

2024, HİTİT BİLGİSAYAR HİZMETLERİ A.Ş. GHG Protocol Greenhouse Gas Inventory Report

This report provides essential information and guidance to support the verification of greenhouse gas inventories. It is compliant with the GHG Protocol standard and is customized by facility, timeframe, scope and subcategories selected.

AUDIT READY REPORT

Reported by	Hülya Yıldırım
Standard	GHG Protocol
Scope	Custom
Facility	The Netherlands Office, Hitit Turkey Office, Pakistan Office, Hitit Headquarter
Period	2024-01-01 - 2024-12-31
Creation Date	2025-03-05 11:40 (UTC)
Description	

About Carbondeck:

Carbondeck is dedicated to helping businesses achieve their sustainability goals through accurate and insightful carbon emission tracking and analysis. Visit our website www.carbondeck.io to learn more about our services and solutions.

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1. INTRODUCTION & SCOPE

1.1 INTRODUCTION

This Greenhouse Gas (GHG) Inventory Report has been prepared in accordance with the **Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (Revised Edition)**. Developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), this standard provides a comprehensive framework for quantifying and reporting greenhouse gas emissions at the corporate level. The purpose of this report is to present a detailed and transparent account of our organization's GHG emissions, adhering to the methodologies and guidelines established by the GHG Protocol. This report serves as a tool for internal management and external stakeholders to evaluate our GHG performance and monitor progress towards our emissions reduction objectives.

1.2 SCOPE

This report covers the GHG emissions and removals for **HİTİT BİLGİSAYAR HİZMETLERİ A.Ş.** for the period from **2024-01-01** to **2024-12-31**. The report includes organizational boundaries, operational boundaries (Scope 1, Scope 2 and Scope 3 emissions), base year selection, and geographic coverage.



2. COMPANY INFORMATION

2.1 ABOUT THE COMPANY

Hitit was founded in 1994 by two female entrepreneurs. The primary goal of the founders, who come from the aviation industry, and the mission of the company was to operate entirely with domestic capital, break free from external dependencies, and transform Turkey into a country that exports technology. Embracing this philosophy, Hitit specializes in providing next-generation airline and travel software solutions to companies in the airline and travel sectors, especially airline companies. The company offers software solutions under the Crane brand for various needs such as reservation, ticketing, check-in, passenger departure control, crew planning, loyalty management, revenue accounting, cost accounting, tariff planning, operation control, team planning, tour operator/charter management, comprehensive performance measurement, and cargo. Producing 100% Turkish aviation solutions that enable millions of people to travel every year, Hitit has earned several awards, including Eastern Europe's Best Aviation Software Company, Europe's Leading Passenger Service System Provider, Best Airline Reporting System, Niche Technology Firm of the Year, "Turkey's Best Sectoral Software Company" in tourism,

"Airline Software Organization of the Year," and "Aviation Technology Organization of the Year." Hitit, as of March 3, 2022, is listed on Borsa Istanbul with the ticker symbol HTTBT.

2.2 OTHER COMPANY INFORMATION




Address	Reşitpaşa Mah. Katar Cad. No:4/1 Arı Teknokent 2 İç Kapı No:601 34469
City	Istanbul
Country	Turkiye
Industry	Services
Turnover	34.238.396,00 USD
Employee Count	452



3. ROLES AND RESPONSIBILITIES

This section includes overall and specific responsibilities for preparing and producing the report.

Table: Team Members Facilities and Their Roles

Team Member	Facility	Responsibility
 Sevgi Karaman	All Facilities	Project Manager
 Yankı Erdem	All Facilities	Project Manager
 Hülya Yıldırım	All Facilities	Project Manager

Platform Manager → GHG Officer(s) (GHGO)/ GHG Manager (GHGM):

Responsibilities include coordinating the management system of the GHG emissions inventory and overseeing other officers and monitoring appropriate actions. Also, responsible for coordinating the verification and audit process.

Project Manager → Data Collection Officer (DCO)/ Data Collection Manager (DCM):

Responsibilities include, managing, and recording all data used to estimate the greenhouse gas emissions inventory ensuring that all data reported is complete and complies with the specified data collection standards and quality assurance procedures; and confirming that all data collection standards and quality assurance procedures; and confirming that all data collection procedures in this document comply with the relevant standards.

Product Specialist → Compliance Officer (CO)/ Data Collection Officer (DCO):

Responsibilities include ensuring that the emissions inventory model complies with the methodologies described in this document.

**4. ORGANIZATIONAL AND OPERATIONAL BOUNDARIES****4.1 ORGANIZATIONAL BOUNDARIES****Organizational Boundaries - Consolidation**

The organizational boundaries of this report have been established based on the operational control approach, ensuring that all relevant GHG emission sources within the operational control of **HİTİT BİLGİSAYAR HİZMETLERİ A.Ş.** are included.

