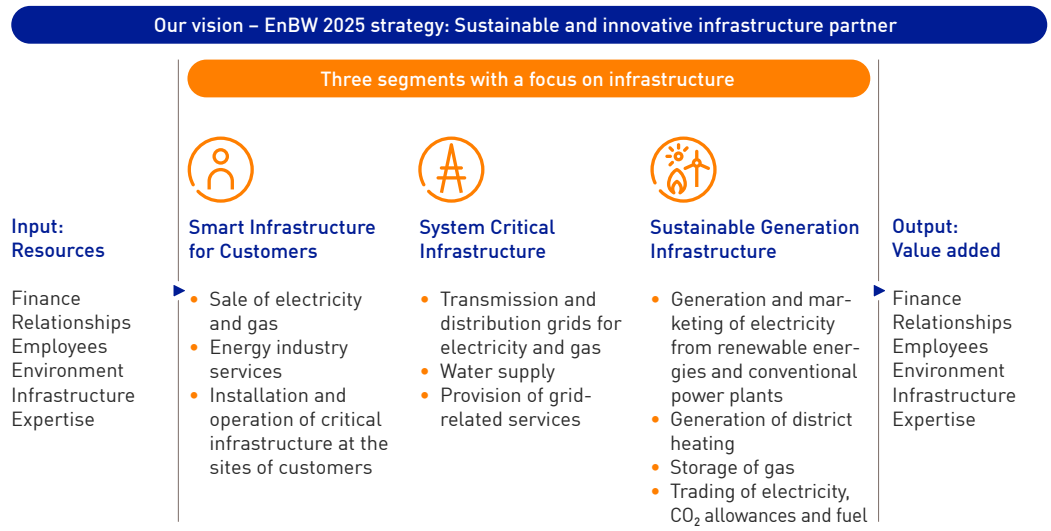


Fundamentals of the Group

Business model

Business principles

Business model



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

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

- The **Smart Infrastructure for Customers** segment comprises the sale of electricity and gas, energy industry services and energy solutions, provision and expansion of quick-charging infrastructure and digital solutions for electromobility, broadband activities ² in the telecommunications business and static storage systems in conjunction with photovoltaics.
- The transmission and distribution of electricity and gas are the main components of the **System Critical Infrastructure segment**. Our activities in this segment are designed to guarantee the security of supply and system stability. The provision of grid-related services and the supply of water are other activities in this segment.
- The **Sustainable Generation Infrastructure** segment encompasses our activities in the areas of renewable energies and conventional generation, district heating and waste management/environmental services. In order to guarantee the security of supply, we maintain the power plants that have been transferred to the grid reserve. In addition, this segment includes the storage of gas and trading of electricity, CO₂ allowances and fuels, as well as the direct distribution of renewable energy power plants.

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

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

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

[Online ↗](#)

model in line with the economic, ecological and social dimensions of sustainability. As an energy company, we can make a particularly effective contribution to climate protection. As a Group, we aspire to halve our greenhouse gas emissions by 2030 and become climate neutral with respect to our own emissions (Scope 1 and 2 [↗](#)) (p. 43 [↗](#)) by the end of 2035 at the latest.

We believe that digitalization is an important basis for sustainable growth, profitability and competitiveness. In our digitalization agenda 2030, we are intensifying our activities in this area and developing other initiatives, some of which reach across the whole Group. Our focus will be placed on the digital evolution of the business, developing skills and supporting our sustainability activities (examples can be found on p. 52 [↗](#), 60 [↗](#), 63 [↗](#), 80 [↗](#), 84 [↗](#), 94 [↗](#), 102 [↗](#) and 106 [↗](#)).

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

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

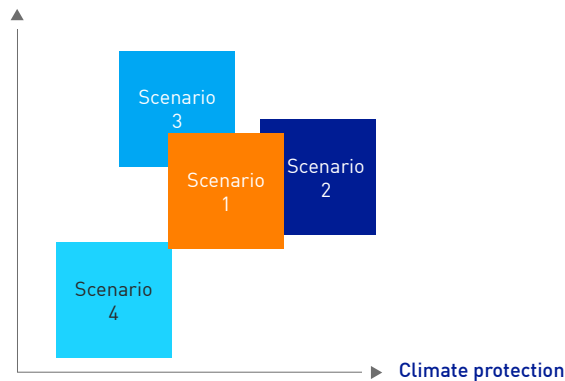
We have been analyzing the robustness of our business model with an increasing focus on climate change over the last few years, due to the growing importance of climate-related risks and the recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD) [↗](#). Our strategic considerations take into account the requirements of the Energiewende and the profound changes that will take place due to the transformation towards climate neutrality with the effects they will have on all business sectors and private households. We place a particular focus on the expansion of renewable energies, electricity consumption, the expansion of the grids, grid stability and the security of supply. In this context, we examine the requirements with respect to climate protection, possible implementation paths and the implications for the EnBW business. Accordingly, a main component of our market analyses is **evaluating the different ways in which the Energiewende and the transformation to climate neutrality could possibly develop**. This acts as an important basis for assessing the opportunities and risks for our business (p. 133 [↗](#)), which will arise due to climate change and the dynamic regulatory environment associated with it.

