



Carbon Footprint Report 2024



Management Message

For the 14th consecutive year, we publish the DESFA Carbon Footprint Report, presenting the results of our direct and indirect greenhouse gas emissions from all our facilities, activities, and value chain, in accordance with the ISO 14064 standard.

Faithful to our principles, we consistently and transparently continue the reduction of our carbon footprint through actions supported by evidence. In 2024, for the first time, we verified the company's total carbon footprint (Scope 1, 2 & 3) according to ISO 14064 by an independent third-party, further strengthening the credibility and transparency of our methodology.

This Report also includes data on waste management and water consumption, as derived from our operational profile, as well as indicative examples of environmental management best practices implemented in accordance with verified ISO 14001, 50001, 45001 & 9001 standards.

With a firm commitment to sustainable development, we invest in innovation and undertake initiatives that protect the environment. I invite you to read the DESFA 2024 Carbon Footprint Report and learn about our initiatives and achievements on the path towards carbon neutrality.

As Lord Kelvin once reminded us, "To measure is to know". This is why we measure, verify, and move forward with confidence into the future.

“



Maria Rita Galli
CEO - DESFA

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ABBREVIATIONS

- tCO₂e: Tons of CO₂ equivalent (CO₂, CH₄, N₂O)
- ETS: Emissions Trading System
- GHG Protocol: International greenhouse gas accounting standard
- SCV: Submerged Combustion Vaporizer
- ISO 14064-1: Specification for emission inventory & verification
- NNGTS: National Natural Gas Transmission System
- CHP: High-Efficiency Combined Heat and Power
- LNG: Liquefied Natural Gas
- HSSEQ: Health, Safety, Security, Environment & Quality



INTRODUCTION

The Hellenic Gas Transmission System Operator (DESFA) develops critical infrastructure, provides a wide range of high-quality integrated services, and contributes to the expansion of the Greek and European natural gas market.

Natural gas is delivered by transmission system users to DESFA at one of the five (5) entry points of the National Natural Gas Transmission System (NNGTS), located at the Greek-Bulgarian borders, the Greek-Turkish borders, Alexandroupolis (FSRU), Nea Messimvria (connection with TAP), and the Revithoussa LNG Terminal. It is then delivered to various exit points throughout mainland Greece.