Organizational Boundaries - Facilities

- The Netherlands Office
- Hitit Turkey Office
- Pakistan Office
- Hitit Headquarter

4.2 OPERATIONAL BOUNDARIES

The inventory accounts for direct (Scope 1) GHG emissions, indirect (Scope 2) GHG emissions, selected Scope 3 emissions relevant to our operations. Specifically;

Scope 1

Direct emissions from sources owned or controlled by the organization, including but not limited to fuel combustion in company-owned vehicles and stationary sources, process emissions, and fugitive emissions.

Scope 2

Indirect emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the organization.

Scope 3

Purchased Goods and Services, Capital Goods, Fuel and Energy Related Activities, Upstream Transportation and Distribution, Waste Generated in Operations, Business Travel, Employee Commuting and Use of Sold Products.



5. GREENHOUSE GAS CALCULATION METHODOLOGY

Applied Standard

The inventory report is prepared in accordance with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (Revised Edition), developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). This standard provides a comprehensive framework for organizations to measure and report their greenhouse gas emissions and removals at the corporate level.

Allocations

No data allocation has been made.

Carbon Emission from Biomass Burning

None

Procedure

Presented in the company's Greenhouse Gas Emission Determination and Evaluation Procedure.

2.1 General Procedure

1. At the beginning of each reporting year, task distribution and job descriptions are made by the Platform Manager.
2. This document is recorded and implemented by the Product Manager.
3. The training needs of Product Managers and Product Specialists are checked by the Platform Manager and, if necessary, external GHG training is procured.
4. Training for first-time appointees is completed by Product Managers in the first month of the reporting year.
5. The procedures outlined in this document are followed precisely when preparing the Greenhouse Gas Inventory Report.
6. Greenhouse Gas Inventory reporting and calculation are performed by the Product Manager, who selects the appropriate ISO 14064-1 and GHG Protocol standards for the calculation.
7. Platform and Product Managers review, and update emission factors and other model parameters as needed for GHG Inventory reporting and calculation.
8. The data required for Greenhouse Gas Inventory reporting and calculation is collected by the Product Specialist. After the data is collected, it is used in greenhouse gas calculations.
9. All measurements belonging to the factory are checked regularly by the Product Specialist. The checks are updated by recording them in the measurement tracking table.
10. The emissions inventory is created by the Product Manager using the calculation procedures described in this document.
11. Results are documented and all relevant information is recorded.
12. The accuracy of the greenhouse gas emission calculations and the prepared Greenhouse Gas Inventory report is checked each year by the Product Manager through internal audits.
13. The methodology used for selecting Emission Factors is specified in the Greenhouse Gas Inventory Report.

14. Based on the results of the greenhouse gas emissions calculation, deficiencies and areas for improvement are identified, and necessary actions are taken to enhance the processes. All processes are reviewed annually through internal audits.

Calculation Method

Presented in calculation table.

Applied Global Warming Potential

GWP values used in the calculation, as well as their source. If the GWP values are not taken from the latest IPCC report, include the emissions factors or the database reference used in the calculation, as well as their source. IPCC's AR methods are presented below. The AR methods utilized in calculation are presented in calculation table.

	CO ₂	CH ₄	N ₂ O
AR4	1,00	25,00	298,00
AR5	1,00	28,00	265,00
AR6	1,00	27,90	273,00

Calculation Formula

$$\text{Greenhouse Gas Emission Amount (CO}_2\text{e)} = \text{Consumption Amount} \times \text{Emission Factor}$$

Summary of methods for calculating emissions from purchased goods and services

The calculation method used in this report to calculate emissions from purchased goods and services is in line with the GHG Protocol's [spend-based/average-data] method.

- **Average-data method** – estimates emissions for goods and services by collecting data on the mass (e.g., kilograms or pounds), or other relevant units of goods or services purchased and multiplying by the relevant secondary (e.g., industry average) emission factors (e.g., average emissions per unit of good or service).
- **Spend-based method** – estimates emissions for goods and services by collecting data on the economic value of goods and services purchased and multiplying it by relevant secondary (e.g., industry average) emission factors (e.g., average emissions per monetary value of goods).

Reporting Method

The greenhouse gas inventory was developed in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. Data collection and calculation methods are based on the methodologies provided by the **Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories**.

To ensure the accuracy and reliability of our GHG emissions data, we have utilized a tiered approach similar to the one outlined by the IPCC.

The tiers represent different levels of methodological complexity and data accuracy:

- **Tier 1:** Basic methods using default emission factors and generalized activity data, representing the lowest level of data quality.

- **Tier 2:** Intermediate methods utilizing country-specific or technology-specific emission factors and more detailed activity data relevant to our operations.
- **Tier 3:** Advanced methods involving direct measurements, continuous emissions monitoring systems, and organization-specific emission factors, providing the highest level of data quality.

