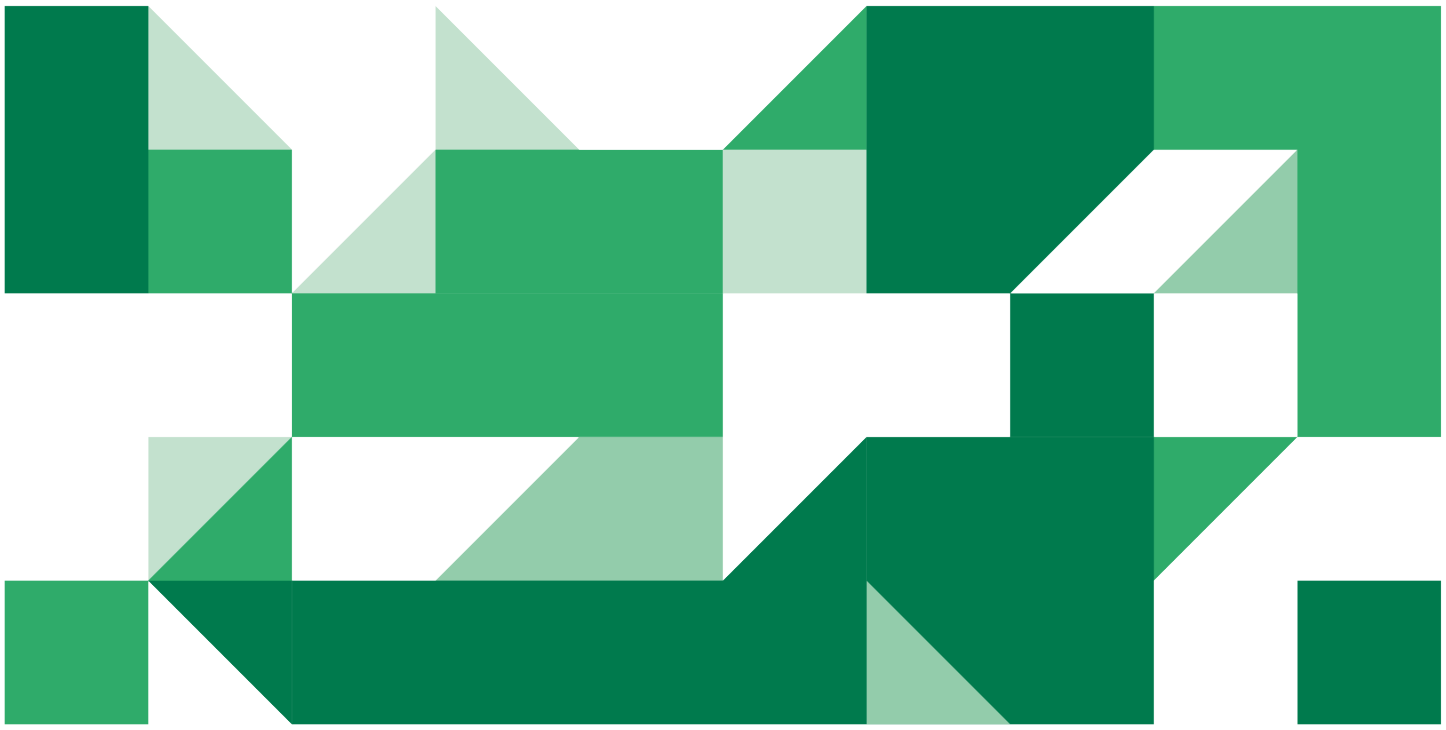
OSTROJ

The company’s greenhouse gas inventory for 2025



Company greenhouse gas inventory for 2025

OSTROJ a.s.
Registered office: Těšínská 1586/66, 746 01 Opava-Předměstí

Company ID: 45193681 | VAT No.: CZ45193681

Entry in the Commercial Register:
Regional Court in Ostrava, Section B, File 349

Contents

Glossary of terms and abbreviations

Terms

Decarbonisation

Reducing a company's carbon footprint in accordance with its established strategy and set targets.

Emissions

For the purposes of this report, these are air pollutants.

Emissions offsets

Quantified reductions in greenhouse gas emissions used to offset greenhouse gas emissions emitted by another source.

SCOPE

Classification of emissions related to the company's activities according to the GHG Protocol methodology.

GHG Protocol

A set of tools and standards developed to help businesses measure, manage and report greenhouse gas (GHG) emissions associated with their operations.

Greenhouse gases

Gases found in the atmosphere that contribute to the greenhouse effect. The natural greenhouse effect is essential for life on Earth, but higher levels of greenhouse gases resulting from business activities cause global warming.

