average days of absence per accident for the companies controlled by the Group increased sharply to 21.0, compared to 9.7 in the same period of the previous year. The LTIF overall – including our subsidiaries in the area of waste management – also rose significantly in the reporting period to 4.3. At the same time, the average days of absence per accident increased considerably – from 12.5 days in the same period of the previous year to 16.1 days in the first half of 2024.

The number of accidents in the generation area were significantly higher than expected in the first half of 2024. This was the main reason for the deterioration in the LTIF value. To counteract this development, we introduced a comprehensive program of measures in the first half of the year called **"SafE – Sicher arbeiten für die Erzeugung" (Safer working practices in generation).** Initially, we analyzed the current situation in detail with the aid of an external service provider and used the findings to identify the following four focus areas: management, Quentic, safety officers and third-party companies. We will develop targeted measures in these areas that we will start to implement in the second half of 2024. In addition, we further improved the user friendliness of our Group-wide **software Quentic** using a digital solution. Since March 2024, it has been possible to report unsafe situations and personal injuries in the software via the EnBW News app.

Forecast

In the following forecast we take a look at the expected development of EnBW in the current financial year.

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

Development in 2024 (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	
	2024	2023	2024	2023
Sustainable Generation Infrastructure	€2.6 to €3.1 billion	€4,647.6 million	50% to 65%	73.0%
System Critical Infrastructure	€1.9 to €2.2 billion	€1,772.0 million	35% to 50%	27.8%
Smart Infrastructure for Customers	€0.25 to €0.35 billion	€239.5 million	5% to 10%	3.8%
Other/Consolidation		€-293.9 million		-4.6%
Total	**€4.6 to €5.2 billion**	**€6,365.2 million**		**100.0%**

The earnings forecast from the 2023 combined management report for the whole of 2024 for the Group and the individual segments remains unchanged.

The adjusted EBITDA of the **Sustainable Generation Infrastructure** segment is expected to fall in 2024. This fall in earnings will be attributable to decreasing volatility on the markets and a drop in income from power plant distribution due to lower prices. This will result in a lower trading result in comparison to 2023 and negatively impact the Thermal Generation and Trading area. Renewable energies are expected to contribute between €1.2 billion and €1.4 billion to earnings. The pumped storage power plants are now allocated to the Renewable Energies area from 2024 onward after they were classified as environmentally sustainable in accordance with the EU Taxonomy Regulation. The adjusted EBITDA in 2023 for the Renewable Energies area including the earnings from pumped storage power plants of €0.7 billion would have totaled €1.7 billion. Furthermore, the moderate expansion in power plants for the uptake of renewable energies will make a positive contribution to earnings performance. The forecasts for wind and water yields, and thus for the volume of electricity generated, are based on the long-term average. As the volumes of electricity generated in 2023 were below this level, we anticipate higher volumes in 2024 in comparison to the previous year. This will be offset to some extent by falling prices in comparison to 2023. We expect the share of adjusted EBITDA for the Group accounted for by this segment to be below the level in the previous year.

The expected adjusted EBITDA for the **System Critical Infrastructure** segment will be higher in 2024 than in the previous year. The main reasons for this development are higher income from the use of the grids 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, as well as a higher return on capital employed. We expect an increase in the share of adjusted EBITDA for the Group accounted for by this segment in comparison to the previous year.

The adjusted EBITDA of the **Smart Infrastructure for Customers** segment should increase in 2024, despite the negative effects on the operating business at SENEC. We expect that the negative earnings effects seen in 2023 will largely cease to exist. Following the removal of the price brake on electricity and gas, we anticipate a strong recovery on the market for the B2B and B2C commodity business. The share of adjusted EBITDA for the Group accounted for by this segment should be slightly higher than the level in the previous year.

The **adjusted EBITDA for the EnBW Group** will fall in 2024 in line with our expectations and be between €4.6 billion and €5.2 billion.

Expected trends in the environment goal dimension

Key performance indicator

	2024	2023
CO_2 intensity in g/kWh[1]	290 – 350	347

1 The calculation for this performance indicator does not include nuclear generation and the share of positive redispatch that cannot be controlled by EnBW.

CO_2 intensity

In the Integrated Annual Report 2023, we forecast a CO_2 intensity for 2024 of between 390 and 450 g/kWh. In the first half of 2024, we generated less electricity than expected using brown and hard coal, with total generation from brown and hard coal of around 2 TWh in total. The reasons for this development were significantly lower prices on the market and a later-than-expected return to operation of our hard coal power plant block Heilbronn 7. Electricity generation from renewable energies was in line with our expectations. Therefore, we expect that CO_2 intensity will at most be around the same level as in the previous year of 347 g/kWh and we now forecast a CO_2 intensity for 2024 of between 290 and 350 g/kWh.

Aside from the adjustment to the expected development of CO_2 intensity, there were no other significant changes after the first half of 2024 to the non-financial performance indicators compared to the expectations formulated for the 2024 financial year in the Integrated Annual Report 2023 (Integrated Annual Report 2023, p. 127 ff.↗).

Opportunities and risks

In the first half of 2024, the total risk position remained stable in comparison to the 2023 financial statements. Using the report on risks in the 2023 Group management report as a basis, only the material opportunities or risks in the respective segments which have significantly changed, arisen or ceased to exist in the reporting period are described in this Six-Monthly Financial Report January to June 2024. No risks currently exist that might jeopardize the EnBW Group as a going concern. A detailed presentation of the opportunity and risk position can be found in the Integrated Annual Report 2023 from p. 130↗ onwards.

