

ESRS E1 Climate Change

E1-1 – Transition Plan for Climate Change Mitigation

Vonovia has a transition plan that aims to attain a climate-neutral housing stock by 2045, and has set several medium and long-term reduction targets to help it achieve this objective. In the long term, we want to reduce the greenhouse gas (GHG) intensity of our housing stock in Germany to below 25 kg CO₂e/m² of rental area by 2030, and to less than 5 kg CO₂ equivalents per square meter of rental area by 2045 (includes Scopes 1, 2 and 3.3). The emissions remaining in 2045 are to be offset by suitable measures that the company is still to define, achieving a CO₂ intensity of net zero. Binding interim targets have been defined for the next five years.

In the medium term, we also plan to reduce the absolute Scope 1 and 2 greenhouse gas emissions from all of our housing stock (Germany, Sweden and Austria) by 42% by 2030 compared to the base year 2021. Vonovia is also committed, by 2030, to reducing absolute Scope 3 greenhouse gas emissions from the categories “Fuel and energy-related activities,” “Use of sold products” and “Downstream leased assets” by 25% as against 2021.

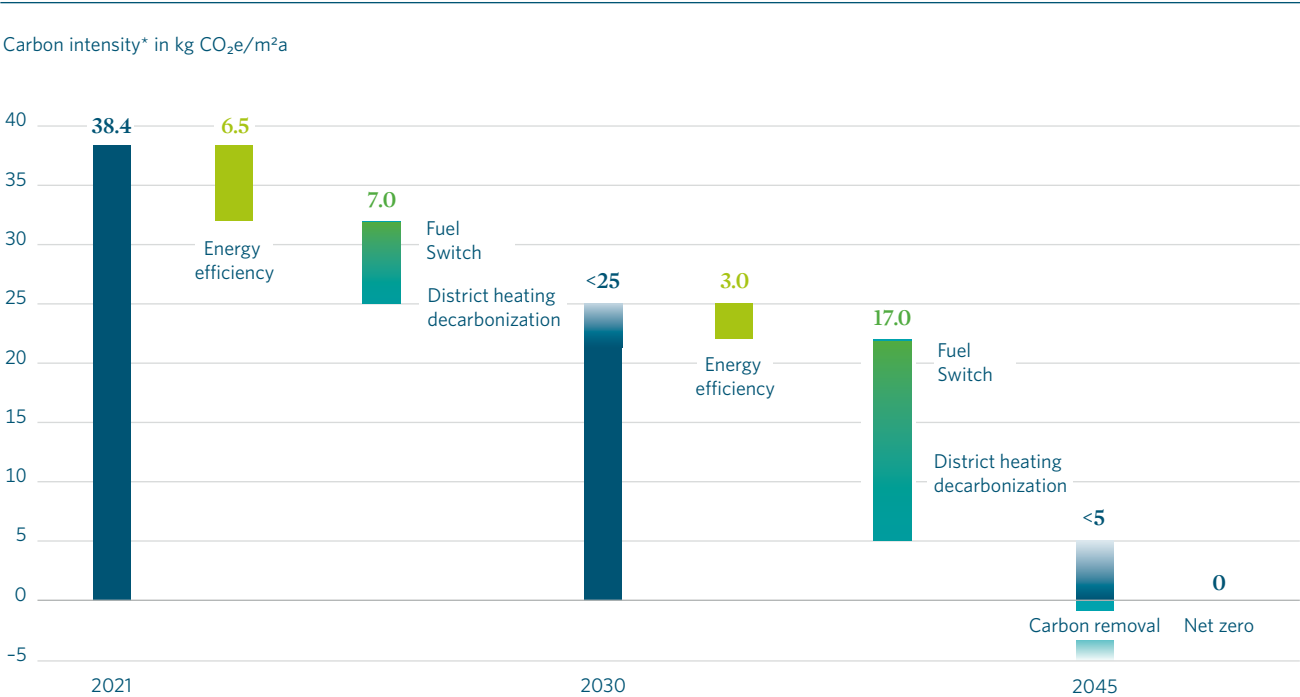
In March 2024, the Science Based Targets initiative (SBTi) confirmed that Vonovia’s absolute target for Scopes 1 and 2

(near-term target) was in line with the 1.5 degree target set out in the Paris Agreement and that the absolute target for Scope 3 met the necessary SBTi criterion of “well below 2 degrees.” While the long-term target of reducing CO₂ intensity has not been validated externally, the emissions it encompasses are included in the absolute medium-term targets validated by the SBTi. Detailed information on the company’s climate targets can be found in Disclosure Requirement → E1-4.

The transition plan for our housing stock, our climate pathway, consists of **three decarbonization levers**:

- 1. Increasing efficiency and thus reducing energy demand for heat and warm water supply by way of energy-efficient refurbishment of the building envelope
- 2. Increasing the generation of renewable energies in the neighborhood by installing heat pumps and expanding power generation using photovoltaic systems on our buildings, and
- 3. Comprehensive transformation of the energy sector and supply of sufficient quantities of GHG-free district heating and electricity by the energy sector.

The CO₂ intensity of the housing stock represents the central indicator of our climate performance management.



* Includes Scope 1 and 2 and Scope 3.3 “Fuel and energy-related emissions upstream”; referring to German housing stock; “Energy efficiency”: all measures on the building envelope, “Fuel Switch”: change in heat generation from decentralized fossil energy to heat pumps or district heating, shows the reduction in emissions in the first year of conversion; “Decarbonization of district heating”: according to the KNDE 2045 scenario of the Agora Energiewende, “Carbon removal”: natural and technological binding and long-term storage.

It is the most heavily weighted component of the Sustainability Performance Index (SPI) and therefore of the Management System and the remuneration paid to the Management Board and senior management.

Further information on the policies and actions for implementing the transition plan can be found in Disclosure Requirements → E1-2 and → E1-3.