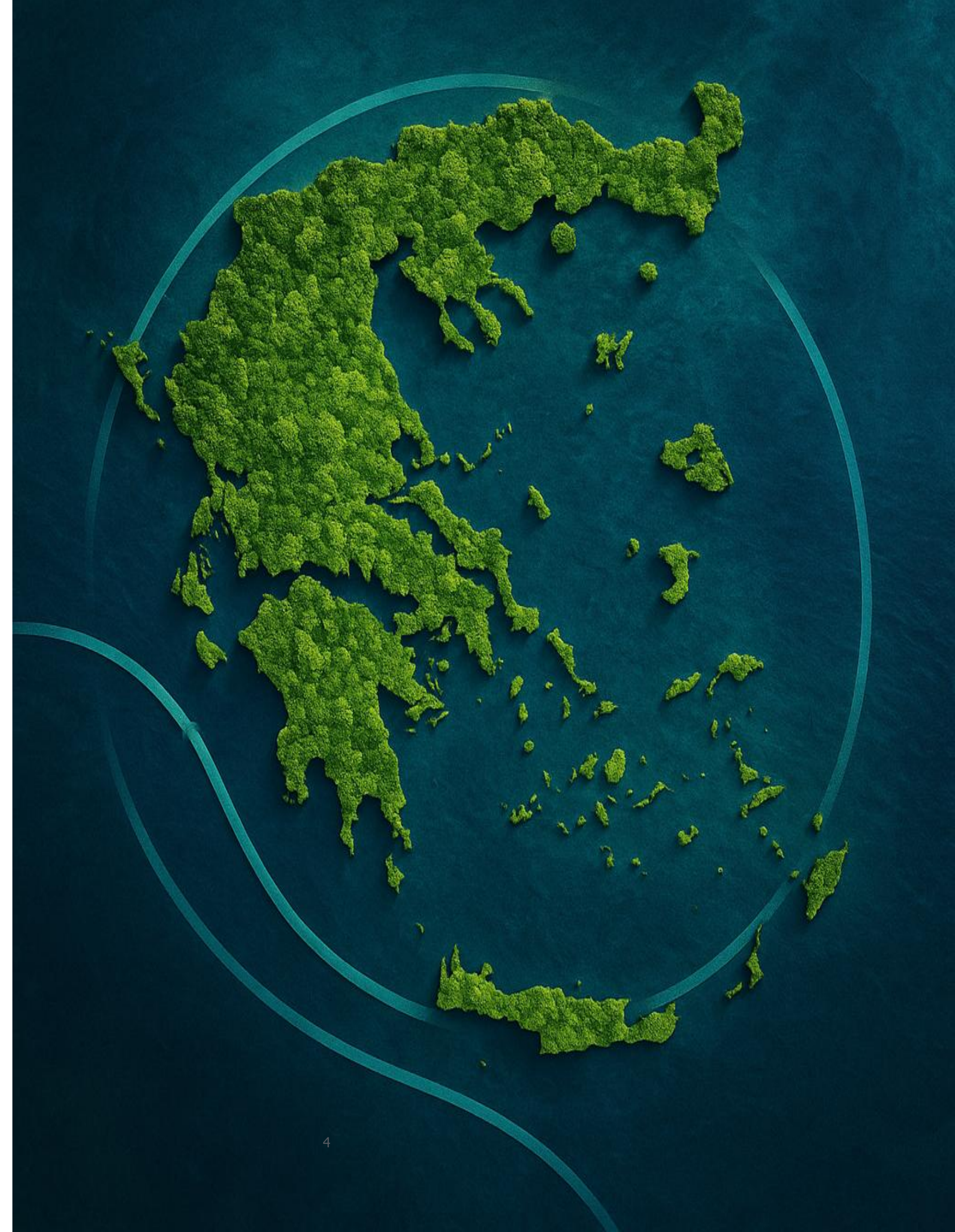
The NNGTS extends to a network of 1,466.40 km and includes:

- The main transmission pipeline and its branches
- The border metering stations at Sidirokastro (Serres) and Kipi (Evros)
- The compression station at Nea Messimvria (Thessaloniki)
- The metering and regulating stations
- Load control and dispatching centers
- The operating and maintenance centers for the Sidirokastro border station, Eastern Greece, Northern Greece, Central Greece, Southern Greece, and Peloponnese
- The telecontrol and telecommunications system
- The Revithoussa LNG Terminal

In line with its Environmental Policy, in June 2023 DESFA committed to reducing Scope 1 & Scope 2 (Market-Based) emissions by at least 50% (base year 2018) by 2030 and achieving Carbon Neutrality by 2040. For this purpose, the Net-Zero Action Plan was developed.

The core responsibility of the Carbon Footprint Report drafting team (HSSEQ Team) is to collect and analyze reliable primary data throughout the year from all company facilities to address major environmental topics.

More information about the company's pipeline network and infrastructure can be found on the DESFA website at www.desfa.gr.





1. METHODOLOGY

1.1 Framework & Standards

DESFA compiled its emission inventory according to ISO 14064-1:2018.

Inventory boundaries are defined based on operational control: we measure emissions from facilities and activities we directly manage or influence daily (e.g., stations, networks, fleet, offices).

Anything not included is explicitly stated, along with the reason for exclusion and, where possible, the method and timeline for its inclusion in future inventories.

The Carbon Footprint Verification was conducted by TÜV Austria Hellas in compliance with ISO 14064-1:2018 between 25–26/09/2025.