The ranges used for classifying the level of opportunity/risk are as follows:

Classification of the level of opportunity/risk

	Adjusted EBITDA	Net debt
Low	< €200 million	< €600 million
Moderate	≥ €200 million to < €550 million	≥ €600 million to < €2,000 million
Significant	≥ €550 million to < €1,000 million	≥ €2,000 million to < €3,500 million
Material	≥ €1,000 million	≥ €3,500 million

Cross-segment opportunities and risks

Discount rate applied to pension provisions: There is generally 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 30 June 2024, the discount rate was 3.6%, which was 0.45 percentage points higher than the rate at the end of 2023 (3.15%). Against the background of the expected development of interest rates, we identify a significant level of risk and opportunity in 2024. This will have an impact on net debt and thus on the key performance indicator debt repayment potential.

Margin/liquidity requirements: The Group's liquidity planning is subject to an inherent degree of uncertainty, especially with respect to margin payments. Sharp increases in prices and high volatility in energy trading on the commodity markets (EEX/ICE) have led to high liquidity inflows and outflows as part of margining processes which are beyond the normal margin requirements. The financial impact has been declining recently as market prices have fallen. This risk has been reduced significantly by using bank guarantees instead of cash securities. In contrast, there are increasing credit risks in relation to liquidity management at investments. There is a moderate level of opportunity and risk for 2024 with an impact on net debt and thus on the key performance indicator debt repayment potential.

Sustainable Generation Infrastructure

Availability of power plants: The risk of the non-availability of Block 7 of the Heilbronn combined heat and power plant due to recent maintenance work no longer exists following the completion of this work. There is a general opportunity and risk that endogenous and exogenous factors will have an influence on the planned availability of our power plants and could thus increase or decrease earnings. Falling commodity prices have narrowed the range for the level of opportunity/risk in conventional generation. There is a low level of risk in this area for 2024. 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.

Eliminated opportunities/risks

The following opportunities/risks are no longer included in the reporting because, in comparison to the Integrated Annual Report 2023, they have now been taken into account in the planning, the level of opportunity/risk has reduced or they were reported under other individual themes:

- Credit risk in energy trading (currently below the reporting threshold)

Six-monthly consolidated financial statements

Income statement

in € million	01/04–30/06/2024	01/04–30/06/2023	01/01–30/06/2024	01/01–30/06/2023
Revenue including electricity and energy taxes	8,918.3	10,856.7	19,287.9	26,954.4
Electricity and energy taxes	-115.6	-141.8	-254.4	-268.3
Revenue	**8,802.7**	**10,714.9**	**19,033.5**	**26,686.1**
Changes in inventories	71.4	79.2	114.8	92.3
Other own work capitalized	94.1	94.1	169.5	161.6
Other operating income	539.9	195.5	1,869.1	3,536.6
Cost of materials	-6,599.3	-8,347.0	-14,338.8	-21,183.7
Personnel expenses	-769.5	-655.2	-1,502.1	-1,328.7
Impairment losses [1]	-3.4	-151.0	-20.4	-176.4
Other operating expenses	-724.5	-750.7	-2,086.3	-2,653.8
EBITDA	**1,411.4**	**1,179.8**	**3,239.3**	**5,134.0**
Amortization and depreciation	-434.1	-789.2	-832.0	-1,213.4
Earnings before interest and taxes (EBIT)	**977.3**	**390.6**	**2,407.3**	**3,920.6**
Investment result	28.0	-12.7	29.6	33.6
of which net profit/loss from entities accounted for using the equity method	(3.8)	(-33.3)	(34.1)	(-10.4)
of which other profit/loss from investments	(24.2)	(20.6)	(-4.5)	(44.0)
Financial result	-23.1	-34.7	-81.5	-147.0
of which finance income	(207.1)	(223.5)	(483.4)	(413.1)
of which finance costs	(-230.2)	(-258.2)	(-564.9)	(-560.1)
Earnings before tax (EBT)	**982.2**	**343.2**	**2,355.4**	**3,807.2**
Income tax	-288.8	-126.2	-653.9	-1,056.3
Group net profit	**693.4**	**217.0**	**1,701.5**	**2,750.9**
of which profit/loss shares attributable to non-controlling interests	(151.5)	(-20.2)	(357.0)	(225.1)
of which profit/loss shares attributable to the shareholders of EnBW AG	(541.9)	(237.2)	(1,344.5)	(2,525.8)
EnBW AG shares outstanding (million), weighted average	**270.855**	**270.855**	**270.855**	**270.855**
Earnings per share from Group net profit (€) [2]	**2.00**	**0.88**	**4.96**	**9.33**

