

GHG REPORT

Greenhouse Gas Emissions
2023–2024



PI-ZETA di Poli Renato e C. snc



1. Introduction

In 2023, Pi-Zeta di Poli Renato e C. Snc launched a structured process to measure greenhouse gas (GHG) emissions, aligned with ISO 14064-1 standards. The dual goal was to actively support climate transition and transparently communicate environmental impacts to customers and stakeholders.

This report accounts for all significant emissions (Scope 1, 2, 3), providing a 2023 baseline, a 2024 comparison, and an outlook through a 2030 decarbonization roadmap.

The assessment was conducted using **SimaPro 9.1.1**, a leading life cycle analysis (LCA) software, in combination with the **Ecoinvent v3.9.1** database and **IPCC 2021 GWP 100a** methodology, ensuring a scientifically robust and traceable quantification—especially for Scope 3 emissions linked to purchased goods and services.

This report is available to clients and partners committed to low-carbon procurement and responsible sourcing, providing transparency and measurable progress in emissions reduction.

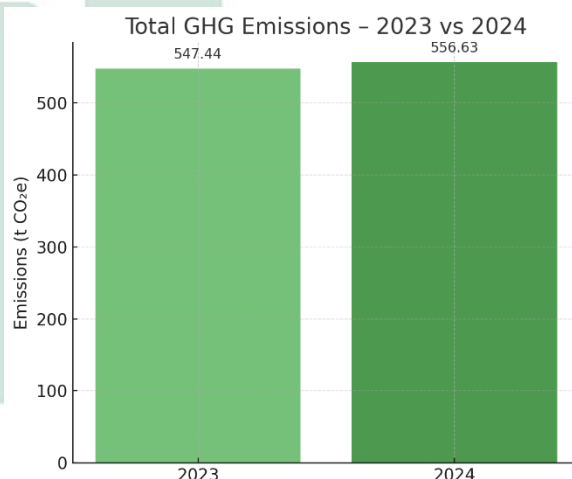
NOTE A full version of the GHG inventory, including detailed calculations, emission factors, and methodological notes Compliant with UNI EN ISO 14064-1:2019 | Scope 1, 2, 3, is available upon request for clients, stakeholders, or verification bodies.

2. Total GHG Emissions Summary

Emissions Trend – 2023 Baseline vs 2024

Year	Total Emissions (t CO ₂ e)	Δ %
2023	547.44	–
2024	556.63	+1.7%

Although total emissions in 2024 increased slightly compared to the 2023 baseline (**+9.2 t CO₂e**), this variation is not attributable to internal inefficiencies. In fact, **Scope 1 emissions—those directly controlled by the organization—decreased by 31%**, confirming Pi-Zeta's commitment to energy efficiency and low-carbon operations.



The overall increase is **entirely linked to Scope 3 emissions**, especially those associated with **purchased goods and raw materials**, which rose due to:

- increased production volumes or purchasing needs, or
- improved data quality and granularity in upstream emissions accounting.