To support and **implement our transition plan**, we **invested** a total of € 700.9 million in the reporting year, or 25.6% of our total capital expenditure in the reporting year. This amount represents the taxonomy-eligible CapEx in accordance with Delegated Regulation (EU) 2021/2178 in the business activities of energy-efficient renovation of existing buildings (7.2/CE3.2), the installation, maintenance and repair of energy-efficient equipment, the installation, maintenance and repair of charging stations for electric vehicles in buildings, the installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings, and the installation, maintenance and repair of renewable energy technologies (CCM 7.3 to 7.6) and well as the construction of new buildings for self rental purposes (CCM 7.7).

The GHG emissions that can be predicted to be emitted by the time the targets are reached in 2045 are to be understood as “locked-in GHG emissions.” By 2045, GHG emissions of around 7.8 million metric tons of CO₂e (Scope 1+2+3.3) are expected to be generated following the implementation of the transition plan. Around 15,500 metric tons of CO₂e also come from Scope 3.11 “Use of sold products.” This category contains the GHG emissions from the new residential units built for sale that were completed in the reporting year. A lifespan of 50 years has been applied.

Vonovia is continuously reducing greenhouse gas emissions in its housing stock and in its operations thanks to the GHG emission reduction targets it has set itself and the corresponding measures to boost energy efficiency and make the switch to renewable energies. The plans to reduce “locked-in GHG emissions” are described in detail in the transition plan. There is no threat to the reduction targets or any promotion of transition risks.

Vonovia has not set any target values for the key figures referred to in the EU taxonomy for 2025 or 2030. We are aiming to increase the proportion of taxonomy-aligned business activities (sales, CapEx, OpEx) on an ongoing basis.

Taxonomy-aligned capital expenditure is as follows, based on Vonovia’s business model: capital expenditure associated with the renovation of existing buildings (activity 7.2) that contributes to the transition plan always relates to energy-efficient modernization at Vonovia. We take the required 30% reduction in primary energy demand into account when designing projects. Capital expenditure on heating modernization, charging stations and wall boxes, metering technology and smart metering, and photovoltaic systems is generally treated as a direct climate change mitigation measure and is allocated to activities 7.3, 7.4, 7.5, and 7.6. Activity 7.7 “Acquisition and ownership of buildings” includes capital expenditure from acquisitions, Development to hold, investments not including energy efficiency measures (e.g., refurbishment of vacant apartments or major maintenance measures) or other internal expenses that can be capitalized. These qualify as taxonomy-aligned if the building-related technical screening criteria are met. Only investments in new buildings for self rental purposes are included as being relevant for contributing to the transition plan. The proportion of taxonomy-aligned activities will be steadily increased as the transition plan is implemented as a result of ongoing modernization measures. Vonovia did not make any significant investments in connection with economic activities related to coal, oil or gas in the reporting year. Vonovia is not excluded from the EU Paris-aligned benchmarks.

The transition plan has been fully integrated into the company’s business strategy and financial planning. The GHG emission reduction targets have been integrated into the management system as a sub-indicator of the Sustainability Performance Index (SPI). The SPI and all of its sub-indicators, such as CO₂ intensity, form part of the planning process, and the progress made as well as the forecast value for the fiscal year concerned are calculated and reported to the Management Board on a quarterly basis.

The neighborhoods and buildings to be modernized are selected in a targeted manner in cooperation with the regional business areas, and the optimal degree of modernization and modernization roadmap for each building is defined. The investments for the refurbishment programs and photovoltaics expansion are approved by the Management Board. The use of the investment funds required to implement the measures is mapped out as part of the five-year plan and the budget prepared for the following year, and is adopted by the Management Board before being confirmed by the Supervisory Board. The Supervisory Board discusses and approves the SPI targets proposed by the Management Board for the following year and the period covered by the Long-term Incentive Plan (LTIP; for four years in each case).

In the reporting year, the **CO₂ intensity for our housing stock in Germany** was 30.7 kg CO₂e/m² of rental area, down by around 1.6% year-on-year (2024: 31.2 kg CO₂e/m²), and 0.6% below the target for the reporting year (30.9 kg CO₂e/m²). In addition to the modernization measures implemented (building envelope and replacement of heating systems), this reduction can also be traced back to the inclusion of specific certificates for two district heating grids as well as the sale of buildings.

ESRS 2 SBM-3 – Material Impacts, Risks and Opportunities and Their Interaction with Strategy and Business Model

Resilience of Our Business Model

The **resilience of Vonovia's climate change strategy** is reviewed on the basis of the climate risks identified as part of the risk management process. All risks identified for the Group as a whole that relate to climate change are marked as such. Both climate-related **transition risks** (e.g., increased costs due to regulatory requirements, substantial increase in the CO₂ price) as well as climate-related **physical risks** are taken into account. When assessing transition risks, the scenarios and assumptions used for the development of the relevant influencing factors, such as regulatory requirements, electricity or material prices, are selected by risk owners themselves. As far as the risk "substantial increase in the CO₂ price" is concerned, a scenario has been defined for the development of the CO₂ price in Germany that corresponds to a 1.5-degree pathway at national level.

Current medium-term planning confirms the long-term planning assessment over a period of ten years conducted in the previous year. In each case, scenarios using different assumptions were defined, e.g., with regard to the cost of capital and the level of investment in energy-efficient modernization. These scenarios can be triggered by a number of factors, such as the transition to a low-emissions economy. When assessing transition risks as part of the risk management process, changes in the relevant influencing factors that could emerge from the transformation into a low-emissions economy are also taken into account where possible. By way of example, growing concerns regarding climate change can result in changes in the regulatory environment, subsidy conditions and customer preferences, and can have an indirect effect by triggering changes in the relative prices of various commodities and materials.

The assessment of climate-related physical risks looks at the effects on the Group's entire housing stock (Germany, Austria, Sweden) up to the year 2045, taking various climate scenarios into account (RCP 2.6, RCP 4.5 and RCP 8.5). The climate risks examined are heat, drought, increases in precipitation, wind and storms, snow loads and flooding. The downstream value chain, and tenants in particular, is also included in the analysis of physical climate risks. The upstream value chain is not explicitly included.