In order to evaluate these opportunities and risks, we use real developments to derive **realistic future scenarios that take into account all of the different aspects of the Energiewende**. These scenarios are primarily characterized by two dimensions. The **first dimension** is climate protection and encompasses our transformation to a climate-neutral company with its impact on all of the variables influencing the energy industry. It is thus of crucial importance for our business, as well as for the opportunities and risks along the entire value added chain. The sustainable economic growth that is achievable in the long term is the **second dimension**. The amount of growth that can be achieved in the long term will also have an impact on key variables such as the demand for electricity or commodity prices.

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

Energy industry scenarios for EnBW

Economic growth



Within the scenarios, **variables** that have different characteristics depending on the scenario in question determine how the energy market develops. These include assumptions on the development of demand, the restructuring of the power plants as part of the phaseout of coal and the full decarbonization of electricity generation (scenario 1), the development of the transmission grids, and the prices and pricing structures for fuels. In addition, estimates about relevant market trends, such as in the area of renewable energies, electromobility or the development of a hydrogen market, play an important role. Based on the assumptions made for specific variables, possible paths for how the energy markets (especially electricity and gas) will develop in the long term are derived for the four scenarios. In the process, we predict the wholesale market prices for electricity in simulated calculations using computer models. These simulations also take into account physical risks, such as the influence meteorological fluctuations may have on the electricity market due to the availability of wind and sunlight. The scenarios can thus provide us with quantitative descriptions that serve as the basis for assessing our business and, in particular, also allow us to evaluate the opportunities and risks associated with climate change.

Value added

Value added for EnBW and its stakeholders

The aim of our corporate activities is to add value in the short, medium and long term. This reflects corporate success, as well as competitiveness and future viability, and does not only depend on the company itself but also on the business environment, relationships with stakeholders (p. 53 ff. ⁷) and the application of a variety of different resources. As a result of the efficient application of these resources, we create value for ourselves and our stakeholders. We associate the concept of sustainable economic development with our aspiration to conduct all of our business activities in a responsible way. In the 2021 financial year, we revised the presentation of our value added to make it more meaningful and have added some information to the end of the diagram. Information on the interdependencies can be found on p. 47 f. ⁷.

Value added 2021 for EnBW and its stakeholders



Our contribution to sustainability

Economy

- Securing **profitability**, managing the **financial profile** and increasing **Group value**
- Developing **sustainable, innovative services**
- Sustainability criteria integrated into the **investment approval process**

Ecology

- Expansion of **renewable energies, grids and charging infrastructure**
- **Climate neutrality by 2035** and **gradual phaseout of coal**
- Transformation of the natural gas business towards **climate-neutral gases** (biogas, hydrogen)

Society and social

- Guaranteeing the **security of supply**
- **Sustainable procurement** and **responsible raw materials procurement**
- **"People as the main focus"** – diversity, qualifications, leadership and skills
- Assuming our **social responsibility**

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

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

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

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

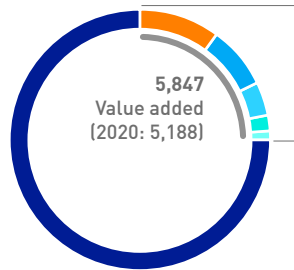
Value added statement

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

Value added of the EnBW Group

Output: value
in € million¹

- **28,872** Suppliers and service providers: material and other operational expenditure² (2020: 16,212)



34,719 Cash-relevant
business performance
(2020: 21,400)

Use of value added

	2021	2020
● Active and former employees: primarily wages and salaries	42%	42%
● EnBW Group: retained cash flow	31%	32%
● State: taxes	13%	14%
● Shareholders: dividends	9%	7%
● Outside investors: interest	5%	5%

¹ The figures for the previous year have been restated.

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

We define value added as our cash-relevant business performance in the past financial year less cash-relevant expenses (suppliers and service providers). The value added is derived from the cash flow statement and corrected based on the use of funds. In the reporting year, we generated value added of 16.8% (previous year restated: 24.2%). This decrease was mainly attributable to the change in the cash-relevant business performance and in cash-relevant expenses. As well as being used in the form of wages, salaries and pension payments for active and former employees, a further share is dedicated to payments to the state in the form of income taxes and electricity and energy taxes. After consideration of other stakeholder groups, the retained cash flow² is available to the company for future investments without the need to raise additional debt (p. 87⁷).

