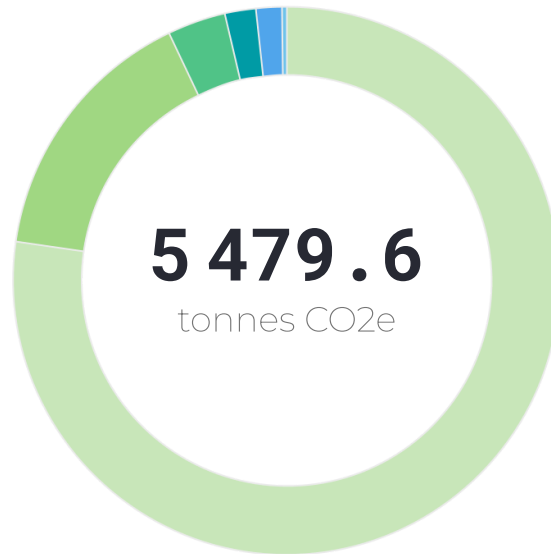


**Climate Report 2024**  
AHRÉNS ÅKERI AB



# EXECUTIVE SUMMARY

This report covers the carbon footprint of **AHRÉNS ÅKERI AB**. In 2024, the company's operations generated 5497.6 tonnes of CO<sub>2</sub>e — up **17.4%** overall compared to the same sources 2024. Despite this increase, Scope 1 emissions remain aligned with the company's science-based reduction target (**-14.6%**).



FUEL	77.3 %	PACKAGING	1.8 %
VEHICLES	15.7 %	COMMUTING	1.5 %
ELECTRONICS	3.5 %	FACILITIES	0.3 %

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# 1. Introduction

Future-proofing the business requires knowing where to start. With a heating planet & increasing demands, companies need to double down on climate action. Measuring the carbon footprint is essential in doing so.

**AHRÉNS ÅKERI AB** is a Swedish transport and logistics company delivering goods on roads all across Europe. Its business offer includes the full distribution chain from storage to freight.

Being part of the carbon-intensive transport sector, the company has both a huge responsibility - and a great opportunity - to contribute to the international climate goals set out by the Paris Agreement. That is, keeping global warming below 1.5 degrees.

This report tells the story about how Ahréns Åkeri AB impacted the climate during 2024, and what can be done to lower the emissions.

## 2. Purpose

A climate report is intended to summarize a company's impact. It maps out where emissions come from, analyzes how they have changed over time, and identifies strategic actions to take.

**AHRÉNS ÅKERI AB** has calculated emissions of greenhouse gases (GHGs) since 2006. This is the third report created in collaboration with GoClimate. It follows a year of advancements in the company's ongoing decarbonization efforts.

The aim of this report is twofold:

- 1** To track and trace the climate impact of all reported operations of Ahréns Åkeri AB during 2024.
- 2** To serve as a basis for external reporting and facilitate smart decision-making on how to lower emissions.

## 3. Carbon footprint

Understanding the climate impact of company activities is key to identifying hotspots and prioritized areas. This chapter covers all reported operations and associated emissions.

**ALL CALCULATIONS** in this report follow the Greenhouse Gas Protocol. This is the most widely used standard for companies measuring and reporting their carbon footprint.







Emissions are quantified as tonnes of **CO<sub>2</sub>e** (carbon dioxide equivalents). This unit merges different greenhouse gases while taking into account their specific global warming effects.

The following pages outline the company's climate impact in relation to its activities. This makes it clear where emissions occur and highlights prioritized areas for mitigation efforts.

**Standardized external disclosure is tabulated in the final section of the report.**

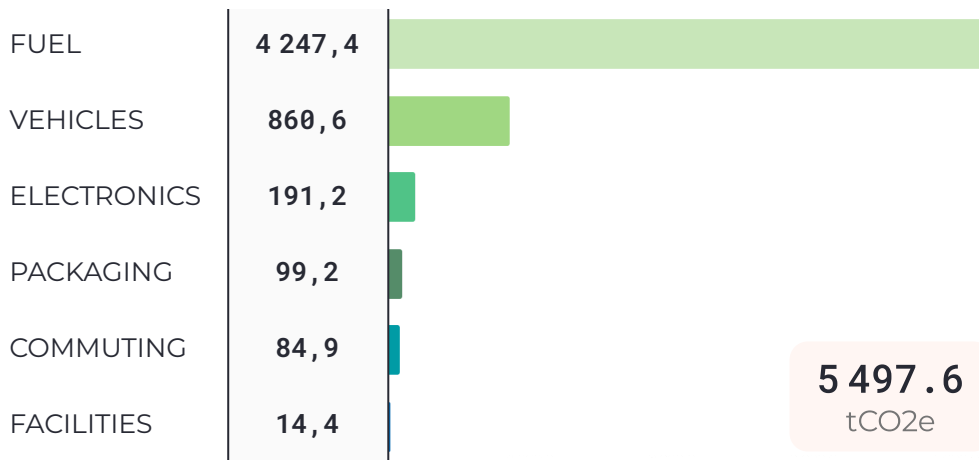
## 3.1 OVERVIEW

Ahréns Åkeri AB reports the following business activities for 2024:

	<b>Fuel</b> Production and combustion emissions from truck fleet fuel.
	<b>Vehicles</b> EXTENDED FOR 2024 Upstream impact of acquired vehicles and service parts.
	<b>Electronics</b> NEW FOR 2024 Supply chain emissions from purchased electronic equipment.
	<b>Packaging</b> NEW FOR 2024 Emissions from manufacturing procured packaging material.
	<b>Commuting</b> Carbon footprint of employee trips back and forth to work.
	<b>Facilities</b> Lifecycle impact of electricity use and waste collection.

As shown, Electronics and Packaging are new emission sources featured in this report. Moreover, the Vehicles inventory has been expanded to include leased vehicles,

Total emissions from reported activities are distributed as follows:



Given the carbon footprint outline presented above, Ahréns Åkeri AB has a clear trajectory for mitigating its impact:

#### **Focus on vehicles & fuel**

Efforts should target areas with the highest reduction potential, prioritizing the largest sources and key actions. Fuel and vehicles remain pivotal in Ahréns Åkeri's decarbonization strategy.

#### **All-inclusive reporting**

Continuously adding more categories is a major step forward - from purchased vehicles in 2023 to packaging and electronics in 2024. However, additional activities likely warrant inclusion for a more comprehensive footprint. In 2025, the company should aim to cover even more relevant emission sources.