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

Statement of comprehensive income

in € million	01/04–30/06/2024	01/04–30/06/2023	01/01–30/06/2024	01/01–30/06/2023
Group net profit	**693.4**	**217.0**	**1,701.5**	**2,750.9**
Revaluation of pensions and similar obligations	**253.3**	-37.7	**394.0**	-68.4
Entities accounted for using the equity method	**0.0**	0.0	**-0.5**	0.0
Income taxes on other comprehensive income	**-73.8**	12.5	**-112.6**	23.3
Total of other comprehensive income and expenses without future reclassifications impacting earnings	**179.5**	**-25.2**	**280.9**	**-45.1**
Currency translation differences	**13.3**	0.6	**-18.1**	20.3
Cash flow hedge	**161.3**	-209.4	**-389.5**	-767.4
Financial assets at fair value in equity	**-10.5**	8.3	**-13.4**	76.8
Entities accounted for using the equity method	**-0.3**	-0.4	**1.9**	-0.9
Income taxes on other comprehensive income	**-88.8**	314.4	**83.9**	207.4
Total of other comprehensive income and expenses with future reclassifications impacting earnings	**75.0**	**113.5**	**-335.2**	**-463.8**
Total other comprehensive income	**254.5**	**88.3**	**-54.3**	**-508.9**
Total comprehensive income	**947.9**	**305.3**	**1,647.2**	**2,242.0**
of which profit/loss shares attributable to non-controlling interests	**(201.8)**	(-70.3)	**(396.7)**	(151.4)
of which profit/loss shares attributable to the shareholders of EnBW AG	**(746.1)**	(375.6)	**(1,250.5)**	(2,090.6)

Balance sheet

in € million	30/06/2024	31/12/2023
Assets		
Non-current assets		
Intangible assets	3,256.6	3,166.2
Property, plant and equipment	27,030.9	25,429.8
Entities accounted for using the equity method	1,790.1	1,393.4
Other financial assets	6,536.4	6,628.5
Trade receivables	342.3	370.1
Other non-current assets	1,943.5	2,298.0
Deferred taxes	83.5	226.0
	40,983.3	39,512.0
Current assets		
Inventories	2,605.3	2,804.0
Financial assets	2,967.1	3,078.1
Trade receivables	5,342.7	4,575.6
Other current assets	6,352.0	8,754.1
Cash and cash equivalents	4,475.9	5,995.1
	21,743.0	25,206.9
Assets held for sale	18.9	0.0
	21,761.9	25,206.9
	62,745.2	64,718.9
Equity and liabilities		
Equity		
Shares of the shareholders of EnBW AG		
Subscribed capital	708.1	708.1
Capital reserve	774.2	774.2
Revenue reserves	9,497.7	8,559.5
Treasury shares	-204.1	-204.1
Other comprehensive income	-616.4	-529.0
	10,159.5	9,308.7
Non-controlling interests	6,681.1	6,544.3
	16,840.6	15,853.0
Non-current liabilities		
Provisions	10,956.0	11,410.9
Deferred taxes	1,093.3	835.6
Financial liabilities	14,274.1	15,003.5
Other liabilities and subsidies	3,345.8	3,462.7
	29,669.2	30,712.7
Current liabilities		
Provisions	2,707.2	2,528.7
Financial liabilities	2,069.5	1,464.2
Trade payables	5,460.4	5,049.9
Other liabilities and subsidies	5,986.6	9,110.4
	16,223.7	18,153.2
Liabilities directly associated with assets classified as held for sale	11.7	0.0
	16,235.4	18,153.2
	62,745.2	64,718.9

Cash flow statement

in € million	01/01–30/06/2024	01/01–30/06/2023
1. Operating activities		
Group net profit	1,701.5	2,750.9
Income tax	653.9	1,056.2
Investment and financial result	51.9	113.5
Amortization and depreciation	832.0	1,213.4
Change in provisions excluding obligations from emission allowances	-350.4	-147.4
Result from disposals	3.5	-3.0
Other non-cash-relevant expenses/income	-3.2	-548.5
Change in assets and liabilities from operating activities	-1,000.6	-4,085.0
Net balance of inventories and obligations from emission allowances	(600.3)	(37.9)
Net balance of trade receivables and payables, services not yet invoiced and payments on account that have been made and received	(-644.6)	(-3,181.9)
Net balance of other assets and liabilities	(-956.3)	(-941.0)
Income tax paid	-527.8	-426.2
Cash flow from operating activities	1,360.8	-76.1
2. Investing activities		
Capital expenditure on intangible assets and property, plant and equipment	-1,919.8	-1,369.1
Disposals of intangible assets and property, plant and equipment	18.3	23.7
Cash received from subsidies for construction cost and investments	42.3	47.4
Cash paid for the acquisition of companies and interests in entities accounted for using the equity method as well as in joint operations	-242.6	-89.9
Change in securities, financial investments and other financial assets	-284.5	53.7
Interest received	184.3	126.3
Dividends received	57.2	86.7
Cash flow from investing activities	-2,144.8	-1,121.2
3. Financing activities		
Interest paid	-222.6	-161.5
Dividends paid	-581.9	-355.0
Increase in financial liabilities	802.4	2,937.4
Repayment of financial liabilities	-874.0	-1,022.5
Repayment of lease liabilities	-100.4	-84.3
Cash received from minority shareholders for capital increases	383.0	14.7
Cash paid for capital reductions to minority shareholders	-10.3	-12.1
Other cash paid to minority shareholders	-171.5	-132.7
Cash flow from financing activities	-775.3	1,184.0
Net change in cash and cash equivalents	-1,559.3	-13.3
Change in cash and cash equivalents due to changes in the consolidated companies	27.2	4.3
Net foreign exchange difference and other changes in cash and cash equivalents	17.7	-4.0
Change in cash and cash equivalents	-1,514.4	-13.0
Cash and cash equivalents at the beginning of the period	5,995.1	6,475.6
Cash and cash equivalents at the end of the period	4,480.7	6,462.6
of which cash and cash equivalents in current assets	(4,475.9)	(6,462.6)
of which cash and cash equivalents in assets held for sale	(4.8)	(0.0)

