

CO₂

CORPORATE CARBON FOOTPRINT REPORT

📍 Büyükkayacık Neighborhood, 4th Organized Industrial Zone, 406th
Street, No: 14, Selçuklu / KONYA

☎ +90 332 345 02 42

ABOUT US

"Our company, Konya Carbon Certification and Project Development Inc., aims not only to turn an urgent crisis into a historic opportunity but also to develop a comprehensive solution series for the climate crisis through collaborative efforts, designed to be embraced by the entire city. With the goal of becoming a pioneer in a just transformation movement that will spread globally, our company was established in 2022 in response to the need for a solution to a significant issue in the city, involving the partnership of 89 businesspeople in Konya.

Our initiative addresses the city's preparation for global and technological developments related to climate change. We have initiated collaborations with key stakeholders such as Konya Metropolitan Municipality, Konya Chamber of Commerce, Konya Chamber of Industry, Union of Tradesmen and Craftsmen Chambers, Mevlana Development Agency, KOP Administration, and universities.

Our vision is to make Konya the first carbon-neutral city in Europe by the year 2042. In line with this, our objectives include reducing the city's carbon emissions by promoting electricity generation from renewable sources, implementing zero-carbon transportation and logistics activities, developing and operating carbon-neutral industrial zones, constructing and operating carbon-neutral living spaces, and conducting R&D projects addressing climate change."

OBANOĐLU OTOMOTİV SANAYİ VE TİCARET LTD. ŐTİ.



ISO 14064-1:2018

CORPORATE CARBON FOOTPRINT REPORT

2025

REPORT SUMMARY

It emphasizes that the world, in which humans and living and non-living beings are present, exists in a system of order and balance. However, it is widely accepted that the lifestyle driven by human needs is causing disruption to the climate system over rapidly passing time. Climate change, one of the greatest global problems we face today, is manifesting its effects globally and is also felt in our country. Therefore, while measures are taken to control and reduce human-induced greenhouse gases and mitigate their adverse effects, it is also crucial to strengthen, develop, and implement strategies to adapt to climate events and manage their impacts.

This report is procedural in nature and is considered an important step in combating climate change, which is recognized as the greatest threat facing humanity.

In this context, adapting to climate change is possible by understanding its effects well so that the most effective methods can be developed to combat these effects. The process of adapting to climate change is not a one-time step but a continuous process.

As Çobanoğlu, we calculate our corporate carbon footprint and make necessary improvements to reduce it in order to combat climate change, which poses the greatest threat to humanity. We are grateful to all stakeholders who contribute to reducing our carbon footprint in this process.

DEFINITIONS AND ABBREVIATIONS

Concepts	Definitions
Greenhouse Gas	A component of both natural and anthropogenic gases in the atmosphere that absorbs and emits specific wavelengths in the infrared radiation spectrum absorbed and emitted by the Earth's surface, atmosphere, and clouds.
Greenhouse Gas Source	A physical unit or process that emits greenhouse gases into the atmosphere.
Greenhouse Gas Sink	A physical unit or process that removes any greenhouse gas from the atmosphere.
Greenhouse Gas Emission	The total mass of a specific greenhouse gas emitted into the atmosphere over a certain period of time
Carbon Footprint	A term used to describe the amount of carbon released into the atmosphere as a result of a process's production, transportation, heating, energy consumption, or the purchase of any raw materials and the production of any products.
Carbon Capture and Storage	The total mass of a specific greenhouse gas removed from the atmosphere over a certain period of time.
Greenhouse Gas Emissions	Factor related to activity data for greenhouse gas emissions or removals. Note – In the emission or removal factor of a greenhouse gas, an oxidation parameter may also be present.
Greenhouse Gas Activity Data	A quantitative measure of an activity resulting in greenhouse gas emissions or removals. Note – Examples of activity data for greenhouse gas emissions include energy consumed, amount of fuel or electricity used, materials produced, services provided, or affected land area.
Greenhouse Gas Inventory	Information related to greenhouse gas sources, sinks, emissions, and removals owned by a particular organization.
Greenhouse Gas Program	A voluntary or mandatory international, national, or regional system or plan, outside of the organization or greenhouse gas project, that records, processes, or manages greenhouse gas emissions, removals, emission reductions, or removal enhancements.
Global Warming Potential (GWP)	A factor that defines the radiative forcing effect, based on mass in terms of carbon dioxide equivalent, of a specific greenhouse gas over a specified time period.
Carbon Dioxide Equivalent CO₂e	A unit used for comparing the radiative forcing of a greenhouse gas with that of carbon dioxide. Note – Carbon dioxide equivalent is obtained by multiplying the mass of the given greenhouse gas by its global warming potential.
Base Year	A historical period identified for the comparison of greenhouse gas emissions, removals, or other greenhouse gas-related information in the future. Note – Baseline year emissions or removals may be calculated based on a specific time period (one year) or the average of several time periods
Facility	A single facility, a cluster of facilities, or production processes (fixed or mobile) that can be defined within a single geographical boundary, organizational unit, or production process scope.