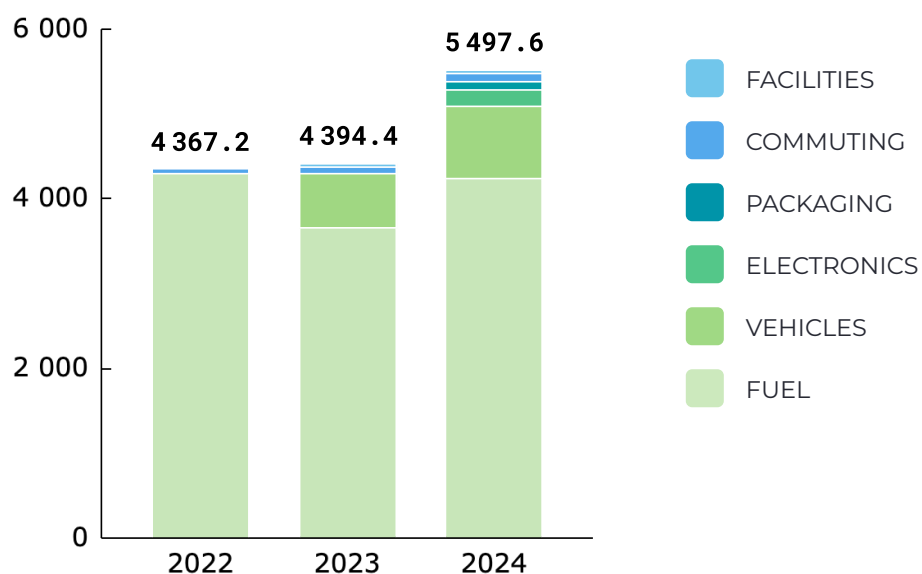
## 3.2 PERFORMANCE

Tracking carbon footprint trends over time is key to informed decisions. Understanding past patterns provides insight into future direction. This section compares emissions across years.

Ahréns Åkeri has gradually expanded its emissions inventory by adding more sources.. While this improves transparency, it also makes tracking progress more complex.

To ensure meaningful comparisons, each activity should be evaluated individually when assessing changes over time:

### TOTAL EMISSIONS OVER TIME tonnes CO<sub>2</sub>e



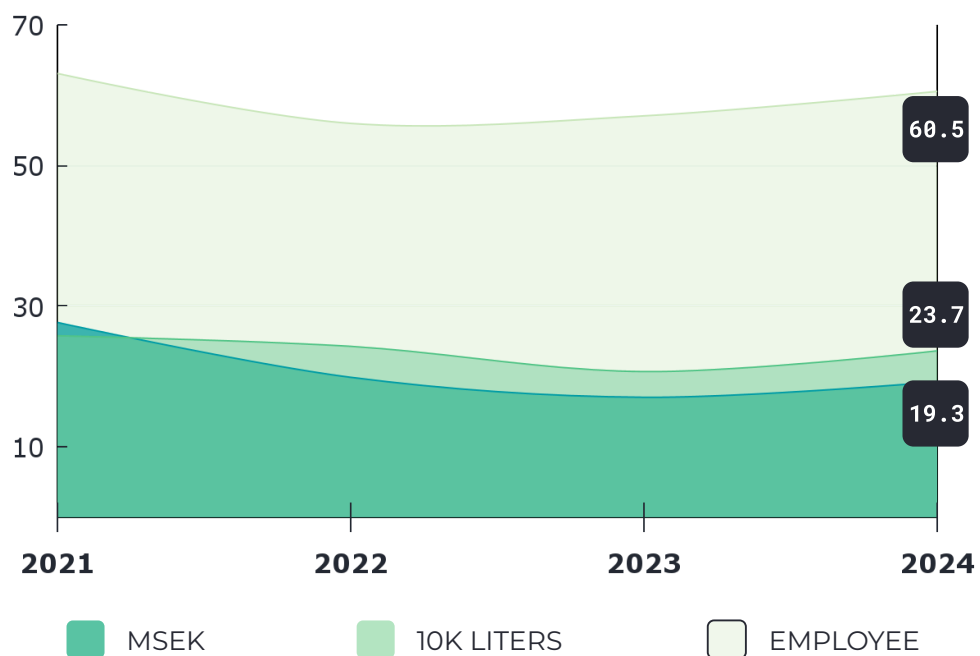
Fuel has consistently been the company's dominant emissions source. While fuel-related climate impact increased in 2024 compared to 2023, it remains slightly lower than in 2022.

The inclusion of Vehicles to the emissions inventory now accounts for a substantial share of the company's overall impact. Additionally, 2023 emissions have been recalculated, based on updated data from suppliers. Subsequent sections will take a closer look at emissions from Fuel and Vehicles.

Cutting down on overall climate impact is crucial. But tracking emissions relative to key indicators offers additional insights by linking the carbon footprint to company growth.

Emissions intensity per employee, per MSEK revenue, and per 10,000 liters of fuel provide a more nuanced view. This approach makes the data more relevant to Ahréns Åkeri AB's operations:

### CLIMATE PERFORMANCE INDICATORS tonnes CO<sub>2e</sub>



As shown, all three indicators have generally trended downward over the years, though 2024 saw a partial reversal. Emissions per MSEK revenue declined steadily from 2021 to 2023, indicating improved carbon efficiency relative to financial growth, but increased slightly in 2024.

Fuel carbon intensity has risen compared to 2023, which aligns with the expected impact of Sweden's abolished biofuel reduction mandate. However, the indicator remains lower than in 2021 and 2022, and the increase is relatively modest in the context of total fuel-related emissions.

Meanwhile, emissions per employee initially declined but rose again in 2024, showing some fluctuation rather than a clear downward trend. This suggests efficiency improvements per employee have been less pronounced than for other indicators.

Based on the collective performance result, the following conclusion can be made:

#### **Addressing fuel-related risks**

While the fuel carbon intensity suggests the increase isn't drastic, total fuel emissions remain the key concern for Ahréns Åkeri. Mitigating this risk will be a priority throughout 2025.

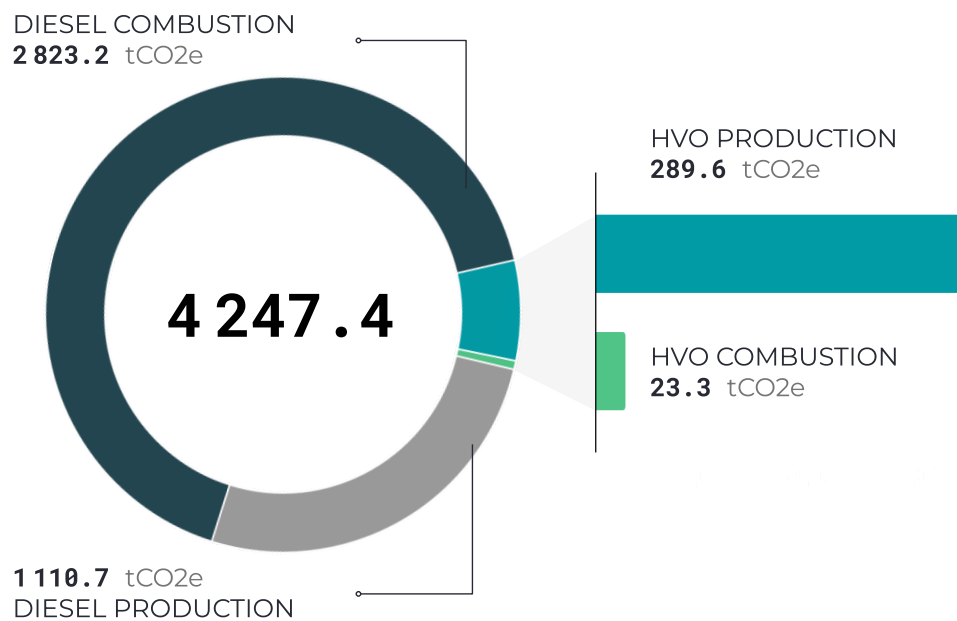


### 3.3 FUEL

Fuel consumption in company vehicles covers **77.3%** of the total carbon footprint of Ahréns Åkeri AB (**4 247.4** tonnes CO<sub>2</sub>e)

Fuel-related emissions stem both from direct combustion and indirect upstream processes. From raw material extraction and production, to final use in the company's truck fleet.