The resilience of Vonovia's strategy and business model is analyzed and evaluated annually as part of risk management. This involves assessing all climate-related impacts, risks and opportunities and identifying appropriate measures to manage impacts and risks and to exploit opportunities. First-level executives below the Management Board are responsible for identifying and assessing risks within their areas of responsibility during the semiannual risk inventory process. The risk management horizon and the evaluation period extend five years beyond the reporting year, with assessments focusing on net risks, i.e., the risks after taking into account those measures that have already been taken, such as the implementation of the transition plan. The process involved in identifying material impacts, risks and opportunities is characterized by various uncertainties, such as the medium and long-term development of the regulatory framework, the prices for key technologies, materials and services, or the legally regulated CO₂ price.

Vonovia has not identified any material risk related to climate change when identifying impacts, risks and opportunities. Consequently, the company is unhindered in the ability to adapt its strategy and business model to climate change in the short, medium and long term.

Vonovia identifies and assesses climate-related impacts, risks and opportunities as part of a double materiality assessment pursuant to the ESRS. This procedure is described in detail in → **ESRS 2 IRO-1**. In order to be able to identify all relevant sources for greenhouse gas emissions, Vonovia carries out a comprehensive assessment of the relevant business activities and scopes of GHG accounting at regular intervals in accordance with the GHG Protocol and the criteria set out by the Science Based Targets initiative (SBTi). In case a new business is launched or acquired an assessment of greenhouse gases to be included is exercised. The Scope 3 categories were screened for any changes in their materiality in the reporting year.

Material Impacts, Risks and Opportunities

Within the scope of our materiality assessment, we identified **four material impacts, risks and opportunities (IROs)** related to the topic of climate change:

- > Contribution to the global increase in greenhouse gas emissions
- > Earnings potential through investments in modernization, heat pump cubes, serial refurbishment and PV expansion
- > Contributing to negative effects of climate change through new construction and densification
- > Contribution to urban climate resilience through climate change adaptation measures in the portfolio

We currently expect our actual material impact **“contribution to the global increase in greenhouse gas emissions”** to have an influence on our business model, strategy and value chain in the short term. Vonovia’s business activities, in particular property rental and management, including new construction and densification, cause GHG emissions due to the supply of heat and warm water, as well as through building materials and construction activities. Some of the GHG emissions are generated in Vonovia’s own buildings, while others result from the generation of power or district heating in the energy sector. GHG emissions in (new) construction activities are associated with the manufacture of building materials and the use of construction machinery and vehicles. These emissions contribute to the global greenhouse gas effect and to global warming, which, in turn, has far-reaching consequences for human beings and the environment in the long run. Vonovia has developed, and is implementing, a climate strategy to reduce this negative contribution.

By implementing the strategic initiatives that have a direct impact on GHG emissions (in particular serial modernization, heat pump cubes, photovoltaic expansion and electricity sales), the company can further increase its income by passing on modernization costs via rental income and by selling electricity from the PV expansion. This opportunity relates to our own operations in Germany. The opportunity could have a potentially significant positive effect on Vonovia’s financial performance in the medium term.

We currently expect our actual material impact **“promoting negative consequences of climate change through new construction and densification”** to have an influence on our business model, strategy and value chain in the short term. Part of Vonovia’s current and future business activities involves building new residential properties and performing densification measures in existing neighborhoods. This promotes the expected local consequences of climate change, such as local heat islands or reduced precipitation drainage. This can affect both the environment and human

beings in the immediate vicinity. Vonovia could incur higher operating costs for its buildings or the residential environment.

We currently expect our actual material impact **“Contribution to urban climate resilience through climate change adaptation measures in the portfolio”** to have an influence on our business model, strategy and value chain in the short term. Part of Vonovia’s current and future business activities involves further developing its neighborhoods, both buildings and the residential environment. Neighborhood development typically also involves unsealing areas, creating seepage areas, installing landscaped roofs and balconies, and taking other measures to create shade. This lessens the expected local consequences of climate change, such as local heat islands or reduced precipitation drainage. This affects both the environment and human beings in the immediate vicinity, also beyond the boundaries of our neighborhoods. The positive impact has a positive effect on our business model, as it leads to an increase in the value of our properties and higher levels of customer satisfaction.

The revision of our materiality assessment (for details, see → **ESRS 2 IRO-1**) resulted in the following changes for ESRS E1:

- > The material impacts in the previous year “Positive effect on greenhouse gas reduction through modernization as part of the core business” and “Positive contribution to the energy transition” are no longer defined as separate impacts. This is because a negative impact on the contribution to the increase in greenhouse gases has already been defined, and this takes account of aspects previously described as positive impacts as mitigating activities.
- > The material impacts in the previous year “Earnings potential as a result of the energy-efficient modernization of the housing stock/increase in modernization volume” and “Positive effects through mitigation of consequences of climate change” have been made more specific in terms of their content and are now referred to as “Earnings potential through investments in modernization, heat pump cubes, serial modernization and PV expansion” and “Contribution to urban climate resilience through climate change adaptation measures in the portfolio.”

EI-2 – Policies Related to Climate Change Mitigation and Adaptation

Climate Change Mitigation

With regard to the management of its material impacts related to the subtopic of climate change mitigation and the associated material opportunity, Vonovia has a Group-wide **climate, environmental and energy policy** in place covering the company's general principles and commitments on these three topics. The climate change mitigation **policy** also consists of the three levers of the transition plan (climate pathway):

- > Energy savings through energy-efficient modernization of the building envelope
- > Increasing the generation of renewable energies in our portfolio and
- > Comprehensive transformation of the energy sector.

The climate pathway is based on the principle of closely interlinking economic viability and the reduction of emissions. This **principle** is illustrated in the decarbonization tool (DCT) prioritization mechanism. The DCT reflects all relevant ecological and commercial aspects of the housing stock and determines how the refurbishments of individual buildings should be prioritized over time, which is then aggregated into an overall plan. The result of this prioritization is then set out in more specific detail in the plans for energy-efficient refurbishment and the energy concepts. In doing so, we adopt a holistic view at neighborhood level, examining both the modernization of the building envelope and the conversion of the energy supply to climate-friendly systems in their wider context. Our approach is shaped by the concept of sequential development. This means that, depending on the buildings' initial condition with respect to energy efficiency, the measures to enhance the individual buildings and advance towards the 2045 targets set in the climate pathway are staggered in some cases.

