



**LİKİT KİMYA SANAYİ VE TİCARET A.Ş**

**ISO 14064-1:2018  
GREENHOUSE GAS EMISSION INVENTORY  
REPORT  
2024**

**NOVEMBER 2025**

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## INTRODUCTION

Today, the success of companies is not limited to the production of goods and services and financial performance. Companies are also expected to be good corporate citizens by fulfilling their environmental and people-oriented responsibilities. Therefore, the concept of sustainability has recently become a priority for companies and investors. In this transformation process, companies are becoming more conscious and responsible in conducting business and making investments in line with sustainability principles.

In order to assess the sustainability of a product or system, it must be examined using environmental, economic and life cycle methodologies. Environmental Life Cycle Assessment (E-LCA) and Life Cycle Costing (LCC) methods are used for environmental and economic assessment, respectively, while Social Life Cycle Assessment (S-LCA) is used as a method to assess the social impacts generated throughout the life cycle.

In sustainable development projects that require consideration of environmental, economic and social indicators, environmental indicators such as carbon footprint have become an important part of sustainable development.

Greenhouse gases such as Carbon Dioxide ( $\text{CO}_2$ ), Methane ( $\text{CH}_4$ ), Nitrous Oxide ( $\text{N}_2\text{O}$ ), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur Hexafluoride ( $\text{SF}_6$ ) produced as a result of organisations' activities are also important components of sustainable development. Greenhouse Gases produced as a result of the activities of organisations cause global warming by changing the chemical composition of the atmosphere. Global warming causes changes in local climatic conditions and has negative effects on vegetation and water resources.

The effect of greenhouse gas emissions on global warming is expressed in terms of carbon dioxide equivalent ( $\text{CO}_2\text{e}$ ) and is referred to as the carbon footprint.

According to scientific research, reducing the carbon footprint could mitigate the devastating effects of climate change on humanity and the planet, prevent water shortages and droughts, avert the extinction of marine life, and protect small island nations from rising sea levels. It may also be possible to keep global warming below  $1.5^\circ\text{C}$ .

With the awareness raised by efforts to combat climate change, there is growing interest in measuring the carbon footprint at an institutional level. As is both at the heart of the problem of global climate change and part of the solution, it is crucial that companies in the industrial sector participate in combating this global problem in order to achieve international targets.

## 1 ORGANISATION INFORMATION AND INTRODUCTION

<b>Company Name</b>	Likit Kimya Sanayi ve Ticaret A.Ş.
<b>Headquarters Address</b>	Nartanesi Street 16/A, Küçükbakkalköy, 34750 Ataşehir/ İstanbul
<b>Company Address of Tekirdağ Terminal</b>	Sultanköy Central Neighbourhood, İncirli Mandıra Street No:64 - Marmara Ereğlisi, Tekirdağ
<b>Company Address of Adana Terminal</b>	Adana Yumurtalık Free Zone, Sarımazı Neighbourhood, 1st Boulevard, 1st Street, No: 5/01, Ceyhan/Adana
<b>Tax Office and Number</b>	Anadolu Kurumlar Tax Office / 6080297086
<b>Head Office Telephone</b>	+90 216 499 3000
<b>NACE Code and Description</b>	52.10.04 Storage and warehousing activities for petroleum, petroleum products, chemicals, gas, etc. (ADANA and TEKİRDAĞ)
	46.75.01 Wholesale trade of industrial chemicals (aniline, printing ink, chemical adhesives, fireworks, dyeing materials, synthetic resin, methyl alcohol, paraffin, essences and flavourings, soda, industrial salt, paraffin, nitric acid, ammonia, industrial gases, etc.) Head Office
	46.74.06 Wholesale trade of metal reservoirs, tanks, barrels and similar containers, with a capacity > 300 litres (excluding those for central heating purposes and those with mechanical or thermal equipment) Centre
<b>Scope to be Declared in the Inventory</b>	Chemical raw materials, petroleum storage, port services and warehouse activities, production and sale of concrete additives, tank rental activities
<b>Business Trade Registry Number</b>	Tekirdağ-763
	Adana-4818
	Central - 350632-0
<b>Environmental Legislation to Which the Business is Subject</b>	Environmental Law, Waste Management Regulation
<b>Certificates Held by the Business</b>	ISO 9001, ISO 14001, ISO 45001
<b>Website</b>	<a href="https://likitkimya.com/">https://likitkimya.com/</a>

*Table1Company Information*

### About Likit Kimya

As Likit Kimya Sanayi ve Ticaret A.Ş., we have been providing integrated services for over 30 years to the textile, detergent, paper, food and construction sectors in the areas of supplying bulk and packaged chemicals by our expert team, storing them meticulously and distributing them regularly.

We are proud to be a leader in our sector thanks to our experience, logistics capabilities, reputation and wide product range. Our expert team takes the necessary care to provide our customers with the highest quality service, from order to delivery. By closely following global

developments, we deliver quality products at competitive prices to our domestic and international customers on time through our logistics services.