Organization	An individual or entity that owns and manages its own business, whether it is a partnership or not, a public or private company, firm, entrepreneur, institution, or establishment, either in whole or in part.
Stakeholder	The individuals or responsible parties responsible for providing greenhouse gas reporting and information. Note – The responsible party may be individuals or representatives of an organization or project, and may collaborate with a validator or verifier. The validator or verifier may collaborate with other parties such as the customer or greenhouse gas program manager.
Target Use	The individual or greenhouse organization identified by those reporting greenhouse gas information and relying on this information in decision-making. Note – Target users may include customers, stakeholders, greenhouse gas program managers, legislators, financial communities, or other stakeholders (local governments, government agencies, or non-governmental organizations)
Level Of Trus	The level of confidence requested by the target user in the validation or verification. Note 1 – Confidence level is used to determine the details of the validation or verification plan designed by the validator or verifier to identify material errors, omissions, or misunderstandings. Note 2 – There are two confidence levels resulting in different validation or verification statements (reasonable or limited).
Materiality	A concept that can influence greenhouse gas reporting and decisions of target users due to errors, omissions, or misunderstandings, either in part or as a whole.
Monitoring	Continuous or periodic assessment of greenhouse gas emissions and removals, or other greenhouse gas data.
Uncertainty	Parameter related to the calculated result associated with the determined quantity and showing the distribution of values. Note: Uncertainty information generally indicates quantitative estimates of the likely distribution of values and provides a qualitative assessment of possible reasons for this distribution.
Biomass	Geological formations excluding mineral and fossilized matter, except for biogenic matter. Note: Biogenic matter includes organic materials such as trees, grains, grasses, tree debris, algae, animals, manure, and biogenic waste, both living and non-living.
Non Anthropogenic Biogenic Greenhouse Gas Emissions	Greenhouse gas emissions originating from biogenic materials caused by natural disasters (e.g., forest fires or insect infestation) or natural evolutionary processes (e.g., growth, decomposition).

Abbreviations	Description
CH ₄	Methane
CO ₂	Carbon Dioxide
N ₂ O	Nitrogen Oxides
HFC	Hidro Fluoro Karbonlar
PFC	Per Fluoro Karbonlar
SF ₆	Sulfur Hexafluoride
NF ₃	Nitrogen Trifluoride
CO ₂ e	Carbon Dioxide Equivalent
EF	Emission Factor
NKD	Net Calorific Value
FV	Activity Data
GHG	Green House Gas
GWP	Global Warming Potential

PRINCIPLES

"Carbon footprint calculation and reporting activities conducted in our organization have been carried out in accordance with the principles of ISO 14064-1:2018 standard."