With regard to its Development business, Vonovia's strategy is to use its new construction activities to create urgently needed new and affordable homes with optimized energy efficiency profiles and a large proportion of renewable energy use. BUWOG has a sustainability standard for development. Guides, specifications and tools have been developed in 14 focus areas to address the full range of sustainability aspects in new construction. These include optimized heat supply in the neighborhood, the use of ecological building materials and designs for open spaces. The standard is based on the use of the German efficiency house standard or the basic criteria of Austria's "Klimaaktiv" initiative as well as the criteria set out in the EU Taxonomy.

The average primary energy demand (non-renewable) of newly constructed buildings, in relation to rental area, is the most important non-financial performance indicator in development.

The integration of these policies into our **corporate management** is achieved via the Sustainability Performance Index (SPI), which includes the sub-indicators CO₂ intensity of the housing stock in Germany and average primary energy demand of newly constructed housing. Specific targets for all SPI indicators are defined during the budgeting and mid-term planning processes. These are closely linked to investment planning and are approved by the Management Board. The forecasting process is used to monitor target achievement. Measures to achieve the targets are implemented through dedicated investment programs and action plans in the relevant business and specialist units. For a detailed explanation of the SPI, see → [ESRS 2 GOV-3](#). The Controlling and Strategy, Corporate Development & Sustainability departments have lead responsibility for implementation with the involvement of the Portfolio Management department and the Business Area Development. The sub-indicators and the SPI, as well as the progress made, are described in detail in the Annual Report (see chapter → [ESRS 2](#) and → [Management System](#)), the ESG Factbook and on [Vonovia's website](#).

The general **aim of the transition plan** is to achieve a greenhouse gas-neutral housing stock in Germany. The concept of the climate pathway and its incorporation into the Sustainability Performance Index cover the impacts and opportunities relating to the subtopics of climate change mitigation and energy.

The climate pathway refers to the housing stock in Germany. It looks at greenhouse gas emissions for the supply of heat and warm water (Scope 1 and 2) as well as the upstream chain involving the energy sources used in this regard (Scope 3.3). The climate pathway and its three levers were approved by the Management Board in 2021.

Climate Change Adaptation

In its climate, environmental and energy policy, Vonovia is committed to strengthening climate resilience and reducing climate and environmental risks. Regarding the management of its material impacts in connection with the subtopic of climate change adaptation, Vonovia pursues a policy founded on a neighborhood-based, holistic development approach, known as urban quarters (for a definition of the term and further details on the related policy, see → [ESRS S4](#)). The principle is that the neighborhood (or urban quarter) serves as the central management level at which the company's

business model and strategy are manifested (see the chapter on → [Corporate strategy](#)). The neighborhood approach allows us to develop socially and ecologically sustainable places for people to live together, improving our customers' quality of living in the process. This also includes adapting neighborhoods to deal with the expected effects of climate change, such as an increase in average temperature or extreme weather events.

Segmentation by urban quarters based on the definition above is only used for the German market segment at present. This means that 77% of the strategic portfolio is covered by the neighborhood concept, which equates to 755 neighborhoods. Neighborhood-based approaches are also pursued in Sweden and Austria, but based on different segmentation principles. The Management Board is responsible both for the decision to structure the portfolio and for the resulting segmentation into urban quarters and urban clusters. All measures resulting from this decision for a specific neighborhood area are planned and reviewed in the respective regional business areas before they are implemented, working in collaboration with the departments for investment, climate-neutral housing stock and corporate development.

E1-3 – Actions and Resources Related to Climate Change Policies

Vonovia implemented the following measures in the reporting year to address the policies described in → [E1-2](#) and the material impacts and opportunities described in that section:

Climate Change Mitigation

Energy-efficiency modernization to improve energy efficiency is an essential pillar of Vonovia's climate pathway. Using our decarbonization tool (DCT), an overall plan is prepared featuring an individual energy refurbishment and energy concept solution plan for each specific building. The energy efficiency measures, in particular insulating facades, cellar ceilings and lofts, and replacing windows, are implemented as part of the Upgrade Buildings investment program. As part of the strategic growth initiatives that we refined in 2025 (see chapter on → [Corporate strategy](#)), conventional modernization is to be supplemented by scaling up serial modernization. Following pilot projects in 2024, this approach was expanded further in the reporting year and is expected to lead to greater cost efficiency and shorter construction times in the medium and long term. 145 residential units underwent serial modernization work in the reporting year.

Another measure involves the digitalization of heat supply. In the reporting year, a further 1,800 gas-fired heating systems had already been connected to a digital solution developed in collaboration with the company Othermo, which detects heating system failures in real time and supports optimized adjustments to the system technology. This system offers the potential to save around 15% in energy and CO₂, with direct benefits for our customers. A total of 4,000 systems had been connected to the digital system by the end of the reporting year.

Another aspect of implementing the climate pathway is increasing energy generation from renewable sources. In particular, this includes the electrification of heat generation by using highly efficient air-to-water heat pumps. As well as installing heat pumps in boiler rooms, another strategic initiative was driven forward with the heat pump cube approach. The heat pump cube is a compact heat pump center that combines all of the necessary components in an external module, supplies several buildings and can be installed outside the buildings in a short space of time. During the reporting year, 29 heat pump cubes were installed in our neighborhoods. Vonovia's growth strategy envisages the large-scale use of heat pump cubes over the next few years. With this goal in mind, Vonovia entered into a strategic partnership with the companies EnerCube and DFA Demonstrationsfabrik Aachen in the reporting year that aims to mass-produce 1,000 cubes in the period leading up to 2029. These cubes are to be installed in Vonovia neighborhoods throughout Germany and will be able to supply around 20,000 residential units with heat and hot water. Vonovia is also continuing the program to expand electricity generation using photovoltaics. The focus here is on ensuring that the electricity generated is used directly in the neighborhood – by our customers and to operate heat pumps. The installation of these systems is therefore also closely interlinked with the heat pump initiative and the modernization program.