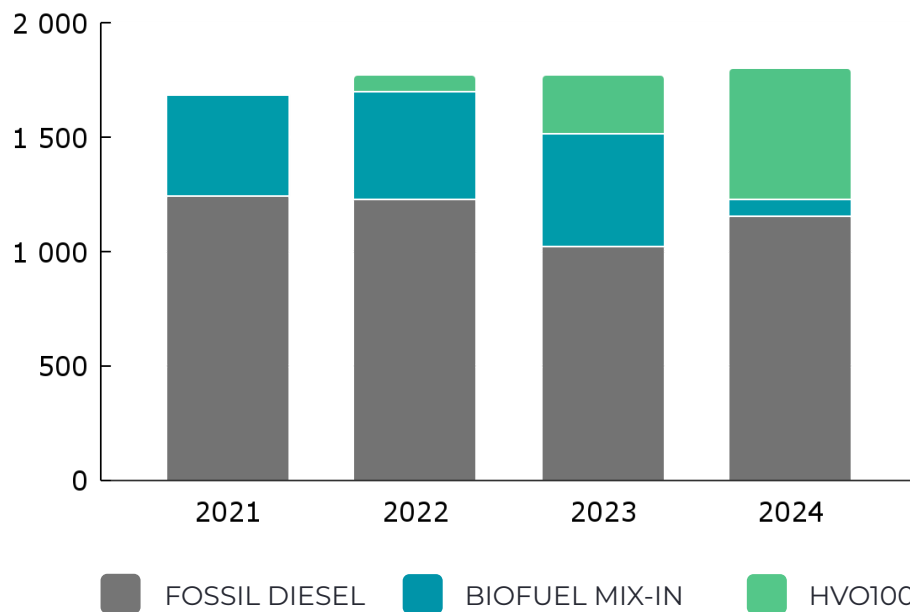
In 2024, two fuel types were reported—diesel and HVO100. Their respective carbon footprints are broken down below:



Diesel combustion is the dominant source, contributing 66.5% of fuel-related emissions, followed by its production (26.2%). Meanwhile, HVO accounts altogether for just 7.3% of the total.

However, as shown below, HVO's share of total fuel consumption rose sharply in 2024—from 14.2% to 31.3%. Notably, the 2023 share had already nearly tripled from the previous year:

### FUEL CONSUMPTION BREAKDOWN cubic metres



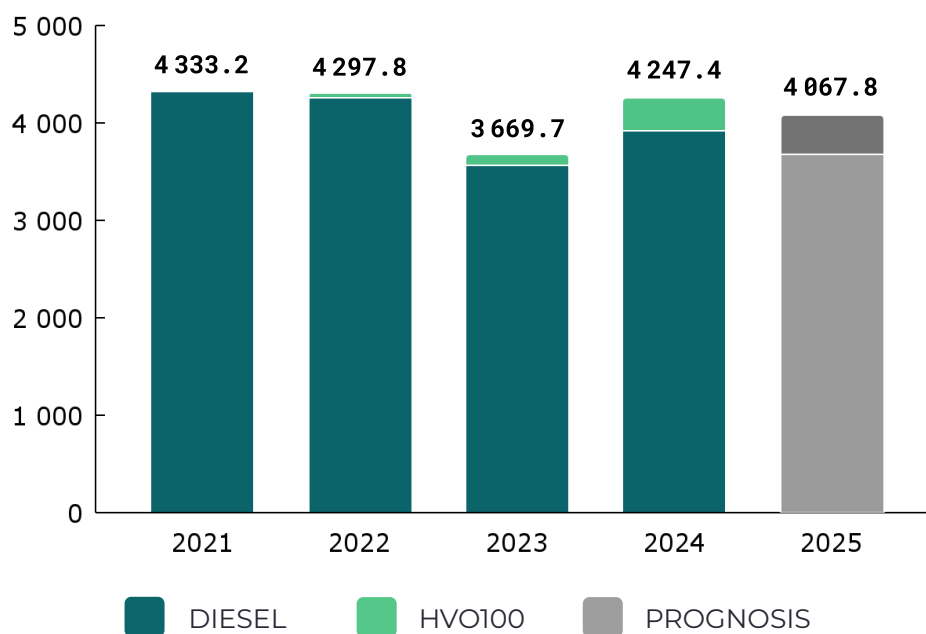
However, as the chart shows, Sweden's abolished biofuel reduction mandate has sharply reduced mixed-in biofuel—from roughly 30% to just 6% in 2024. This poses a major challenge for the company in meeting climate targets and stakeholder expectations.

Given this, it is a significant achievement for Ahréns Åkeri, together with their customers, to have successfully increased the share of HVO. Maintaining this trend will be crucial in the coming years, alongside other key efforts to reduce fuel-related emissions.

Despite the sharp increase in HVO use, total emissions rose by about 15.7% in 2024. This is a direct effect of the reduction in mixed-in biofuel within standard diesel.

The chart below illustrates how fuel-related emissions have developed over the past few years, including a 2025 forecast based on fuel consumption in previous years:

### FUEL-RELATED EMISSIONS tonnes CO<sub>2</sub>e



If the shift from diesel to HVO continues at the same pace, 2025 could see a 4.2% drop in fuel-related emissions. However, increasing HVO use will be essential in sustaining this trend — if overall fuel consumption remains unchanged.

The impact of 2024 emissions on Ahréns Åkeri's reduction targets is explored further in the target section of this report.

Given the result presented above for fuel-related emissions, the following key insights can be highlighted:

### **Switching to biofuel**

Maintaining the upward trend in HVO adoption is crucial for near-term emissions reduction. If all standard diesel had been replaced with HVO, fuel-related emissions would have dropped by 3246 tonnes CO<sub>2</sub>e (-**83%**).

### **Widening the offer**

With a lower biofuel mix in Swedish diesel, an intermediate alternative between diesel and HVO could help bridge the gap. Many suppliers offer diesel blends with a higher bio component—often 50% or more. Had all standard diesel been replaced with such a blend in 2024, emissions from diesel would have been reduced by an estimated **37%**.

### **Alternatives to combustion**

While biofuels like HVO play a role in reducing emissions, they still have a high climate impact, particularly when considering the near-term effects of biogenic CO<sub>2</sub>. In the long run, transitioning to electric trucks will be essential. Full electrification (with 100% renewable electricity) could cut fuel-related emissions by up to 3837 tonnes CO<sub>2</sub>e (-**98%**).