Carbon neutrality

A state in which a company reports zero carbon dioxide emissions. This represents a balance between CO2 emissions and the natural absorption of carbon dioxide.

Company carbon footprint

The total emissions from a company's direct and indirect activities.

Abbreviations

WTT	Fuel production and distribution (Well-to-Tank)
T&D	grid losses (Transmission and Distribution)
GHG	Greenhouse gas (GHG)
CO2e	carbon dioxide equivalent
LCI	Life Cycle Inventory Analysis
IPCC	Intergovernmental Panel on Climate Change
GWP	Global Warming Potential

Introduction

A company's carbon footprint determines the amount of greenhouse gases generated and released into the atmosphere during the company's production activities over a specific period (one year) and is typically expressed in CO2e equivalents, which also includes other greenhouse gases emitted.

For the purposes of accurate reporting of greenhouse gas emissions, the GHG Protocol has categorised emissions related to a company's activities into three areas, known as SCOPE.

SCOPE 1 (direct emissions) – activities during which greenhouse gas emissions are released directly into the atmosphere and which are controlled by the company.

SCOPE 2 (indirect emissions from purchased energy) – emissions associated with the consumption of purchased energy (electricity, compressed air, heat, steam or cooling generated from the combustion of fossil fuels) supplied to the company by its suppliers, but arising as a result of the company's activities. These are indirect greenhouse gas emissions from sources that the company does not directly control. If the company generates its own electricity/heat and sells it to other customers, or if it sells purchased electricity/heat from fossil fuels to other customers (such as tenants) and the quantity of this electricity is metered, it is deducted from total SCOPE 2 emissions.

SCOPE 3 (other indirect emissions) – purchased emissions resulting from the company's activities and arising from sources outside the company's control or ownership, but not classified as SCOPE 2.

At OSTROJ a.s., we recognise that our environment is fragile, and that not only people themselves,
but also businesses play a key role in taking responsibility for their activities that affect it.

We strive to be an environmentally responsible company that is aware of its own activities with a negative impact on the environment, and therefore we continuously implement a range of measures and investments to increase the sustainability of our procedures and processes, so that we can gradually minimise these impacts.

Among the key measures we have taken are the implementation of solutions that reduce energy and water consumption, minimise waste production, promote recycling, and introduce environmentally friendly technologies.

We believe that, together with our employees, we can bring about positive change.

About the company

Company profile

The company is one of the most stable firms in the Czech Republic and has been operating in the engineering market since 1948. It is a wholly Czech joint-stock company based in Opava.

Key indicators for OSTROJ a. s.

Indicator	2025	2023
Revenue from the sale of products and services	CZK 1,540,091 k	CZK 1,249,335 k
Number of permanent employees (FTE)	728	750

Description of the main activities and technologies

The source of greenhouse gas emissions at OSTROJ a.s. is its product portfolio, which encompasses a wide range of products and components, from mining machinery for deep coal and ore mining, through specialised equipment for underground construction, automated conveyor systems, airport equipment, hydraulic cylinders, shafts, printing cylinders, machined and painted welded assemblies, comprehensive tooling solutions and precision-machined parts, right through to steel drop forgings. Electrogalvanising and chrome plating are also part of our manufacturing activities.

Production takes place at our company's headquarters. The entire production process begins with the delivery of raw materials (primarily metallurgical materials), continues through the manufacturing stage itself, and concludes with the dispatch of the product to the customer.

Strategy and regulations regarding the carbon footprint

OSTROJ a.s. does not have a defined strategy or internal regulations regarding the carbon footprint for 2025, but it is our ambition to consistently strive to reduce emissions across all three areas (SCOPE 1, 2 and 3) by applying the following principles:

- seeking solutions that lead to meaningful investments in reducing greenhouse gas emissions,
- maintain a system for the annual monitoring and reporting of greenhouse gas emissions,
- strive to foster a positive attitude towards the environment among our employees.

Emissions reporting system

Basic data

The base year for measuring the company's carbon footprint was set as 2023, taking into account the accuracy and availability of the data required for the calculation.

The company's carbon footprint was calculated in accordance with ČSN EN ISO 14064-1: 2019 – Greenhouse Gases and the GHG Protocol.

All sources of direct and indirect emissions were included in the calculation.

The OSTROJ a.s. carbon footprint report has not been verified by an independent auditor given the absence of such a requirement.

emissions not included

The company's carbon footprint calculation does not include emissions from minor material suppliers delivering in units of pieces or litres, who account for less than 1% of the total annual value of input materials, including emissions arising from the transport of these input materials. Furthermore, emissions from the transport of products to minor customers, who account for less than 1% of annual turnover, are not included.