COMPLIANCE

"Our organization has conducted carbon footprint calculation and reporting activities, referencing the ISO 14064-1:2018 standard, in line with the needs of target users. The implementation of these activities is tailored to meet the requirements outlined in the ISO 14064-1:2018 standard, ensuring that the results are relevant and valuable for our intended audience."

INTEGRITY

A working committee, consisting of relevant departments, has been established to consider all greenhouse gas emissions and removals in calculations. All greenhouse gas emissions and removals have been taken into account.

CONSISTENCY

To ensure accurate and consistent results when comparing the total CO₂e emissions obtained from calculations with the baseline year, assessments are made based on carbon intensity rather than absolute CO₂e values. The comparison is conducted using appropriate parameters, and these comparison parameters are detailed in the calculation tables.

ACCURACY

In order to ensure the accuracy and reliability of the total CO₂e emissions obtained from the calculations, a Greenhouse Gas Quality Management System has been established. Data has been collected from sources in a manner that minimizes uncertainties, and calculation steps have been selected in accordance with the requirements of the target users.

TRANSPARENCY

To ensure that target users can make informed decisions with reasonable confidence, the Carbon Footprint Report has been prepared in a clear and understandable manner, providing all calculation details and references used in the calculations.

SECTION 1: ORGANIZATION AND INVENTORY OBJECTIVES

1.1 Organization Information

Organization Name	: Çobanoğlu Otomotiv Sanayi ve Ticaret Ltd. Şti.
Organization Adress	: Büyükkayacık Neighborhood, 4th Organized Industrial Zone, 406th Street, No: 14, Selçuklu / KONYA
Phone	: +90 332 345 02 42
E-Posta	: info@cbo.com.tr

1.2 Reporting Period, Standart and Baseline Year

Report Date	: 01/01/2025 - 31/12/2025
Reporting Period	: 2025
Reporting Interval	: 1 Year
Reporting Frequency	: 1 Year
Baseline Year	: 2025
Reporting Standart	: 14064-1 2018

1.3 Personnel Responsible for the Report

Name Surname	Phone	E-mail	Facility
Hatice ÇOBANOĞLU	+90 332 345 02 42	info@cbo.com.tr	Konya Facility

1.4 Report Purpose and Scope

The purpose of the greenhouse gas report is to calculate and declare greenhouse gas emissions and removals at the organizational level for all operations under the responsibility of Çobanoğlu. This process adheres to the requirements of the ISO 14064-1:2018 standard.

The Greenhouse Gas Report encompasses both direct and indirect emissions, covering calculations for Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), Nitrogen Trifluoride (NF₃), Hydrofluorocarbons (HFC), Perfluorocarbons (PFC), and Sulfur Hexafluoride (SF₆) gases.

The comprehensive scope of the report aims to provide a transparent and accurate account of greenhouse gas contributions associated with the organization's operations, facilitating compliance with international standards and contributing to responsible environmental stewardship.

1.5 Target Users

Çobanoğlu has voluntarily prepared the Greenhouse Gas Report, and the main target users of our prepared greenhouse gas report are outlined below.

- Our company's senior management
- Employees
- Our customers
- Suppliers
- Other stakeholders

The greenhouse gas report, when requested by the target users, will be electronically transmitted by the report manager to the requestors.

1.6 Policies and Strategies

Çobanoğlu's fundamental policy and strategy for greenhouse gas emissions are as follows;

- Controlling activities that may contribute to greenhouse gas formation to minimize potential harm to the environment,
- Reducing greenhouse gas emissions by ensuring efficient utilization of greenhouse gas sources, and improving energy management in our activities,
- Making a positive contribution to mitigating climate change by reducing greenhouse gas emissions in accordance with global climate policies, international agreements, and national and international commitments,

As part of continuous improvement, the aim is to reduce the energy and natural resource consumption of employees, suppliers, and subcontractors through training programs.