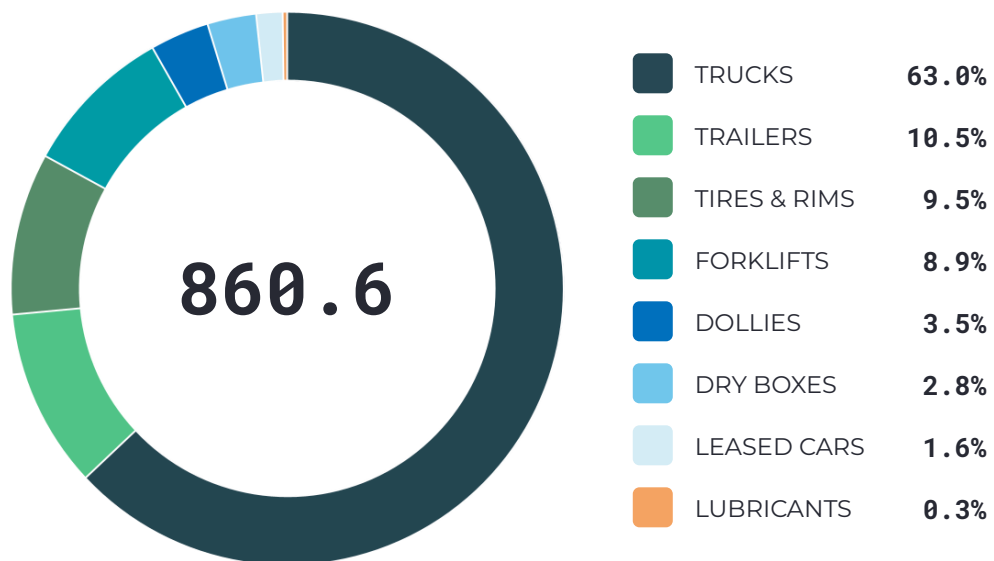


### 3.4 VEHICLES

Emissions from manufacturing of purchased vehicles amounts to **860.6** tonnes CO<sub>2</sub>e, which corresponds to **15.7%** of the total climate impact.

Vehicle production—from raw material extraction to final assembly—is highly emission-intensive. Since 2023, Ahréns Åkeri includes all procured vehicles and cargo containers in its inventory.

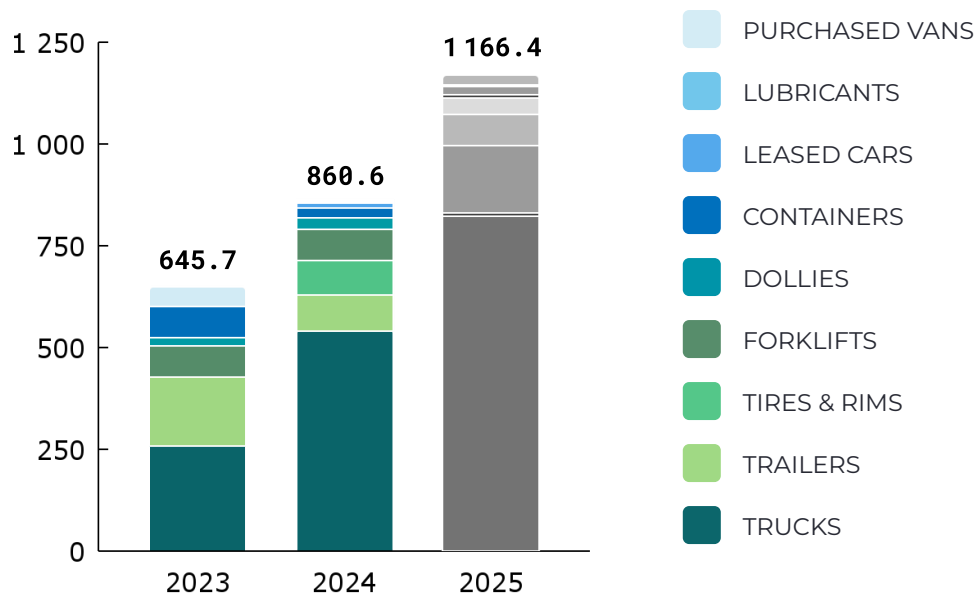
In 2024, the scope expanded further to cover leased cars, as well as lubricants, tires, and rims. Emissions are broken down as follows:





It is also valuable to look at the development of emissions over time. The chart below shows emissions for 2023 and 2024, along with a projection for 2025:

### VEHICLES & CARGO CONTAINERS tonnes CO<sub>2</sub>e



Total emissions increased by more than 200 tonnes CO<sub>2</sub>e between the two years. But it should be noted that almost half of this is attributable to leased cars, tires, rims and lubricants.

Most of the increase comes from the purchase of trucks. This kind of fluctuation is typical with capital goods procurement, as the number bought can vary from year to year.

The 2025 forecast should be viewed with caution due to limited data, but it provides insight into potential emissions trends as the company grows. If the company invests in electric vehicles during 2025, emissions may rise initially - but could significantly reduce fuel-related emissions over time as electricity replaces diesel.

To lower the climate impact from this category, the following recommendations may offer contributions:

### **Promoting recycled materials**

Incorporating the climate aspect in the vehicle procurement process is key. This can come in the form of demands on recycled materials and actively choosing suppliers that can offer this. Depending on material composition and vehicle type, this can lower the impact by roughly **15-75%**.

### **Supplier engagement**

Requesting environmental product declarations for specific vehicles from suppliers promotes more precise calculations. This is another key initiative for Ahréns Åkeri AB that engages suppliers to offer vehicles with a lower carbon footprint, and is an action that was introduced during 2024 for all relevant

### **Long-term synergies**

Focusing on reducing vehicle manufacturing emissions is crucial. However, in some cases, high initial impacts can result in reduced emissions in other categories. One notable example is electric vehicles, with initially higher emissions due to battery production, but leading to a significantly decreased fuel use.

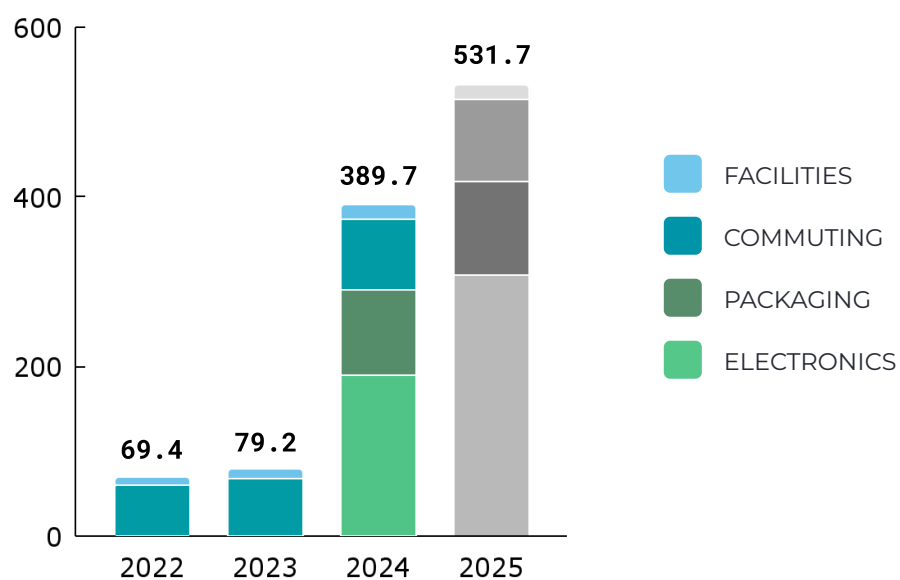


### 3.5 MINOR SOURCES

Remaining emission sources together cover about **7.1%** of the total carbon footprint, equivalent to **389.7** tonnes CO<sub>2</sub>e.

