

Climate Plan



Climate change

Climate change affects us all – and as an international family of trusted retail brands, we are committed to doing our part to help address it. To this end, we not only work to drive improvements in our own operations, we also partner across the value chain. We work with others in our industry to promote markets with the right supply and demand to support and grow healthier and more sustainable diets and a robust, more resilient food system.

Most of our brands are mainstream grocery retailers. Therefore, our focus on combatting climate change needs to coexist with a focus on pricing, assortment and quality – all of which are of paramount importance to our brands' customers. Nudging people towards making more sustainable choices is at the heart of our approach to develop and sustain customer demand of more sustainable products and services.

Our Leading Together strategy helps Ahold Delhaize and our brands successfully address evolving market trends, also in the area of sustainability. As part of this strategy, we have identified four growth drivers: drive omnichannel growth, elevate healthy and sustainable, cultivate best talent and strengthen operational excellence. This Climate Plan is part of our elevate healthy and sustainable growth driver, which we briefly explain below.

Our ambition

We talk about health and sustainability as being “Grounded in Goodness,” which, for us, quite simply means making healthy and sustainable choices accessible and available to all. To deliver on our strategy, we focus on healthier people and a healthier planet and the idea that the world's health crisis and climate crisis are intrinsically connected. We believe that if we get it right for ourselves, we usually also get it right for the planet; and acting responsibly today is imperative to securing a better tomorrow for generations to come. Delivering on this ambition requires partnerships with customers, communities, investors, suppliers, and more; Ahold Delhaize is committed to being a health and sustainability leader working hand in hand with our stakeholders.

[Link to our Grounded in Goodness Strategy [here](#)]



Our climate mission

Our climate mission focuses on addressing the direct and indirect greenhouse gas (GHG) emissions across our operations and value chain. We have identified short-term (interim) and long-term (net zero) targets, and priority opportunities across scope 1, 2 and 3. In establishing the interim and net zero target, we followed the methodology of the Science Based Target initiative, which is in line with a pathway limiting temperature rise to 1.5C. You can read more about these targets and opportunities, and the progress we have made, in this Climate Plan. Additional information on data, trends, and methodology can be found in our Annual Report 2021 [\[here\]](#).

Timeline	Scope 1	Scope 2	Scope 3
Short-term target	<ul style="list-style-type: none"> • 29% reduction by 2025 		<ul style="list-style-type: none"> • Suppliers that represent 70% of our footprint will be asked to commit to SBTi by 2025 • All our suppliers will be asked to report on scope 3 by 2025 • All our brands in Europe will commit to baseline current protein ratio and set protein ratio targets by the end of 2024
Mid-term target	<ul style="list-style-type: none"> • 50% reduction by 2030 		<ul style="list-style-type: none"> • 37% reduction by 2030
Long-term target	<ul style="list-style-type: none"> • Net zero: 90% reduction and 10% removals by 2040 		<ul style="list-style-type: none"> • Net zero: 83% reduction and 17% removals by 2050
Top priority opportunities (not exhaustive)	<ul style="list-style-type: none"> • Low-emission refrigerants • Transition from fossil fuels 	<ul style="list-style-type: none"> • Energy efficiency • Renewable energy 	<ul style="list-style-type: none"> • Accelerating supplier and farmer science-based target implementation • Investing in development of low-carbon products • Proactively engaging with customers



Overview of targets and ambitions



Scope 1 and 2

Our targets for reducing absolute scope 1 and 2 GHG emissions are:

- 29% by 2025 compared to our 2018 baseline, which is one of the KPIs of our Sustainability-Linked Bond.
- 50% by 2030 compared to a 2018 baseline.
- Net zero by 2040, which corresponds to a 90% reduction compared to our 2018 baseline.



Scope 3

Our Our targets for reducing scope 3 GHG emissions are:

- 37% by 2030 compared to our 2020 baseline.
- Net zero by 2050, which corresponds to an 83% reduction compared to our 2020 baseline.

We have also committed to several targets focused on supply chain engagement, including:

- Suppliers that represent 70% of our footprint will be asked to commit to SBTi by 2025.
- All our suppliers will be asked to report on scope 3 by 2025.
- All our brands in Europe will commit to baseline current protein ratio and set protein ratio targets by the end of 2024.