SECTION 2: INVENTORY QUALITY MANAGEMENT

2.1 Greenhouse Gas Information Management

Çobanoğlu;

- Ensuring compliance with the principles of ISO 14064-1:2018 in reporting.
- Ensuring the consistency of the GHG inventory with its intended use.
- Implementing routine and consistent checks to ensure the accuracy and completeness of the GHG inventory.
- Identifying and addressing errors and deficiencies.
- Documenting and archiving relevant GHG inventory records, including information management activities and KPIs.

A Greenhouse Gas Management Procedure has been established and implemented to achieve its objectives.

Within the framework of the Greenhouse Gas Management Procedure, the following topics have been documented,

- Identifying and reviewing the responsibilities and authorities of individuals responsible for the development of the Greenhouse Gas inventory.
- Identifying, implementing, and reviewing appropriate training for members of the inventory development team.
- Determining and reviewing the organizational boundaries.
- Identifying and reviewing greenhouse gas sources and sinks.
- Selecting and reviewing calculation approaches, including the choice and review of calculation methods consistent with the intended use of the greenhouse gas inventory, and the data used for greenhouse gas calculation models.
- Reviewing the implementation of calculation approaches to ensure consistency across multiple facilities.
- Use, maintenance, and calibration of measurement equipment.
- Development and maintenance of a robust data collection system.
- Regular accuracy checks.
- Periodic internal audits and technical reviews.
- Periodically reviewing opportunities for improving information management processes.

2.2 Document Storage and Record Keeping

To ensure verification, documents supporting the design, development, and maintenance of the greenhouse gas inventory are preserved and maintained in accordance with the Greenhouse Gas Management Procedure. Documents in paper, electronic, or other formats are handled in compliance with the Greenhouse Gas Management Procedure.

SECTION 3: GREENHOUSE GAS INVENTORY BOUNDARIES

3.1 Organizational Boundaries

Organizational Boundaries have been defined as the official address where our business operates. All activities within the boundaries of our official address have been included in the calculations.

Our organization is responsible for all calculated greenhouse gas emissions and/or removals from facilities under its own financial and administrative control. Therefore, the "Operational Control Approach" method has been chosen for the calculation of greenhouse gas emissions and removals.

In the selected approach, any changes will be declared in the relevant greenhouse gas report if modifications are made. The organizational boundaries included in the calculations are provided below

Facility	Address
Çobanoğlu Otomotiv Sanayi ve Ticaret Ltd. Şti.	Büyükkayacık Neighborhood, 4th Organized Industrial Zone, 406th Street, No: 14, Selçuklu / KONYA

3.2 Reporting Boundaries

Çobanoğlu Reporting Boundaries are divided into two main groups: direct and indirect greenhouse gas emissions and removals.

A. Greenhouse Gas Emissions and Removals

Within our organizational boundaries, direct greenhouse gas emissions are classified as Category 1 in the greenhouse gas report. Category 1 emissions consist of emissions from stationary and mobile combustion sources, as well as fugitive emissions, and in the case of process emissions if applicable, all occurring within our organizational boundaries.

Direct greenhouse gas emissions are calculated and reported separately for CO₂, CH₄, N₂O, NF₃, SF₆, and other relevant greenhouse gas groups (HFCs, PFCs, etc.) in tons of CO₂e in the greenhouse gas emissions report.

B. Indirect Greenhouse Gas Emissions and Removals

Indirect greenhouse gas emissions originating from outside our organizational boundaries are categorized in the greenhouse gas report as Category 2 through Category 6.

Indirect greenhouse gas emissions are emissions occurring outside our organizational boundaries that are associated with the activities of Çobanoğlu. The inclusion of these emissions in the greenhouse gas inventory is determined based on a significance assessment conducted according to the Greenhouse Gas Management Procedure to decide which emissions will be included.

Greenhouse Gas Management Procedure outlines and explains criteria for the significance of indirect emissions, including the magnitude/volume of emissions,

the level of impact on sources/sinks, access to information, and the accuracy level of relevant data (complexity of the organization and monitoring).