Beyond Fuel and Vehicles, Ahréns Åkeri reports emissions from several other activities. While these sources contribute significantly less to overall emissions, comprehensive reporting is essential for transparency and credibility. Additionally, targeted actions could help lower their impact over time.

The chart below shows how these emissions have evolved, including the addition of Packaging and Electronics in 2024, along with a forecast for 2025:



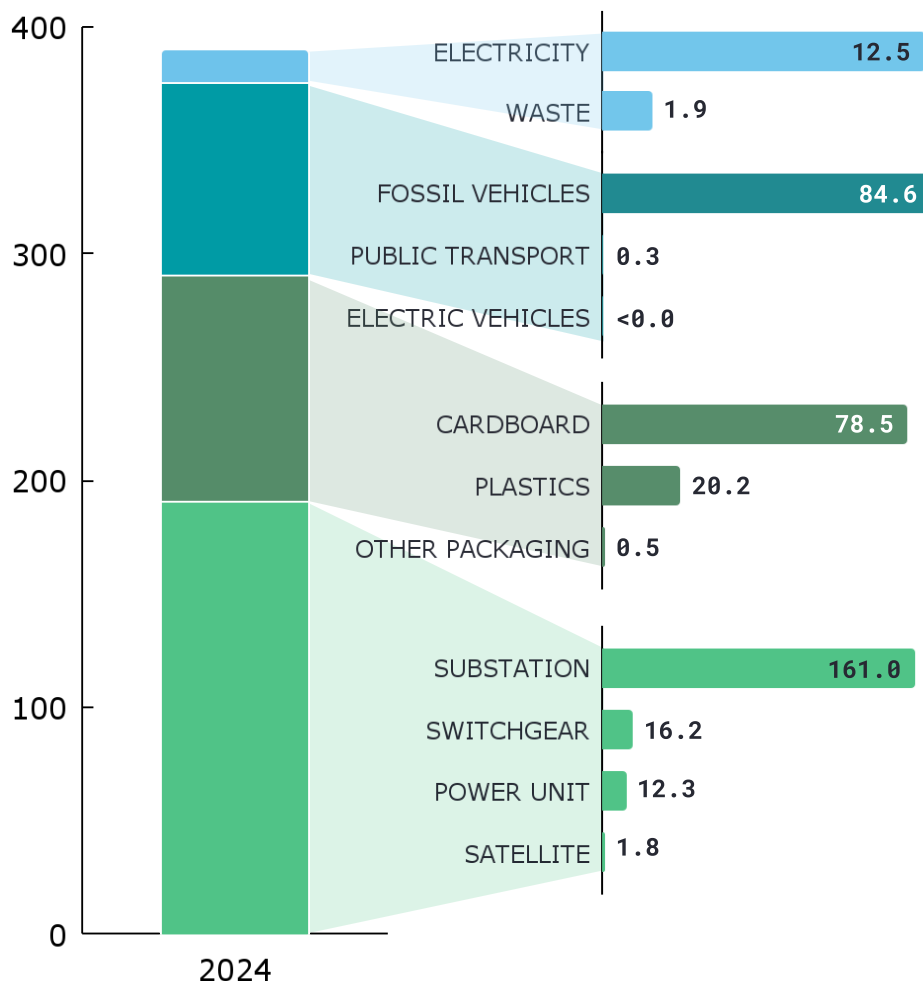
Electronics and Packaging had a noticeable impact in 2024, adding 191.2 and 99.2 tonnes CO<sub>2</sub>e, respectively.

Commuting emissions increased by 16.8 tonnes CO<sub>2</sub>e, mainly due to the abolished biofuel reduction mandate, which raised the impact of diesel cars. A growing workforce also contributed.

Facilities, though the smallest source, rose by 3.3 tonnes CO<sub>2</sub>e. While not a concern now, this will require monitoring if electric vehicles are added to the fleet.

The breakdown below highlights each source’s relative impact and helps identify potential reduction efforts:

■ FACILITIES   
 ■ COMMUTING   
 ■ PACKAGING   
 ■ ELECTRONICS



Below follows an assessment for each minor emission source:

### **Electronics**

These emissions come from installing a new power system, with the 2025 forecast including solar modules and inverters. If investments stop after 2025, emissions should decline. For now, Electronics is the third-largest source (3.5%). These upgrades support the shift to electric trucks by offsetting energy demand, so no immediate action is needed—only ensuring long equipment lifespan.

### **Packaging**

Covers all purchased packaging materials, plus a small amount of related gear and equipment. Despite being a new category, it already surpasses Commuting in impact. Switching to recycled materials could greatly reduce emissions—if all cardboard and plastics were recycled, emissions would drop by around **52** tonnes CO<sub>2</sub>e, cutting them by more than half.

### **Commuting**

Most employees commute using private, fossil-fueled vehicles. Cutting these emissions requires promoting cleaner fuels and sustainable transport. One key effort is raising awareness of HVO as an alternative to diesel, as most diesel cars could make the switch. If all diesel cars used HVO, emissions would drop by **42** tonnes CO<sub>2</sub>e (-83%).

### **Facilities**

Facilities emissions are linked to energy use and waste collection at the company's logistics terminal. Ahréns Åkeri uses 100% fossil-free energy with guarantees of origin, which keeps the footprint low. The increase in 2024 is mainly due to higher electricity consumption and a supplier merger. Waste also rose slightly, likely due to expanded reporting of activity data. Continued reporting ensures full scope coverage of the company's carbon footprint. Ongoing efforts to install solar power will likely have an impact on this category.

## 4. Climate strategy

Having outlined the carbon footprint, it is now time to do something about it. This chapter follows up the climate targets of Ahréns Åkeri AB and provides strategic recommendations.

**AHRÉNS ÅKERI AB** has increased overall emissions between 2023 and 2024, even if only comparing the same emission sources between years. Still, improvements during 2024 have contributed to keeping emissions lower than they otherwise would have been..

This part of the report will start out with a follow up on the climate target set between 2022-2030 and consider a prognosis for 2025.

After that, the action points identified for each emission-causing activity in the carbon footprint will be summed up to reveal reduction potentials.

**Taken together, this maps out the basis for the ongoing climate journey of Ahréns Åkeri AB.**

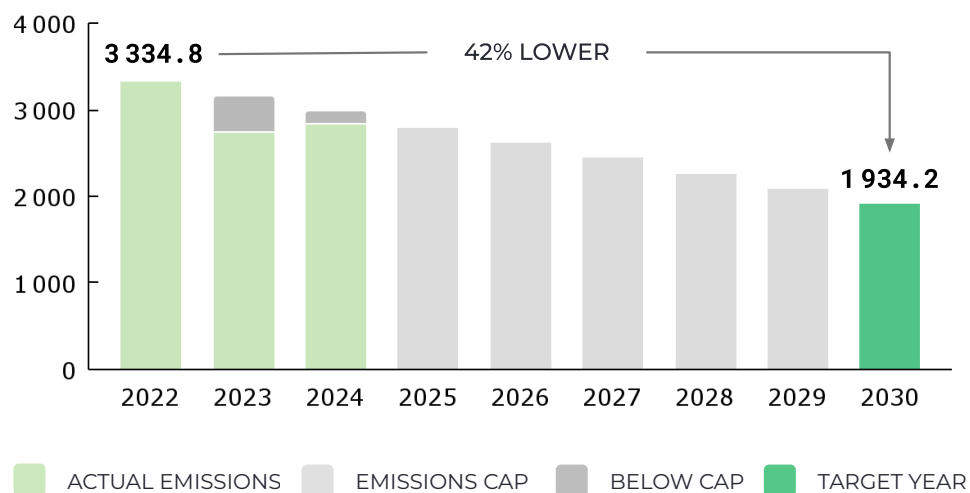
## 4.1 TARGETS

Ahréns Åkeri AB has committed to reducing direct emissions from purchased fuel by **42%** between 2022 and 2030.