Baseline date

Ahold Delhaize developed science-based targets (SBTs) for scope 1, 2 and 3 in 2019, and submitted the targets to the Science Based Target Initiative (SBTi) for approval in July 2020. In accordance with SBTi technical guidance for setting SBTs, 2018 was selected as the baseline year, as it was the most recent year with robust scope 1 and 2 footprint data. In 2022, Ahold Delhaize set a more ambitious scope 3 target and will submit the revised target for SBTi approval by the end of the year using 2020 as the new baseline year. We selected 2020 as the baseline year for scope 3 given the improved quality and robustness of our footprint data and in line with SBTi guidance.

Ahold Delhaize is a portfolio company, covering 19 great local brands in 10 geographies, with different operating models. At a global level, we are aligned to a 1.5-degree decarbonization pathway. Within our brand-centric operating model, Albert Heijn has taken the lead with a 45% scope 3 reduction from a 2018 baseline.



Climate Plan and key priorities

This Climate Plan was developed in collaboration with our local brands and stakeholders. While our brands have already started to execute these actions, our net zero ambition is accelerating these efforts. It should be noted that our decarbonization journey is not necessarily a linear path and that the listed actions and key priorities can differ per brand and geography, depending on local circumstances.



Scope 1 and 2

To reduce GHG emissions in our own operations, we have identified the following key priorities:

Transition to low emitting refrigerants:

Replacing or retrofitting refrigerator systems with lower GHG alternatives, installing natural/hybrid systems and minimizing leakage from all our systems.

Transition to renewable energy:

Increasing onsite generation capacity and use of power purchase agreements (PPAs) and renewable energy credits (RECs).

Transition from fossil fuels (heating and transportation):

Converting our heavy-duty vehicle fleets to battery electric vehicles and hydrogen fuel cells. In addition, electrifying facility heating with heat pumps and by using waste heat and other heating solutions.

Increase energy efficiency:

Building and remodeling stores in the most energy efficient way possible. Installing energy-efficient equipment, such as LED lights, doors on cabinets, heat recuperation equipment, heat pumps, CO₂ refrigeration systems and improved insulation.



Scope 3

Ahold Delhaize and its brands have committed to long-term SBTs to reach a net zero value chain by 2050 and will encourage other parties in the value chain to build GHG emission reduction plans. Our biggest opportunity to reduce scope 3 GHG emissions is in agriculture. Ahold Delhaize brands focus on partnering with suppliers and farmers in this transition by incentivizing sustainable change through longer term contracts with concrete environmental requirements and co-investments.

To reduce GHG emissions within our supply chain, we have identified the following key priorities:

Accelerating supplier and farmer implementation of science-based targets:

Supporting our brands' suppliers in setting their own emission reduction targets in line with the latest science. These emission reduction commitments will accelerate improvements in livestock farming, raw material sourcing, deforestation reduction, processing, food waste reduction, packaging and transport. For example, through enteric fermentation (methane reduction through genetic selection or feed additives) and manure management (biogas from liquid manure and the addition of sulfuric acid to shift the pH value of manure) GHG emissions from living livestock can be reduced with the use of new technologies and practices.

Investing in the development of low-carbon products:

Driving the improvement of existing assortments and the development of new assortments with less embedded emissions. Our brands continue to introduce more plant-based protein products in their assortments and support customers in making more sustainable choices.

Proactively engaging with customers:

Helping our customers understand the impact of their buying decisions and make choices that fit their needs, their tastes and their values. Stimulating and rewarding sustainable choices through loyalty programs and discounts, increasing product transparency through navigation systems and product labelling, improving assortments and products with more vegan and vegetarian products, and increasing knowledge about a healthy lifestyle by giving customers access to free dieticians and knowledge platforms.

Removals

While Ahold Delhaize is committed to decarbonizing our operations and supply chain, a certain amount of GHG emissions will be very hard to abate. For example:



Scope 1 emissions from refrigerant leakages, transport and heating

Representing approximately 10% of our 2040 scope 1 and 2 footprint



Scope 3 emissions from purchased goods and services

Representing approximately 17% of our 2050 scope 3 footprint

These hard to abate emissions represent the net zero situation as it stands now. Future developments in decarbonization technologies and best practices will be developed and implemented as applicable. This would potentially reduce the need for carbon removals in the future. As such, our focus remains on investing in decarbonization opportunities across our operations and value chain. In 2023, we will continue to develop our long-term plan for carbon removals to address hard-to-abate emissions.