Prioritization Analysis

In this report, in scope 1, fugitive emissions from fire extinguishers and refrigerants have been excluded from the scope due to the complexity of data collection and their anticipated minor contribution relative to other emission sources.

Additionally, the Scope 3 categories listed below have been excluded due to the complexity of data collection and their limited relevance to the firm's operations.

- **3.8** Upstream Leased Assets
- **3.9** Downstream Transportation and Distribution
- **3.10** Processing of Sold Products
- **3.12** End-of-Life Treatment of Sold Products
- **3.13** Downstream Leased Assets
- **3.14** Franchises
- **3.15** Investments



6. SUMMARY OF RESULTS

Emissions summary by scope for this calculation period is given in the table below. Emissions of the respective period in the base year are given in the table for comparison purposes.

SCOPE	Calculation Period Emissions (tCO ₂ e)	Base Year Emissions (tCO ₂ e)	Change in Emissions (%)
Scope 1	100,43	15,63	542,55
Scope 2	76,86	74,79	2,76
Scope 3	801,43	861,01	-6,92



7. CALCULATION TABLE

SCOPE 1

1.1 Stationary Combustion

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Turkey Office	Natural gas	0.0193 TJ	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2021	Tier 2	AR6	1.069799	0.0000193	0.00000193	1.07086436	Emirgan Doğalgaz Tüketimi

1.2 Mobile Combustion

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Petrol (average biofuel blend)	1264.07 L	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	2.61721901	0.0101884	0.00742009	2.63482751	İTÜ On-Road Araç Benzin Tüketimi

1.4 Fugitive Emissions

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Carbon dioxide	5 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.005	İTÜ Yangın Söndürücü Cihaz CO2 Dolumu
Hitit Headquarter	HFC-236fa	6 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	48.36	İTÜ Yangın Söndürücü Cihaz HFC-236fa Dolumu
Hitit Turkey Office	HFC-236fa	6 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	48.36	Emirgan Yangın Söndürücü Cihaz HFC-236fa Dolumu

SCOPE 2

2.1 Electricity

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Pakistan Office	Electricity Generation	31736.75 kWh	2024-01-01	2024-12-31	Climatiq	2021	Tier 2	AR6	0	0	0	13.48811875	Pakistan Elektrik Tüketimi
Hitit Headquarter	Electricity Generation	82023 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	35.926074	0	0	36.254166	İTÜ Elektrik Tüketimi
The Netherlands Office	Electricity Generation Netherlands	1397 kWh	2024-01-01	2024-12-31	EEA	2022	Tier 2	AR4	0	0	0	0.448437	Hollanda Elektrik Tüketimi

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Turkey Office	Electricity Generation	4430.88 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	1.94072544	0	0	1.95844896	Emirgan Ofis Elektrik Tüketimi
Hitit Turkey Office	Electricity Generation	165.77 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	0.07260726	0	0	0.07327034	Ankara Ofis Elektrik Tüketimi

2.2 Heat and Steam

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Natural Gas	0.4371 TJ	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2021	Tier 2	AR6	0	0	0	24.25258092	İTÜ Doğalgaz Tüketimi
Hitit Headquarter	Diesel (Average Biofuel Blend) (HİTİT BİLGİSAYAR HİZMETLERİ A.Ş.)	96.18 L	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.2416811	İTÜ Jeneratör Motorin Tüketimi
The Netherlands Office	Natural Gas	52.68 m3	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR6	0.00016331	0.10754095	0.00004741	0.10775167	Hollanda Doğalgaz Tüketimi
Hitit Turkey Office	Natural Gas	0.00041 TJ	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2021	Tier 2	AR6	0	0	0	0.02274893	Ankara Doğalgaz Tüketimi
Hitit Turkey Office	Diesel (Average Biofuel Blend) (HİTİT BİLGİSAYAR HİZMETLERİ A.Ş.)	4.26 L	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.01070453	Ankara Jeneratör Motorin Tüketimi

SCOPE 3

3.1 Purchased Goods and Services

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Pakistan Office	Water Supply and Irrigation Systems	87.3 USD	2024-01-01	2024-12-31	EPA	2021	Tier 1	AR5	0	0	0	0.0569196	Pakistan Su Tüketimi
Hitit Headquarter	Office Supplies (except Paper) Manufacturing	4541.16 USD	2024-01-01	2024-12-31	EPA	2021	Tier 1	AR5	0	0	0	1.32601872	Ofis Ürün Alımı
Hitit Headquarter	All Other Converted Paper Product Manufacturing	2249.24 USD	2024-01-01	2024-12-31	EPA	2021	Tier 1	AR5	0	0	0	1.04139812	Kağıt Ürün Alımı
Hitit Headquarter	Electricity Generation	12880.1 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	5.6414838	0	0	5.6930042	İŞNET Data Center Hizmeti
Hitit Headquarter	Electricity Generation	223821 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	98.033598	0	0	98.928882	TI Sparkle Data Center Hizmeti

