REWE GROUP

# SBTi Report 2025 –
# REWE and PENNY in Germany

# Contents

# 1. Introduction

The consequences of climate change are becoming more noticeable every day and are further reinforced by new climate policy framework conditions. More than a third of Global Greenhouse Gas Emissions (GHG emissions) are attributable to the food system (FAO, 2022). As a food retailer, we want to ensure that safe, healthy nutrition and climate protection can go hand in hand. As the REWE Group*, we are aware that GHG emissions occur along the entire supply chain in our business activities and have taken a number of different measures to reduce them (see Sustainability Progress Report 2024). In July 2023, we joined the Science Based Targets initiative (SBTi) with REWE and PENNY in Germany and committed ourselves to the science-based reduction targets across our entire value chain. We will be reporting on the progress made towards achieving these targets on an annual basis. In March 2024, the entire REWE Group also committed itself to setting net-zero targets in accordance with SBTi standards.

## 1.1. Our climate protection strategy

Sustainability is important to us: Since the introduction of our sustainability strategy in 2008, the topic has been anchored in the role of the CEO – since 2017, this has been Lionel Souque. Sustainability has also been the responsibility of Dr. Daniela Büchel, Chief Sustainability and People Officer since 2023. Reducing our emissions is a high priority in our climate protection strategy. To ensure a liveable future for all, global warming must be limited to a maximum of 1.5 degrees Celsius. Increasingly frequent extreme weather events can cause agricultural losses and have impacted our locations already. Our stakeholders are also demanding more climate protection. Therefore, we are actively promoting the reduction of climate-relevant emissions with our climate protection measures.

We are steering this process with clear goals. For example, we were the first German food retailer to switch our stores, administrative locations, and warehouses to certified green electricity in 2008 – and we have more than halved our GHG emissions per sales area at the company level in Germany and Austria compared to a base year of 2006. With our Sustainability-Linked Bond Framework, we are combining the REWE Group's financing and sustainability strategies. We are also working to reduce emissions outside our value chain – for example, through climate protection projects such as the NABU Climate Fund for Moorland Rewetting, which REWE co-founded. REWE in Germany is supporting the project with at least five million euros annually between 2022 and 2027.

## 1.2. Our science-based climate targets

REWE and PENNY in Germany, as well as the REWE Group, recognize the importance of the SBTi in defining and promoting science-based targets based on the 1.5 degree pathway of the Paris Climate Agreement. In setting our GHG emission reduction targets, we have followed the SBTi Corporate Net-Zero Standard and the supplementary SBTi guidance for the forestry, land use, and agriculture sector (FLAG) since April 2023. This first-of-its-kind initiative supports companies in forestry, land-intensive agriculture, food production, and food retail in setting science-based targets aimed at reducing and removing emissions from forestry and agriculture.

All targets have been developed with the assistance of an external SBTi advisor in accordance with the SBTi methodology since 2022. The targets were submitted to the SBTi in fall 2023 and successfully validated in December 2024.

REWE and PENNY in Germany aim to achieve the following reductions by 2030 compared to the base year 2021:

- absolute GHG emissions in Scope 1 and 2 by 42%
- absolute FLAG GHG emissions in Scope 3 by 30.3%
- absolute non-FLAG GHG emissions in Scope 3 by 42%

and by 2050:

- absolute GHG emissions in Scope 1 and 2 by 90%
- absolute FLAG GHG emissions in Scope 3 by 72%
- absolute non-FLAG GHG emissions in Scope 3 by 90%

In addition, REWE and PENNY in Germany have set themselves the goal of making their supply chains deforestation and conversion-free as part of the new FLAG guideline by the end of 2025.[1]

On our path to Net Zero, we are following the SBTi's net-zero criteria and will also neutralise the remaining unavoidable emissions in the value chain once we have achieved the SBTs.

[1] For our primary risk commodities such as cocoa, coffee, palm oil, and soy as animal feed with a cut-off date of January 1, 2020. Conversion refers to all valuable ecosystems.

# 2. Emission inventory

Our GHG emissions for the years 2021 to 2024 have been thoroughly recorded and calculated. An external auditing firm has analysed the underlying data and calculation methods used to determine our $CO_2e$ footprint and certified their accuracy and completeness.

## 2.1. Scope 1 and 2 GHG emissions

Company-level GHG emissions at REWE and PENNY in Germany (hereinafter referred to as REWE and PENNY) arise from the operation of stores and warehouses through the use of electricity, heat and refrigerants, as well as from logistics and the vehicle fleet through the consumption of fuel by trucks and cars.