Our own energy supply company Vonovia Energie Service GmbH (VESG) provides our customers with electricity from renewable energies. Sales efforts will be stepped up as part of the growth strategy and additional sales capacity will be created in customer service. Our objective is to maximize the share of energy we produce ourselves for the benefit of our customers and the environment, and also to use it for our housing-related services, e.g., e-mobility. By providing solar power or certified green energy that has been generated in the neighborhood, we are supplying over 52,000 households with reasonably priced electricity and helping them to reduce greenhouse gas emissions. In this context,

we concluded two power purchase agreements in 2024, from which we obtained 27.4 million kWh of electricity generated from wind turbines in the reporting year. This equates to a avoidance of around 20,700 tons of CO₂ equivalents.

In the course of the reporting year, Vonovia installed around 1,750 new photovoltaic systems with an installed output of more than 53.4 MWp. Vonovia owns a total of more than 5,300 photovoltaic systems with an installed output of around 188 MWp. This fell short of the target of 213 MWp. We will continue to forge ahead with the expansion of photovoltaics going forward and are aiming for additional capacity of more than 94 MWp in the 2026 fiscal year. We aim to have installed around 400 MWp of capacity by 2028 and up to 700 MWp in the long term.

A further key lever for our climate pathway is the supply of sufficient quantities of **CO₂-free district heating** and electricity by the energy sector. This requires the energy sector to meet the targets set by policymakers for phasing out coal and increasing the share of renewable energies. Municipal heat planning will create both long-term security for planning and obligations to decarbonize heating networks.

Where it makes commercial sense, and provided that utility companies systematically decarbonize their heat generation systems, we are looking into connecting additional properties to district heating networks. This is an area in which Vonovia is working closely with major district heating providers and integrating their strategies into its own neighborhood planning.

The ability to implement the measures described depends on the availability and allocation of the corresponding investment funds and access to funding at affordable capital costs.

Like the climate pathway, the measures described refer to the housing stock in Germany and, as a result, largely to Vonovia's own operations. As the climate pathway also includes GHG emissions from the upstream chain involving the energy sources used (Scope 3.3), the measures also relate to part of the upstream value chain. Part of the downstream value chain is also included, as the expansion of photovoltaic capacity in conjunction with tenant electricity models also reduces our tenants' GHG emissions (Scope 3.13).

The implementation of the measures is designed to be permanent until the overarching climate target for 2045 is achieved.

The CapEx spent on the measures described in the reporting year consists of the investments within the Upgrade Buildings energy-efficiency modernization and heating replacement program, including investments in photovoltaic power generation capacity, and amounts to € 700.9 million. This equates to a 25.6% share of total CapEx in the reporting year.

Annual CapEx of around € 400 million to € 500 million a year has been earmarked for the implementation of all measures in the transition plan. In the reporting year, Vonovia expected the CO₂ intensity of its housing stock in Germany to fall slightly by -0.3 kg CO₂e/m² to 30.9 kg CO₂e/m² of rental area. This reduction target was achieved.

CapEx of € 700.9 million and OpEx of € 390 million were spent on implementing the climate protection measures in the reporting year.

Climate Change Adaptation

Vonovia systematically analyzes the relevant climate risks, which are mapped in an IT tool using the relevant climate scenarios developed by the IPCC (Intergovernmental Panel on Climate Change), assessing them with regard to the impact on our portfolio. During this process we also take into account the particular characteristics of the respective buildings and neighborhoods, such as existing sun protection or the degree of surface sealing.

Climate change adaptation is also taken into account in the planning guidelines for sustainable residential environment, which describe various components that can contribute, for example, to reducing heating in the neighborhood or improving drainage options. These guidelines must be taken into account as a mandatory requirement when planning open spaces in new neighborhoods.

We are taking various measures to make our existing neighborhoods more climate-resilient. These include, for example, the targeted planting of climate change-resistant tree species, the unsealing of parking areas and the establishment of seepage areas, as well as the creation of landscaped roofs.

E1-4 – Targets Related to Climate Change Mitigation and Adaptation

The climate change mitigation policies described in → E1-2 and → E1-3 and the measures implemented to realize them aim to reduce the impact on climate change. Vonovia has set itself several reduction targets that cover both direct and indirect emissions.

1. Vonovia is committed to reducing absolute Scope 1 and 2 greenhouse gas emissions by 42% by 2030 compared to the base year 2021. This applies to the GHG emissions from operation of the housing stock in Germany, Sweden and Austria, which together account for around 97% of the Vonovia Group's total Scope 1 and Scope 2 GHG emissions (based on the base year 2021). The target was developed in accordance with the SBTi criteria in line with the 1.5°C target set out in the Paris Agreement, using the absolute contraction approach for near-term targets (cross-sector approach). At the time of validation, there was no valid SBTi sector-specific approach. In the absolute contraction approach, the SBTi defines a reduction target value of at least -4.2% per year as a prerequisite for alignment with the 1.5°C target. In its independent validation, the SBTi confirmed that Vonovia's target meets the required ambition, meaning that it is considered science-based and compatible with a 1.5°C pathway in accordance with the Paris Agreement.
2. Vonovia is committed to reducing absolute Scope 3 greenhouse gas emissions from the categories "Fuel and energy-related activities," "Use of sold products" and "Downstream leased assets" by 25% by 2030. The GHG emissions in the Scope 3 categories included in this target (Scope 3.3, 3.11 and 3.13) cover around 80% of the total Scope 3 emissions in the base year. This target was also developed in accordance with the SBTi criteria using the absolute contraction approach for near-term targets (cross-sector approach). In the absolute contraction approach, the SBTi defines a reduction ambition of at least -2.5% per year as a prerequisite for compatibility with "well below 2 degrees." In its independent validation, the SBTi confirmed that Vonovia's target meets the required ambition, meaning that it is considered science-based and compatible with a "well below 2 degrees" pathway in accordance with the Paris Agreement.
3. Vonovia is committed to attaining a climate-neutral housing stock in Germany by 2045. The **CO₂ intensity** is to be reduced to less than 5 kg of CO₂ equivalents per square meter of rental area, with appropriate action being taken to offset any remaining, unavoidable emissions. By 2030, our interim target is to achieve a CO₂ intensity of less than 25 kg CO₂e/m². The target includes Scope 1, Scope 2 (market-based) and Scope 3.3 of the housing