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Electricity Generation	66795.9 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	29.2566042	0	0	29.5237878	Turkcell Data Center Hizmeti
Hitit Headquarter	Electricity Generation Belgium	73264.32 kWh	2024-01-01	2024-12-31	EEA	2022	Tier 2	AR4	0	0	0	10.6233264	Google Cloud Service
Hitit Headquarter	Water supply	1672.73 m3	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.25611169	İTÜ Su Tüketimi
The Netherlands Office	Water supply	3.98 m3	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00060938	Hollanda Su Tüketimi
Hitit Turkey Office	Water supply	5.523 m3	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00084563	Emirgan Su Tüketimi

3.2 Capital Goods

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Electrical items - small Primary material production	233.88 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	1.32094152	Varlık Alımı

3.3 Fuel and Energy Related Activities

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Pakistan Office	T&D- UK electricity	20145.57 kWh	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR6	0	0	0	0.36866393	Pakistan Elektrik T&D
Pakistan Office	WTT- overseas electricity (T&D) - Pakistan	20145.57 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	0.32031456	Pakistan Elektrik WTT - T&D
Pakistan Office	WTT- overseas electricity (generation) - Pakistan	20145.57 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	1.62776206	Pakistan Elektrik WTT - Generation
Hitit Headquarter	WTT - Gaseous fuels Natural gas	12662.53 m3	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	4.2622076	İTÜ Doğalgaz WTT
Hitit Headquarter	WTT - Liquid fuels Petrol (average biofuel blend)	1264.07 L	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.73434883	İTÜ Benzin WTT
Hitit Headquarter	Electricity (T&D)& Disturbution	82023 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	0	0	0	2.952828	İTÜ Elektrik T&D
Hitit Headquarter	WTT - Liquid fuels Diesel (average biofuel blend)	96.18 L	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.05876694	İTÜ Motorin WTT

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	WTT- UK & overseas electricity (T&D) - Turkey	82023 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	1.0416921	İTÜ Elektrik WTT - T&D
Hitit Headquarter	WTT- UK & overseas electricity (generation) - Turkey	82022.99999 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	8.4237621	İTÜ Elektrik WTT - Generation
The Netherlands Office	WTT - Gaseous fuels Natural gas	52.68 m3	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.01773209	Hollanda Doğalgaz WTT
The Netherlands Office	T&D- UK electricity	1397 kWh	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR6	0	0	0	0.0255651	Hollanda Elektrik T&D
The Netherlands Office	WTT- overseas electricity (T&D) - Netherlands	1397 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	0.0054483	Hollanda Elektrik WTT - T&D
The Netherlands Office	WTT- overseas electricity (generation) - Netherlands	1397 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	0.1099439	Hollanda Elektrik WTT - Generation
Hitit Turkey Office	WTT - Gaseous fuels Natural gas	570.84 m3	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.19214474	Emirgan & Ankara Doğalgaz WTT
Hitit Turkey Office	WTT - Liquid fuels Diesel (average biofuel blend)	4.26 L	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.0026029	Ankara Doğalgaz WTT
Hitit Turkey Office	Electricity (T&D)& Disturbution	4596.65 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	0	0	0	0.1654794	Emirgan & Ankara Elektrik T&D
Hitit Turkey Office	WTT- UK & overseas electricity (T&D) - Turkey	4596.65 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	0.05837746	Emirgan Elektrik WTT - T&D
Hitit Turkey Office	WTT- UK & overseas electricity (generation) - Turkey	4596.65 kWh	2024-01-01	2024-12-31	Defra	2021	Tier 1	AR6	0	0	0	0.47207596	Emirgan Elektrik WTT - Generation

3.4 Upstream Transportation and Distribution

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Road Freight Vans Average (up to 3.5 tonnes) Unknown	350 km	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.087269	Satın Alınan Ürün Nakliye
Hitit Headquarter	Road Freight Vans Average (up to 3.5 tonnes) Unknown	2.55 tonne.km	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00158773	Sermaye Varlıkları Nakliye