Records of the conducted significance assessment are maintained in accordance with the Greenhouse Gas Management Procedure.

In determining the criteria and methodology used for the significance assessment, the intended use of the greenhouse gas inventory has been taken into consideration. In the assessment, significant indirect emissions have not been excluded, regardless of the purpose of use.

No exclusion has been made for any of the significant indirect emissions identified as a result of the significance assessment conducted by Çobanoğlu. If any of these emissions are excluded for any reason, the rationale for exclusion will be documented in our emission report.

The significance assessment criteria are periodically reviewed by the committee responsible for greenhouse gases in accordance with the Greenhouse Gas Management Procedure. Revisions resulting from these reviews are preserved according to the Greenhouse Gas Management Procedure.

Within our organization's operational area, there are no green spaces or activities of a nature that could be considered as sinks for greenhouse gas emissions reduction calculations. Consequently, green areas within and around the facility are excluded from greenhouse gas removals.

C. Gas Inventory Categories

Greenhouse gas emissions are classified at the organizational level as outlined below.

Table 1 provides a list of included subcategories and emissions for reporting purposes.

- **Category 1** – Direct Greenhouse Gas Emissions and Removals
- **Category 2** – Indirect Greenhouse Gas Emissions from Imported Energy
- **Category 3** – Indirect Greenhouse Gas Emissions from Transportation
- **Category 4** – Indirect Greenhouse Gas Emissions from Products Used by the Organization
- **Category 5** – Indirect Greenhouse Gas Emissions Associated with the Use of the Organization's Products
- **Category 6** – Other Indirect Greenhouse Gas Emissions from Secondary Sources

3.3 Biological Origin Greenhouse Gas Emissions

Human-induced biological origin greenhouse gas emissions and removals are a result of human activities. Human-induced biological origin greenhouse gas emissions (e.g., CO₂, CH₄, and N₂O) can arise from processes such as biomass combustion and other activities (e.g., aerobic and anaerobic decomposition of biomass and soil organic matter).

If present, human-induced biological origin CO₂ emissions and removals are calculated and reported separately from other human-induced emissions. The removal of human-induced biological origin emissions and other greenhouse gases (e.g., CH₄ and N₂O) is calculated and reported as part of human-induced emissions.

Biological origin greenhouse gas emissions and CO₂ removals that are not human-induced, resulting from natural disasters (e.g., forest fires or insect infestations) or natural changes (e.g., growth, decay), are not calculated in the event of such occurrences.

SECTION 4: CALCULATION APPROACHES

4.1 Definition of Greenhouse Gas Sources and Sinks

In our organization, the direct and indirect greenhouse gas emissions and removals included within the reporting boundaries are documented as the Greenhouse Gas Inventory in Table 1. The Inventory is periodically reviewed in accordance with the Greenhouse Gas Inventory Management Procedure.

All identified sources are classified in accordance with the ISO 14064-1:2018 standard.

4.2 Selection of Calculation Approach

Our organization collects necessary data in accordance with the Greenhouse Gas Management Procedure to minimize uncertainty and achieve accurate, consistent, and repeatable results.

For each source or sink classified as direct or indirect emissions and removals, the characteristics of each relevant data used are defined and documented in accordance with the Greenhouse Gas Management Procedure.

During data collection, invoices are prioritized, followed by manual or software-based records within the organization. Distance information required for the calculation of indirect emissions was obtained through Google Earth.

Since our organization does not have a system for the measurement of greenhouse gas quantities using measurement methodology in emission sources in the greenhouse gas inventory, calculation-based methodologies have been preferred.

In selecting greenhouse gas emission and removal factors for calculations, Tier 3 - Sectoral is prioritized, followed by National - Tier 1, and international factors (Tier 1) when national factors are not sufficient.

Any changes in the calculation approach, if applicable, will be documented in the greenhouse gas report according to the Greenhouse Gas Management Procedure.

4.3 The Calculation of Greenhouse Gas Emissions and Removals

"The CARBONWARE software is used for calculations, and the calculations are verified based on the Excel data obtained from the software.