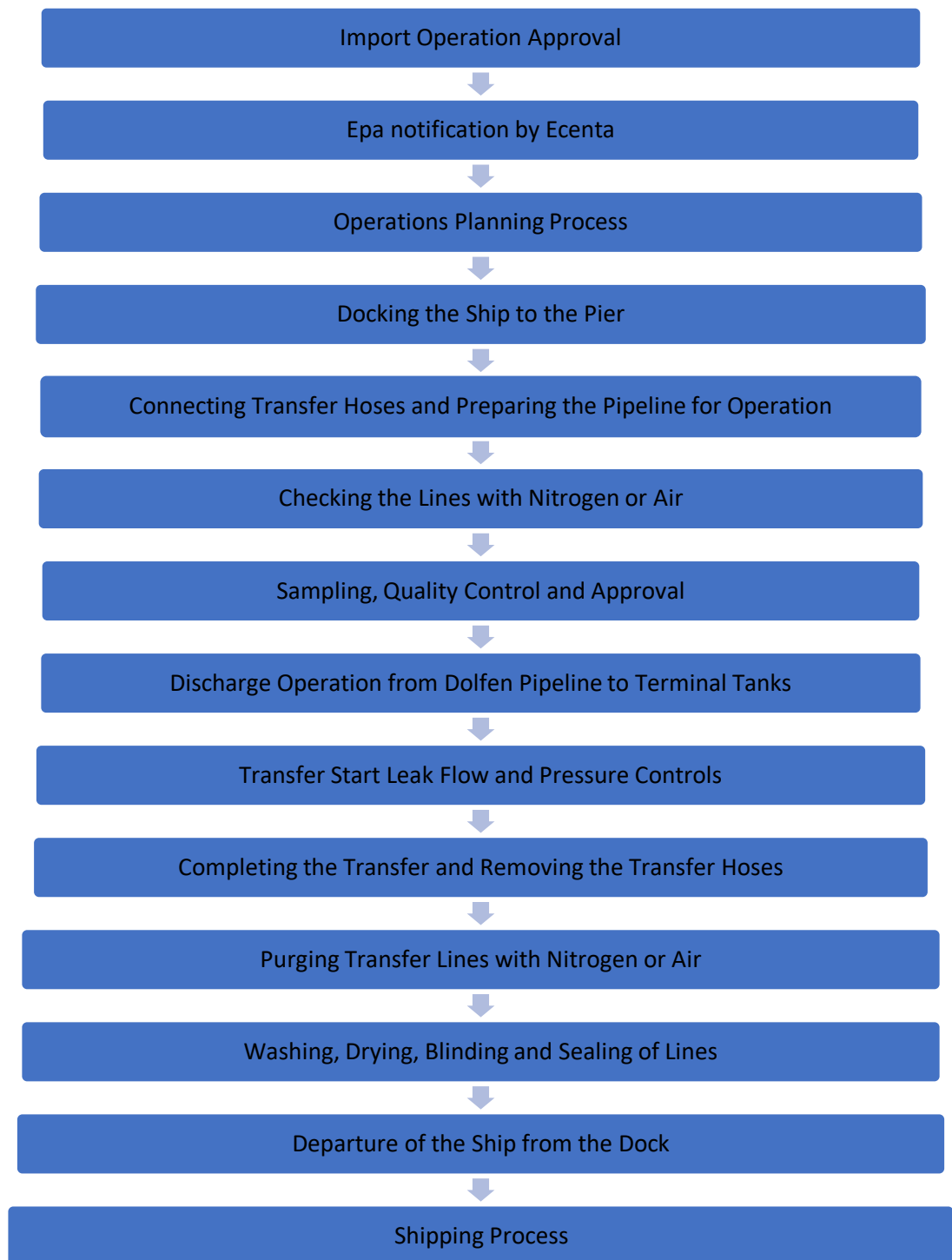
With our tank terminal in Tekirdağ-Marmara Ereğlisi, which has 'Type A General Warehouse' status, and our tank terminal in the Adana Yumurtalık Free Zone, we contribute to our country's economy by conducting transit trade and exports to many countries around the world.

Our unwavering belief that we will always provide better service to our valued customers is our core value for sustaining and developing our business.

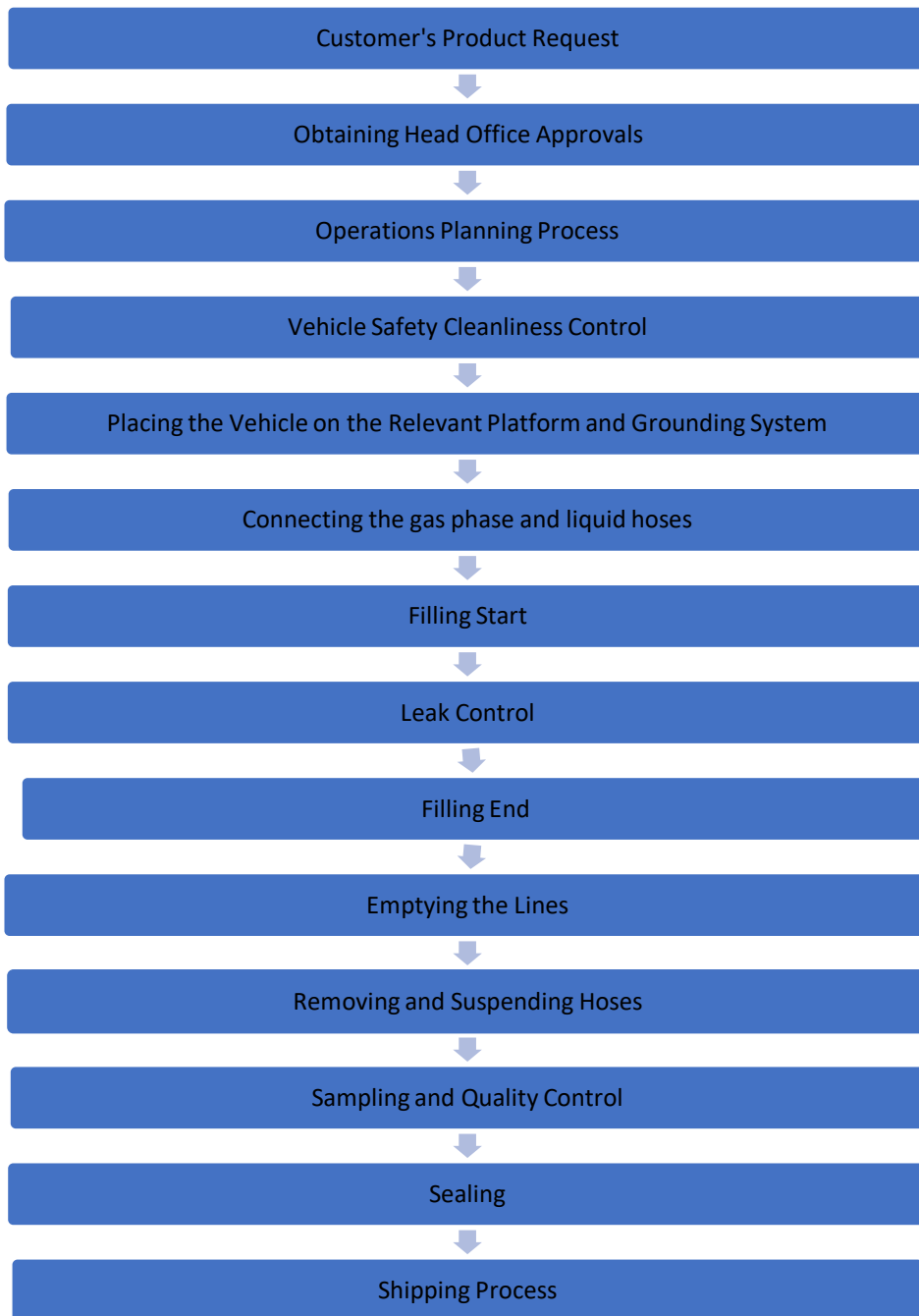
The process description related to the company's production stages is shown below.