Our progress

To help reduce GHG emissions in our own operations and throughout our value chain, our great local brands continue to invest in energy efficiency, improve their refrigeration systems, further modernize their logistics fleets, opt for eco-friendly fuels, support suppliers and engage with customers.

Scope 1 and 2

Below is an overview of our performance on reducing our scope 1 and 2 CO₂-equivalent emissions from 2018.

Scope 1 and 2 CO₂-equivalent emissions

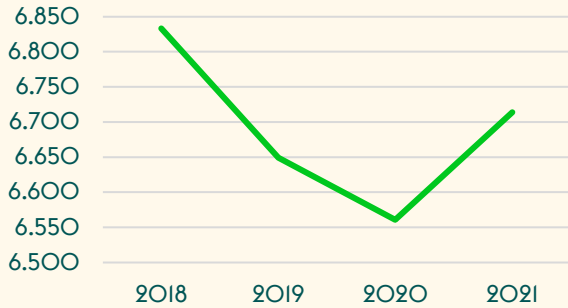
CO ₂ -equivalent emissions, market based, in thousand tonnes	2018	2019	2020	2021
Scope 1 – Refrigerant leakage	1,583	1,441	1,258	1,183
Scope 1 – On-site fuel use	315	284	269	282
Scope 1 – Own transport	277	227	244	262
Scope 2 – Electric energy use	1,879	1,758	1,358	1,079
Scope 2 – Use of imported heat	19	20	20	20
Scope 1	2,175	1,952	1,771	1,728
Scope 2	1,898	1,778	1,378	1,099
Scope 1 and 2	4,073	3,730	3,149	2,827

Our scope 1 and 2 emissions are mainly driven by energy consumption, refrigerant leakage and transport. By 2021, emissions had decreased by 31% compared to a 2018 baseline. The main drivers for this reduction were related to the increased ratio of renewable energy consumed, and from more efficient and environmentally friendly refrigeration systems. However, emissions from transport increased from 2020 to 2021. More information can be found in our Annual Report 2021 on page 99.



Energy consumption

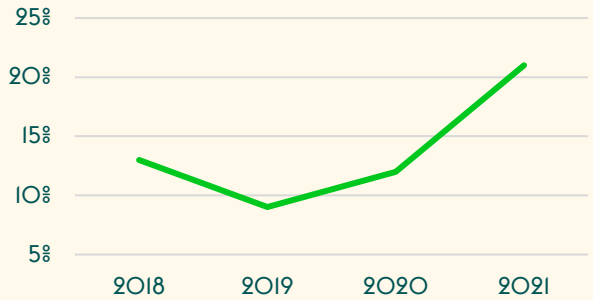
Electricity consumption in Gwh



After two years of decreasing energy consumption, we saw an increase in absolute energy consumption in 2021. This was mainly caused by the acquisitions of Southeastern Grocers in the U.S. and DEEN in the Netherlands.

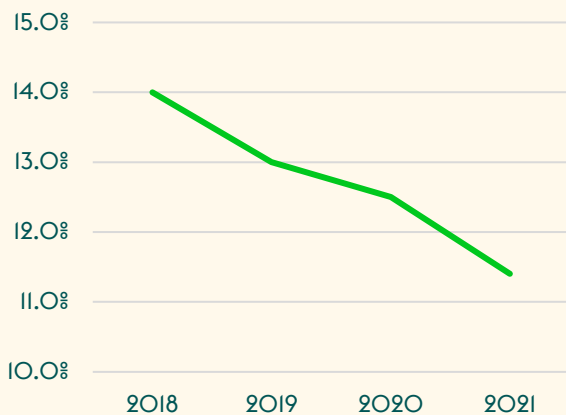
An increase in renewable electric energy use is due to our local Brands Delhaize in Belgium and Albert Heijn in the Netherlands transitioning to 100% renewable energy across their operations.