stock in Germany. This is a specific absolute target value for the relevant target year, measured in kg CO₂e per m² of rental area. The target is based on the German Federal Climate Change Act (Klimaschutzgesetz) and is based on the science-based KNDE 2045 scenario of Agora Energiewende with regard to the development of the energy sector, which describes a pathway towards a climate-neutral energy and building sector. Minor changes in the housing stock due to sales or new construction measures have also already been reflected in the assumptions. The reduction ambition of the target is between -87% and -93% (assumption: target achievement of between 2.5 kg and 5 kg CO₂e/m² of rental area). The SBTi defines a reduction of -90% as consistent with a 1.5°C pathway. As a result, we consider the target to be compatible with the 1.5°C pathway. While the target has not been validated externally, all of the emissions it encompasses are included in the absolute medium-term targets validated by the SBTi.

All targets are based on the overall plan that was prepared using the decarbonization tool. This plan rests on the assumption that the current legislation will remain unchanged and that both demand and the technological options available will remain constant. The assumption has also been made that the investment funds for modernization measures will be put to optimum use in line with the applicable internal return requirements. For emissions that arise indirectly from the purchase of district heating and electricity, a continuous decrease in nationwide CO₂ intensity (location-based) is assumed over the target period, based on Agora Energiewende's climate-neutral Germany scenario. A similar trend is also assumed for the specific emissions (market-based) of the individual district heating suppliers. Regarding emissions from general electricity and electricity for heating (heat pumps and direct electricity-based heating), it has been assumed that the electricity will be supplied by self-generated power, as well as that the purchase of electricity from renewable sources will continue based on a Power Purchase Agreement (PPA) or in combination with guarantees of origin, resulting in an overall emission factor of 0 kg CO₂e/kWh. As far as the absolute reduction targets are concerned, assumptions were also made for the housing stock in Sweden and Austria regarding a reduction in the emissions intensity of electricity and district heating over the target period. In Sweden, the assumptions regarding the development of the GHG intensity of district heating are based specifically on the targets of district heating suppliers. In the case of Austria, the assumptions regarding the development of emissions from district heating and electricity are based on the scenarios of the Environment Agency Austria. The assumptions made regarding changes in the housing stock, demand and available technologies match those applied to the CO₂ intensity target.

Another target involves reducing the **average primary energy demand** (non-renewable share) of newly constructed buildings to less than 25 kWh/m² of usable building area by 2030. This target refers to all newly constructed buildings in Germany, Sweden and Austria, both to-sell and to-hold, with the exception of vertical expansion and purely commercial buildings. This is a specific absolute target for the relevant target year, measured in kWh per m² of usable building area, meaning that the reference year is always the current year. In the reporting year, the average primary energy demand came to 21.9 kWh/m² (previous year: 22.0 kWh/m²). This target does not relate directly to GHG emissions as a target unit, but rather influences the development in future GHG emissions in Scopes 1 and 2 as well as Scope 3 indirectly.

External stakeholders were not directly involved in setting the targets. Various departments were involved in-house.

Target achievement is monitored on an ongoing basis. CO₂ intensity and the average primary energy demand are part of the quarterly forecasting process, which illustrates the expected target achievement level throughout the year. The absolute GHG reduction target is monitored through the annual calculation of GHG emissions as part of the reporting process.

As GHG emissions are calculated based on the energy demand and consumption values shown in energy certificates at Vonovia, the values in the base year are robust in relation to external factors such as fluctuating weather conditions. They are representative because energy certificates are available for more than 92% of the housing stock. For buildings that do not have energy certificates, energy consumption was extrapolated based on the year of construction using empirical values for comparable buildings from Vonovia's own housing stock. Actual tenant behavior may lead to deviations from the calculated energy requirements of the energy certificates at building level.

GHG Emission Reduction Targets

	Base year 2021		2025	Target 2030	Target 2045
	Total	Thereof continuing operations	Total (continuing operations)		
GHG emissions Scope 1 and 2 market-based (metric tons CO ₂ e; housing stock DE, SE, AT)	973,911	973,911	800,980	-42%	-
GHG emissions Scope 3 (metric tons CO ₂ e; categories 3.3 + 3.11 + 3.13)	767,187	767,187	683,302	-25%	-
GHG emissions housing stock Germany (in kg CO ₂ e/m ² rental area)	38.4	38.4	30.7	< 25	< 5

Regarding the target for absolute GHG emissions, 62% are attributable in the base year to Scope 1 and 38% to Scope 2 (market-based method). Regarding GHG intensity in the German housing stock, 47% are attributable in the base year to Scope 1, 42% to Scope 2 (market-based method) and 11% to Scope 3.

Vonovia is aiming to offset the unavoidable emissions remaining in 2045 by taking suitable measures that the company is still to define, achieving a CO₂ intensity of net zero.

