

REWE GROUP

SBTi-Report 2024 – REWE and PENNY in Germany

Contens

1 Introduction	3
1.1 Our climate protection strategy	3
1.2 Our science-based climate targets	4
2 Emission inventory	5
2.1 GHG emissions Scope 1 and 2	5
2.2 GHG emissions Scope 3 FLAG	6
2.3 GHG emissions Scope 3 non-FLAG	7
3 Methodology	9
3.1 Scope	9
3.2 Our accounting methodology	9
3.3 Comparative data	11
3.4 Guideline for recalculation	11

1 Introduction

The consequences of climate change are becoming more noticeable every day. More than a third of global greenhouse gas emissions are attributed to the food system ([WWF, 2020](#)). As a food retailer, we want to ensure that safe and healthy nutrition go hand in hand with climate protection. As REWE Group, we are aware that greenhouse gas emissions occur along the entire supply chain in our business activities and have taken many measures to reduce them (see [Progress Report 2023](#)). In July 2023, we joined the Science Based Targets initiative (SBTi) with REWE and PENNY in Germany and committed to sciencebased climate targets across the entire value chain. We are now reporting on the progress of target achievement for the first time in this publication. In March 2024, we also committed as the entire REWE Group to setting net zero targets in accordance with SBTi.

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 with the Chief Executive Officer – since 2017, this has been Lionel Souque. Since 2023, sustainability has also been part of the board responsibilities under Dr Daniela Büchel, Chief Sustainability and People Officer. Reducing our emissions is a high priority in our climate protection strategy. For a liveable future for all, it is essential to limit global warming to a maximum of 1.5 degrees Celsius. Increasingly frequent extreme weather events can already result in agricultural losses and affect our locations. Our stakeholders also demand more climate protection. Therefore, with our climate protection measures, we are actively driving the reduction of climate-relevant emissions.

We are guided by setting clear targets. For example, we were the first German food retailer to convert our stores, administrative locations and warehouses to certified green electricity in 2008 - and we have more than halved our companywide GHG emissions, relative to sales areas, in Germany and Austria compared to 2006. With our [Sustainability-Linked Bond Framework](#), we have combined the financing strategy and the sustainability strategy of the REWE Group. In addition, we are working on emission reductions outside of our value chain - for example, climate protection projects such as the [NABU Climate Fund](#), which REWE co-founded for the rewetting of peatlands. REWE in Germany is supporting the project with at least five million euros annually from 2022 to 2027.

1.2 Our science-based climate targets

REWE and PENNY in Germany, as well as the REWE Group, recognize the importance of SBTi in the definition and promotion of science-based targets based on the 1.5-degree path of the Paris Agreement. When setting our GHG emission reduction targets, we followed the [SBTi Corporate Net-Zero Standard](#) and the SBTi supplementary guideline for the forestry, land and agriculture sector (FLAG) from April 2023. This worldfirst initiative supports companies in the forestry, landintensive agriculture, food production and food retail sectors to set science-based targets that aim at the reduction and elimination of emissions from forestry and agriculture.

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

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

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

and by 2050

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

In addition, REWE and PENNY in Germany have set themselves the goal of making their supply chains deforestation-free and conversion-free by the end of 2025 as part of the new FLAG guideline¹.

On our path to net zero emissions, we are following the net zero criteria of the SBTi and will also neutralize the remaining unavoidable emissions in the value chain after achieving the SBTs.

¹ For our primary high-risk raw materials such as cocoa, coffee, palm oil and soy in animal feed with a cutoff date of 01.01.2020. Conversion applies to all valuable ecosystems.

2 Emissions inventory

Our greenhouse gas emissions for 2021 and 2023 have been carefully recorded and calculated. An external auditing firm has analyzed the underlying data and calculation methods used to determine our CO₂e footprint and certified their accuracy and completeness.

2.1 GHG emissions Scope 1 and 2

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

Absolute GHG emissions Scope 1 and 2 REWE and PENNY*

In k tonnes

Unternehmen	2021	2023	% reduction
REWE	166.631	154.171	-7 %
PENNY	62.176	56.216	-10 %

* Calculation methodology see chapter 3 Methodology. Only relevant categories are included.