Statement of changes in equity

in € million				Other comprehensive income							
	Subscribed capital and capital reserve	Revenue reserves	Treasury shares	Revaluation of pensions and similar obligations	Currency translation differences	Cash flow hedge	Financial assets at fair value in equity	Entities accounted for using the equity method	Shares of the shareholders of EnBW AG	Non-controlling interests	Total
As of 01/01/2023	**1,482.3**	**7,272.7**	**-204.1**	**-799.5**	**94.6**	**1,270.8**	**-154.6**	**0.8**	**8,963.0**	**3,806.3**	**12,769.3**
Other comprehensive income				-46.4	54.1	-496.2	54.2	-0.9	-435.2	-73.7	**-508.9**
Group net profit		2,525.8							2,525.8	225.1	**2,750.9**
Total comprehensive income	**0.0**	**2,525.8**	**0.0**	**-46.4**	**54.1**	**-496.2**	**54.2**	**-0.9**	**2,090.6**	**151.4**	**2,242.0**
Derecognition in the cost of hedged items						24.2			24.2	0.0	**24.2**
Dividends		-297.9							-297.9	-320.5	**-618.4**
Other changes[1]		0.0							0.0	-100.6	**-100.6**
As of 30/06/2023	**1,482.3**	**9,500.6**	**-204.1**	**-846.0**	**148.7**	**798.8**	**-100.4**	**-0.1**	**10,779.8**	**3,536.6**	**14,316.4**
As of 01/01/2024	**1,482.3**	**8,559.5**	**-204.1**	**-1,178.8**	**100.2**	**563.9**	**-13.0**	**-1.3**	**9,308.7**	**6,544.3**	**15,853.0**
Other comprehensive income				278.6	-16.4	-348.1	-9.5	1.4	-94.0	39.7	**-54.3**
Group net profit		1,344.5							1,344.5	357.0	**1,701.5**
Total comprehensive income	**0.0**	**1,344.5**	**0.0**	**278.6**	**-16.4**	**-348.1**	**-9.5**	**1.4**	**1,250.5**	**396.7**	**1,647.2**
Derecognition in the cost of hedged items						6.6			6.6	0.0	**6.6**
Dividends		-406.3							-406.3	-307.2	**-713.5**
Other changes[1]		0.0							0.0	47.3	**47.3**
As of 30/06/2024	**1,482.3**	**9,497.7**	**-204.1**	**-900.2**	**83.8**	**222.4**	**-22.5**	**0.1**	**10,159.5**	**6,681.1**	**16,840.6**

1 Of which capital increases by minority shareholders of €171.5 million (previous year: €14.7 million). Of which capital reductions by minority shareholders of €127.6 million (previous year: €104.8 million).

Notes and explanations

General principles

The six-monthly financial statements of the EnBW Group are prepared according to the International Financial Reporting Standards (IFRS), the adoption of which is mandatory in the EU as of the reporting date. In addition, the related interpretations (IFRIC/SIC) are observed. Standards and interpretations whose application is not yet mandatory are not adopted.

The accounting policies applied for the six-monthly consolidated financial statements as of 30 June 2024, as well as the evaluation methods and input parameters for measuring fair value, are the same as those used for the consolidated financial statements as of 31 December 2023 with the exception of the new policies described below.

In accordance with IAS 34, the form of reporting chosen for the presentation of the consolidated financial statements of EnBW AG as of 30 June 2024 was shortened in comparison with that used for the consolidated financial statements as of 31 December 2023.

In addition to the income statement, the statement of comprehensive income, balance sheet, condensed cash flow statement and statement of changes in equity for the EnBW Group are presented separately. Rounding differences may occur due to the methods used to carry out the calculations.

Changes in accounting policies

First-time adoption of amended accounting standards

The International Accounting Standards Board (IASB) has adopted the following new standards and amendments to existing standards:

First-time adoption of amended accounting standards

Announcement	Amendments	Mandatory adoption for the EnBW Group	Impact on the EnBW consolidated financial statements
Amendments to IAS 1: Classification of Liabilities as Current or Non-current	Clarification of the requirements for classifying debt as current or non-current	01/01/2024	No material impact.
Amendments to IAS 1: Non-current Liabilities with Covenants	Clarification that only covenants that must be complied with on or before the reporting date are relevant for classifying the debt as current or non-current, as well as disclosure obligations for the notes.	01/01/2024	No material impact.
Amendments to IAS 7 and IFRS 7: Supplier financing agreements	Additional disclosure obligations related to supplier financing agreements (reverse factoring)	01/01/2024	No material impact.
Amendments to IFRS 16	Amendments to IFRS 16: Lease Liability in a Sale and Leaseback	01/01/2024	No material impact.