*Figure1Company's Acetic Acid Filling and Dilution Process Flow Chart*



*Figure 2 Company's Ship-to-Tank Transportation Activity Process Flow Chart*



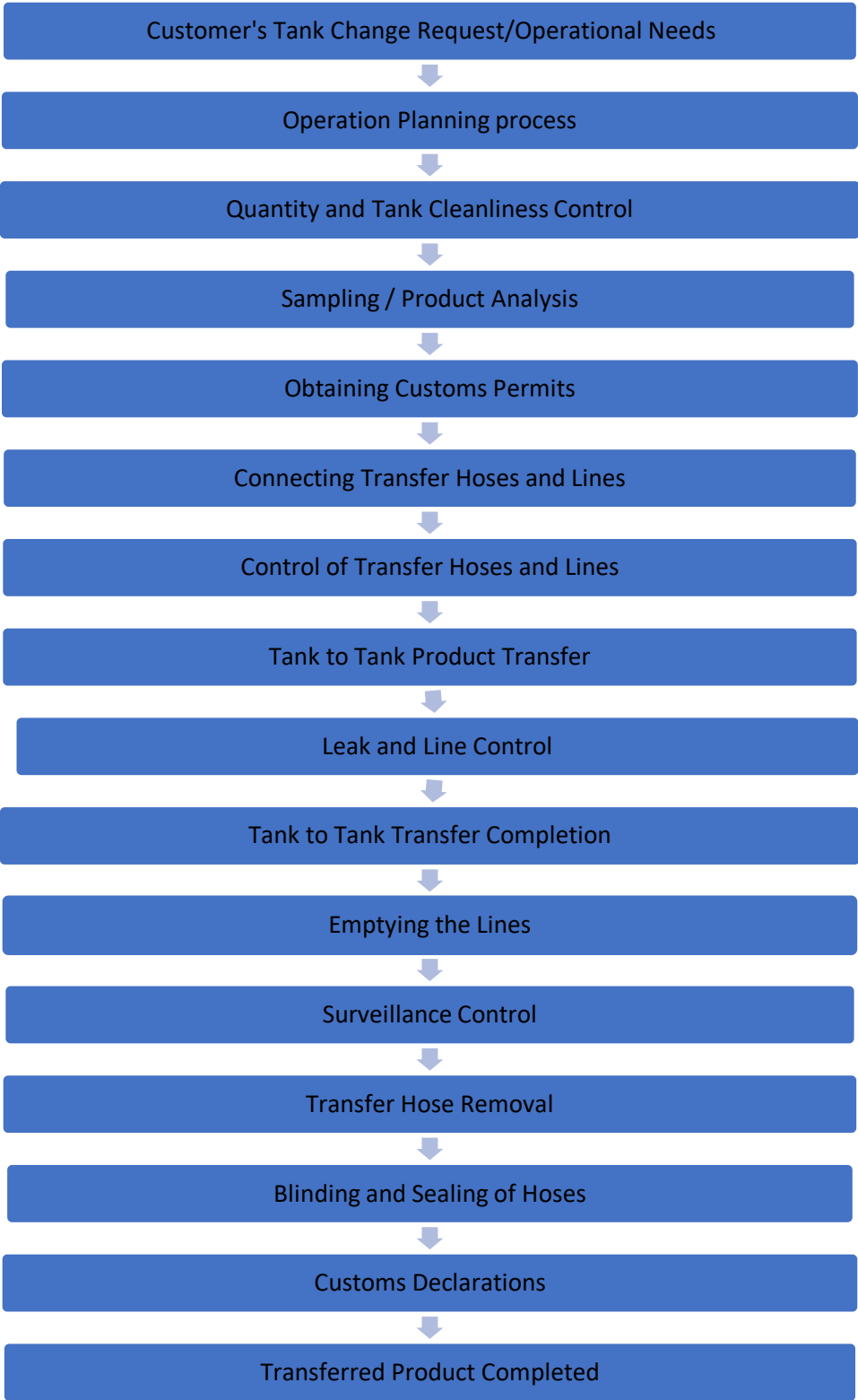


Figure 3: Tank-to-Tank Transfer Activity Process Flow Chart

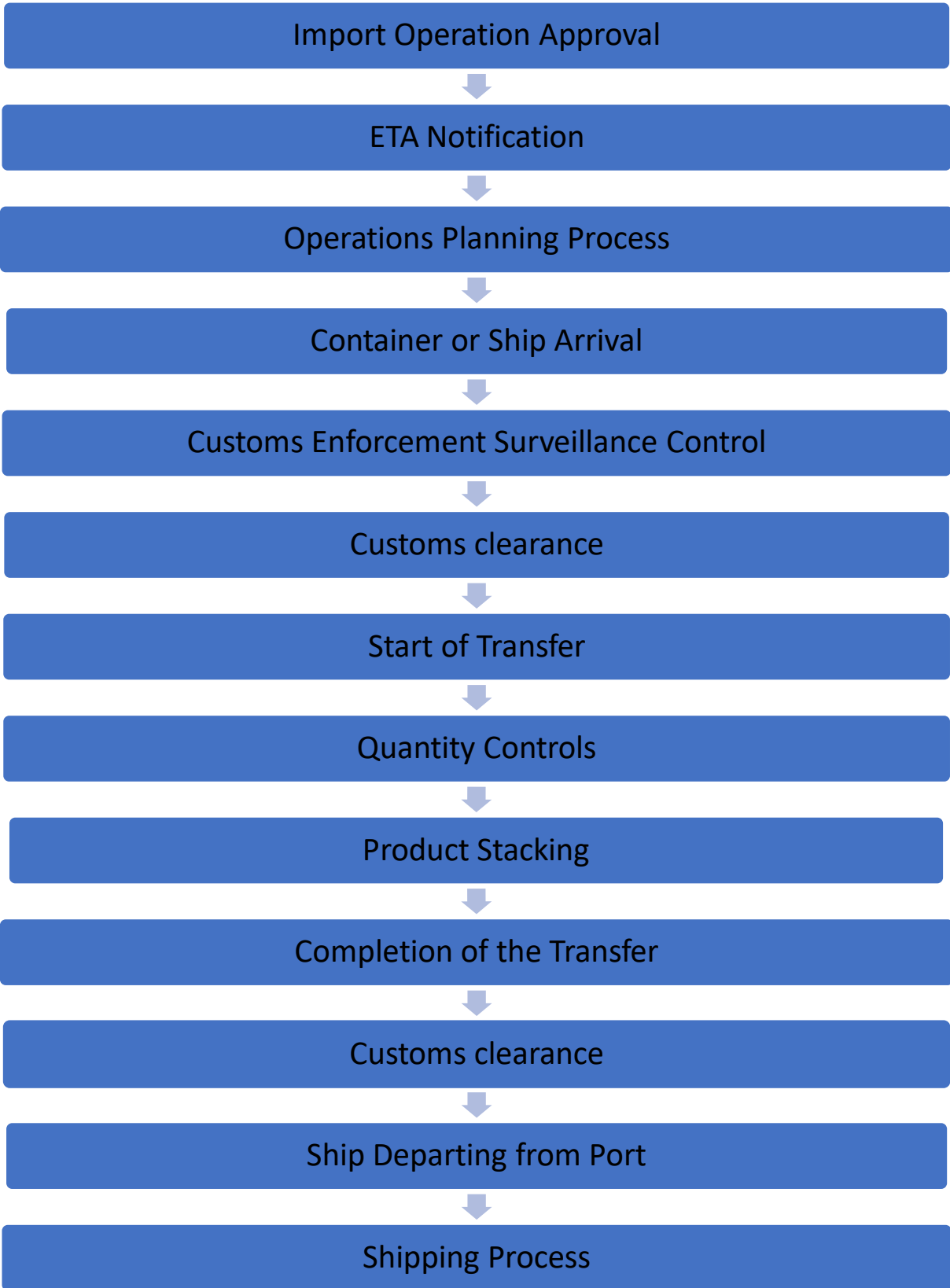


Figure3Dry Cargo Activity Flowchart

## BASIC REPORT INFORMATION

<b>Report Date</b>	: 17 November 2025
<b>Revision No</b>	: 00
<b>Reporting Standard</b>	: ISO 14064-1:2018 Guidelines and Specifications for the Calculation and Reporting of Greenhouse Gas Emissions and Removals at the Organisation Level
<b>Base Year</b>	: 2024
<b>Calculation Year</b>	: 2024
<b>Reporting Period</b>	: 01/01/2024 – 31/12/2024
<b>Person Responsible for the Report</b>	: Gül Oktay Ağbaba
<b>Responsible Person Email</b>	: gul_agbaba@likitkimya.com

### 1.1 Purpose and Scope

The purpose of the greenhouse gas report is to calculate greenhouse gas emissions and removals at the organisational level for all operations carried out under our organisation's responsibility and to declare greenhouse gas emissions in accordance with the requirements of the ISO 14064-1:2018 standard. In line with this purpose;

- To control activities that may cause greenhouse gas formation in order to reduce potential harm to the environment,
- Ensure the efficient use of greenhouse gas sources to reduce greenhouse gas emissions,
- Ensure and improve energy management in the activities carried out,
- To prevent climate change by reducing greenhouse gas emissions within the framework of global climate policies, international agreements, and national and international commitments,
- To reduce the energy and natural resource consumption of employees, suppliers and contractors through training as part of continuous improvement,
- Participation in the emissions trading system,
- Presentation of information to investors,
- Identifying carbon risks and opportunities,
- The preparation of an annual emissions report is intended.

The greenhouse gas report covers direct and indirect emissions, and the calculations include Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), Nitrous Oxide (NO), Hydrofluorocarbons (HFC), Perfluorocarbons (PFC) and Sulphur Hexafluoride (SF<sub>6</sub>) gases are taken into account in the calculations.