Progress assessment and measures

From 2021 to 2023, Scope 1 and 2 GHG emissions for REWE and PENNY together were reduced by 8 percent. We have implemented the following measures to reduce our absolute GHG emissions in Scope 1 and 2 by 42 percent by 2030 and by 90 percent by 2050 compared to the base year 2021:

- **Energy efficiency measures** that enable considerable savings in the area of heating
- Continuous switch to **more climate-friendly refrigerants**
- Despite the use of green electricity since 2008, continued **reduction of electricity consumption** for ecological and economic reasons
- **Energy efficiency measures** in the relevant areas of **lighting and refrigeration technology**
- Expansion of the fully or partially **electric vehicle fleet** (currently still with low absolute shares)
- Tests of **alternative drives** (hydrogen, battery) in vehicles

Within the REWE Group, we also rely on our green building concept with energy-efficient technologies for refrigeration systems and lighting in new construction projects and are promoting the expansion of renewable energies such as photovoltaics. We have also set ourselves targets at an operational level as part of our energy management systems in accordance with ISO 50001. In line with this, we want to reduce our consumption of fossil fuels in relation to sales area, including district heating, by 20 percent by 2030 compared to the base year 2019 (see [Progress Report 2023](#)). Over the same period, we aim to reduce the sales area-related electricity consumption by 10 percent.

The SBTi targets of REWE and PENNY in Scope 1 and 2 are ambitious and require considerable investment in climate-friendly infrastructure. They can 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 practicable until the end of the decade.

2.2 THG emissions Scope 3 FLAG

Emissions in the upstream supply chain of our private label products (procured goods and services at the raw material production and agricultural level) account for the largest share of our FLAG emissions. The emissions that arise during the production of animal products such as milk, cheese, meat and eggs - for example from the cultivation of animal feed or cattle farming - play the biggest role.

Absolute GHG Emissionen Scope 3 FLAG REWE and PENNY*

In k tonnes

Year	2021	2023	% reduction
REWE	10.606.750	9.706.464	-8 %
PENNY	3.933.651	3.765.417	-4 %

* Calculation methodology see chapter 3 Methodology. Only relevant categories are included.

Progress assessment and measures

Our goal is to reduce our absolute Scope 3 FLAG GHG emissions by 30.3 percent by 2030 and by 72 percent by 2050 compared to 2021. From 2021 to 2023, greenhouse gas emissions for the FLAG Scope 3 targets were reduced by a total of 7 percent. This is due to the following factors:

- The crises of recent years with the rising cost of living, the geopolitical situation, economic developments and the effects of climate change have led to significant **changes in consumer behavior**.
- **We see increasing relevance in our plant-based concepts**, for example in our vegan product ranges and the opening of a vegan supermarket in Berlin.
- With the „Gemeinsam für mehr Klimaschutz“ (Together for more climate protection) initiative, we support our **private label suppliers** in defining SBTi climate targets.
- In 2023, we developed the „**Förderprogramm Klimaschutz**“ (**Climate protection funding programme**) under the umbrella of the Competence Centre for Agriculture and presented it at the beginning of 2024. Several million euros will be used to co-finance projects by private label suppliers to reduce GHG emissions in the supply chain.
- By the end of 2025, we will make our supply chains **deforestation-free and conversion-free**.
- By the end of 2030, we will make our **sales and service packaging more environmentally friendly and thus lower in emissions**.

Other levers lie in agriculture (e.g., more precise use of fertilizers, optimized land management, agroforestry, feed additives for reduced methane emissions) and in minimising food losses. To move these levers, it is necessary to continuously engage all key stakeholders within our supply chains, as well as the demand for more climate-friendly and plant-based products. All measures are complex and time-consuming to implement. In view of this, our targets are very ambitious. We therefore expect to see reliable results of these significant GHG reductions in the last third of the target period.