Effects of new accounting standards that are not yet mandatory

The IASB published the following amendments to standards whose adoption is not yet mandatory for the 2024 financial year. 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	Amendments	Mandatory adoption for the EnBW Group[1]	Expected impact on the EnBW consolidated financial statements
Amendments to IAS 21: Lack of Exchangeability	Clarification of which exchange rate to use when the spot exchange rate is not observable	01/01/2025	No material impact.
IFRS 18 Presentation and Disclosures in Financial Statements	Introduction of categories and subtotals in the income statement, disclosures about management-defined performance measures and amendments to the starting values in the cash flow statement	01/01/2027	The effects are still being analyzed. This mandatory classification will result in changes to the structure of the income statement. It will also change the starting value for the cash flow statement and require additional notes.
IFRS 19 Subsidiaries without Public Accountability: Disclosures	Simplifications with respect to the disclosure obligations for subsidiaries without public accountability and their parent companies who use IFRS for their published consolidated financial statements	01/01/2027	No impact because the subsidiaries do not voluntarily publish separate financial statements in accordance with IFRS.
Amendments to IFRS 9 and IFRS 7 with respect to the classification and measurement of financial instruments	Clarification of the date of derecognition of a financial liability settled through electronic transfer, of the application of the cash flow criterion when classifying financial instruments and additional disclosure obligations in IFRS 7	01/01/2026	The effects are still being analyzed. We do not expect any material impact at this time.
Annual improvements for IFRS in 2024	Clarifications for IFRS 7, IFRS 9, IFRS 10 and IAS 7	01/01/2026	The effects are still being analyzed. We do not expect any material impact at this time.

1 This date refers to the intended date of adoption according to the IASB. The endorsement by the EU into European law is still pending.

Consolidated companies

All subsidiaries under the control of the Group are included in the consolidated financial statements in accordance with the full consolidation method. 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. Joint arrangements that are classified as joint operations are reported based on the proportion of the assets, liabilities, income and expenses which are attributable to the parent company in compliance with the respective applicable IFRS.

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

The consolidated companies are as follows:

Type of consolidation

Number of companies	30/06/2024	31/12/2023	30/06/2023
Fully consolidated companies	507	256	251
Entities accounted for using the equity method	25	25	26
Joint operations	3	3	3

Additions to fully consolidated companies mainly relate to the integration of previously non-consolidated companies in the Valeco Group. The integration of these companies has made it possible to harmonize the reporting processes between the Valeco Group and the EnBW Group. The first-time integration of these companies did not have any significant influence on the assets, financial position and results of operations of the Group.

Full consolidation of affiliated entities 2024

bmp greengas GmbH

Once the protective shield proceedings were lifted on 14 March 2024, bmp greengas GmbH, Munich, could once again be included in the EnBW consolidated financial statements as a fully consolidated company. VNG Handel & Vertrieb GmbH, Leipzig, has control of the fully owned Group company bmp greengas GmbH. VNG Handel & Vertrieb GmbH is a subsidiary of VNG AG, in which EnBW AG holds a 79.8% shareholding. bmp greengas GmbH is a distributor of biomethane and specializes in green gases.

bmp greengas GmbH was recognized under other investments during the insolvency proceedings. An investor contribution of €120.0 million in cash and cash equivalents was made at the end of January 2024 to satisfy creditor claims. There were no material incidental costs. The fair value of the shares in bmp greengas GmbH at the time of full consolidation was €110.7 million. This was determined as the present value of future cash flows categorized under Level 3 of the IFRS 13 fair value hierarchy using a discount rate of 7.4% after tax and 10.6% before tax and a growth rate of 1.5%. Expenses resulting from the measurement of the fair value of the shares of €9.3 million were included in the investment result. Other operating expenses arising from the elimination of relationships that existed before consolidation of €4.5 million were also recognized. Following a reassessment, the negative difference of €10.5 million was recognized through profit or loss in other operating income.

In the 2024 financial year, bmp greengas GmbH has contributed €46.2 million in revenue since its full consolidation. This had no material effect on earnings after tax. If it had been fully consolidated since the beginning of the year, Group revenue would have increased by €46.2 million to €19,079.7 million, without any material effect on earnings after income tax.

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

in € million	Fair value
Intangible assets	0.1
Property, plant and equipment	1.6
Other non-current assets	0.0
Cash and cash equivalents	138.5
Other current assets	424.1
Total assets	564.3
Non-current liabilities	0.8
Current liabilities	442.3
Total liabilities	443.1
Net assets [1]	121.2
Net assets allocated to non-controlling interests	(24.4)
Net assets attributable to the shareholders of EnBW AG	(96.8)
Fair value of shares already held [1]	110.7
Fair value of shares already held attributable to non-controlling interests	(22.3)
Fair value of shares already held attributable to the shareholders of EnBW AG	(88.4)
Difference	-10.5
Difference attributable to non-controlling interests	(-2.1)
Difference attributable to the shareholders of EnBW AG	(-8.4)

1 The calculation of the fair value of the assets and liabilities and the calculation of the fair value of shares already held has not yet been completed because some analyses with respect to the assets and liabilities and shares already held are still ongoing. Therefore, provisional values have been stated in accordance with IFRS 3.45.

The fair value of the trade receivables acquired as part of the business combination stood at €292.0 million. There were no material individual impairment losses. The total amount of the trade receivables is expected to be largely collected.

Revenue

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

in € million	01/01–30/06/2024	01/01–30/06/2023
Revenue from contracts with customers	18,813.6	26,461.2
Other revenue	219.9	224.9
Total	**19,033.5**	**26,686.1**

The decrease in revenue by €7,652.6 million in comparison to the previous year to €19,033.5 million was primarily attributable to lower trading prices in the electricity and gas sectors combined with higher sales volumes. Lower sales volumes to B2B customers in the gas sector also led to a decrease in revenue.