**Absolute GHG emission Scope 1 and 2 REWE and PENNY***

**Figures in k tons**

| Company | 2021 | 2023 | 2024 | % Reduction (2021 to 2024) |
|---|---|---|---|---|
| **REWE** | 167 | 154 | 150 | 10 |
| **PENNY** | 62 | 56 | 56 | 10 |

*For calculation methodology, see chapter 3 Methodology

### Progress evaluation and measures

From 2021 to 2024, Scope 1 and 2 GHG emissions fell by 10 per cent, meaning the trend of previous years is thus continuing. The following developments are influencing this:

- The switch to more climate-friendly refrigerants is progressing steadily.
- Reductions in heat and refrigerants are lessened by the rising emissions from electricity, fuel consumption for trucks and the vehicle fleet, and expansion of the fully or partially electrically powered car fleet (but currently still low absolute proportions).
- More detailed calculations of GHG emissions from truck cooling have resulted in a change in emissions. Part of the reduction is therefore also due to the required adjustments in the methodology to further improve the data collection method used (for more details please refer to section 3.2.1).
- REWE and PENNY have been using green electricity since 2008. Nevertheless, they are focusing on further reducing their consumption and costs for ecological and economic reasons.

To achieve our reduction target, we adhere to the following additional measures:

- Testing trucks with alternative drives (hydrogen, battery)
- Energy efficiency measures in the relevant areas of lighting and refrigeration technology

In general, the REWE Group relies on its green building concept in new construction projects with energy-efficient technologies for cooling systems and lighting, among other things. We are also pushing ahead with the expansion of renewable energies such as photovoltaics. Furthermore, we have set ourselves targets on an operational level as part of our energy management systems in accordance with ISO 50001. For example, we aim to reduce our fossil fuel consumption, including district heating, by 20 per cent by 2030 compared to the base year 2019 (see REWE Group Sustainability Progress Report 2024). During the same period, electricity consumption per sales area is to be reduced by 10 per cent.

REWE and PENNY's SBTi targets in Scope 1 and 2 are ambitious and require significant investment in climate-friendly infrastructure. They may also be influenced by external factors such as regulatory requirements, new energy efficiency standards and the availability of alternative energy sources. Many reduction levers, such as battery or hydrogen drives in logistics, are not expected to be technically available and practical until the end of the decade.

## 2.2. Scope 3 GHG emissions FLAG

Emissions in the upstream supply chain of our own brands (purchased goods and services at the raw material production and agriculture stage) account for the largest share of our FLAG emissions. Emissions from the production of animal products such as milk, cheese, meat and eggs – for example, from feed cultivation or cattle farming – play the biggest role here. Here it must be noted that there are downstream reduction effects expected from our supplier initiative that cannot currently be fully reflected in our GHG accounting yet.

### Absolute GHG emissions Scope 3 FLAG REWE and PENNY*

**Figures in k tons**

| Company | 2021 | 2023 | 2024 | % Reduction (2021 to 2024) |
|---|---|---|---|---|
| **REWE** | 10,606 | 9,706 | 10,158 | 4 |
| **PENNY** | 3,934 | 3,765 | 3,768 | 4 |

*For calculation methodology, see chapter 3 Methodology. Only relevant categories are included.

## Progress evaluation and measures

Contrary to the steady reduction trend of -7% from 2021 to 2023, the FLAG targets for Scope 3 indicate a slight increase in emissions of +3% compared to 2023 (overall development from 2021 to 2024: -4%).
This is due to the following factors:

- Consumer sentiment has improved over the course of the year. This has also had a positive effect on us at the REWE Group and REWE and PENNY as well, hence we have been able to report positive revenue growth and more customers for 2024 than in 2023. This trend was anticipated for REWE and PENNY in particular with targeted product range expansions.
- Added to that, according to Statista, Germans ate more meat in 2024 than they had done since 2016. At the same time, however, according to Foodmonitor, plant-based products are becoming more relevant and interest in related concepts (e.g., vegan product ranges, the opening of our vegan supermarket in Berlin) is growing. To achieve our climate targets, we plan to continuously develop our product ranges and increase the proportion of plant-based products in our stores. A four-point plan will support this strategy and reduce our ecological footprint (optimise product ranges, promote innovation, promote conscious nutrition and focus on a national protein plan).
- Scope 3 emissions are largely dependent on our suppliers (around 90% of product-related emissions). For this reason, we support our private label suppliers in defining climate targets in accordance with SBTi and implementing reduction measures. In 2024, we asked over 600 private label suppliers, who are responsible for around 90% of our private label product-related emissions, to set climate targets in line with SBTi. Of these, over 450 suppliers, who are responsible for 87% of our product-related emissions from private label products, have signed a climate target agreement to set climate targets in line with SBTi.