Renewable electric energy used

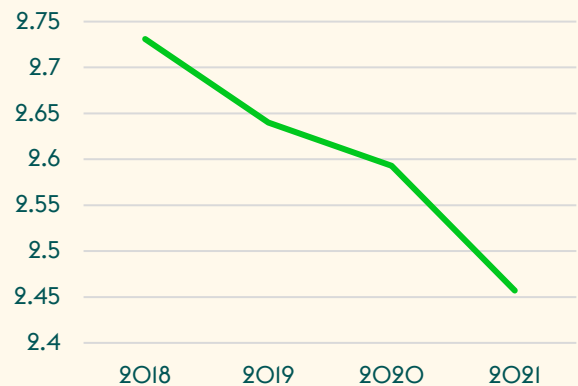


Refrigerant leakage

Refrigerant leakage

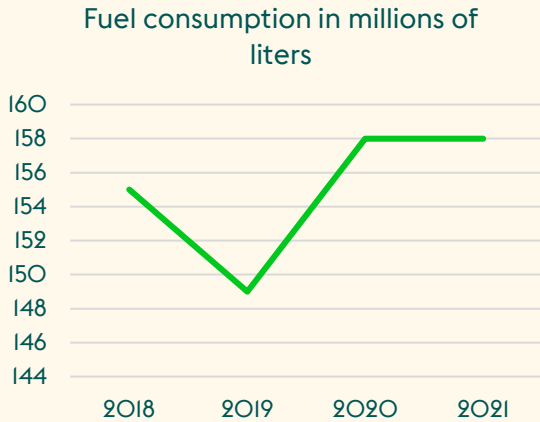


Average Global Warming Potential (GWP) (based based on the latest GWP values IPCC, AR6 2021)



Both refrigerant leak rates as well as the average GWP of our brands' refrigeration systems decreased over the last four years. This was mainly the result of our brands installing more sustainable refrigeration systems, including natural refrigeration systems, when remodeling stores.

Fuel consumption



Fuel consumption was stable over the past two years but increased compared to 2018. This was mainly caused by increased sales, resulting in more products requiring transportation from distribution centers to our stores, and increased online deliveries. Net sales increased by 20% compared to 2018, while fuel consumption increased by 2% in the same period. Our transition to electric vehicles will drive future fuel consumption reduction.

Scope 3

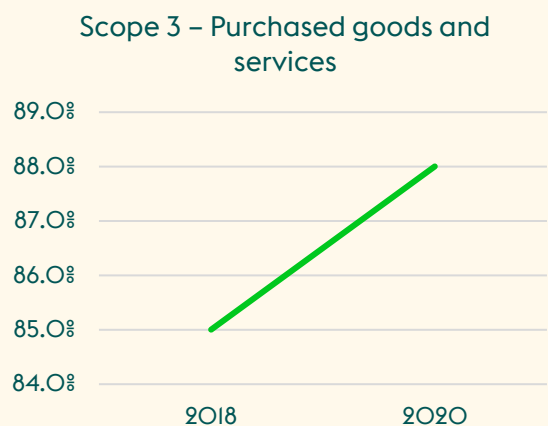
Below is an overview of our performance on reducing our scope 3 CO₂-equivalent emissions from 2018.

	2018	2020
Scope 3 CO ₂ -equivalent emissions	57,605	65,930

Our scope 3 emissions are driven by purchased goods and services, use of sold products and other categories (e.g., business travel). Our scope 3 GHG emissions are mainly driven by the category “purchased goods and services,” which represented 88% of our scope 3 emissions in 2020. Our scope 3 emissions increased from 2018 due to an improvement in the data set and business growth. Relative to net sales, our scope 3 GHG emissions decreased by 3.8% in 2020 compared to 2018. We believe that our updated scope 3 target and ambition will accelerate future emission reductions.

Purchased goods and services

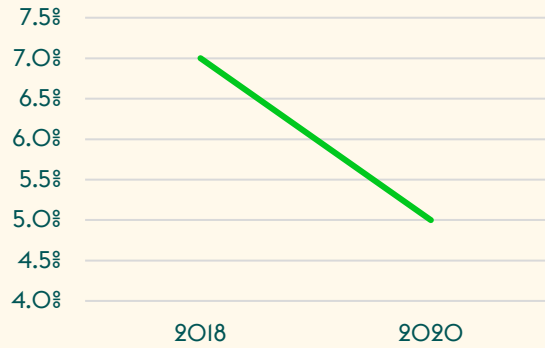
As a result of the increase in sales between 2018 and 2020, GHG emissions from this category also increased. Net sales increased by 20%, while GHG emissions from products and services increased by 18% compared to 2018.