Our operating segments

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

Overview of the segments



Smart Infrastructure for Customers

Significant events in 2021

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



System Critical Infrastructure

Significant events in 2021

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



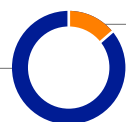
Sustainable Generation Infrastructure

Significant events in 2021

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

Sales in 2021

264.9 billion kWh gas (B2C/B2B)



37.9 billion kWh electricity (B2C/B2B)

Number of B2C and B2B customers in 2021

Around **5.5** million

Key figures in 2021

5,407

employees
(as of 31/12/2021)

€323.1 million

adjusted EBITDA

€274.1 million

investment

10.9%

share of adjusted EBITDA

Development of adjusted EBITDA in € billion

0.3

2021

0.6

Target 2025

Grid lengths in 2021

146,000 km
Electricity transmission and distribution grid

26,000 km
Gas transmission and distribution grid

Transmission volumes in 2021

Electricity **60.3 billion kWh**

Gas **35.8 billion kWh**

Key figures in 2021

10,686

employees
(as of 31/12/2021)

€1,288.5 million

adjusted EBITDA

€1,647.0 million

investment

43.5%

share of adjusted EBITDA

Development of adjusted EBITDA in € billion

1.3

2021

1.3

Target 2025

Installed output 2021



40%
Share
accounted for
by renewable
energies

Generation portfolio in 2021¹

Electricity generation **42,220 GWh**

Installed output **12,647 MW**

Key figures in 2021

7,051

employees
(as of 31/12/2021)

€1,535.1 million

adjusted EBITDA

€837.0 million

investment

51.9%

share of adjusted EBITDA

Development of adjusted EBITDA in € billion

1.5

2021

1.3

Target 2025

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

Group structure and business radius

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

Baden-Württemberg, Germany and Europe

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

[Online ↗](#)

Selected EnBW companies

● Baden-Württemberg

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

● Germany

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

● Denmark

Connected Wind Services A/S, Balle

● France

Valeco SAS, Montpellier

● Great Britain

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

● Austria

SMATRICS EnBW GmbH, Vienna

● Sweden

EnBW Sverige AB, Falkenberg

● Switzerland

Energiedienst Holding AG, Laufenburg

● Czech Republic

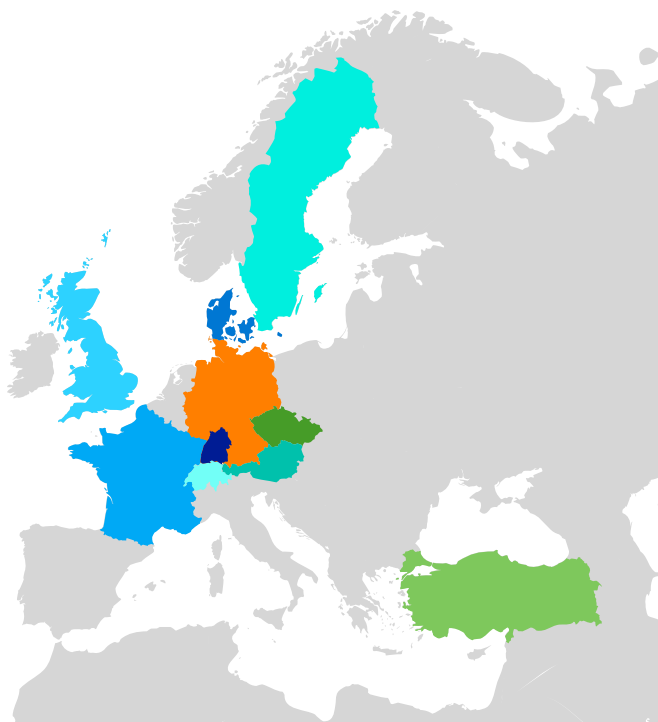
Pražská energetika a.s., Prague

● Turkey

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

Other activities

USA and Taiwan



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

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

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

We also operate throughout the rest of Germany and in selected markets abroad via our various subsidiaries. We are pushing forward the **expansion of renewable energies** through Valeco, the French project developer and operator of wind farms and solar parks. In Denmark and Sweden, we are represented by our subsidiaries Connected Wind Services (CWS) and EnBW Sverige, respectively. In Turkey, we work together in the renewable energies sector with our partner Borusan. In Great Britain, we secured the offshore wind rights for the construction of offshore wind farms together with our partner bp in the first quarter of 2021. The companies Energiedienst (ED) in Switzerland and Pražská energetika (PRE) in the Czech Republic, in both of which EnBW has held participating interests for many years, also have a strong focus on renewable energies. We are actively engaged in **the operation of the charging infrastructure and provide a range of products and services necessary for electromobility** in many European countries through our subsidiary EnBW mobility+. We are the market leader for quick charging in Germany and are now expanding onto the Austrian market with our joint venture SMATRICS EnBW. Our subsidiary SENEK, based in Leipzig, offers holistic energy solutions for customers to meet their own energy needs using solar electricity and home storage. We further expanded our portfolio in the **broadband business** ⁹ across Germany with the telecommunications company Plusnet. Our subsidiary NetCom BW has its main focus in this sector in Baden-Württemberg. Following our success in the auction for offshore wind rights off the coast of New York at the end of February 2022, we are selling our offshore activities in the USA to our former partner TotalEnergies. Our main focus will now be placed on growth opportunities in Europe. Future engagement in this area will be regularly examined and evaluated against this background.

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



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

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



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



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



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

Customers and sales brands

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

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

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

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