In order to accomplish our very ambitious FLAG targets in view of the complex supply chains, we are also relying on a number of different measures here:

- One lever for this is agriculture (for example, in the more precise use of fertilisers, optimised land management, agroforestry or feed additives for reduced methane emissions).
- A second lever for this is minimising food waste.
- Another lever is the aforementioned protein strategy and supplier engagement.

To make use of these levers, it is necessary to continuously involve all key stakeholders within our supply chains. Demand for more climate-friendly and plant-based products also plays a role. The complex nature and lengthy implementation of all these measures means our goals are very ambitious. Reliable results for these significant GHG reductions are therefore expected in the last third of the target period.

## 2.3. Scope 3 GHG emissions non-FLAG

Non-FLAG emissions are caused by process and energy-related emissions from direct and indirect suppliers in the food and non-food supply chain, as well as by transport and packaging. It must be noted that there are downstream reduction effects expected from our supplier initiative (see FLAG Scope 3) that cannot currently be fully reflected in our GHG accounting yet.

### Absolute GHG emissions Scope 3 non-FLAG REWE and PENNY*

**Figures in k tons**

| Company | 2021 | 2023 | 2024 | % Reduction (2021 to 2024) |
|---|---|---|---|---|
| **REWE** | 7,953 | 6,892 | 7,631 | 4 |
| **PENNY** | 3,031 | 2,554 | 3,018 | 0 |

*For calculation methodology, see chapter 3 Methodology. Only relevant categories are included.

### Progress evaluation and measures

In contrast to the steady reduction of 14% from 2021 to 2023 for non-FLAG targets for Scope 3, emissions are expected to increase by 13% in 2024 compared to 2023 (overall development from 2021 to 2024: -3%).This is due to the following factors:

- Improved consumer sentiment, as reflected in FLAG Scope 3
- More comprehensive mapping of emissions from the use phase (e.g., lighting, electrical appliances) due to an adjustment in the survey methodology (for more details please refer to section 3.2.3). This has expanded the scope of the balance sheet compared to the base year.

In order to accomplish our very ambitious non-FLAG targets in view of the complex supply chains, we generally rely on a number of different levers, including

- switching to green electricity from our suppliers and increasing energy efficiency in processing;
- regional and seasonal sourcing with regard to transport and its electrification;
- the use of more climate-friendly materials such as recycled or bio-based plastics and material reduction;
- the use of recycled and recyclable materials in packaging; and
- the expansion of our product range in the area of unpackaged goods and reusable solutions.

In doing so, we are reliant on technological progress and the efforts of our suppliers, and dependent on market developments and regulatory requirements. The majority of reductions in absolute non-FLAG GHG emissions are therefore expected to occur in the last third of our target period.

# 3. Methodology

## 3.1. Scope of application

REWE and PENNY report on their progress. The emissions of these two companies account for the largest share within the REWE Group. Emissions from Scope 1 and 2 as well as Scope 3 (FLAG and non-FLAG) are included.

## 3.2. Our accounting methodology

### 3.2.1 Absolute GHG emissions Scope 1 and 2

REWE and PENNY account for their Scope 1 and 2 GHG emissions in accordance with the globally recognised Greenhouse Gas Protocol (GHG Protocol) standard. The targets for these emissions are based on a minimum 1.5 degree scenario and calculation is as follows:

- The calculation of **GHG emissions from gas consumption at REWE and PENNY stores** is partly based on individual actual gas consumption data and partly on estimation methods if no individual gas consumption for the individual REWE or PENNY store could be accessed. This mainly affected REWE and PENNY stores that were not supplied with gas by REWE's own energy supplier EHA. The estimate was made using a calculated average consumption by region for stores for which gas consumption data was available and was multiplied by the number of stores for which no individual data was available without significant effort. Other factors, such as insulation, square-metre size or store commissioning, were not taken into account when calculating the estimated values.
- The calculation of **GHG emissions from gas consumption in administrative buildings** is based on actual consumption data. Total gas consumption is allocated to the respective units within the scope of application using measured consumption data and allocation keys. At sites used jointly for logistics and administration, the gas consumption is simplistically allocated entirely to the logistics unit, as this unit accounts for the majority of the consumption.
- The **GHG emissions from cooling** in REWE and PENNY stores are calculated using systematically collected data on cooling refills. For refrigerant quantities used in the transport of goods by truck, a two-stage model is used. For trucks operated by REWE, refrigerant quantities provided by the manufacturers are used. For the remaining trucks (PENNY and third-party carriers), the average quantities from REWE trucks are used and multiplied with the respective route from route planning.