In 2023, the company set this goal through the Science Based Targets initiative (SBTi), aiming to lower fuel-related emissions from 3,334.8 tonnes CO<sub>2</sub>e to 1,934.2 tonnes CO<sub>2</sub>e within 8 years

The significant increase in biofuel usage in 2024 helped keep emissions below the target cap. Despite a slight increase from 2023, the company surpassed its target by 137.6 tonnes CO<sub>2</sub>e, achieving a 14.6% reduction—exceeding the planned 10.5%—compared to the 2022 base year:

### CLIMATE TARGET PROGRESS tonnes CO<sub>2</sub>e



**THE REDUCTION TARGET** encompasses emissions from combustion reported under Fuel. Under the Greenhouse Gas Protocol classification, this corresponds to Scope 1.

Since Ahréns Åkeri AB follows the market-based approach, and already has 100% renewable energy, the Scope 2 emissions are reported as zero and exempt from the target. All energy-related emissions within Facilities are instead part of Scope 3.

Reaching a 42% lower carbon footprint by the end of 2030 equals an annual linear reduction rate of about 5.3%. This is in line with the 1.5 degrees pathway of the Paris Agreement.

Meanwhile, Ahréns Åkeri AB is committed to calculating and reporting other relevant Scope 3 categories in the GHG inventory. This is also evident with the addition of various business activities in both 2023 and 2024.





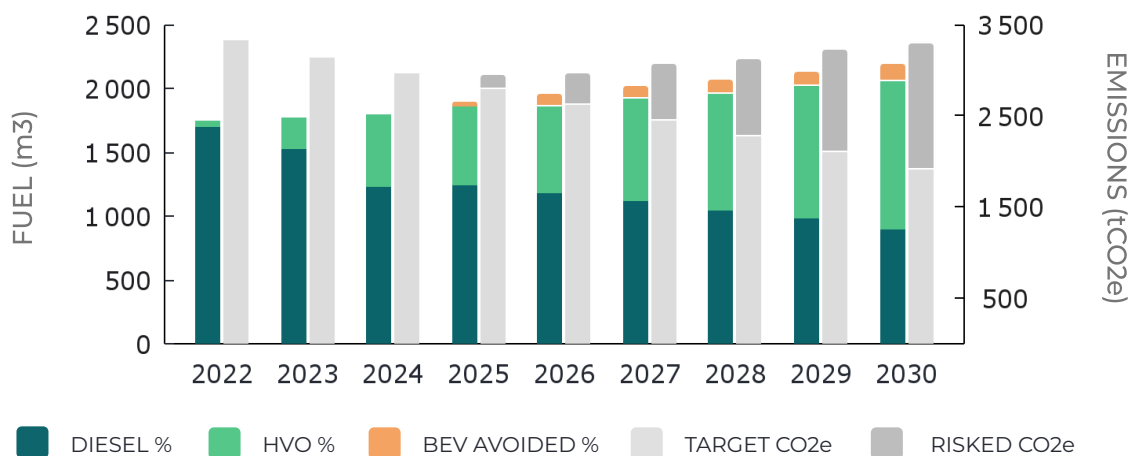
## 4.2 ACTION PLAN

Achieving the target requires effective management. It revolves around strategic shifts that enable business to continue while continuously lowering its impact.

The long-term climate strategy of Ahréns Åkeri is to decarbonize its truck fleet. Until at least 2030, this will primarily involve transitioning from diesel to HVO.

At the same time, electric trucks (BEVs) will be introduced where feasible, reducing fuel consumption and emissions.

The forecast shows the required mix of diesel, HVO, and fuel savings from BEVs to reach the target. Dark grey represents emissions above target if the fuel mix remains unchanged.



As the forecast indicates, HVO100 must account for approximately 33% of total fuel consumption in 2025 to stay on track with the target. This projection assumes that battery-electric trucks (BEVs) will be introduced that same year.

However, even with BEVs in operation, they will not be a sufficient short-term solution until they make up a larger share of the company's truck fleet.

By 2030, HVO usage will need to reach nearly 60% based on the current biofuel reduction mandate for diesel.

#### **About the forecast**

Fuel consumption is expected to rise, following a trend observed over the past years. Emission projections are adjusted for a decreasing share of biofuel in the fuel mix.



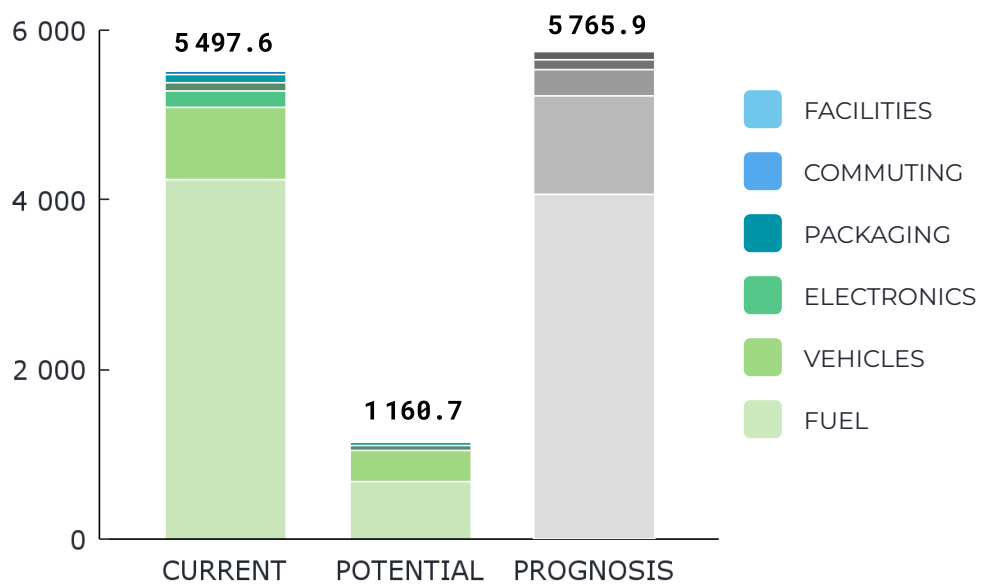
## 4.3 SCENARIOS

In addition to the current climate strategy and action plan, it's crucial to continuously pursue improvements. This section highlights key efforts that can drive further progress.

Based on some of the key actions identified in this report, it is possible to illustrate a potential state of where 2024 emission could have been if these actions were already implemented. Likewise, what 2025 might turn out to be if no changes are made.

While all the actions may not be feasible at this point, it lends a clear indication of how much lower the climate impact could be.