The following tables break down revenue according to region and product.

External revenue by region

01/01–30/06/2024 in € million	Sustainable Generation Infrastructure	System Critical Infrastructure	Smart Infrastructure for Customers	Other/ Consolidation	Total
Revenue from contracts with customers by region	8,839.8	2,719.6	7,236.2	18.0	18,813.6
Germany	(5,272.8)	(2,613.9)	(5,860.1)	(13.4)	(13,760.2)
European currency zone excluding Germany	(3,367.6)	(2.9)	(205.8)	(0.4)	(3,576.7)
Rest of Europe	(187.6)	(102.8)	(1,167.6)	(4.2)	(1,462.2)
Rest of world	(11.8)	(0.0)	(2.7)	(0.0)	(14.5)
Other revenue	1.6	218.3	0.0	0.0	219.9
Total	**8,841.4**	**2,937.9**	**7,236.2**	**18.0**	**19,033.5**

External revenue by region

01/01–30/06/2023 in € million	Sustainable Generation Infrastructure	System Critical Infrastructure	Smart Infrastructure for Customers	Other/ Consolidation	Total
Revenue from contracts with customers by region	12,806.7	3,301.7	10,339.3	13.5	26,461.2
Germany	(6,165.8)	(3,232.6)	(8,003.9)	(9.3)	(17,411.6)
European currency zone excluding Germany	(6,436.5)	(3.1)	(373.9)	(0.0)	(6,813.5)
Rest of Europe	(204.4)	(65.0)	(1,953.7)	(4.2)	(2,227.3)
Rest of world	(0.0)	(1.0)	(7.8)	(0.0)	(8.8)
Other revenue	0.9	224.0	0.0	0.0	224.9
Total	**12,807.6**	**3,525.7**	**10,339.3**	**13.5**	**26,686.1**

External revenue by product

01/01–30/06/2024 in € million	Sustainable Generation Infrastructure	System Critical Infrastructure	Smart Infrastructure for Customers	Other/ Consolidation	Total
Revenue from contracts with customers by product	8,839.8	2,719.6	7,236.2	18.0	**18,813.6**
Electricity	(2,790.1)	(1,981.2)	(3,883.6)	(1.4)	**(8,656.3)**
Gas	(5,794.6)	(400.5)	(2,939.4)	(4.5)	**(9,139.0)**
Energy and environmental services/other	(255.1)	(337.9)	(413.2)	(12.1)	**(1,018.3)**
Other revenue	1.6	218.3	0.0	0.0	**219.9**
Total	**8,841.4**	**2,937.9**	**7,236.2**	**18.0**	**19,033.5**

External revenue by product

01/01–30/06/2023 in € million	Sustainable Generation Infrastructure	System Critical Infrastructure	Smart Infrastructure for Customers	Other/ Consolidation	Total
Revenue from contracts with customers by product	12,806.7	3,301.7	10,339.3	13.5	**26,461.2**
Electricity	(4,843.6)	(2,526.1)	(4,709.1)	(0.5)	**(12,079.3)**
Gas	(7,598.9)	(458.0)	(4,923.7)	(0.0)	**(12,980.6)**
Energy and environmental services/other	(364.2)	(317.6)	(706.5)	(13.0)	**(1,401.3)**
Other revenue	0.9	224.0	0.0	0.0	**224.9**
Total	**12,807.6**	**3,525.7**	**10,339.3**	**13.5**	**26,686.1**

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

Dividends

On 7 May 2024, the Annual General Meeting of EnBW AG approved the proposal by the Board of Management and the Supervisory Board to distribute a dividend of €1.50 per share for the 2023 financial year. Dividends of €406.3 million were paid to shareholders on 10 May 2024. In the previous year, a dividend of €1.10 per share was distributed for the 2022 financial year.

Notes relating to fair value

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 recognized valuation methods 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.

The fair value and carrying amounts of the financial assets and financial liabilities under the individual balance sheet items are shown below.

Carrying amounts and fair value of financial instruments

in € million	30/06/2024			31/12/2023		
	Fair value	Not in IFRS 7's field of application	Carrying amount	Fair value	Not in IFRS 7's field of application	Carrying amount
Financial assets	8,921.1	582.4	9,503.5	9,088.4	618.2	9,706.6
Measured at fair value through profit or loss	(4,376.2)		(4,376.2)	(3,921.3)		(3,921.3)
Measured at fair value in equity	(2,071.0)		(2,071.0)	(2,021.0)		(2,021.0)
Measured at amortized cost	(2,473.9)		(2,473.9)	(3,146.1)		(3,146.1)
Trade receivables	5,685.0		5,685.0	4,945.7		4,945.7
Other assets	6,979.9	1,315.6	8,295.5	9,701.1	1,351.0	11,052.1
Measured at fair value through profit or loss	(4,578.7)		(4,578.7)	(7,273.3)		(7,273.3)
Measured at amortized cost	(2,070.7)		(2,070.7)	(2,157.9)		(2,157.9)
Derivatives designated as hedging instruments	(278.6)		(278.6)	(216.7)		(216.7)
Lease receivables	(51.9)		(51.9)	(53.2)		(53.2)
Cash and cash equivalents	4,475.9		4,475.9	5,995.1		5,995.1
Assets held for sale [1]	7.2	11.7	18.9			
Total	26,069.1	1,909.7	27,978.8	29,730.3	1,969.2	31,699.5
Financial liabilities	16,050.5		16,343.6	16,290.2		16,467.7
Trade payables	1,764.4	3,696.0	5,460.4	2,020.8	3,029.1	5,049.9
Other liabilities and subsidies	6,616.9	2,715.5	9,332.4	9,477.2	3,095.9	12,573.1
Held for trading	(4,013.2)		(4,013.2)	(6,362.0)		(6,362.0)
Measured at amortized cost	(1,026.1)		(1,026.1)	(1,629.7)		(1,629.7)
Derivatives designated as hedging instruments	(356.2)		(356.2)	(499.1)		(499.1)
Lease liabilities	(1,221.4)		(1,221.4)	(986.4)		(986.4)
Liabilities directly associated with assets classified as held for sale		11.7	11.7			
Total	24,431.8	6,423.2	31,148.1	27,788.2	6,125.0	34,090.7