In general, the CARBONWARE software is used for calculations, and it includes:"

$$\text{Overall CO}_2\text{e} = \text{Activity Data} \times \text{Appropriate Emissions} \\ \text{(Greenhouse Gas Emissions/ Sequestration) Factor}$$

The formula has been used. The values obtained from the calculations are converted to tons of CO₂e according to IPCC 100-year GWP values.

4.4 Base Year and Base Year Greenhouse Gas Inventory

Çobanoğlu has designated the year 2025 as the base year for greenhouse gas emissions and removals for comparative purposes or to meet the requirements of greenhouse gas programs or other intended uses of the greenhouse gas inventory.

When selecting the base year, criteria such as changes in organizational boundaries and data security have been considered. Since sufficient information about past greenhouse gas emissions or removals is not available, 2025 has been chosen as the base year.

To ensure the representativeness of the greenhouse gas inventory, a base year review and recalculation activities, accounting for significant cumulative changes in base year emissions arising from the factors below, are carried out in accordance with the Greenhouse Gas Management Procedure:

Changes in organizational boundaries

Cumulative changes in emissions or removals from significant sources or sinks

These activities are performed to maintain the accuracy and reliability of the greenhouse gas inventory for the base year.

- a. Structural changes in reporting or organizational boundaries (i.e., merger, acquisition, or divestiture) or
- b. A change in calculation methods or emission factors or
- c. The discovery of a significant error or a series of cumulative errors collectively deemed important.

If our base year remains unchanged, in the event of a change in the base year, our organization will specify any changes in the data for the redefined base year in subsequent reports.

If a facility is opened/closed for a specific period, the greenhouse gas inventory will not be recalculated.

4.5 Assessment of Uncertainty

In accordance with the Greenhouse Gas Management Procedure, uncertainties have been calculated, and the reached uncertainties are provided in the Uncertainty Table included in the uncertainty report attachment.

SECTION 5: GREENHOUSE GAS REDUCTION ACTIVITIES

In our organization, no greenhouse gas improvement projects have been undertaken during the reporting period.

SECTION 6: USED REFERENCES

6.1 Greenhouse Gas Inventory

This table presents the greenhouse gas inventory of Çobanoğlu. The greenhouse gas inventory represents a crucial dataset that includes different types of greenhouse gases, their quantities, and sources. This information is a critical tool for assessing the impacts of climate change, monitoring, and reducing greenhouse gas emissions.

The table displays the inventory quantities and units of different greenhouse gases (e.g., carbon dioxide, methane, nitrogen oxides). Additionally, it explains the basic formulas or inventory management procedures used to calculate the inventory quantity for each greenhouse gas. This is essential for efforts to control and reduce greenhouse gas emissions.

This table provides a valuable resource for environmental scientists, researchers, and environmental policymakers. The greenhouse gas inventory plays a vital role in tracking national and international commitments to reduce greenhouse gases, developing climate change strategies, and managing environmental compliance processes. Therefore, this table is a critical data source for those shaping policy decisions related to greenhouse gas management and climate change.

No	Facility	Category	Activity	Fuel
1	Çobanoğlu	Scope 1	IPCC-Sectoral-Calculation/Production-Construction-Sector	Naturel Gas
2	Çobanoğlu	Scope 2	IPCC-Sectoral-Calculation/Production-Construction-Sector	Naturel Gas
3	Çobanoğlu	Scope 3	IPCC-Sectoral-Calculation/Production-Construction-Sector	Naturel Gas
4	Çobanoğlu	Scope 3	IPCC-Sectoral-Calculation/Production-Construction-Sector	Naturel Gas

Refrigerant Gas Inventory

This table presents the refrigerant gas inventory of Çobanoğlu. The refrigerant gas inventory includes the types, quantities, and storage conditions of refrigerant gases used in cooling or climate control systems. This information is crucial for the maintenance, management, and environmental monitoring of cooling systems.