3.5 Waste Generated in Operations

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
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Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Pakistan Office	Other Nonhazardous Waste Treatment and Disposal	87.3 USD	2024-01-01	2024-12-31	EPA	2021	Tier 1	AR5	0	0	0	0.0551736	Pakistan Atık Su Bertarafı
Hitit Headquarter	Electrical items Batteries Open-loop	92.49 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00059292	İTÜ Pili Atıkları - Geri Dönüşüm
Hitit Headquarter	Paper Paper and board: paper Closed-loop	1456.76 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00933872	İTÜ Kağıt Atıkları - Geri Dönüşüm
Hitit Headquarter	Plastic Plastics: average plastics Closed-loop	231.23 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00148233	İTÜ Plastik Atıkları - Geri Dönüşüm
Hitit Headquarter	Refuse Commercial and industrial waste Combustion	323.72 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00207524	İTÜ Karışık Atıklar - Geri Kazanım
Hitit Headquarter	Water treatment	1505.45 m ³	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.27962228	İTÜ Atık Su Bertarafı
The Netherlands Office	Water treatment	3.582 m ³	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00066532	Hollanda Atık Su Bertarafı
Hitit Turkey Office	Refuse Commercial and industrial waste Combustion	2.94 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00001885	Emirgan Karışık Atıklar - Geri Kazanım
Hitit Turkey Office	Refuse Commercial and industrial waste Landfill	3.07 kg	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00159743	Emirgan Karışık Atıklar - Düzenli Depolama
Hitit Turkey Office	Water treatment	4.9707 m ³	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	0	0	0	0.00092326	Emirgan Atık Su Bertarafı

3.6 Business Travel

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Air Travel International, to/from non-UK Business class Flights With RF	239857.67 passenger.km	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	93.1847048	0.00479715	0.46052673	93.65002867	İTÜ Business İş Seyahatleri
Hitit Headquarter	Air Travel International, to/from non-UK Economy class Flights With RF	2986376.32 passenger.km	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	400.08483559	0.02986376	2.00087213	402.11557149	İTÜ Ekonomi İş Seyahatleri
The Netherlands Office	Air Travel International, to/from non-UK Economy class Flights With RF	72607.13 passenger.km	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	9.72717721	0.00072607	0.04864678	9.77655005	Hollanda Ekonomi İş Seyahatleri

3.7 Employee Commuting

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
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Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Vans Average (up to 3.5 tonnes) Unknown	91173.6 km	2024-01-01	2024-12-31	Defra	2024	Tier 1	AR5	22.58461246	0.00091174	0.14770123	22.73322542	İTÜ Personel Servisleri

3.11 Use of Sold Products

Facility	Emission Source	Activity Data	Start Date	End Date	EF Reference	EF Year	Tier Quality	AR	tCO ₂	tCH ₄	tN ₂ O	tCO ₂ e	Description
Hitit Headquarter	Electricity Generation	233260 kWh	2024-01-01	2024-12-31	Türkiye Ulusal Envanter	2022	Tier 2	AR6	102.16788	0	0	103.10092	Hitit Server - Pegasus Kullanımı



8. PROPERTIES OF FUEL TABLE

Emission Source	NCV (TJ/GG)	NCV Reference	Density (kg/m ³)	Density Reference	LCV (kcal/m ³)	LCV Reference
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No data available.


9. UNCERTAINTY CALCULATION TABLE
Cumulative Uncertainty: 4.737756%
Source: EU ETS Monitoring and Reporting Regulation (MRR)
** Manually measured*
SCOPE 1

Sub-Category	Emission Source	Activity Data	Activity Data Uncertainty	EF	EF Uncertainty	tCO ₂ e	Calculated Emission Uncertainty	Variable 1	Variable 2
1.1 Stationary Combustion	Natural gas	0.0193 TJ	7%*	55.4852 tCO ₂ e/TJ	7%*	1.07086436	%9.899494936611665	10.60101631	112.3815468
1.2 Mobile Combustion	Petrol (average biofuel blend)	1264.07 L	7%*	0.0020844 tCO ₂ e/L	7%*	2.63482751	%9.899494936611665	26.08346157	680.34696747
1.4 Fugitive Emissions	HFC-236fa	12 kg	7%*	8.06 tCO ₂ e/kg	7%*	96.72	%9.899494936611665	957.47915027	916766.32320176
	Carbon dioxide	5 kg	7%*	0.001 tCO ₂ e/kg	7%*	0.005	%9.899494936611665	0.04949747	0.00245

SCOPE 2

Sub-Category	Emission Source	Activity Data	Activity Data Uncertainty	EF	EF Uncertainty	tCO ₂ e	Calculated Emission Uncertainty	Variable 1	Variable 2
2.1 Electricity	Electricity Generation	86619.65 kWh	7%*	0.000442 tCO ₂ e/kWh	7%*	38.2858853	%9.899494936611665	379.01092767	143649.28329327
	Electricity Generation Netherlands	1397 kWh	7%*	0.000321 tCO ₂ e/kWh	7%*	0.448437	%9.899494936611665	4.43929981	19.7073828
	Electricity Generation	31736.75 kWh	7%*	0.000425 tCO ₂ e/kWh	7%*	13.48811875	%9.899494936611665	133.52556327	17829.07604657
2.2 Heat and Steam	Diesel (Average Biofuel Blend) (HİTİT BİLGİSAYAR HİZMETLERİ A.Ş.)	100.44 L	7%*	0.0025128 tCO ₂ e/L	7%*	0.25238563	%9.899494936611665	2.49849029	6.24245373
	Natural Gas	0.43751 TJ	7%*	55.4852 tCO ₂ e/TJ	7%*	24.27532985	%9.899494936611665	240.31350495	57750.58066135
	Natural Gas	52.68 m ³	7%*	0.0020454 tCO ₂ e/m ³	7%*	0.10775167	%9.899494936611665	1.06668713	1.13782143