2.3 GHG emissions Scope 3 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 from transport and packaging.

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

In k tonnes

Year	2021	2023	% Reduktion
REWE	7.952.504	6.891.888	-13 %
PENNY	3.031.490	2.554.126	-16 %

[*Calculation methodology see chapter 3 Methodology. Only relevant categories are included.](#)

Progress assessment and measures

We want to reduce our non-FLAG emissions in Scope 3 by 42 percent by 2030 and by 90 percent by 2050 compared to 2021. Between 2021 and 2023, greenhouse gas emissions decreased by 14 percent. Amongst other factors, this is due to the following:

- As stated in the FLAG GHG emissions, we are seeing **growing interest in our plant-based product ranges**. In addition, changes in consumer behavior, the “**Förderprogramm Klimaschutz**” (**Climate Protection Funding Program**) and the switch to more environmentally friendly sales and service packaging also play a role in non-FLAG emissions.
- We also found that **changes in the electricity mix on the market** and average **efficiency improvements in production** had a positive impact on emission factors.

In general, we rely on various levers for our non-FLAG targets, which are very ambitious in view of the complex supply chains, including switching to green electricity at our suppliers and increasing energy efficiency in processing, regional and seasonal procurement in relation 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 range of unpackaged goods and reusable solutions.

We are reliant on technological progress and the efforts of our suppliers and are dependent on market developments and regulation. The majority of the reductions in absolute non-FLAG GHG emissions can therefore be expected in the last third of our target period.

3 Methodology

3.1 Scope

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

3.2 Our accounting methodology

3.2.1 Absolute GHG emissions Scope 1 and 2

REWE and PENNY account for their GHG emissions Scope 1 and 2 in accordance with the globally recognized Greenhouse Gas Protocol (GHG Protocol) standard.

- 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.
- The calculation of **GHG from gas consumption at logistics sites and in administrative buildings** is based on actual consumption data. The allocation of total gas consumption to the units within the scope was based on metered consumption data and the use of distribution keys.
- **GHG emissions from refrigerants** used in REWE and PENNY stores are calculated using actual data based on systematically recorded refrigerant refill quantities. The estimates of the quantities of refrigerants used to transport goods in trucks are based on information from the manufacturers.
- The GHG for **diesel consumption for the trucks in the REWE/PENNY and PENNY transport fleet** are calculated using a two-stage model. For trucks operated by the REWE carrier, the GHG emissions of fuel consumption are calculated using systematically recorded actual data of the refueling operations. The emissions for additional fuel consumption by cooling units in trucks are estimated based on comparative and average data.
- The GHG for the **fuel consumption of passenger cars** is calculated on the basis of systematically recorded actual data for refueling.

3.2.2 Absolute GHG emissions 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 REWE and PENNY primary data 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 uses mainly 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 quantified approximately on the basis of assumptions, assessed as immaterial or considered optional for our business model in accordance with the GHG Protocol.

3.2.3 Absolute greenhouse gas emissions 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 REWE and PENNY primary data 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 on the basis of 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 uses mainly 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.

All other categories were quantified approximately on the basis of assumptions. This resulted in less than one percent 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 GHG emissions Scope 1 and 2 from the past cannot always be completely limited to REWE and PENNY, as the analysis covers the total REWE Group.

No comparative data is available for REWE and PENNY Scope 3 FLAG and non-FLAG, as a hybrid carbon accounting model was implemented for the first time for the 2021 business year. Earlier estimates of Scope 3 emissions are not comparable with the new results due to methodological differences.

3.4 Guideline for recalculation

REWE and PENNY have established a recalculation policy to ensure the integrity and comparability of emissions data and targets over time and consistency with everchanging climate science in accordance with SBTi. This will be carried out at least every five years, starting from the validation. Additionally, a recalculation will be carried out if there are changes to the GHG base year inventory that account for five percent or more of total GHG in the respective target area. This occurs if:

- significant changes occur in our corporate structure (e.g., acquisitions, investments or disposals).
- previously insignificant and therefore currently excluded areas of emissions become significant, e.g., business trips.
- the calculation methodology of our GHG inventory changes significantly (e.g., newly available data sources or an update of the relevant guidelines or protocols for greenhouse gas accounting).
- significant errors are detected in our initial value calculation or a number of cumulative errors that are collectively significant.

In the event of a recalculation of the initial value, we disclose this in the reporting for the respective current business year.

Imprint

Publisher
REWE Deutscher Supermarkt AG & Co. KGaA
Domstraße 20
50668 Köln
Tel.: +49 221 149-0
E-Mail: info@rewe-group.com

Status: December 2024