Obtaining accurate data on the above would be very challenging; therefore, we have increased these specific emission sources within SCOPE 3 by a margin of 3% in accordance with the permitted methodology.

The use of individual systems and the relevance of data according to individual emission sources are illustrated in **Appendix 1 – Overview of the methodology used for data collection and calculation.**

Company carbon footprint results

Company carbon footprint result

Greenhouse gas emissions for the period 2025

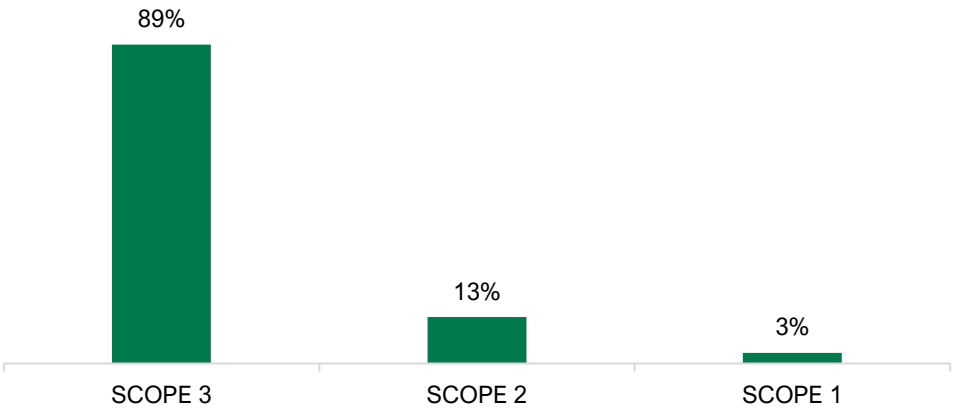
Total emissions	71,470 t CO_2e
SCOPE 1	1,977 t CO_2e
SCOPE 2	9,042 t CO_2e
SCOPE 3	60,451 t CO_2e

TOP 5 emission sources	
Material	58,147 t CO_2e
Electricity	9,042 t CO_2e
WTT and T&D	1,995 t CO_2e
Natural gas	1,348 t CO_2e
Refrigerants	495 t CO_2e

Indicators from the **OSTROJ a.s. Basic Indicators** table were used for conversion to the declared units.

Employee carbon footprint	Carbon footprint per 1 million CZK of revenue
93.5 t CO_2e	46.4 t CO_2e

Analysis of the carbon footprint of



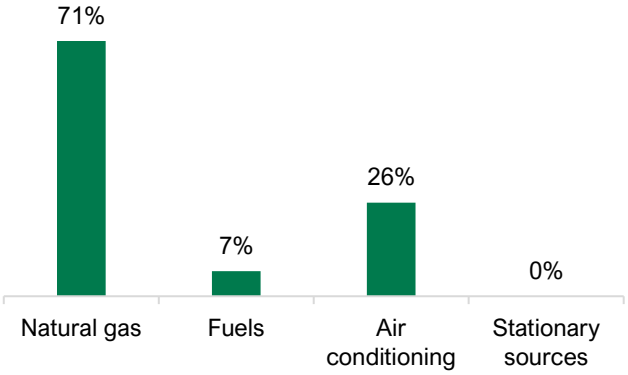
The GHG Protocol methodology divides emissions into three categories (SCOPE).

SCOPE 1 emissions

The SCOPE 1 emissions category is dominated by emissions from the consumption of natural gas in heat generation facilities, most commonly condensing gas boilers or so-called radiant heaters.

For emissions from stationary sources of air pollution (emissions of volatile organic compounds (VOCs)) arising from the application of coatings in the paint shop, and for emissions from stationary sources of air pollution (emissions of nitrogen oxides (NOx) and hydrogen chloride (HCl)) arising from the operation of the galvanising line, an emission factor of 0 was used, given that for these specified types it is not possible to determine the proportion of nitrous oxide (N2O) as a greenhouse gas.

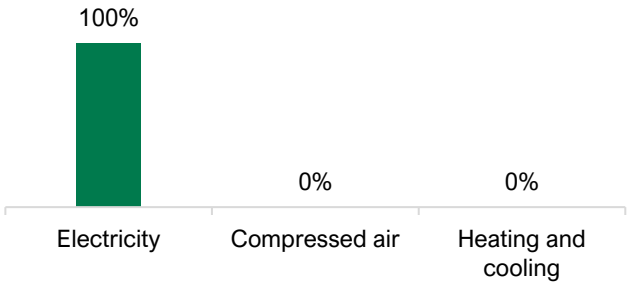
SCOPE 1	**1,977 t CO_2 e**
Natural gas	1,348 t CO_2 e
Fuel	134 t CO_2 e
Refrigerants	495 t CO_2 e
Stationary surface treatment sources	0 t CO_2 e



SCOPE 2 emissions

In this emissions category, OSTROJ a.s. monitors only emissions from the purchase of electricity. OSTROJ a.s. does not purchase compressed air, heat or cooling.