1.2 Data & Uncertainties

- Data sources: Operational systems, meters, invoices, suppliers
- Emission factors: Hellenic Ministry of Environment / DEFRA / US EPA (2024)
- Market-based: Electricity supplier emission factor
- Location-based: Greek electricity grid emission factor
- Scope 1–2: Low uncertainty
- Selected Scope 3 categories: Moderate uncertainty
- Base year: 2024 (same as reporting year)



2. RESULTS

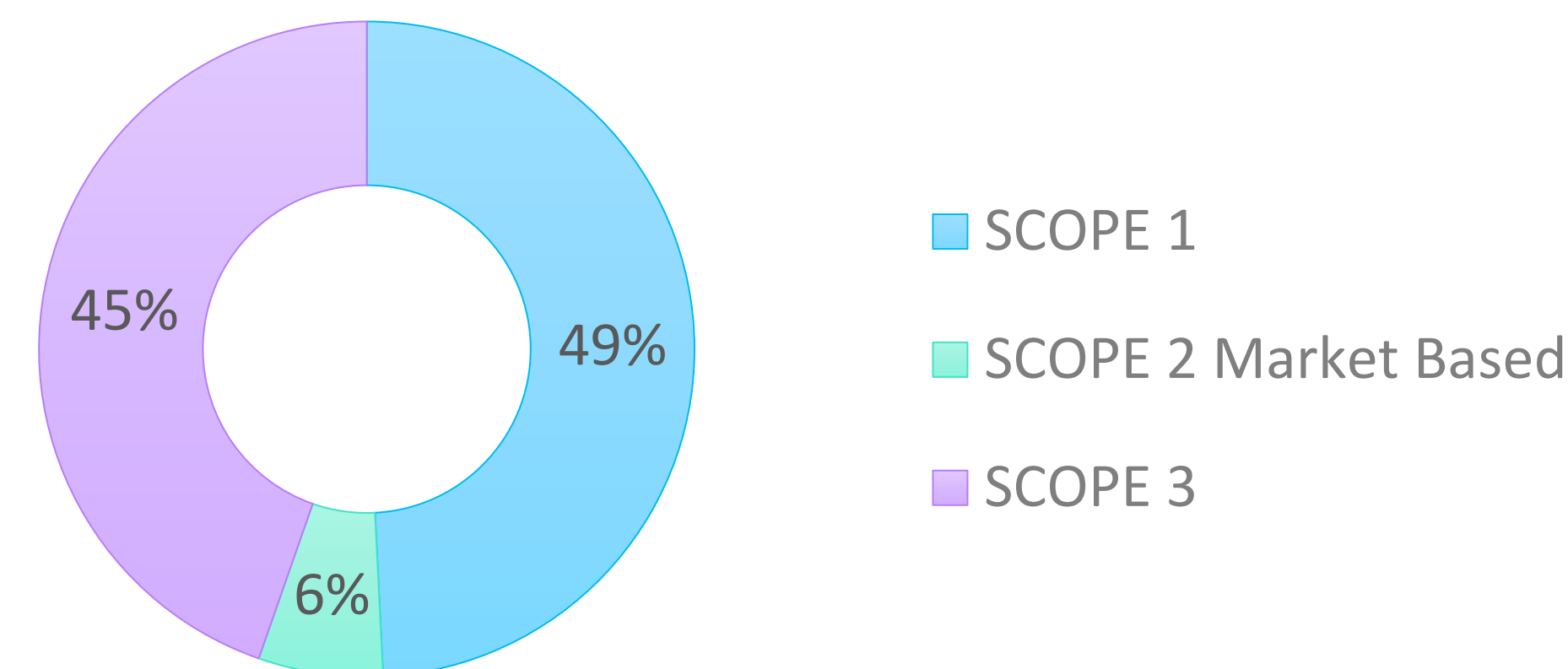
2.1 Summary

DESFA’s total Carbon Footprint is calculated through three Monitoring Fields (Scopes), according to ISO 14064-1 and the GHG Protocol:

- Scope 1 – Direct Emissions
- Scope 2 – Indirect Emissions from Electricity Consumption
- Scope 3 – Value Chain Emissions

Below is the summary of total emissions for 2024.