SCOPE 3

Sub-Category	Emission Source	Activity Data	Activity Data Uncertainty	EF	EF Uncertainty	tCO ₂ e	Calculated Emission Uncertainty	Variable 1	Variable 2
3.1 Purchased Goods and Services	Electricity Generation Belgium	73264.32 kWh	7%*	0.000145 tCO ₂ e/kWh	7%*	10.6233264	%9.899494936611665	105.16556591	11059.79625317
	Electricity Generation	303497 kWh	7%*	0.000442 tCO ₂ e/kWh	7%*	134.145674	%9.899494936611665	1327.97442053	1763516.06158199
	Office Supplies (except Paper) Manufacturing	4541.16 USD	7%*	0.000292 tCO ₂ e/USD	7%*	1.32601872	%9.899494936611665	13.1269156	172.31591317
	Water Supply and Irrigation Systems	87.3 USD	7%*	0.000652 tCO ₂ e/USD	7%*	0.0569196	%9.899494936611665	0.56347529	0.3175044
	All Other Converted Paper Product Manufacturing	2249.24 USD	7%*	0.000463 tCO ₂ e/USD	7%*	1.04139812	%9.899494936611665	10.30931542	106.28198443
	Water supply	1682.233 m3	7%*	0.00015311 tCO ₂ e/m3	7%*	0.25756669	%9.899494936611665	2.54978019	6.50137902
3.2 Capital Goods	Electrical items - small Primary material production	233.88 kg	7%*	0.00564795 tCO ₂ e/kg	7%*	1.32094152	%9.899494936611665	13.07665393	170.998878
3.3 Fuel and Energy Related Activities	WTT- overseas electricity (generation) - Netherlands	1397 kWh	7%*	0.0000787 tCO ₂ e/kWh	7%*	0.1099439	%9.899494936611665	1.08838908	1.18459079
	WTT- overseas electricity (T&D) - Pakistan	20145.57 kWh	7%*	0.0000159 tCO ₂ e/kWh	7%*	0.32031456	%9.899494936611665	3.17095239	10.05493906
	WTT- UK & overseas electricity (generation) - Turkey	86619.64999 kWh	7%*	0.0001027 tCO ₂ e/kWh	7%*	8.89583805	%9.899494936611665	88.06430377	7755.32159849
	WTT- UK & overseas electricity (T&D) - Turkey	86619.65 kWh	7%*	0.0000127 tCO ₂ e/kWh	7%*	1.10006956	%9.899494936611665	10.89013299	118.59499654
	WTT- overseas electricity (generation) - Pakistan	20145.57 kWh	7%*	0.0000808 tCO ₂ e/kWh	7%*	1.62776206	%9.899494936611665	16.11402223	259.66171243
	WTT- overseas electricity (T&D) - Netherlands	1397 kWh	7%*	0.0000039 tCO ₂ e/kWh	7%*	0.0054483	%9.899494936611665	0.05393542	0.00290903
	Electricity (T&D)& Disturbution	86619.65 kWh	7%*	0.000036 tCO ₂ e/kWh	7%*	3.1183074	%9.899494936611665	30.86966832	952.93642219