Use of sold products

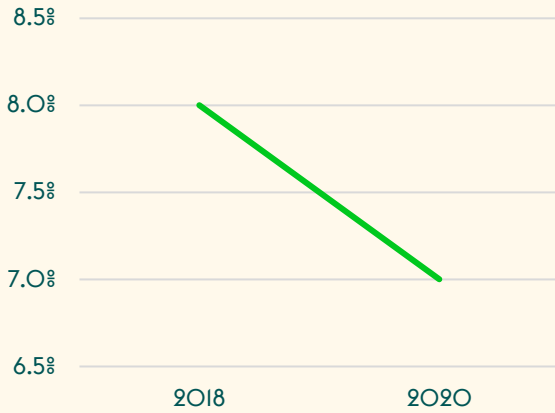
We experienced a decline in fuel sales between 2018 and 2020. This resulted in 17% less GHG emissions from this category.

Scope 3 – Use of sold products



Other categories

Scope 3 – Other categories



We saw a decrease of 2% in GHG emissions in the other categories. This decrease was applicable to all categories except for “employee commuting,” which was impacted by an increase in our total workforce, from 369 thousand to 414 thousand associates.

Appendix I

Methodology

Scope 1 and 2

Boundary conditions

From an operational scope perspective, the data includes the following parts of the business, unless specifically noted otherwise:

- All stores (company-owned and franchise/affiliated stores)
- Offices
- Company-owned distribution centers, including all transportation from distribution centers to stores, regardless of whether the transportation companies are owned by Ahold Delhaize.

Methodology

We report our scope 1 and 2 GHG emissions data according to the GHG Protocol Corporate Standard. CO₂ emissions data consists of a calculated CO₂ equivalent: actual CO₂ emitted plus equivalent emission from other greenhouse gases.

The carbon footprint methodology follows the guidelines of the World Business Council for Sustainable Development (WBCSD)/World Resources Institute (WRI) GHG Protocol regarding corporate GHG accounting and reporting.

We use the latest available emission factors in our reporting. We source location-based electricity emission factors from the International Energy Agency (IEA, 2021 edition; 2019 data) for European countries and from the Environmental Protection Agency (EPA) (based on eGrid 2019 values, issued in February 2021) for the United States. The source we use for the market-based (residual mix) emission factors for our U.S. brands is Green-e, and for our European brands is the European residual mix.

We source fuel emission factors from GHG Protocol 2014 wherever available, and otherwise from other appropriate sources. For refrigerant leakages, GWP values of all refrigerant blends used in Ahold Delhaize facilities were calculated based on GWP values of refrigerants from the Intergovernmental Panel for Climate Change Assessment Report 6, AR6 Chapter 7 (2021).

Data collection and considerations

Data on energy consumption, leakage for refrigerant substances and liters of diesel used for owned transport is collected on a quarterly basis on site level at each brand.

The sources of this data include invoices, remote meter records, third-party service provider reports and internal reports. Source data is reviewed internally and reported to the group through an internal reporting tool that stores the conversion factors to calculate the GHG emissions. Absolute GHG emissions are calculated by multiplying the source data with the relevant conversion factors.

Data is not always available in real time or immediately after quarter close. In these cases, we use data extrapolated from previously known consumption.

If data is not available at all, e.g., for a portion of the franchise stores, we use estimates calculated using locations that are comparable in size and format.

During 2021, several events took place that impacted Ahold Delhaize's scope 1 and 2 absolute GHG emissions: Food Lion acquired Southeastern Grocers, Albert Heijn acquired DEEN supermarkets, IPCC updated the conversion factors for refrigeration substances, and last-mile delivery was included for the Ahold Delhaize USA brands. This resulted in a restatement of the 2018 baseline to 4,073 thousand tonnes (+11.3%). The 2021 performance reflects these changes as well, while the 2020 data only includes the change from the updated conversion factors following the IPCC report.

Scope 3

Methodology

Ahold Delhaize and its brands have committed to long-term science-based targets to reach a net-zero value chain by 2050 and will encourage other parties in the value chain to build GHG emission reduction plans.

Our carbon footprint methodology follows the guidelines of the World Business Council for Sustainable Development (WBCSD)/World Resources Institute (WRI) and GHG Protocol regarding corporate GHG accounting and reporting.