DESFA Carbon Footprint Profile 2024



SCOPE 1 (tCO2e)	SCOPE 2 Market Based (tCO2e)	SCOPE 3 (tCO2e)	Total (tCO2e)
69,331.01	8,654.37	62,914.65	140,900.02



2. RESULTS

2.2 Scope 1 — Direct Emissions

Scope 1 includes direct CO₂ emissions from:

- Combustion of Natural Gas
- Operation of the High-Efficiency CHP unit
- SCV operation
- Pilot burners
- LNG Terminal vent gas flare
- Compressor station operation
- Facility consumption
- Methane Releases into the Atmosphere
- Controlled venting during network maintenance/operations
- Pneumatic equipment operation
- Fugitive emissions from the NNGTS
- Fuel Consumption – Vehicles & Equipment
- Corporate fleet
- Machinery
- Generators
- Air compressors

Total Scope 1 Emissions: **69,331.01 tCO₂e**

➤ Stationary emissions: **68,272.82 tCO₂e**

➤ Mobile emissions: **1,058.19 tCO₂e**



2. RESULTS

2.3 Scope 2 – Indirect Emissions from Electricity Consumption

Scope 2 includes indirect CO₂ emissions from electricity generation by the energy provider and subsequently consumed by DESFA's facilities.

- Market-based: **8,654.37 tCO₂e**
- Location-based: **12,620.93 tCO₂e**
- Electricity provider 2024: **PPC (ΔEH)**



2. RESULTS

2.4 Scope 3 – Value Chain Indirect Emissions

The HSSEQ team calculated DESFA's value chain emissions (**Scope 3**) for the 4th consecutive year, covering categories applicable to the company for 2024.

Total Scope 3 Emissions: **62,914.65 tCO₂e**

1. Capital goods (Capex): **43,080.20 tCO₂e**
2. Fuel & energy-related activities (WTT): **12,722.17 tCO₂e**
3. Purchased services: **4,822.22 tCO₂e**
4. Purchased goods (Opex): **1,200.74 tCO₂e**
5. Upstream transportation & distribution: **457.69 tCO₂e**
6. Business travel: **367.85 tCO₂e**
7. Employee commuting: **167.26 tCO₂e**
8. Investments: **93.27 tCO₂e**
9. Waste: **3.24 tCO₂e**



2. RESULTS

2.5 Emissions Trading System (ETS)

As an operator of stationary installations, DESFA monitors GHG emissions from its facilities and submits annual reports in compliance with Directive 2003/87/EC.

DESFA applies an Emissions Monitoring & Management System in accordance with EU Regulation 2018/2066/EC for relevant activities.

By 31 March each year, an Emissions Report is submitted to the competent authority and verified by an accredited independent body in accordance with Regulation (EU) 600/2014.

For the Revithoussa LNG Terminal and Nea Messimvria Compressor Station — both covered under ETS — TÜV Austria Hellas verified the following during 2024:

- **Completeness**: All historical data provided were complete and gap-free.
- **Accuracy**: All calculations were correct and consistent with the approved monitoring plan.
- **Reliability**: All equipment involved is maintained, calibrated, and certified as required.



3. ENVIRONMENTAL MANAGEMENT

3.1 Waste Management

DESFA implements certified Quality, Environmental, Energy, and Health & Safety Management Systems according to EN ISO 14001, 50001, 45001 & 9001. Certifications are renewed annually by an independent body.

DESFA's waste management framework ensures that all waste is collected, sorted, and delivered exclusively to recognized and legally authorized bodies, classified as Non-Hazardous & Hazardous Waste.

We manage **100% of hazardous waste** annually and apply the 3Rs (Reduce – Reuse – Recycle) methodology for non-hazardous waste, steadily enhancing recycling practices.

Waste quantities are monitored through licensed collection/transport companies and licensed final treatment facilities, and all relevant data are submitted annually to the Hellenic Ministry's Electronic Waste Registry (HMA).