E1-5 – Energy Consumption and Mix

Energy Consumption and Mix

	2024		2025
	Total	Thereof continuing operations	Total (continuing operations)
(1) Fuel consumption from coal and coal products (MWh)	11,064	11,064	5,860
(2) Fuel consumption from crude oil and petroleum products (MWh)*	193,732	192,663	186,354
(3) Fuel consumption from natural gas (MWh)	2,538,800	2,498,007	2,501,330
(4) Fuel consumption from other fossil sources (MWh)	-	-	-
(5) Consumption of purchased or acquired electricity, heat, steam, and cooling from fossil sources (MWh)	1,617,861	1,607,646	1,309,052
(6) Total fossil energy consumption (MWh) (Sum of lines 1 to 5)	4,361,456	4,309,381	4,002,597
Share of fossil sources in total energy consumption (in %)	81.01%	80.96%	76.05%
(7) Consumption from nuclear sources (MWh)	59,379	59,196	57,110
Share of consumption from nuclear sources in total energy consumption (in %)	1.10%	1.11%	1.09%
(8) Fuel consumption for renewable sources, including biomass (also comprising industrial and municipal waste of biological origin, biogas, renewable hydrogen, renewable sources, etc.) (MWh)	2,991	2,492	8,480
(9) Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (MWh)	1,019,242	1,010,682	1,250,047
(10) Consumption of self-generated non-fuel renewable energy (MWh)	296	296	2,332
(11) Total renewable energy consumption (MWh) (Sum of lines 8 to 10)	1,022,528	1,013,469	1,260,860
Share of renewable sources in total energy consumption (in %)	18.99%	19.04%	23.95%
Total energy consumption (MWh) (Sum of lines 6 and 11)	5,383,985	5,322,850	5,263,457

* Correction of the figure for 2024 (due to energy consumption by the vehicle fleet not being taken into account), resulting in a minor impact on the total and subtotals based on this figure and the share of fossil and renewable sources for 2024.

Vonovia's energy production relates to the generation of electricity using photovoltaic modules. Vonovia generated 76,579 MWh (previous year: 21,468 MWh) of electrical energy from photovoltaics in the reporting year.

Energy Intensity per Net Revenue

	2024		2025	% 2025/2024
	Total	Thereof continuing operations	Total (continuing operations)	Total
Total energy consumption from activities in high climate impact sectors per net revenue from activities in high climate impact sectors (MWh/€ million)*	721	752	780	103.78%

* Correction of the figure for 2024 (due to energy consumption by the vehicle fleet not being taken into account).

The real estate sector was applied as a climate-intensive sector for the purposes of determining energy intensity.

Net Revenue for the Calculation of Energy Intensity (€ million)

	2024		2025
	Total	Thereof continuing operations	Total (continuing operations)
Net revenue from activities in high climate impact sectors used to calculate energy intensity	7,464	7,080	6,746
Net revenue (other)	-	-	-
Total net revenue (financial statements)	7,464	7,080	6,746

EI-6 – Gross Scopes 1, 2, 3 and Total GHG emissions

Gross GHG Emissions, Scopes 1,2 and 3

	Base year 2021		2024
	Total	Total	Thereof continuing operations
Scope 1 GHG Emissions			
Gross Scope 1 GHG total emissions (t CO ₂ e)	-	548,394	539,867
Percentage of Scope 1 GHG emissions from regulated emission trading systems (in %)	-	-	-
Scope 2 GHG Emissions			
Gross location-based Scope 2 GHG emissions (t CO ₂ e)	-	341,016	335,518
Gross market-based Scope 2 GHG emissions (t CO ₂ e)	-	302,463	296,965
Significant Scope 3 GHG Emissions			
Total gross indirect (Scope 3) GHG emissions (t CO ₂ e)	-	1,057,399	1,054,582
1 Purchased goods and services	-	170,748	170,748
2 Capital goods	-	132,075	132,075
3 Fuel and energy-related activities (not included in Scope 1 or Scope 2)	-	208,451	205,634
4 Upstream transportation and distribution*	-	-	-
5 Waste generated in operations*	-	-	-
6 Business traveling*	-	-	-
7 Employee commuting*	-	-	-
8 Upstream leased assets*	-	-	-
9 Downstream transportation*	-	-	-
10 Processing of sold products*	-	-	-
11 Use of sold products	-	48,557	48,557
12 End-of-life treatment of sold products*	-	-	-
13 Downstream leased assets	-	497,568	497,568
14 Franchises*	-	-	-
15 Investments*	-	-	-
Total GHG Emissions			
Total GHG emissions (location-based) (t CO ₂ e)	-	1,946,809	1,929,967
Total GHG emissions (market-based) (t CO ₂ e)	-	1,908,255	1,891,414

* Not significant.

** The combined GHG reduction targets for 2030 and 2045 can be found in section EI-4.

		Retrospective	Milestones and target year**		
2025		% 2025/2024			
Total (continuing operations)	Total		2026	2030	Annual % target/ Base year
530,690	98.30%	-	-	-	
-	-	-	-	-	
356,108	106.14%	-	-	-	
270,290	91.02%	-	-	-	
904,891	85.81%	-	-	-	
143,033	83.77%	-	-	-	
78,556	59.48%	-	-	-	
197,948	96.26%	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
15,511	31.94%	-	-	-	
-	-	-	-	-	
469,843	94.43%	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
1,791,689	92.84%	-	-	-	
1,705,871	90.19%	-	-	-	

Greenhouse gases included in the calculation: CO₂ equivalents (greenhouse gases regulated in the Kyoto Protocol CO₂, CH₄, N₂O, SF₆, PFC and HFC).

Sources of emission factors for calculating emissions from the combustion of fossil fuels and location-based emissions for Scope 1, Scope 2 and Scope 3.3: GEMIS 5.1, Federal Ministry of Environment Germany, Federal Ministry of Environment Austria and Swedenergy (Swedish non-profit organization).

As actual measured values for the relevant reporting year are not available at the required time, we calculate the emissions on the basis of the valid energy performance certificates of the individual buildings. The energy consumption of those buildings that do not have energy performance certificates is extrapolated based on the age of the building and corresponding average values based on the rest of the portfolio.

The model calculates life cycles for all processes and scenarios, i.e., it takes into consideration all material steps from primary energy/raw material extraction to effective energy/material provision and also includes the auxiliary energy and cost of materials to produce energy plants and transport systems.

Vonovia does not have any GHG emissions that are subject to regulated emission trading systems.