## 1.2 Job Description and Responsibilities

The organisational chart established to enable our organisation to fulfil its greenhouse gas reporting objectives is shown in Figure 2. This chart clearly indicates the hierarchy within the organisation and shows the relationships between employees.

The company's sustainability officer has been appointed as the "Sustainability Responsible" by the Sustainability Directorate.

The greenhouse gas inventory report contact persons are listed in Table 1, and their job descriptions and responsibilities are further detailed in the "Greenhouse Gas Management Systems Monitoring Procedure".

*Table 2 Greenhouse Gas Inventory Report Contact Persons*

SERIAL	FIRST NAME LAST NAME	POSITION	EMAIL ADDRESS
1	Emel ÇALIŞKAN	Project Leader - CONSULTANT	emel@casem.com.tr
2	Münevver ŞEKERÖZ	Project Specialist - CONSULTANT	munevver@casem.com.tr
3	Gül Oktay Ağbaba	Quality, Health, Safety and Environment Manager	gul_agbaba@likitkimya.com

The company's organisational charts are provided for your information in the attachment.

### 1.3 Target Users

The prepared greenhouse gas inventory report is intended for the following target users:

- Company senior management
- Employees
- Customers
- Suppliers
- Other stakeholders

### 1.4 Standards and Documents Used

The standards and documents referenced/used in this report are listed below.

- **ISO 14064-1:2018** Guidelines and Specifications for the Accounting and Reporting of Greenhouse Gas Emissions and Removals at the Organisation Level
- IPCC Intergovernmental Panel on Climate Change– 2006
- IPCC Sixth Assessment Report
- GHG Protocol DEFRA 2024
- Regulation on Fluorinated Greenhouse Gases
- Measuring Instruments Regulation
- Greenhouse Gas Emissions Results by Commodity
- ECOINVENT

#### 1.4.1 *ISO 14064-1:2018 Standard*

The International Organization for Standardization (ISO) is one of the world's largest civil society organisations publishing standards and produces documents that support the conversion of scientific knowledge into tools that will help address climate change.

The ISO 14060 Greenhouse Gas Standards family has been published by ISO to enable development through a low-carbon economy worldwide. The ISO 14060 Greenhouse Gas Standards provide clarity and consistency for the measurement, monitoring, reporting, and verification or validation of greenhouse gas emissions and reductions. The aim is to help

organisations manage their carbon footprint and reduce their environmental impact. The standard has three main components: inventory, quantification and reporting. The inventory component requires organisations to identify and measure greenhouse gas emissions from all sources, including direct and indirect emissions. The quantification component involves calculating the total amount of greenhouse gas emissions and determining the organisation's carbon footprint. Finally, the reporting component requires organisations to report their greenhouse gas emissions to stakeholders, including customers, investors and regulatory bodies.

The ISO 14064-1 2018 Standard, which is part of the Greenhouse Gas Standards, contains requirements for determining greenhouse gas emission and removal boundaries, calculating an organisation's greenhouse gas emissions and reductions, and defining specific company actions or activities aimed at improving GHG management. Furthermore, the ISO 14064-1 2018 Standard includes requirements and guidance on inventory quality management, reporting, internal auditing, and the organisation's responsibilities in verification activities.

The ISO 14064-2 2019 Standard, part of the Greenhouse Gas Standards family, details the principles and requirements for determining references and monitoring, quantifying and reporting project emissions. It focuses on greenhouse gas projects or project-based activities specifically designed to reduce greenhouse gas emissions.

The ISO 14064-3 2019 Standard details the requirements for verifying greenhouse gas inventories, greenhouse gas projects and greenhouse gas declarations related to the carbon footprint of products. It explains the verification or validation process, including verification or validation planning, assessment procedures, and the assessment of organisational, project, and product greenhouse gas declarations.

## **1.5 Principles**

Principles established in the ISO 14064-1:2018 standard exist to ensure that greenhouse gas-related information is accurate and fairly accounted for. These principles are:

**Compliance** : Calculation and reporting activities have been carried out with reference to the ISO 14064-1:2018 Standard.

**Completeness:** All greenhouse gas emissions and removals resulting from the organisation's activities have been taken into account in the calculations.

**Consistency :** To ensure that the comparison of the CO<sub>2</sub>e amount obtained from the calculations with the base year yields an accurate and consistent result, assessments are made based on carbon intensity using appropriate parameters rather than the absolute CO<sub>2</sub>e value. The parameters used for comparison are listed in the calculation tables.

**Accuracy :** To ensure that the total CO<sub>2</sub>e amount obtained as a result of the calculations is accurate and reliable, a Greenhouse Gas Quality Management System has been established, data has been collected from sources in a manner that minimises uncertainties, and calculation stages have been selected in accordance with the requirements of the target users.

**Transparency :** To enable target users to make decisions with reasonable confidence, the greenhouse gas inventory report has been prepared in a clear and understandable manner, including all calculation details and references used in the calculations.

## **2 DEFINITIONS AND ABBREVIATIONS**

### **2.1 Definitions**

**Anthropogenic Biogenic Greenhouse Gas Emissions:** Greenhouse gas emissions resulting from human activities originating from biogenic materials.

**Non-Anthropogenic Biogenic Greenhouse Gas Emissions:** Greenhouse gas emissions from biogenic material (e.g. leaves) caused by natural disasters (e.g. forest fires caused by lightning) or natural transformation (e.g. decay).

**Land Use:** Human use or management of land within the reporting boundaries.

**Uncertainty:** A parameter associated with the determined quantity and related to the result of a calculation showing the distribution of values.

**Primary data:** The quantitative value of a process or activity obtained from direct measurement or a calculation based on direct measurement.