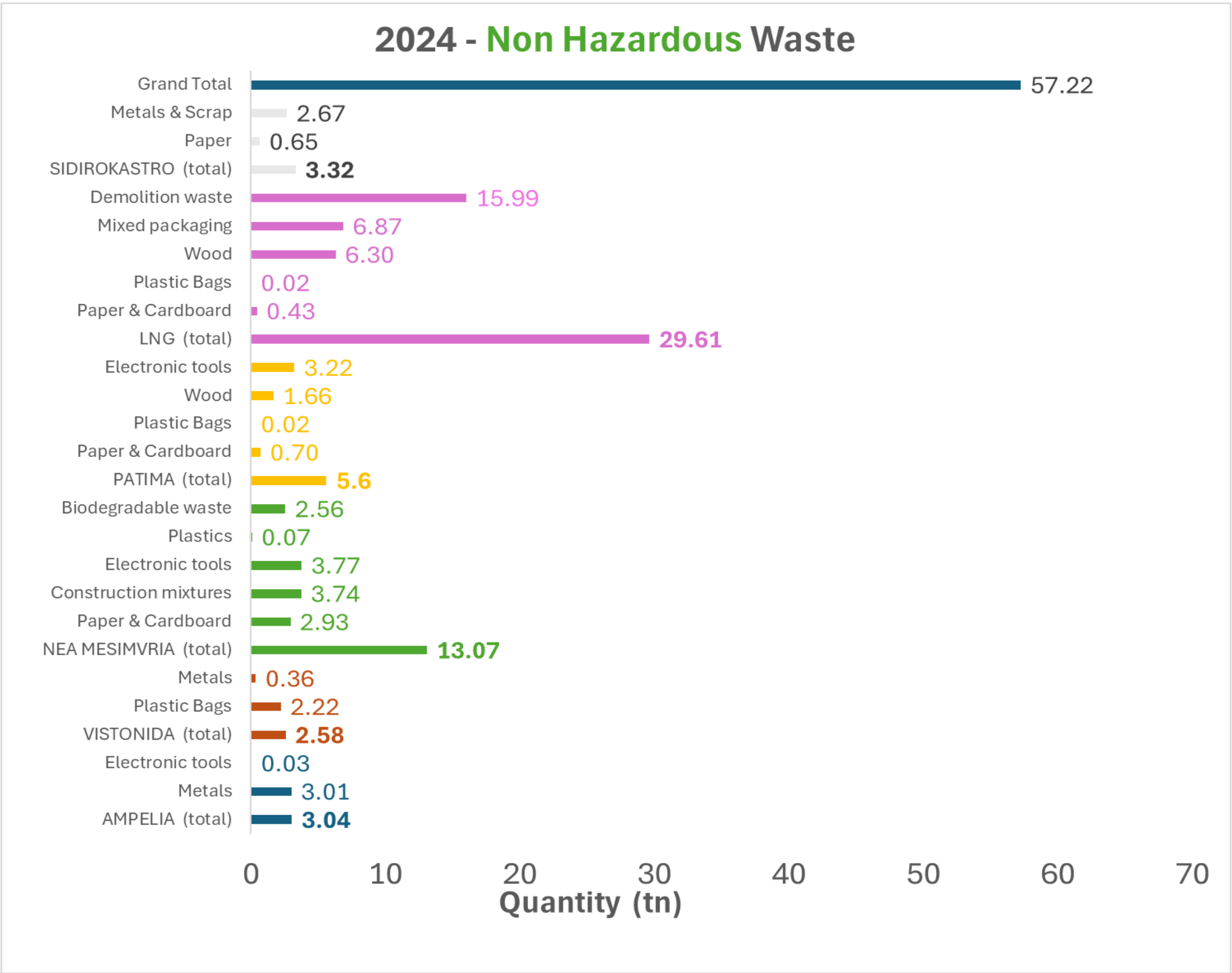
The following are the results of waste management by type and by facility.

For 2024:

- Hazardous waste: **18.18** tons
- Non-hazardous waste: **57.22** tons

3. ENVIRONMENTAL MANAGEMENT

3.1 Waste Management





3. ENVIRONMENTAL MANAGEMENT

3.2 Water Consumption

Water demand for human activities increases continuously. Optimal management of water resources is a key requirement for sustainable development.

Recognizing that water resources are finite, DESFA implements targeted actions for rational use, such as:

- ❖ Reuse of water from facility wastewater treatment plants for irrigation
- ❖ Use of water from licensed boreholes
- ❖ Continuous monitoring and measurement of consumption (network & borehole) for optimization and early anomaly detection

Our aim is the responsible use and protection of water resources. In the near future, we target the development and certification of a Water Management System under a recognized Environmental Standard.

From 2018 to 2024, consumption levels per facility are shown in the following Table.

For 2024:

- From water network: **10,026 m³**
- From licensed boreholes: **13,808 m³**

Water Consumption	2020	2021	2022	2023	2024
Total (m³):	42,892	25,052	78,244	21,439	23,834

4. REPORTING TEAM

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