### SCENARIO ANALYSIS tonnes CO<sub>2</sub>e



The "Potential" scenario reflects an 80% emissions reduction, primarily by replacing all diesel with HVO. While ambitious, it highlights the transformative impact of key actions.

In contrast, the "Prognosis" scenario projects a 5% increase by 2025, assuming only minor fuel improvements. Continued adoption of HVO by Ahréns Åkeri remains a crucial factor.

Beyond fuel, emissions can be further reduced by prioritizing vehicles with recycled materials and lower-impact manufacturing.

Strong supplier engagement is key—setting clear sustainability demands and requiring Environmental Product Declarations (EPDs) will drive progress. The same approach applies to electronic equipment and packaging materials.

## 5. Climate projects

While reducing emissions remains the top priority, companies also have a role in addressing their historical emissions, which cannot be undone. One effective way to contribute is by financing climate projects.

**CLIMATE PROJECTS** play a crucial role in reducing emissions beyond the company's direct value chain. By supporting high-quality, third-party verified projects, businesses can make a real and measurable impact.

Currently, Ahréns Åkeri AB is not financing any climate projects. While covering 100% of the carbon footprint may not be feasible, it is recommended that the company contributes towards financing a portion of its total emissions.



## 6. Calculations

Understanding and managing the climate impact is obviously the most important part. But being transparent about how calculations were made (and in what ways they can improve) is essential to credible reporting.

**THE GREENHOUSE GAS PROTOCOL** is the world-leading standard for companies disclosing their GHG emissions. It establishes a framework for how to consistently measure and categorize the carbon footprint of companies

This chapter delves into how the guidelines have been applied to measure the carbon footprint of Ahréns Åkeri AB in this report.

### **A note on precision**

It is worth noting that the accuracy of calculations relies on the data quality provided by the reporting company. More detailed and specific information enhances precision. Beyond this, the availability of emission factors can serve as a limitation.

Taken together, this means that the calculations are as precise as the underlying data permits. As such, the result is primarily intended as an estimated overview of the company's climate impact, rather than an exact measurement.

## 6.1 PRINCIPLES

The Greenhouse Gas Protocol puts forward five core principles that have guided the work behind this report. Together they safeguard credible, factual and objective climate impact measurements.

### **Relevance**

To allow for smart decision-making, included emission sources have to mirror relevant parts of the company's operations. This is ensured by in-depth communication with the responsible staff. These are the ones with the best insight into company activities.

### **Completeness**

All applicable emission sources must be accounted for, and any exclusions need to be justified. To aid in this, continuous dialogue and standardized forms are used to identify relevant activities.

### **Consistency**

Following up the calculations over time requires systematically applied and carefully documented methods. This report details all the work behind it to facilitate continuity and comparability.

### **Transparency**

Credible reporting warrants clear descriptions of how the calculations have been carried out. This report explicitly lists any assumptions or limitations, and provides appropriate references.

### **Accuracy**

To fulfill its function as a basis for decision-making, calculations must be precise enough to be credible. This means consciously avoiding under- or overestimations and using the latest available data. Thereby uncertainty is minimized to the extent possible.

## 6.2 BOUNDARY

In line with the Greenhouse Gas Protocol, companies need to define system boundaries. These are needed to determine what should be included in the GHG inventory.

Setting an organizational boundary is about establishing the company's extent of responsibility for emissions. In other words, it draws a line for where the carbon footprint of Ahréns Åkeri AB ends, and where others begin.

Different so-called 'consolidation approaches' can be used. Put simply, the choice depends on whether the company is a majority owner in another organization or not.

Considering that Ahréns Åkeri AB is a wholly owned company with no subsidiaries of its own, the latter (an '**operational control approach**') was deemed applicable.

This means that the company can take full ownership of all emissions that they can directly influence and reduce.



## 6.3 SCOPES

Within the Greenhouse Gas Protocol, emissions are divided into three different scopes. These demarcate what is the company's direct and indirect climate impact. This section summarizes included emission-causing activities.

So far the report has categorized the carbon footprint of Ahréns Åkeri AB based on its actual activities. But for external reporting it is important to use the classification of the GHG Protocol:

### **Scope 1**

Direct emissions from mobile or stationary assets used by the company are reported in Scope 1. For Ahréns Åkeri AB, it revolves around emissions from fuel combustion in the truck fleet.

### **Scope 2**

Energy purchased by the company indirectly causes emissions while being generated, which is disclosed in Scope 2. Ahréns Åkeri AB reports emissions from purchased electricity.

### **Scope 3**

All other types of indirect emissions arising throughout the company's value chain are attributed to Scope 3. Up to 15 different categories can be reported here.

The following table presents all Scope 3 categories and a screening of their relevance to the activities of Ahréns Åkeri AB:

<b>CATEGORY</b>	<b>ASSESSMENT</b>
PURCHASED GOODS & SERVICES	Partially included.
CAPITAL GOODS	Partially included.
UPSTREAM FUEL- ENERGY	Included.
UPSTREAM FREIGHT	Not included, may be applicable
WASTE TREATMENT	Included.
BUSINESS TRAVEL	Not relevant.
COMMUTING	Included.
UPSTREAM LEASED ASSETS	Partially included.
DOWNSTREAM FREIGHT	Not applicable.
PROCESSING OF SOLD PRODUCTS	Not applicable.
USE OF SOLD PRODUCTS	Not applicable.
DISPOSAL OF SOLD PRODUCTS	Not applicable.
DOWNSTREAM LEASED ASSETS	Not applicable.
FRANCHISES	Not applicable.
INVESTMENTS	Not included, likely not applicable.

## 6.4 METHOD

Accurate and transparent calculations are key to continuous improvement. This section outlines the methodology used to assess the carbon footprint of Ahréns Åkeri AB.

The following detail the data collection and calculation approaches for each reported activity, including:

- Activity data
- Emission factors
- Method updates or changes
- Assumptions and exclusions
- Suggestions for improvement

This information ensures result accuracy and validity while also guiding the company in enhancing data quality over time.



Activity	Scope	Activity data	Emission factors	Source(s) <sup>1</sup>	Improvement
FUEL	1 & 3.3	Volumes of purchased fuel per fuel type.	Average Swedish emissions per fuel type. Diesel based on regulated mix-in of 6% biofuel.	<i>Energimyndigheten 2024, Naturvårdsverket 2024 DEFRA 2024</i>	Requesting a breakdown of well-to-tank and tank-to-wheel emissions from the fuel supplier could improve accuracy.
VEHICLES	3.1, 3.2 & 3.8	Number of vehicles/equipment with technical specifications, plus lubricant volumes	80% of estimated emissions are based on supplier-specific factors, calibrated to each product's technical specifications. 15% rely on average data, and 5% on product-specific emissions.	<i>EPDs 2021-2024</i>	Requesting product-specific EPDs from manufacturers.
ELECTRONICS	3.2	Amount of equipment	Product-specific emissions	<i>EPDs 2020-2024</i>	
PACKAGING	3.1	Number of purchased products and weight per product	Average emissions per specific material type	<i>EPDs 2022-2024</i>	Requesting product-specific EPDs from manufacturers.
COMMUTING	3.7	Yearly commuting distance per mode of transport, extrapolated from survey in 2023 based on number of employees	Average emissions per vehicle or fuel type	<i>Energimyndigheten 2024, Naturvårdsverket 2023</i>	
FACILITIES	2, 3.3 & 3.5	Total energy consumption and mass of waste per waste type	Supplier-specific for market-based, average for nordic grid for location-based. Average emissions for waste collection services	<i>Fortum 2024, EI 2024, AIB 2024, DEFRA 2024</i>	

<sup>1</sup> Department of Environment, Food & Rural Affairs (DEFRA); Environmental Product Declaration (EPD); Swedish Energy Market inspectorate (EI); Association of Issuance Bodies (AIB).