**Biogenic Carbon:** Carbon originating from biomass.

**Biomass:** Material of biological origin. Biomass includes both living and dead organic material. (e.g. trees, crops, grasses, wood residues, algae, animals, manure and biologically derived waste)

**Direct Land Use Change:** Changes in human use of land within the reporting boundaries.

**Direct Greenhouse Gas Emissions:** Greenhouse gas emissions owned or controlled by the organisation.

**Verification:** The process of assessing whether a statement regarding past data and information is materially accurate and meets the criteria.

**Verifier:** A competent and independent person responsible for carrying out and reporting on the verification process.

**Indirect Greenhouse Gas Emissions:** Greenhouse gas emissions resulting from an organisation's operations and activities, but originating from greenhouse gas sources that are not owned or controlled by the organisation.

**Confidence Level:** The level of reliability in the greenhouse gas statement.

**Target User:** A person or organisation defined by those reporting greenhouse gas information and relying on the report information for decision-making.

**Secondary Data:** Data obtained from sources other than primary data.

Note: Such sources may include databases and published literature accepted by the competent authorities. (e.g. IPCC guidance documents)

**Monitoring:** The continuous or periodic assessment of greenhouse gas emissions and removals or other greenhouse gas-related data (activity data, emission factors, net calorific value, etc.).

**Carbon Footprint:** The value of greenhouse gases released into the atmosphere as a result of a process's production, transport, heating, energy consumption or any raw materials it purchases and any products it produces, measured in terms of Carbon Dioxide.

**Carbon Dioxide Equivalent (CO<sub>2</sub>e):** A unit used to compare the radiative forcing of a greenhouse gas with that of carbon dioxide.

**Organisation:** A person or group of people with their own functions, responsibilities, authority and relationships in order to achieve their own objectives.

**Organisational Boundary:** The grouping of activities or facilities over which an organisation has operational or financial control or in which it has an interest (equal share approach).

**Global Warming Potential (GWP):** A factor defining the radiative forcing effect of a specific greenhouse gas over a specific time period, based on its mass equivalent to carbon dioxide.

*The global warming potential values determined by the Intergovernmental Panel on Climate Change (IPCC) are included in the report.*

**Client:** The person or organisation requesting verification or validation.

**Reporting Boundary:** The grouping of direct greenhouse gas emissions or removals occurring within the organisation's boundary, as well as significant indirect emissions resulting from the organisation's operations and activities.

**Site-Specific Data:** Primary data obtained within the organisation's boundaries. (e.g. volume of fuel consumed, kWh of electricity purchased, kilometres travelled)

**Greenhouse Gas:** A component of the atmosphere, both natural and man-made, in gaseous form, which absorbs and emits specific wavelengths in the infrared radiation spectrum emitted from the Earth's surface, the atmosphere, and clouds.

**Greenhouse Gas Reduction Initiative:** A specific activity or initiative implemented by an organisation, either individually or continuously, to reduce or prevent direct or indirect greenhouse gas emissions, or to increase direct and indirect greenhouse gas removals, which is not organised as a greenhouse gas project.

**Greenhouse Gas Statement:** A realistic or impartial explanation of what verification or validation will be based on.

**Greenhouse Gas Emission:** The total mass of a greenhouse gas released into the atmosphere over a specific period.

**Greenhouse Gas Emission or Removal Factor:** A factor relating to activity data for greenhouse gas emissions or removals.

**Greenhouse Gas Inventory:** Information on a company's greenhouse gas sources, greenhouse gas sinks, greenhouse gas emissions and greenhouse gas removals.

**Purpose of Use of the Greenhouse Gas Inventory:** The primary purpose determined by the organisation or greenhouse gas programme that calculates greenhouse gas emissions and removals in a manner consistent with the needs of the target user.

**Greenhouse Gas Activity Data:** A quantitative measure of an activity that results in a greenhouse gas emission or removal.

**Greenhouse Gas Source:** A physical unit or process that releases greenhouse gases into the atmosphere.

**Greenhouse Gas Programme:** A voluntary or mandatory international, national or regional system or plan, outside of the organisation or greenhouse gas project, that records, processes or manages greenhouse gas emissions, removals, emission reductions or removal enhancements.

**Greenhouse Gas Project:** An activity or activities that alter the conditions specified in the baseline scenario, resulting in greenhouse gas emission reductions or improvements in greenhouse gas removals.

**Greenhouse Gas Report:** An independent document prepared to communicate a company's or project's greenhouse gas information to target users.

**Greenhouse Gas Reservoir:** A terrestrial component other than the atmosphere (e.g. oceans, forests, soil) that has the capacity to accumulate, store and release greenhouse gases.

**Greenhouse Gas Removal:** The total mass of a greenhouse gas removed from the atmosphere within a specific period.

*Examples include the amount of energy, fuel or electricity consumed, or the amount of material produced.*

**Greenhouse Gas Sink:** A physical unit or process that removes any greenhouse gas from the atmosphere.

**Responsible Party:** The person or persons responsible for providing the greenhouse gas declaration and the greenhouse gas information supporting the declaration.

**Base Year:** A past period designated for the purpose of comparing greenhouse gas emissions, removals, or other greenhouse gas-related information with future periods.

**Facility:** A single sub-facility, group of sub-facilities or production processes (stationary or mobile) that can be defined within a single geographical boundary, organisational unit or production process.

## 2.2 Abbreviations

<b>CH<sub>4</sub></b>	Methane
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>CO<sub>2</sub> e</b>	Carbon Dioxide Equivalent
<b>EF</b>	Emission Factor
<b>GHG</b>	Greenhouse Gas
<b>GWP</b>	Global Warming Potential (GWP)
<b>HFC</b>	Hydrofluorocarbon
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>N<sub>2</sub>O</b>	Nitrous Oxide
<b>PFC</b>	Perfluorocarbon
<b>SF<sub>6</sub></b>	Sulphur Hexafluoride

## 3 Greenhouse Gas Inventory Information

### 3.1 Facility Boundaries

The facility boundaries, including the address and name of the facility, are specified in Table 2. All activities at the specified address have been included in the calculations.