SCOPE 2	**9,042 t CO_2 e**
Electricity	9,042 t CO_2e
Compressed air	0 t CO_2 e
Heating and cooling	0 t CO_2 e

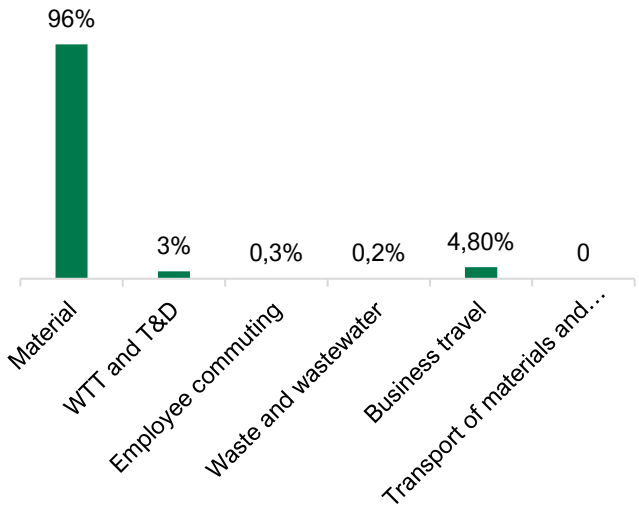


SCOPE 3 emissions

A 3% increase in CO2e emissions was added to emission sources that do not have a primary calculation.

The SCOPE 3 emissions category is dominated by emissions from the purchase of input materials, specifically metallurgical materials. This is followed by emissions from electricity losses in the grid (T&D).

SCOPE 3	**60,451 t CO_2e**
Material	58,147 t CO_2e
WTT and T&D	1,995 t CO_2 e
Commuting by employees	172 t CO_2 e
Waste and waste-water	95 t CO_2 e
Business travel	13 t CO_2 e
Transport of materials and products	29 t CO_2 e



In subsequent periods, the carbon footprint per 1 million CZK of the company's turnover will be compared annually against the base year, i.e. 2023.

	2025	difference	2023
SCOPE 1	1,977 t CO_2e	+454 t CO_2 e	1,523 t CO_2 e
SCOPE 2	9,042 t CO_2 e	-230 t CO_2 e	9,272 t CO_2 e
SCOPE 3	60,451 t CO_2 e	+8,106 t CO_2 e	52,345 t CO_2 e
Total emissions	71,470 t CO_2 e	+8,330 t CO_2 e	63,140 t CO_2 e
Carbon footprint per 1 million CZK of revenue	**46.4 t CO_2 e**	**-1.4 t CO_2 e**	**50.5 t CO_2 e**

Decarbonisation strategy

At OSTROJ a.s., we continuously strive to reduce greenhouse gas emissions by planning and implementing investments that contribute to energy savings, investments in the modernisation of our machinery and vehicle fleet, and investments in software that help improve and refine data collection. These investments are discussed and approved annually by the OSTROJ a.s. Board of Directors as part of the company's three-year strategic business plan.

However, these investments represent just one of many steps on the path to the company's carbon neutrality. OSTROJ a.s. supports the international commitment arising from the Paris Agreement on climate change; however, within the engineering industry in which the company operates, we currently have few options for achieving our own carbon neutrality in the short term.

At OSTROJ a.s., we understand the importance and necessity of a decarbonisation strategy, which enables the company's management to better adapt to future mandatory requirements and regulations, reduce the business risk associated with climate challenges and, last but not least, achieve cost savings. Therefore, the company's management has decided to incorporate the decarbonisation strategy into the three-year strategic business plan, effective from 2025.

Proven reduction in its carbon footprint

In 2023–2024, the following energy-saving projects were completed:

- 500kWp photovoltaic power plant
- Installation of frequency converters on the pumps of the galvanising line

Further information can be found in the press release.

Emissions offsets

At OSTROJ a.s., we view emissions offsets as one way of achieving carbon neutrality for our company; however, we are not currently considering their use due to the lack of regulations governing offsetting. Our primary focus will be on reducing the company's carbon footprint through energy savings, investment in new technologies, or by refining the data we report.