Calculating scope 3 emissions is complex. Our brands have hundreds of thousands of products on their shelves and distribution centers supplied by more than 10,000 direct suppliers. All direct suppliers source materials and ingredients from their own suppliers, resulting in complex supply chains covering all areas of the world.

As a result of this complexity, actual data on our scope 3 GHG emissions is currently not consistently available, and we continue to work to improve this. As our brands continue to reach out to their suppliers, we expect increasing access to actual data, which will make our numbers more accurate.

Currently, we rely on assumptions and estimations when calculating our scope 3 GHG emissions. Our scope 3 footprint consists of 10 relevant scope 3 emission categories (out of 15 defined by the GHG protocol). We use two main calculation methods defined by the GHG Protocol, the average data and spend-based methods, and apply the method most suitable to each category.

Our 2030 scope 3 carbon emissions reduction target is a combination of two reduction targets for both land-related and non-land-related emissions. Both are aligned with a 1.5°C trajectory and cover 67% of purchased goods and services emissions and 100% of other scope 3 category emissions. The land-related emissions make up 69% of our GHG footprint and apply the SBTi FLAG Standard, with a linear annual reduction of 3.5%. For the non-land related emissions target we considered SBTi's 4.2% annual reduction to be aligned with 1.5°C. The reduction trajectory includes business as usual situation, which includes our expected growth, and deducts results unrelated to any effort on the part of Ahold Delhaize, such as suppliers committing to SBTi, greening of the grid, legislation, etc.

Data collection and considerations

Scope 3 GHG emissions data is collected on an annual basis. We report on scope 3 emissions with a one-year delay, as information used to calculate the data is, in some cases, received from third parties and, therefore, not yet available at year end.

CALCULATING CATEGORY 1: PURCHASED GOODS AND SERVICES

The main assumptions and estimates used in our calculation of the category "Purchased goods" are as follows:

We use different input data sets to calculate the emissions from products and services, depending on the information available in our brands' data systems. No validated supplier data is available, so we use weight of products purchased (6%), value of products purchased (2%), weight from products sold corrected for waste (26%) and value from products sold corrected for margin and waste to calculate value of products purchased (66%). The correction for margin and waste is done at brand level but assumed to be the same for all product categories and not diversified to product category.

These average data method calculations are based on the publicly available emission intensity of different foods. For products volumes recorded by weight (32%), we mainly use the Big Climate Database (all brands except for Delhaize Belgium) and Agribalyse (solely for Delhaize Belgium). With these databases, all retail-specific product categories are assigned special emission factors that enable us to apply corresponding emission intensities for each category.

For the spend-based method (68%), we use the emission intensities of different food and non-food industries (source: UK Department for Environment, Food & Rural Affairs (Defra) for food (emission factor 1.06) and Base Carbone for different non-food categories) and multiply this by products sold corrected for margin and waste.

Since we plan to reduce the use of assumptions and estimates by implementing further due diligence procedures in connection with scope 3 GHG emissions, our numbers might materially change over time.

For services, the footprint is calculated using the spend-based method. The activity data we use for this calculation are the annual brand-level purchased value of products and services multiplied by the emission intensity for relevant services (source: Defra (emission factor 0.2275)).

CALCULATING CATEGORY II: USE OF SOLD PRODUCTS

This category is impacted by the gasoline stations some of our brands operate. Emissions are calculated using an average data method, by multiplying the total volume of petrol sold to customers by the relevant emission factor from the EPA.

CALCULATING OTHER SCOPE 3 CATEGORIES

These include fuel- and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, employee commuting, end-of-life treatment of sold products, franchises and investments. The emissions are calculated using an average data method and are based on publicly available emission factors for each category (source: Defra, SimaPro, CO₂emissiefactoren.nl, EPA, and different input activity data).

Appendix 2

Select project examples

Ahold Delhaize and associated brands have already implemented many projects that deliver on our decarbonization commitments. Below is just a small selection of recent projects across our brands. Projects and initiatives are promoted across the Ahold Delhaize family of local brands to share best practices and to inspire the implementation of similar projects and initiatives in other regions. A market-based approach is then used to select and prioritize projects and initiatives taking into account the local situation and stakeholder requirements.