*Table 3 Greenhouse Gas Inventory Report Facility Boundaries*

<b>Company Name</b>	Likit Kimya Sanayi ve Ticaret A.Ş.
<b>Company Address - Head Office Address</b>	Küçükbakkalköy Mah. Nar Tanesi Sok. TLS Plaza Blok No:16/A Ataşehir İstanbul Headquarters Address
<b>Company Name</b>	Likit Kimya Industry and Trade Inc.
<b>Business Address - Tekirdağ Terminal</b>	Sultanköy Central Neighbourhood, İncirli Mandıra Street No:64 - Marmara Ereğlisi, Tekirdağ
<b>Company Name</b>	Likit Kimya Industry and Trade Inc.
<b>Business Address - Adana Terminal</b>	Adana Yumurtalık Free Zone Sarımaçı Neighbourhood 1st Boulevard 1st Street No:5/01 Ceyhan/Adana

## **3.2 Calculation Methodology**

When calculating greenhouse gas emissions, the calculation methodology was selected to provide accurate, consistent and reproducible results that minimise uncertainty, taking into account the ease of obtaining the information required by the calculation methodologies and in accordance with the organisation's "Greenhouse Gas Management Systems Monitoring Procedure" processes. The calculation was performed at the organisational level in accordance with the ISO 14064-1 standard within the voluntary scope.

The base year was selected as 2024. The selection of 2024 as the base year was influenced by the fact that it is the first reporting year and that activity data can be collected most easily and appropriately for 2024. The analytical examination and assessment of greenhouse gas emissions in subsequent greenhouse gas inventories were based on 2024.

To ensure the representativeness of the base year greenhouse gas inventory, the organisation may develop a base year review and recalculation procedure to account for significant cumulative changes in base year emissions arising from:

- A structural change in the organisation's boundaries or reporting (e.g., merger, acquisition, divestiture).
- A change in calculation methodologies or emission factors.
- The realisation that an error, either alone or in combination with several cumulative errors, has resulted in a significant misreporting.

### **3.2.1 Calculation Approach**

The "Control Approach" method has been selected for calculating greenhouse gas emissions and removals because the company does not engage in joint activities with other organisations and operates all activities at the selected reporting address itself. Accordingly, greenhouse gas emissions from all activities owned and under operational control within the company's organisational boundaries have been included in the calculation.

### **3.2.2 Calculation Method**

Due to the impossibility of collecting data for the mass balance and measurement-based method in calculating the company's greenhouse gas emissions, the "standard method"

based on multiplying the activity data obtained by emission factors was used. The calculation was carried out in two stages.

In the first stage, the activity data was converted into greenhouse gas emissions.

$$\text{Greenhouse gas emissions} = \text{activity data} \times \text{emission factor}$$

In the second stage, each greenhouse gas was expressed in tonnes of CO<sub>2</sub> equivalent using global warming potential.

### **3.3 Reporting Boundaries**

The reporting boundaries for greenhouse gas emissions arising from the company's activities are divided into two main groups: direct and indirect greenhouse gas emissions.

#### **3.3.1 Direct Greenhouse Gas Emissions**

Direct greenhouse gas emissions are emissions arising from activities owned or controlled by the company and are assessed under Category I in the greenhouse gas report. For example, emissions arising from combustion in owned or controlled boilers, furnaces, vehicles, etc. fall within this scope.

- Stationary Combustion: Combustion of fossil fuels in furnaces or generators
- Stationary Combustion: Natural gas usage
- Mobile Combustion - OFF ROAD: Fuel consumption of forklift vehicles
- Mobile Combustion - ON ROAD: Fuel consumption in personnel or company vehicles
- Leakage Emissions: Gas leaks originating from anthropogenic systems (cooling, fire extinguishing or transformer)

#### **3.3.2 Indirect greenhouse gas emissions**

Indirect greenhouse gas emissions are emissions occurring outside the organisation's boundaries that are necessary for the organisation's activities to be carried out. These emissions are assessed in the greenhouse gas report under Categories II to VI. The categories calculated for the operation are listed below.

Indirect greenhouse gas emission categories:

- Category II: Indirect greenhouse gas emissions from imported energy
- Category III: Transport-related indirect greenhouse gas emissions
- Category IV: Greenhouse gas emissions from purchased raw materials and supplies
- Category V: Greenhouse gas emissions from the end-of-life of sold products
- Category VI: Other indirect greenhouse gas emissions

### **3.4 Exclusions**

- As it was declared that LNG or natural gas is not used in the Central and Adana regions, these were excluded from the calculation.
- Some devices were excluded from the calculation because some refrigerant gas quantities could not be declared in the calculation of emissions from anthropogenic system leaks.
- Fire extinguisher cylinders containing CFCs were excluded from the calculation as they are not considered a direct source of greenhouse gas emissions.
- The chiller unit at the Tekirdağ Marmara Ereğlisi terminal was excluded from the calculation as it was not in use.
- The treatment system located in Tekirdağ Marmara Ereğlisi was excluded from the calculation as it was not operational.
- Category 4.1 raw material use emissions arising from raw material use have not been included in the calculation as temporary storage operations are carried out.
- The Marmara Ereğlisi facility offers a tank rental service to customers. This service provides storage for fuel products belonging to customers arriving at the facility by sea. As this operation does not belong to LİKİT KİMYA, it has been excluded from the calculation.
- As maintenance activities at the Marmara Ereğlisi Terminal are carried out by a subcontractor, the supply of the source gas used in this process is the responsibility

of the subcontractor. Therefore, the consumption of this source gas has been excluded from the calculation.