Company carbon footprint reduction targets

Carbon footprint reduction targets are set with regard to areas that OSTROJ a.s. can influence.

1. Electricity savings
2. Reducing estimates and offsetting emissions

Action plan for reducing its carbon footprint

Activity	Timeframe
1. Modification of transformer stations	2026–2029
2. Sourcing a portion of electricity from certified green energy	2030
3. Refinement of SCOP 3 emissions data	ongoing

Assessment

It is not only in the engineering industry that the question often arises as to whether it is possible to combine business success and company growth with success in reducing the environmental impact of the company's operations.

At OSTROJ a.s., we believe that where there is a will, there is a way to achieve the goals we have set. We therefore publish the OSTROJ a.s. Carbon Footprint Report voluntarily, with the aim of providing the public and our business partners with an overview of the environmental impacts of our operations in the form of direct and indirect greenhouse gas emissions, and we declare our approach to managing them.

Other activities that are not directly measurable but which we regard as part of our contribution to environmental protection include the maintenance of meadow grasslands on land owned by our company. We mow only twice a year to protect biodiversity, and as insects and plants undoubtedly belong together, the company's management decided in 2023 to establish a corporate beekeeping operation.

We firmly believe that a lasting contribution to environmental protection lies primarily in raising awareness of responsible behaviour among our employees. Therefore, the company's management has committed to including the sharing of information on sustainability and ecology with our employees as a regular topic in the company's internal communications.

Any questions, ideas or comments regarding the sustainability of our business and our approach to environmental protection are welcome at the email address **esg@ostroj.cz**, which is also listed on our website.

Appendix 1 – Overview of the methodology used for data collection and calculation

Emissions source	SCOPE	Explanation	Data collection methodology	Data calculation methodology	Responsibility
Natural gas	1	Emissions from fuel consumption in heat generation facilities.	AISYS system	primary (accurate)	Head Energy
Fuels	1	Emissions from fuel consumption in company vehicles, which the company owns outright or leases.	Carnet system	primary (accurate)	administrator of company vehicles
Air conditioning	1	Emissions from the consumption of fluids in air-conditioning systems in buildings, production facilities or vehicles.	Company records CHLAZENÍ a servis s.r.o.	primary (accurate)	Manager Asset Management
Stationary power sources	1	Emissions from the application of coatings in the paint shop (VOC), emissions from the galvanising line (NOx, HCl)	internal records employees	primary (accurate)	manager Environment
Electricity	2	Emissions from purchased electricity consumed by the company.	AISYS system IFS system	Primary (accurate)	Head Energy
Heating and cooling	2	Emissions from the production of heat and cooling purchased by the company.	OSTROJ a.s. does not carry out	x	x
Compressed air	2	Emissions from compressed air purchased by the company.	OSTROJ a.s. does not generate	x	x
Material	3	Issues related to the input materials purchased by the company.	IFS system	secondary (calculated)[1]	Head Purchasing
Material Transport	3	Emissions associated with the transport of input materials to the company, which the company purchases. Emissions associated with the transport of products to customers, which the company purchases.	IFS system	secondary (calculated)[2]	Head of Warehouse Manager
Product Transport	3	Emissions associated with the transport of products to customers, which the company purchases.	IFS system	secondary (calculated)[3]	Head Warehouse Management
Business trips	3	Emissions associated with employees' business trips, including overnight stays in hotels.	RON system	primary (accurate)	HR manager
Employee commuting	3	Emissions associated with employees commuting to OSTROJ a.s.	RON system	secondary (calculated)[4]	HR officer
Waste	3	Emissions associated with transport to the processing site and emissions associated with the processing processing/disposal (landfilling/recycling/incineration).	Envi system	primary (precise)	leading Ecology
Water	3	Emissions from drinking water consumption and emissions from wastewater treatment.	AISYS system IFS system	primary (accurate)	Head Energy
WTT and T&D	3	Emissions associated with fuel and energy losses.	x	primary (accurate)	x

Notes:

1. Suppliers of input materials selected according to significance, i.e. 1% of the total annual value of input materials.
2. The number of deliveries optimised according to the actual weight of the load and the most commonly used lorry (25 t). For the calculation of route length, only the route from the most significant suppliers (i.e. over 1% of the annual value of input materials) was selected.
3. The number of outbound journeys is optimised according to the actual weight of the load and the most commonly used lorry (25 t). For the calculation of route length, only the route to the most significant customers (i.e. over 1% of annual turnover) is selected.
4. The representative sample includes employees who have a private vehicle registered in the RON system.

Contact: esg@ostroj.cz

For more information on sustainability at OSTROJ a.s., visit: www.ostroj.cz/udrzitelnost