Transition to low-emitting refrigerants



Our Brands are working towards building new stores and remodeling existing stores with the latest refrigeration equipment that is running fully on natural refrigerants or using hybrid systems. For example, Hannaford has pioneered the use of transcritical CO₂ systems in stores and refrigerated warehouses.

Transition to renewable energy

Ahold Delhaize is expanding its focus to establish long-term partnerships with local renewable energy producers. For example, the Giant Company recently entered into a long-term agreement with a solar energy provider which will avoid more than 100,000 metric tons of Scope 2 carbon emissions associated with its energy use annually.



Also, since January 1st 2021, our European brand Albert Heijn has switched to 100% Dutch wind energy.

Appendix 2

Select project examples

Transition from fossil fuels (heating and transportation)



For the last several years, several Ahold Delhaize brands in Europe have reduced their reliance on fossil fuel heating from their operations. For example, all new Albert Heijn stores in the Netherlands are built with alternative ways of heating including heat pumps and heat recuperation. In the next few years Albert Heijn in the Netherlands will be completely “gasloos” (free of natural gas).

Bol.com on the other hand, is partnering with the national post that delivers most of the packaging. Post NL has a bold plan to have 0 emissions per delivered package by 2030. This is directly helping bol.com reduce their scope 3 emissions. In 2022, the brand also started collaborating with Cycloon, a Dutch company that delivers parcels mostly by cargo bikes. Together, these two great businesses are making delivery greener and more social.



Stop & Shop has committed to providing electric vehicle charging points to shoppers at no cost. Partnering with Volta Charging, Stop & Shop is one of the first east coast supermarkets to offer this benefit to customers across its store network.

Increased energy efficiency

Our brands continue to further reduce GHG emissions in our own operations. For example, Delhaize Serbia committed that it will use LED lighting in its entire store network by the end of 2024. The brand is also working to replace existing fluorescent lighting in its distribution center with LED lighting by the end of November 2022, which is expected to cut power consumption by about 700 MWh per year.



Our brand in the Czech Republic, Albert, has installed temperature sensors that detect cooling failure and monitor the quality of food in refrigerators and freezers.

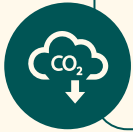
In 2022, more than 270 of the Ahold Delhaize USA brands' stores have completed LED conversions and more than 20 stores have retrofitted open refrigerated cases to have doors and improve operating efficiency. The Ahold Delhaize USA brands will continue to implement these measures in the remainder of the year.



Appendix 2

Select project examples

Supporting suppliers and farmers with science-based targets and sustainable practices



Of Ahold Delhaize's top 100 suppliers, more than 50 have set or are committed to setting GHG emissions reduction targets in line with the SBTi.

The Better for Cow, Nature & Farmer program was developed by Albert Heijn in collaboration with suppliers and dairy processor Royal A-ware. With this program, the supermarket encourages steps forward in dairy farming so that sustainable dairy can increasingly be produced with attention to animals, climate and dairy farmers. To be "better for nature", Albert Heijn is working to reduce the CO₂ footprint of dairy farmers.



As a founding member of the 10x20x30 Food Loss and Waste Initiative, all our brands are partnering with key suppliers to tackle the challenge of food waste across the supply chain. Ahold Delhaize brands have so far partnered with fourteen major suppliers to root out food loss and waste in the food supply chain: Arla Foods, Barba Stathis, Cargill, Chobani, Delta, General Mills, Hilton Foods Holland, Hoogesteger, Kellogg's, La Linea Verde d.o.o., Mars Incorporated, PepsiCo, Vezet and Yuhor have committed to reducing food waste by 50% in their own operations by 2030.

Investing in low-carbon products

Albert Heijn has an ambition to support customers in the transition to consuming 60% of protein from vegetable sources by 2030. They plan to make plant-based eating easier by offering a vegan range of more than 1,000 products. They are also making plant-based food affordable; last year the brand doubled the number of meat substitutes in its "price favorites" program, that offers top-quality own-brand products at affordable prices.



Delhaize Belgium is taking important steps in supporting the protein transition and announced in 2022 that they aim to double their plant-based assortment by 2025.

Proactively engaging with customers

Delhaize has played a pioneering role in making its plant-based product range more accessible. The brand is increasing its efforts to build awareness with customers about meat and dairy substitutes and aims to double this product range by 2025.