Sub-Category	Emission Source	Activity Data	Activity Data Uncertainty	EF	EF Uncertainty	tCO ₂ e	Calculated Emission Uncertainty	Variable 1	Variable 2
	T&D- UK electricity	21542.57 kWh	7%*	0.0000183 tCO ₂ e/kWh	7%*	0.39422903	%9.899494936611665	3.9026683	15.23081986
	WTT - Liquid fuels Petrol (average biofuel blend)	1264.07 L	7%*	0.00058094 tCO ₂ e/L	7%*	0.73434883	%9.899494936611665	7.26968248	52.84828336
	WTT - Liquid fuels Diesel (average biofuel blend)	100.44 L	7%*	0.00061101 tCO ₂ e/L	7%*	0.06136984	%9.899494936611665	0.60753046	0.36909326
	WTT - Gaseous fuels Natural gas	13286.05 m3	7%*	0.0003366 tCO ₂ e/m3	7%*	4.47208443	%9.899494936611665	44.27137717	1959.95483653
3.4 Upstream Transportation and Distribution	Road Freight Vans Average (up to 3.5 tonnes) Unknown	2.55 tonne.km	7%*	0.00062264 tCO ₂ e/tonne.km	7%*	0.00158773	%9.899494936611665	0.01571774	0.00024705
	Road Freight Vans Average (up to 3.5 tonnes) Unknown	350 km	7%*	0.00024934 tCO ₂ e/km	7%*	0.087269	%9.899494936611665	0.86391902	0.74635607
3.5 Waste Generated in Operations	Refuse Commercial and industrial waste Landfill	3.07 kg	7%*	0.00052033 tCO ₂ e/kg	7%*	0.00159743	%9.899494936611665	0.01581371	0.00025007
	Paper Paper and board: paper Closed-loop	1456.76 kg	7%*	0.00000641 tCO ₂ e/kg	7%*	0.00933872	%9.899494936611665	0.09244861	0.00854675
	Refuse Commercial and industrial waste Combustion	326.66 kg	7%*	0.00000641 tCO ₂ e/kg	7%*	0.00209409	%9.899494936611665	0.02073043	0.00042975
	Electrical items Batteries Open-loop	92.49 kg	7%*	0.00000641 tCO ₂ e/kg	7%*	0.00059292	%9.899494936611665	0.00586958	0.00003445
	Plastic Plastics: average plastics Closed-loop	231.23 kg	7%*	0.00000641 tCO ₂ e/kg	7%*	0.00148233	%9.899494936611665	0.01467427	0.00021533
	Other Nonhazardous Waste Treatment and Disposal	87.3 USD	7%*	0.000632 tCO ₂ e/USD	7%*	0.0551736	%9.899494936611665	0.54619077	0.29832436
	Water treatment	1514.0027 m3	7%*	0.00018574 tCO ₂ e/m3	7%*	0.28121086	%9.899494936611665	2.7838455	7.74979577
3.6 Business Travel	Air Travel International, to/from non-UK Business class Flights With RF	239857.67 passenger.km	7%*	0.00039044 tCO ₂ e/passenger.km	7%*	93.65002867	%9.899494936611665	927.08798468	859492.13133802

Sub-Category	Emission Source	Activity Data	Activity Data Uncertainty	EF	EF Uncertainty	tCO ₂ e	Calculated Emission Uncertainty	Variable 1	Variable 2
	Air Travel International, to/from non-UK Economy class Flights With RF	3058983.45 passenger.km	7%*	0.00013465 tCO ₂ e/passenger.km	7%*	411.89212154	%9.899494936611665	4077.52397164	16626201.73929884
3.7 Employee Commuting	Vans Average (up to 3.5 tonnes) Unknown	91173.6 km	7%*	0.00024934 tCO ₂ e/km	7%*	22.73322542	%9.899494936611665	225.04744998	50646.3547425
3.11 Use of Sold Products	Electricity Generation	233260 kWh	7%*	0.000442 tCO ₂ e/kWh	7%*	103.10092	%9.899494936611665	1020.6470355	1041720.37107494



10. EMISSION FACTORS TABLE

SCOPE	Sub-Category	Emission Source	EF Reference	EF Year	Tier Quality	AR	Input Unit	EF CO ₂ (kgCO ₂ / Input Unit)	EF CH ₄ (kgCH ₄ / Input Unit)	EF N ₂ O (kgN ₂ O / Input Unit)	EF CO ₂ e (kgCO ₂ e / Input Unit)
SCOPE 1	1.1 Stationary Combustion	Natural gas	Türkiye Ulusal Envanter	2021	Tier 2	AR6	TJ	55430	1	0.1	55485.2
	1.2 Mobile Combustion	Petrol (average biofuel blend)	Defra	2024	Tier 1	AR5	L	2.07047	0.00806	0.00587	2.0844
	1.4 Fugitive Emissions	HFC-236fa	Defra	2024	Tier 1	AR5	kg	0	0	0	8060
		Carbon dioxide	Defra	2024	Tier 1	AR5	kg	0	0	0	1
SCOPE 2	2.1 Electricity	Electricity Generation	Türkiye Ulusal Envanter	2022	Tier 2	AR6	kWh	0.438	0	0	0.442
		Electricity Generation Netherlands	EEA	2022	Tier 2	AR4	kWh	0	0	0	0.321
		Electricity Generation	Climatiq	2021	Tier 2	AR6	kWh	0	0	0	0.425
	2.2 Heat and Steam	Diesel (Average Biofuel Blend) (HİTİT BİLGİSAYAR HİZMETLERİ A.Ş.)	Defra	2024	Tier 1	AR5	L	0	0	0	2.5128
		Natural Gas	Defra	2024	Tier 1	AR6	m3	0.0031	2.0414	0.0009	2.0454
		Natural Gas	Türkiye Ulusal Envanter	2021	Tier 2	AR6	TJ	0	0	0	55485.2
SCOPE 3	3.1 Purchased Goods and Services	Office Supplies (except Paper) Manufacturing	EPA	2021	Tier 1	AR5	USD	0	0	0	0.292
		Electricity Generation Belgium	EEA	2022	Tier 2	AR4	kWh	0	0	0	0.145
		Water Supply and Irrigation Systems	EPA	2021	Tier 1	AR5	USD	0	0	0	0.652
		Electricity Generation	Türkiye Ulusal Envanter	2022	Tier 2	AR6	kWh	0.438	0	0	0.442
		All Other Converted Paper Product Manufacturing	EPA	2021	Tier 1	AR5	USD	0	0	0	0.463
		Water supply	Defra	2024	Tier 1	AR5	m3	0	0	0	0.15311
	3.2 Capital Goods	Electrical items - small	Defra	2024	Tier 1	AR5	kg	0	0	0	5.64794563