## 6.5 METRICS

Climate impact is measured using the unit of carbon dioxide equivalents (CO<sub>2</sub>e). Different greenhouse gases are combined in one single metric based on their global warming potential (GWP).

The Intergovernmental Panel on Climate Change (IPCC) continuously puts forward updated GWPs based on new research. These are reported in every new Assessment Report (AR).

The table below summarizes the GWP according to three most common GHGs (and the only ones relevant for this report):

<b>GREENHOUSE GAS</b>	<b>AR5</b>	<b>AR4</b>
Carbon dioxide (CO <sub>2</sub> )	1	1
Methane (CO <sub>4</sub> )	28	25
Nitrous oxide (N <sub>2</sub> O)	265	298

All emissions in this report are based on AR5 (2014).

## 7. Disclosure

For external reporting purposes, this final chapter presents the division of emissions according to included standards.

**AHRÉNS ÅKERI AB** currently discloses its climate-related impact according to the standards: (1) the Greenhouse Gas Protocol; and (2) the Global Reporting Initiative (GRI).

As such, the reporting is also compatible with the new European Sustainability Reporting Standards (ESRS).



## 7.1 GREENHOUSE GAS PROTOCOL

Ahréns Åkeri AB reports emissions according to the GHG Protocol as follows:

Emission sources (tCO <sub>2</sub> e)	2024	2023	2022
<b>Scope 1</b>	<b>2 847,0</b>	<b>2 762,0</b>	<b>3 334,8</b>
Mobile combustion	2 847,0	2 762,0	3 334,8
<b>Scope 2</b>	<b>0,0</b>	<b>0,0</b>	<b>0,0</b>
Renewable electricity	0,0	0,0	0,0
<b>Scope 3</b>	<b>2 650,6</b>	<b>1 632,4</b>	<b>1 032,4</b>
Purchased goods & services	183,3	-	-
Capital goods	954,3	645,7	-
Production of energy carriers	1 412,8	918,1	971,7
Waste	1,9	0,4	-
Commuting	84,9	68,1	60,7
Upstream leased assets	13,4	-	-
<b>Total</b>	<b>5 497,6</b>	<b>4 394,4</b>	<b>4 367,2</b>
<b>Energy-related (Scope 2)</b>			
Market-based	< 0,1	< 0,1	< 0,1
Location-based	15,3	27,1	21,2
<b>Outside of scopes</b>			
Biogenic CO <sub>2</sub> from vehicle fleet	1 810,3	1 504,5	1 329,8

Scope 1	Quantity Unit	tCO <sub>2</sub> e	Share
<b>Mobile combustion</b>		<b>2 847,0</b>	<b>51,8%</b>
Diesel	1 234 m <sup>3</sup>	2 823,8	51,4%
HVO100	561 m <sup>3</sup>	23,3	0,4%
Scope 2	Quantity Unit	tCO <sub>2</sub> e	Share
<b>Electricity</b>		<b>0,0</b>	<b>0,0%</b>
Renewable electricity	779 MWh	0,0	0,0%
Scope 3	Quantity Unit	tCO <sub>2</sub> e	Share
<b>Purchased goods &amp; services</b>		<b>183,3</b>	<b>3,3%</b>
Lubricants	2 067 liters	2,4	< 0.1%
Tires	275 units	65,3	1,2%
Steel wheels	170 units	16,5	0,3%
Packaging	99 tonnes	99,2	1,8%
<b>Capital goods</b>		<b>954,3</b>	<b>17,4%</b>
Power unit	3 units	12,3	0,2%
Satellite	4 units	1,8	< 0.1%
Substation	1 units	161,0	2,9%
Switchgear	1 units	16,2	0,3%
Trucks	17 units	542,3	9,9%
Trailers	5 units	90,0	1,6%
Forklifts	5 units	76,4	1,4%
Dollies	5 units	29,9	0,5%
Dry box	3 units	24,4	0,4%
<b>Production of energy carriers</b>		<b>1 412,8</b>	<b>25,7%</b>
Renewable electricity	779 MWh	12,5	0,2%
Diesel	1 234 m <sup>3</sup>	1 110,7	20,2%
HVO100	561 m <sup>3</sup>	289,6	5,3%



<b>Waste generated in operations</b>		<b>1,9</b>	<b>&lt; 0.1%</b>
Mixed waste	135,3 tonnes	0,9	< 0.1%
Sludge	20,6 tonnes	0,1	< 0.1%
Wood waste	114,7 tonnes	0,7	< 0.1%
Aerosols	< 0.1 tonnes	< 0.1	< 0.1%
Oil	2,7 tonnes	< 0.1	< 0.1%
Electronics	0,4 tonnes	< 0.1	< 0.1%
Filters	0,1 tonnes	< 0.1	< 0.1%
Metal	18,2 tonnes	0,1	< 0.1%
Food waste	5,0 tonnes	< 0.1	< 0.1%
Paper	1,6 tonnes	< 0.1	< 0.1%
Plastic	0,4 tonnes	< 0.1	< 0.1%
<b>Employee commuting</b>		<b>84,9</b>	<b>1,5%</b>
Diesel car	246 304 pkm	51,0	0,9%
Gasoline car	192 503 pkm	31,8	0,6%
Motorcycle	9 594 pkm	1,2	< 0.1%
Plug-in Gasoline	10 553 pkm	0,5	< 0.1%
Bus	11 913 pkm	0,3	< 0.1%
BEV	299 pkm	< 0.1	< 0.1%
<b>Upstream leased assets</b>		<b>13,4</b>	<b>0,2%</b>
VW ID.3	2 vehicles	2,5	< 0.1%
VW ID.7	9 vehicles	10,9	0,2%

## 7.2 GLOBAL REPORTING INITIATIVE

GRI 302-1	GJ
<b>Direct energy consumption</b>	<b>62 760,4</b>
Diesel	43 680,9
HVO100	19 079,5
<b>Indirect energy consumption</b>	<b>2 802,9</b>
Renewable electricity	2 802,9
GRI 305	tCO2e
<b>GRI 305-1 Direct GHG emissions</b>	
Scope 1	2 847,0
<b>GRI 305-2 Energy indirect GHG emissions</b>	
Scope 2 (market-based)	0,0
Scope 2 (location-based)	15,3
<b>GRI 305-3 Other indirect GHG emissions</b>	
Scope 3	2 650,6
<b>GRI 305 Biogenic CO2 emissions</b>	
Scope 1	1 810,3
Scope 2 (market-based)	0,0
Scope 2 (location-based)	1,4
<b>GRI 305-7 Emissions to air</b>	<b>kg</b>
NOx	6 918,1
SO2	6,5
PM	100,2
VOC	191,3