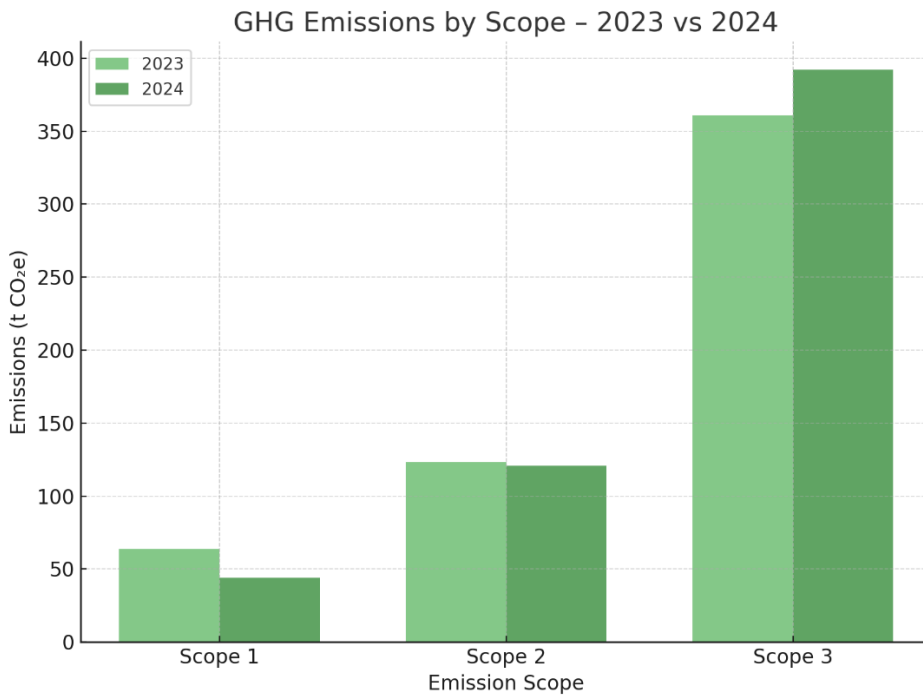
This shift highlights the growing importance of **supply chain decarbonization** as the next strategic priority for the company. The 2024 result thus reinforces the validity of Pi-Zeta's

roadmap, which includes close engagement with suppliers and more sustainable sourcing criteria.

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3. Emissions Breakdown by Scope

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Scope 1 – Direct Emissions

2023: 63.50 t CO₂e

2024: 43.80 t CO₂e (-31%)

The strong reduction in direct emissions confirms the effectiveness of the first internal mitigation actions. These emissions primarily stem from the combustion of LPG for heating and fuel use in the company fleet. The 31% cut was achieved through a reduction in LPG consumption—likely due to more efficient thermal management—and better optimization of vehicle usage, possibly by minimizing non-essential travel or improving logistics within the facility.

Next steps may include: transition to electric vehicles, improved building insulation, and further monitoring of fugitive emissions from refrigerants.

Scope 2 – Purchased Electricity

2023: 123.11 t CO₂e

2024: 120.87 t CO₂e (-1.8%)

PI-ZETA di Poli Renato e C. snc

Electricity-related emissions remained relatively stable, indicating that energy consumption levels and the national energy mix did not vary significantly. However, the slight improvement suggests either marginal efficiency gains or a small share of renewable energy already in the mix.

A more significant reduction in Scope 2 emissions will depend on switching to certified renewable electricity (e.g., through Guarantees of Origin or direct PPA contracts) and increasing self-production via solar panels, which would decouple the company's footprint from the grid's carbon intensity.

Scope 3 – Indirect Emissions

Transport & Commuting

2024: 53.9 t CO₂e (stable vs 2023)

Despite being externally driven, transport and employee commuting emissions remained unchanged, suggesting consistency in supplier logistics and workforce behaviours. This stability is positive but leaves room for further action.

Purchased Goods and Services

2023: 303.56 t CO₂e

2024: 337.15 t CO₂e (+11%)

This is the most significant source of emissions for Pi-Zeta di Poli Renato e C. Sync and the only category showing a clear increase. The rise is primarily due to the procurement of steel bars, which have a high embodied carbon footprint. This may reflect either increased production volumes or more accurate reporting, but it underscores the need to intervene in the upstream supply chain.

Key strategy: engage with steel suppliers to prioritize recycled content, electric arc furnace production, and disclosure of EPD/LCA data. Over time, integrating low-carbon procurement criteria will be essential to reduce Scope 3 intensity.

4. Decarbonization Plan 2025–2030

The carbon reduction plan of Pi-Zeta di Poli Renato e C. Sync is a concrete commitment to cutting greenhouse gas (GHG) emissions in alignment with the European Green Deal and international climate targets. Its mission is to actively contribute to climate change mitigation while enhancing the company's environmental performance and long-term competitiveness.