The table displays the inventory quantities and units of different refrigerant gases (e.g., R-134a, R-410A, R-22). It also explains the basic formulas or inventory management procedures

used to calculate the inventory quantity for each gas. This facilitates the management and tracking of refrigerant gases.

This table plays a significant role in achieving energy efficiency, environmental compliance, and sustainability goals for industrial facilities, commercial buildings, or any organization. If refrigerant gas inventory is not managed accurately, it can lead to environmental impacts and waste of energy resources. Therefore, this table provides a valuable resource for those looking to enhance inventory management and environmental monitoring processes.

6.2 Refrigerant Leak Rates

This table presents the inventory of refrigerant gases owned by Çobanoğlu. The refrigerant gas inventory includes the types, quantities, and storage conditions of refrigerant gases used in cooling or climate control systems. This information is crucial for the maintenance, management, and environmental monitoring of cooling systems.

The table provides the inventory quantities and units of different refrigerant gases (such as R-134A, R-410A, R-22). It also explains the basic formulas or inventory management procedures used to calculate the quantity of each gas in the inventory. This facilitates the management and tracking of refrigerant gases.

This table plays a significant role in achieving energy efficiency, environmental compliance, and sustainability goals for industrial facilities, commercial buildings, or any organization. If refrigerant gas inventory is not managed accurately, it can lead to environmental impacts and waste of energy resources. Therefore, this table serves as a valuable resource for those looking to improve inventory management and environmental monitoring processes.

6.3 KIP Values

This table presents the global warming potential (GWP) values used in calculations for various greenhouse gases or emission sources. Global warming potential is a measure used to compare the effects of different greenhouse gases on the atmospheric greenhouse effect quantitatively. These values express the contributions of greenhouse gases to global warming in numerical terms.

The table provides the global warming potential values for different greenhouse gases (e.g., carbon dioxide, methane, ozone, fluorinated gases) and their units. It also explains the basic formulas or standards used in calculating the global warming potential of each greenhouse gas. This forms the basis for assessing, monitoring, and reducing greenhouse gas emissions.

These global warming potential values are particularly important for researchers, environmental scientists, and policymakers in areas such as climate change and greenhouse gas reduction policies. This table provides a valuable resource for those seeking to better understand the environmental impacts of greenhouse gases and develop greenhouse gas reduction strategies. These values play a critical role in the processes of managing and reducing greenhouse gas emissions.

Gas	Kip	Report	REFERENCE
CO ₂	1,00	AR6	IPCC Assesment Report 6
CH ₄	27,9	AR6	IPCC Assesment Report 6

N2O	273	AR6	IPCC Assessment Report 6
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Table 4 – KIP Values

6.4 Used NKD's in Calculations

This table provides the net calorific values used in calculations for various fuel types or energy sources. Net calorific values represent the amount of heat released by a specific weight or unit amount of a fuel or energy source. These values are of fundamental importance in energy production, heating, cooling, or other energy consumption calculations.

The table presents the net calorific values of different fuel types (such as wood, coal, oil, natural gas) and their respective units. It also explains the basic formulas or standards used to calculate the net calorific value for each fuel type. This ensures accurate and consistent energy calculations.

These net calorific values, particularly used in the energy sector and various fields like heating, cooling, energy efficiency, and environmental assessments, serve as a reference for researchers and practitioners. They support the effective utilization of energy resources and the development of energy policies.

No	Category	Activity	Fuel	Nkd	Nkd Reference
1	Scope 1	IPCC-Sectoral-Calculation/Producti on-Construction- Sector	Naturel Gas	0,0000345	Turkey - https://www.resmigazete.gov.tr/eskiler/2011/10/20111027-5.htm - 10.200 Kcal/kg * 4,1868*10 ⁻⁹ (TJ Conversion)

, Table 5 – Net Calorific Values of Usage

6.5 Conversion Factors Used in Calculations

The primary purpose of this table is to present the conversion factors used in calculations. Conversion factors are crucial parameters that show how a specific data or measurement is related to other units or measurements. The table provides different conversion factors, their sources, and the context in which these factors are used.