SCOPE	Sub-Category	Emission Source	EF Reference	EF Year	Tier Quality	AR	Input Unit	EF CO ₂ (kgCO ₂ / Input Unit)	EF CH ₄ (kgCH ₄ / Input Unit)	EF N ₂ O (kgN ₂ O / Input Unit)	EF CO ₂ e (kgCO ₂ e / Input Unit)
		Primary material production									
	3.3 Fuel and Energy Related Activities	WTT- overseas electricity (generation) - Netherlands	Defra	2021	Tier 1	AR6	kWh	0	0	0	0.0787
		WTT- overseas electricity (T&D) - Pakistan	Defra	2021	Tier 1	AR6	kWh	0	0	0	0.0159
		WTT- UK & overseas electricity (generation) - Turkey	Defra	2021	Tier 1	AR6	kWh	0	0	0	0.1027
		WTT- UK & overseas electricity (T&D) - Turkey	Defra	2021	Tier 1	AR6	kWh	0	0	0	0.0127
		WTT - Gaseous fuels Natural gas	Defra	2024	Tier 1	AR5	m3	0	0	0	0.3366
		WTT- overseas electricity (generation) - Pakistan	Defra	2021	Tier 1	AR6	kWh	0	0	0	0.0808
		WTT - Liquid fuels Petrol (average biofuel blend)	Defra	2024	Tier 1	AR5	L	0	0	0	0.58094
		WTT- overseas electricity (T&D) - Netherlands	Defra	2021	Tier 1	AR6	kWh	0	0	0	0.0039
		Electricity (T&D)& Distribution	Türkiye Ulusal Envanter	2022	Tier 2	AR6	kWh	0	0	0	0.036
		WTT - Liquid fuels Diesel (average biofuel blend)	Defra	2024	Tier 1	AR5	L	0	0	0	0.61101
		T&D- UK electricity	Defra	2024	Tier 1	AR6	kWh	0	0	0	0.0183
	3.4 Upstream Transportation and Distribution	Road Freight Vans Average (up to 3.5 tonnes) Unknown	Defra	2024	Tier 1	AR5	tonne.km	0	0	0	0.62264
		Road Freight Vans Average (up to 3.5 tonnes) Unknown	Defra	2024	Tier 1	AR5	km	0	0	0	0.24934
	3.5 Waste Generated in Operations	Refuse Commercial and industrial waste Landfill	Defra	2024	Tier 1	AR5	kg	0	0	0	0.5203342
		Paper Paper and board: paper Closed-loop	Defra	2024	Tier 1	AR5	kg	0	0	0	0.00641061
		Refuse Commercial and industrial waste Combustion	Defra	2024	Tier 1	AR5	kg	0	0	0	0.00641061

SCOPE	Sub-Category	Emission Source	EF Reference	EF Year	Tier Quality	AR	Input Unit	EF CO ₂ (kgCO ₂ / Input Unit)	EF CH ₄ (kgCH ₄ / Input Unit)	EF N ₂ O (kgN ₂ O / Input Unit)	EF CO ₂ e (kgCO ₂ e / Input Unit)
		Other Nonhazardous Waste Treatment and Disposal	EPA	2021	Tier 1	AR5	USD	0	0	0	0.632
		Electrical items Batteries Open-loop	Defra	2024	Tier 1	AR5	kg	0	0	0	0.00641061
		Water treatment	Defra	2024	Tier 1	AR5	m3	0	0	0	0.18574
		Plastic Plastics: average plastics Closed-loop	Defra	2024	Tier 1	AR5	kg	0	0	0	0.00641061
	3.6 Business Travel	Air Travel International, to/from non-UK Business class Flights With RF	Defra	2024	Tier 1	AR5	passenger.km	0.3885	0.00002	0.00192	0.39044
	3.6 Business Travel	Air Travel International, to/from non-UK Economy class Flights With RF	Defra	2024	Tier 1	AR5	passenger.km	0.13397	0.00001	0.00067	0.13465
	3.7 Employee Commuting	Vans Average (up to 3.5 tonnes) Unknown	Defra	2024	Tier 1	AR5	km	0.24771	0.00001	0.00162	0.24934
	3.11 Use of Sold Products	Electricity Generation	Türkiye Ulusal Envanter	2022	Tier 2	AR6	kWh	0.438	0	0	0.442

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