The plan's core objectives include:

- **Progressively reducing GHG emissions** to support the EU goal of climate neutrality by 2050.
- **Improving operational efficiency**, by lowering emissions intensity per turnover and per employee.

- **Promoting renewable energy and low-emission technologies**, to reduce reliance on fossil fuels.
- **Engaging employees and supply chain partners** in the sustainability transition, fostering low-impact logistics and procurement practices.

Structured as a strategic and adaptable roadmap, the plan adopts the **Plan–Do–Check–Act (PDCA)** methodology and sets **2030 as a key milestone**, with a target of reducing total emissions by **45%** compared to 2023

Goal: **–45% CO₂e by 2030**, vs. 2023 baseline Target emissions: **301 t CO₂e/year**

Targeted Reductions:

Category	2023 Emissions (t CO ₂ e)	Reduction Goal	Expected Cut (t CO ₂ e)
Raw materials (Scope 3)	303.40	–35%	–106
Purchased electricity (Scope 2)	123.11	–80%	–98
Transport & logistics (Sc.3)	53.61	–40%	–21
Direct emissions (Scope 1)	63.50	–50%	–32

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Key Actions:

- Procure recycled-content steel / low emission steel
- Switch to renewable electricity supply (Guarantees of Origin)
- Optimize logistics; promote sustainable mobility (e.g., carpooling, public transit)
- Expand solar PV generation
- **Establish environmental partnerships with suppliers**, using LCA data, and low-carbon procurement policies

5. Actions Already Undertaken

- LPG consumption reduced through system upgrades
- Fleet usage optimized internally
- Staff awareness and Scope 3 data collection implemented
- First **ISO 14064-compliant GHG inventory report** published in 2023
- **Initial engagement with key suppliers** to evaluate and reduce upstream carbon footprint (Scope 3 – Category 1)

6. Conclusions & Key Takeaways

Scope 1 and 2 emissions show a consistent downward trend, reflecting effective internal management and early-stage decarbonization efforts.

Scope 3 remains the primary challenge, particularly emissions related to upstream procurement of raw materials such as steel. Supply chain engagement will be crucial to achieving long-term goals.

A clear, structured, and realistic decarbonization roadmap is in place, targeting a 45% reduction in total emissions by 2030 and aligning with the broader *Road to Net Zero* strategy.

7. Next Steps

2025 update with progress tracking

An updated report will be released in 2025 to track progress against the decarbonization roadmap. This annual update will measure reductions achieved, assess the effectiveness of implemented actions, and, if necessary, revise the strategy to stay aligned with the 2030 targets.

Deeper stakeholder engagement, especially across the supply chain

Achieving meaningful emissions reduction—particularly in Scope 3—requires collaboration beyond company boundaries. Pi-Zeta di Poli Renato e C. Sync aims to deepen its engagement with suppliers and logistics partners to share data, co-develop low-carbon strategies, and integrate environmental criteria into procurement and vendor selection processes.

Optional Third-party verification

To strengthen the credibility and transparency of its GHG reporting, Pi-Zeta di Poli Renato e C. Sync may consider engaging an independent third-party body to validate the carbon footprint data in accordance with ISO 14064-3. This would provide additional assurance to customers and stakeholders and prepare the company for future ESG reporting frameworks.

From 2030 to 2050 Road to Net Zero

Long-term goal: **Net Zero by 2050.**

Pi-Zeta di Poli Renato e C. Sync has outlined a **clear roadmap to climate neutrality**, aligned with the EU Green Deal and the Paris Agreement. The 2025–2030 strategy is the **first milestone**, targeting a 45% reduction in total emissions.

The company is committed to continuing decarbonization beyond 2030 by exploring:

- Material innovation and process efficiency
- Upstream and downstream strategic partnerships
- Credible, certified voluntary offset mechanisms for the GHG part non possible to reduce.