- **GHG emissions from fuel consumption for the truck transport** fleet for REWE and PENNY are calculated using a two-stage model. For trucks that are assigned to the PENNY and REWE store fleet or the PENNY carrier and do not belong to the REWE carrier, diesel fuel consumption is estimated on the basis of data from the REWE carrier. This is based on the REWE carrier's average fuel consumption per 100 km. This is multiplied by the total kilometres covered by the company's own fleet or the PENNY carrier. The kilometres travelled are based on the route planning for the respective location or store. The emissions for the additional fuel consumption by the REWE trucks' refrigeration units are calculated on the basis of manufacturer specifications using the actual operating hours. The transfer to PENNY trucks and external carriers is based on average consumption of the REWE trucks per refrigerated transport unit and the quantity of refrigerated transport units.
- **GHG emissions from the fuel consumption of cars** are calculated based on systematically recorded refuelling data.

### 3.2.2 Absolute GHG emission Scope 3 FLAG

REWE and PENNY account for their FLAG GHG emissions from Scope 3 in accordance with the GHG Protocol Land Sector and Removals Guideline (draft for pilot test phase and review, September 2022) and the SBTi FLAG Guideline. The calculation is based on the primary data for REWE and PENNY on purchased products, their ingredients and countries of origin as well as information on suppliers. In cases where data on ingredients and origin was not available, the data was modelled based on existing information and/or supplemented by production and import statistics.

Carbon emissions were calculated using a hybrid model aligned with the SBTi methodology. The model predominantly uses a cross-regional physical approach for agricultural commodities, transportation and packaging and downstream impacts and a cross-regional expenditure-based approach for the processing and extraction of mineral commodities. FLAG emissions from Scope 3 include goods purchased for REWE and PENNY under Scope 3.1. The FLAG emissions from other Scope 3 categories were approximately quantified based on assumptions. They were assessed as immaterial for REWE and PENNY or are to be considered optional for our business model in accordance with the GHG Protocol.

### 3.2.3 Absolute GHG emission Scope 3 non-FLAG

REWE and PENNY account for their non-FLAG GHG emissions from Scope 3 in accordance with the GHG Protocol. The calculation is based on primary data for REWE and PENNY on purchased products, their ingredients and countries of origin as well as information on suppliers. In cases where no data on ingredients and origin was available, the data was modelled based on existing information and/or supplemented by production and import statistics. Carbon emissions were calculated using a hybrid model aligned with the SBTi methodology. The model predominantly uses a cross-regional physical approach for agricultural commodities, transportation and packaging and downstream impacts and a cross-regional expenditure-based approach for the processing and extraction of mineral commodities. Scope 3 non-FLAG emissions include:

- Scope 3.1: Purchased goods and services
- Scope 3.2: Capital goods
- Scope 3.4: Upstream transportation
- Scope 3.11: Use of products sold.

For category Scope 3.11, the calculation methodology was adjusted following validation by the SBTi 2025. Through an increased level of detail, the downstream emissions of a larger number of products (such as barbecue charcoal and light bulbs) are now covered. This increases the Scope 3 footprint of the SLBF scope, while at the same time resulting in emission increases in the non-FLAG area. A recalculation of the base year was not carried out as the methodological adjustment did not exceed the five per cent threshold set for recalculation.

All other Scope 3 categories were approximately quantified based on assumptions. This resulted in less than one per cent of total emissions. The categories were therefore classified as not significant for REWE and PENNY.

## 3.3. Comparative data

Comparative data and empirical values for past Scope 1 and Scope 2 GHG emissions cannot always be limited to REWE and PENNY, as the analysis covers the entire REWE Group.

Comparative data for REWE and PENNY Scope 3 non-FLAG and FLAG emissions will be available from the 2021 financial year onwards, when a hybrid carbon accounting model was implemented. Earlier estimates of Scope 3 emissions are not comparable with the new results due to methodological differences.

## 3.4. Recalculation policy

REWE and PENNY have established a recalculation policy to ensure the integrity and comparability of emissions data and reduction targets over time, as well as consistency with the ever-changing climate science, in accordance with SBTi. The recalculation will be performed at least every five years, starting from the validation date. In addition, the data will be recalculated if there are changes compared to the GHG base year inventory that account for 5% or more of total GHG emissions in the respective target area. This occurs when

- significant changes occur in our corporate structure (e.g., acquisitions, investments, or divestitures), and previously insignificant and therefore currently excluded emission areas become significant, such as business travel;
- significant changes occur in the calculation methodology of our GHG inventory (e.g., newly available data sources or an update of the relevant guidelines or protocols for greenhouse gas accounting);
- significant errors are discovered in our baseline calculation or a number of cumulative errors are discovered that are significant when taken together.

In the event of a recalculation of the baseline value, we will announce this in our reporting for the respective current fiscal year.

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REWE Deutscher Supermarkt AG & Co. KGaA
Domstraße 20
50668 Cologne, Germany
Tel: +49 221 149-0
Email: info@rewe-group.com
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