For the extrapolation, measures and circumstances are considered as precisely as possible. The GHG emissions for the base year reported in the presentation of the GHG emission reduction targets and greenhouse gas balance (see → E1-4 and → E1-6) include Deutsche Wohnen's portfolio. When determining Scope 3 emissions for the upstream and downstream value chain, we use average data or proxies:

- a) The GHG emissions for Scope 3.1 are calculated using emission factors derived from representative measures in the German housing industry by the German Real Estate Economics Institute (Institut für Immobilienökonomie (IIO)) on behalf of the housing industry association VdW Rheinland. For the base year 2021, this process was only applied to Vonovia's portfolio at that time due to limited data availability.
- b) GHG emissions for Scope 3.2 are determined using emissions factors based on the building construction type, which were developed through a comprehensive life cycle assessment of a reference house conducted by a specialized architecture firm.

Even though extrapolations and average emission factors can lead to certain deviations, these methods help to reduce uncertainties and offer a well-founded basis for the analysis. The degree of accuracy is already high due to the use of actual measures and the high degree of detail inherent to model house calculations.

Market-based emission factors were used to determine Scope 2 emissions from district heating where these were available in qualified form. Otherwise, location-based emission factors were used. In the 2025 fiscal year, market-based emission factors accounted for 71% in relation to district heating supply. An emission factor of zero was used to determine Scope 2 emissions from electricity consumption (market-based), as the corresponding energy volumes are sourced from green electricity. In 2025, 78% (previous year: 85%) of the green electricity was covered by guarantees of origin, while 22% (previous year: 15%) was sourced through a power purchase agreement (PPA, for electricity from renewable wind energy).

The GHG emissions (Scope 1 and 2) indicated include all fully consolidated companies. Emissions from companies in which Vonovia holds a minority interest are to be allocated to Scope 3.15 Investments in accordance with the GHG Protocol. This category has not been classified as significant.

Scope 3 greenhouse gas emissions were mainly calculated based on emission factors from recognized databases. Primary data from suppliers or other partners in the value chain was not used.

Vonovia has defined the following Scope 3 categories as **significant**:

- > Scope 3.1 Purchased goods and services: GHG emissions from the production and installation of building materials and materials for maintenance, energy-efficient modernization, "Optimize Apartments" measures and heating system replacement. GHG emissions are calculated using emission factors created by external experts on the basis of typical measures taken by various companies in the housing industry. The emissions were calculated by multiplying the corresponding units of the measures implemented (modernized m² of living area) by the relevant emission factors.

- > Scope 3.2 Capital goods: GHG emissions from the production of building and other materials used for the new buildings completed in the fiscal year in question. GHG emissions are calculated using an in-house Excel tool for the integrated calculation of greenhouse gases, primary energy requirements and circularity (ÖBIGK) throughout the life cycle, which calculates the emissions using a reference house approach for various types of construction. The generic emission factors of the German Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) are used for the individual materials and components used in the various types of building construction.
- > Scope 3.3 Fuel and energy-related emissions (not Scope 1 and 2): GHG emissions from the upstream chain of energy sources not reported as Scope 1 or Scope 2 emissions (e.g., for the extraction and transportation of fuels or the production and transportation of electricity and district heating) – both for the wholly owned housing stock and for apartments owned by Vonovia that belong to a residential property owners' association (WEG) (their Scope 1 and 2 emissions are reported as Scope 3.13 emissions).
- > Scope 3.11 Use of sold products: GHG emissions from the operation of newly constructed residential units sold in the relevant fiscal year (provision of heat and warm water) over a lifespan of 50 years (in line with the recommendation of the Association of German Housing and Real Estate Companies (GdW)). Declining GHG intensity of district heating and electricity is assumed over the course of the property's useful life. This matches the assumed trend for the company's own portfolio.
- > Scope 3.13 Downstream leased assets: GHG emissions generated from household electricity used by customers in their homes for electrical appliances (excluding general electricity or electricity required for heat and warm water). The corresponding electricity consumption is estimated based on a method developed at sector level, since real data is not available to the landlord. User electricity for commercial units was extrapolated based on average values for types of use. The national emission factor for electricity is used to calculate emissions (location-based). In addition, GHG emissions are taken into account. These result from the supply of heating and warm water to rental units that are owned by Vonovia and belong to a residential property owners' association (WEG).

The following Scope 3 categories have been classified as **insignificant**:

- > Scope 3.4 Upstream transportation and distribution: partly included in categories 3.1. and 3.2, emission level not material
- > Scope 3.5 Waste: emission level not material
- > Scope 3.6 Business travel: emission level not material
- > Scope 3.7 Employee commuting: emission level not material
- > Scope 3.8 Upstream leased assets: n/a
- > Scope 3.9 Downstream transportation and distribution: Vonovia does not sell any products that are transported
- > Scope 3.10 Processing of sold projects: Vonovia does not sell any products that are processed further
- > Scope 3.12 End-of-life treatment of sold products: emission level not material
- > Scope 3.14 Franchises: n/a
- > Scope 3.15 Investment: emission level not material

Vonovia does not currently have or finance any projects of its own aimed at decomposing or storing greenhouse gases, nor does it contribute to such projects in the upstream or downstream value chain. We are currently assessing which appropriate measures will be implemented in the future to achieve net-zero emissions.

Vonovia does not use any in-house CO₂ pricing system. External statutory CO₂ prices and assumption regarding their future development are included in the internal financial feasibility calculations.

GHG Intensity per Net Revenue

	2024		2025	% 2025/2024
	Total	Thereof continuing operations	Total (continuing operations)	Total
Total GHG emissions (location-based) per net revenue (t CO ₂ e/€ million)	261	273	266	97.4%
Total GHG emissions (market-based) per net revenue (t CO ₂ e/€ million)	256	267	253	94.7%

Net Revenue for the Calculation of Greenhouse Gas Intensity (€ million)

	2024		2025
	Total	Thereof continuing operations	Total (continuing operations)
Net revenue used to calculate GHG intensity	7,464	7,080	6,746
Net revenue (other)	-	-	-
Total net revenue (financial statements)	7,464	7,080	6,746