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

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 €14.5 million (31 December 2023: €6.4 million) were reclassified from Level 1 to Level 2 and securities with a fair value of €16.4 million (31 December 2023: €29.9 million) were reclassified from Level 2 to Level 1 in the six-monthly financial statements.

Counterparty default risk is taken into account when measuring the fair value of derivative financial instruments. Default risk with respect to an individual counterparty is calculated on the basis of the net risk position. For information on the valuation method and the input parameters used, please refer to the explanations in the section "Accounting for financial instruments" in the Integrated Annual Report 2023 (p. 239 ff.).

Hierarchy of input data

in € million	30/06/2024			31/12/2023		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial assets	3,511.5	713.5	2,222.2	2,908.7	829.3	2,204.3
Measured at fair value through profit or loss	(1,763.0)	(391.0)	(2,222.2)	(1,228.0)	(489.0)	(2,204.3)
Measured at fair value in equity	(1,748.5)	(322.5)		(1,680.7)	(340.3)	
Other assets		4,854.1	3.2		7,480.4	9.6
Measured at fair value through profit or loss		(4,575.5)	(3.2)		(7,263.7)	(9.6)
Derivatives designated as hedging instruments		(278.6)			(216.7)	
Assets held for sale		7.2				
Total	3,511.5	5,574.8	2,225.4	2,908.7	8,309.7	2,213.9
Other liabilities and subsidies		4,369.4			6,861.1	
Held for trading		(4,013.2)			(6,362.0)	
Derivatives designated as hedging instruments		(356.2)			(499.1)	
Total	0.0	4,369.4	0.0	0.0	6,861.1	0.0

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 01/01/2024	Changes in consolidated companies, other	Changes recognized through profit or loss	Changes recognized in equity	Additions	Disposals	As of 30/06/2024
Financial assets [1]	2,213.8	-11.0	41.0	2.5	50.9	-71.8	2,225.4

1 This includes other assets of €3.2 million as of 30 / 06 / 2024 with a change through profit and loss of €6.4 million.

Unrealized changes recognized through profit or loss for financial assets of €41.0 million (previous year: €-28.0 million) were recognized in the financial result and relate to financial instruments held in the financial year. In the first six months of the year, there were realized changes recognized through profit or loss recognized in the investment result and financial result of €37.0 million (previous year: €36.7 million) of which €24.1 million (previous year: €44.4 million) is accounted for by financial instruments still held on the reporting date.

Segment reporting

01/01 – 30/06/2024

in € million	Sustainable Generation Infrastructure	System Critical Infrastructure	Smart Infrastructure for Customers	Other/ Consolidation	Total
External revenue	8,841.4	2,937.9	7,236.2	18.0	19,033.5
Internal revenue	3,110.5	987.9	410.7	-4,509.1	0.0
Total revenue	11,951.9	3,925.8	7,646.9	-4,491.1	19,033.5
Adjusted EBITDA	1,450.8	1,156.8	172.7	-192.3	2,588.0
EBITDA	2,187.8	1,146.4	-10.3	-84.6	3,239.3
Adjusted EBIT	1,109.2	804.1	69.7	-227.0	1,756.0
EBIT	1,846.1	793.7	-113.3	-119.2	2,407.3
Scheduled amortization and depreciation	-341.7	-352.7	-103.0	-34.6	-832.0

01/01 – 30/06/2023

in € million	Sustainable Generation Infrastructure	System Critical Infrastructure	Smart Infrastructure for Customers	Other/ Consolidation	Total
External revenue	12,807.6	3,525.7	10,339.3	13.5	**26,686.1**
Internal revenue	4,506.1	912.6	618.9	-6,037.6	**0.0**
Total revenue	17,313.7	4,438.3	10,958.2	-6,024.1	**26,686.1**
Adjusted EBITDA	2,607.0	1,021.2	20.9	-150.8	**3,498.3**
EBITDA	3,892.5	1,285.3	12.7	-56.5	**5,134.0**
Adjusted EBIT	2,206.8	695.9	-65.0	-181.6	**2,656.1**
EBIT	3,121.9	959.2	-73.2	-87.3	**3,920.6**
Scheduled amortization and depreciation	-400.2	-325.4	-85.8	-30.8	**-842.2**
Impairment losses	-370.5	-0.7	0.0	0.0	**-371.2**

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

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.