Specifically, each conversion factor in the table elaborates on how a particular data or measurement is calculated and the formulas involved. Under each conversion factor, relevant references and sources are provided so that readers can refer to them when they want to explore these conversion factors in more detail or seek additional information.

This table serves as a valuable resource for readers who want to better understand the conversion factors used in research or calculation processes and ensure the accuracy of calculations. Additionally, by indicating that the conversion factors come from reliable sources and are applied accurately, it enhances the credibility of the research.

No	Category	Activity	Fuel	Conversion Factor	Conversion Reference
1	Scope 1	IPCC-Sectoral-Calculation/Produ ction- Construction- Sector	Naturel Gas	0,94	Density Turkey - https://www.resmigazete.gov.tr/eskiler/2011/10/20111027-5.htm

Table 6 – Conversion Factors of Usage

6.6 Emission Factors Used in Calculations

This table provides emission factors from various sources. Emission factors are crucial parameters that measure the amount of pollutants or greenhouse gases released from a specific source. These factors play a critical role in various applications such as environmental impact assessments, air quality monitoring, and greenhouse gas emission calculations.

The table presents emission factors and their units for different emission sources (e.g., vehicles, energy production, industrial facilities). It also explains the fundamental methods or standards used in the calculation or measurement of each emission factor. This ensures accurate environmental monitoring and air quality assessments.

This table serves as an important resource for environmental protection agencies, researchers, and industry experts. Emission factors are used in various fields, including environmental impact assessments, air pollution control, and the development of greenhouse gas reduction strategies. Therefore, this table contributes to making environmental policy decisions and promoting the sustainability of industrial activities.

No	Category	Sub Category	Fuel	Unit	CO2	CH4	N2O	Reference
1	Scope 1	IPCC-Sectoral-Calculation /Production-Construction-Sector	Naturel Gas	Kwh	56100	1	0,1	IPCC (2006), Vol 2., Chapter 2, Tablo 2.3.
2	Scope 2	IPCC-Sectoral-Calculation /Production-Construction-Sector	Naturel Gas	kwh	0,434	0	0	Turkey - https://enerji.gov.tr/evced-cevre-ve-iklim-elektrik-uretim-tuketim-emisyon-faktorleri
3	Scope 3	IPCC-Sectoral-Calculation /Production-Construction-Sector	Naturel Gas	Kwh	0,0334700	0	0	IPCC (2006), Vol 2., Chapter 2, Tablo 2.3.
4	Scope 3	IPCC-Sectoral-Calculation /Production-Construction-Sector	Naturel Gas	Kwh	0,035	0	0	Turkey - https://enerji.gov.tr/evced-cevre-ve-iklim-elektrik-uretim-tuketim-emisyon-faktorleri

Table 7 – Emission Factors

SECTION 7: RESULTS

7.1 Total Emissions

No	Category	tCO ₂	tCH ₄	tN ₂ O	tNF ₅	tHFC	tPFC	tSF ₆	tCO ₂ e
1	Scope 1	32,111	0,015	0,015	0	0	0	0	32,143
2	Scope 2	115,351	0	0	0	0	0	0	115,351
3	Scope 3	15,204	0	0	0	0	0	0	15,204
TOTAL		162,666	0,015	0,015	0	0	0	0	162,698

Table 8

7.2 Emission Intensities

This table measures and presents emission intensity, often expressed per unit such as ton, kilogram, or another measurement unit. It also shows emission intensity for a specific time period or interval. This table is important for environmental impact assessments, air quality monitoring, and environmental policy-making.

No	Category	t CO ₂ e	Amount of Carbon Density	Unit	Comparison Description	Carbon Density
TOTAL		162,698	0	-	-	162,698

Table 9