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	01/01– 30/06/2024	01/01– 30/06/2023
Adjusted EBITDA	**2,588.0**	3,498.3
Non-operating EBITDA	**651.3**	1,635.7
EBITDA	**3,239.3**	**5,134.0**
Amortization and depreciation	**-832.0**	-1,213.4
Earnings before interest and taxes (EBIT)	**2,407.3**	**3,920.6**
Investment result	**29.6**	33.6
Financial result	**-81.5**	-147.0
Earnings before tax (EBT)	**2,355.4**	**3,807.2**

Significant events in the reporting period

The Supervisory Board appointed Peter Heydecker as the new Board of Management Member for the Sustainable Generation Infrastructure segment with effect from 1 May 2024.

In an auction for non-centrally pre-investigated offshore sites in the German North Sea, EnBW had its bid for one of the two auctioned sites accepted by the Federal Network Agency on 21 June 2024. As a result, EnBW is entitled to carry out the planning approval process for the construction and operation of wind turbines and will also be entitled to a grid connection and grid connection capacity. The new wind farm with an output of 1 GW is expected to be commissioned in 2031.

Significant events after the reporting date

On 5 July 2024, EnBW agreed a new syndicated credit line with a consortium of 21 banks that has a volume of €2 billion and an option to increase this volume by €500 million. The credit line is linked to ambitious sustainability criteria and renews the previous credit line with a volume of €1.5 billion from 2020 ahead of schedule. It has an initial term of five years with two extension options for an additional year in each case. The new credit line will continue to be used for general business purposes.

On 15 July 2024, EnBW issued two green corporate bonds with a total volume of €1.2 billion. In accordance with the criteria in EnBW's Green Financing Framework, the funds will be exclusively used to finance climate-friendly projects that fulfill the EU criteria for a taxonomy-aligned activity. The green senior bonds have a term of seven and twelve years and coupons of 3.5% and 4.0%, respectively.

On 15 July 2024, the grid company ONTRAS Gastransport GmbH and the storage company VNG Gasspeicher GmbH (VGS) were awarded funding by the German government for three hydrogen projects as part of the third so-called Hy2Infra wave of IPCEI Hydrogen (Important Projects of Common European Interest). The funding has been awarded for the period from 1 July 2024 until 30 June 2028. The German government has approved funding of around €61 million for the planned hydrogen storage facility of VGS and around €600 million for the planned pipeline grid of ONTRAS in central and eastern Germany for the transport of hydrogen. On 22 July 2024, the EnBW subsidiary terranets bw and the VNG subsidiary ONTRAS submitted an application for the approval of the German core hydrogen network together with the other German gas transmission system operators. BNetzA is responsible for approving this application and for appointing the respective project developers.

Review report

To EnBW Energie Baden-Württemberg AG

We have reviewed the condensed half-year consolidated financial statements – comprising the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of financial position, the condensed consolidated cash flow statement, the consolidated statement of changes in equity and selected explanatory notes – and the interim group management report of EnBW Energie Baden-Württemberg AG, Karlsruhe, for the period from 1 January to 30 June 2024, which are part of the half-year financial report pursuant to Sec. 115 WpHG ["Wertpapierhandelsgesetz": German Securities Trading Act]. Management is responsible for the preparation of the interim condensed consolidated financial statements in accordance with the IFRS applicable to interim financial reporting as adopted by the EU and of the interim group management report in accordance with the requirements of the German Securities Trading Act applicable to interim group management reports. Our responsibility is to issue a review report on the interim condensed consolidated financial statements and the interim group management report based on our review.

We conducted our review of the interim condensed consolidated financial statements and of the interim group management report in compliance with German Generally Accepted Standards for the Review of Financial Statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the review to obtain a certain level of assurance in our critical appraisal to preclude that the interim condensed consolidated financial statements have not been prepared, in all material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU and that the interim group management report has not been prepared, in all material respects, in accordance with the requirements of the German Securities Trading Act applicable to interim group management reports. A review is limited primarily to making inquiries of the Company's employees and analytical assessments and therefore does not provide the assurance obtainable from an audit of financial statements. Since, in accordance with our engagement, we have not performed an audit of financial statements, we cannot issue an auditor's report.

Based on our review, nothing has come to our attention that causes us to believe that the interim condensed consolidated financial statements are not prepared, in all material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU or that the interim group management report has not been prepared, in all material respects, in accordance with the provisions of the German Securities Trading Act applicable to interim group management reports.

Stuttgart, 8 August 2024

BDO AG
Wirtschaftsprüfungsgesellschaft

Pfeiffer	Eckmann
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

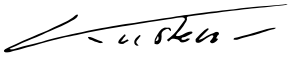
Declaration of the legal representatives

We assure to the best of our knowledge that, in accordance with the accounting principles applicable for six-monthly financial reporting, the six-monthly consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group and that the interim Group management report gives a true and fair view of the business development including the result and situation of the Group and also describes the significant opportunities and risks relating to the anticipated development of the Group in the remaining financial year.

Karlsruhe, 8 August 2024

EnBW Energie Baden-Württemberg AG

Dr. Stamatelopoulos



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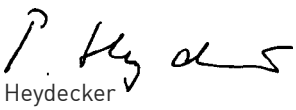
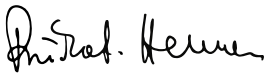


Heydecker



Rückert-Hennen

Financial calendar

Q1–Q2

9 August 2024
Publication of the Six-Monthly Financial Report
January to June 2024

Q1–Q3

12 November 2024
Publication of the Quarterly Statement
January to September 2024

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Important notes