- As there are no activities involved in the calculation of direct emissions, no calculation has been made for the following emission sources.
  - 1.3 Process Emissions
  - 1.6 Direct emissions from biomass

### **3.5 Assumptions**

- The quantity of diesel fuel used in Category I stationary combustion could not be provided separately by branch and was therefore calculated together.
- Category II imported energy – electricity indirectly linked to emissions from LİKİT KİMYA SAN. VE TİC. A. Ş. In order to reduce grid electricity consumption in 2024, the purchase of 1.200 MWh of I-REC certificates from Hydroelectric TRAKYA ELEKTRİK PERAKENDE SATIŞ A.Ş., all of which are sourced from renewable energy sources, has been considered.
- For Category III vehicles where tonnage information is unavailable, the emission factor "All Rigids" has been accepted, and for shipments where load ratio information is unavailable, the emission factor "Average Laden" has been accepted.
- For all product shipments and raw material purchases by sea, the emission factor for vehicles has been accepted as Freighting Goods - Sea tanker - Chemical tanker Average.
- Sea transport data has been generated based on the assumption that 1 nautical mile equals 1.85200 km.
- In calculating emissions from waste generation, the selection of emission factors related to waste disposal methods was made according to the waste treatment methods specified in the waste declaration form.
- When calculating the amount of domestic waste, the calculation was made based on the Turkish Statistical Institute's (TÜİK) data that municipalities collect 1,03 kg/day of waste per person.

- It was stated that there were no capital goods purchases during the year under consideration.
- In calculating emissions from service purchases, the invoice amounts worked with were taken as activity data, excluding VAT. The central bank's average dollar purchase rate for 2024 was used to convert the invoice amounts to USD.
- The loss rate during the transmission of electricity from the power plant to the end user was assumed to be 11%, according to the 2023 Turkey Electricity Distribution Sector Report by TÜRKİYE ELEKTRİK DAĞITIM A.Ş.
- Logistics activities were calculated based on the kilometres declared by the institution.
- It has been declared that no exports are made from the Adana region.

### 3.6 Data Sources

The sources used in compiling the inventory data are shown in Table 4. During the calculations, both site-specific data and secondary data were utilised.

ACTIVITY LIMITS	ACTIVITY DATA FLOW	GREENHOUSE GASES						TOTAL (tCO <sub>2</sub> e)	
		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFC	PFC	SF <sub>6</sub>		
Category I	Stationary Combustion - LNG	Invoice Records	247.101,69	322,16	630,46	-	-	-	248,05
	Diesel - STATIONARY COMBUSTION - Generator	Company Declaration	67.960,71	76,77	150,23	-	-	-	68,19
	Diesel - STATIONARY COMBUSTION - Fire Pump	Company Declaration	8.548,02	9,66	18,90	-	-	-	8,58
	Mobile Combustion - Diesel OFF ROAD	Company Statement	6.351,43	9,92	669,24	-	-	-	7,03
	Mobile Combustion - Diesel ON ROAD	Label information	65.222,68	95,77	937,15	-	-	-	66,26
	Moving Combustion - Petrol ON ROAD	Label information	160.143,58	245,00	3.595,95	-	-	-	163,98
	Water dispensers and refrigerators R-134a	Label information	-	-	-	76,53	-	-	0,08
	Water dispensers and refrigerator R-600A	Label information	-	-	-	0,00	-	-	0,00
	Air conditioners-R22A	Label information	-	-	-	15,48	-	-	0,02
	Air conditioners-R32A	Label information	-	-	-	25,98	-	-	0,03
	Air conditioners - R-410A	Label information	-	-	-	22.555,00	-	-	22,56
<b>730,32</b>									

	Air Dryer R-134A	Label information	-	-	-	171,36	-	-	0,17	
	Transformer	Label information	-	-	-	-	-	1.179,36	1,18	
	Fire Extinguishers - CO2 Leak	Company Statement	1,40	-	-	-	-	-	0,00	
	Fire Extinguishers - CO2 Refill	Company Statement	205,00	-	-	-	-	-	0,21	
	Fire Extinguishers - FM200	Company Statement	144.000,00	-	-	-	-	-	144,00	
<b>Category II</b>	Electricity	Electricity bills	258.802,45	0,00	0,00	0,00	0,00	0,00	258,80	<b>258,80</b>
	LNG TRANSPORTATION - Road	Raw Material Logistics Records	1.841,22	0,42	23,93	-	-	-	1,87	<b>52.322,66</b>
	WTT - LNG INCOMING TRANSPORT - ROAD	Logistics records	452,68	-	-	-	-	-	0,45	
	Raw Material Transport - Sea Freight (International)	Logistics records	23.183.374,96	7.651,88	273.281,43	-	-	-	23.464,31	
	WTT - INCOMING TRANSPORT - SEA	Logistics records	5.328.987,96	-	-	-	-	-	5.328,99	
	Incoming Transport - Road	Logistics records	1.723.258,44	400,51	18.718,70	-	-	-	1.742,38	
	WTT - INCOMING TRANSPORT - ROAD	Logistics records	423.679,16	-	-	-	-	-	423,68	
	Product Transport - Road	Logistics records	16.292.371,99	3.698,61	211.745,36	-	-	-	16.507,82	
	WTT - PRODUCT TRANSPORTATION - ROAD	Logistics records	4.005.593,39	-	-	-	-	-	4.005,59	
	Product Shipping - Sea Freight	Logistics records	484.484,41	159,91	5.711,01	-	-	-	490,36	
	WTT - INCOMING TRANSPORT - SEA	Logistics records	111.364,79	-	-	-	-	-	111,36	
	Employee commuting - Road Transport	Logistics records	37.124,12	1,02	367,50	-	-	-	37,49	
	WTT - SERVICE - ROAD TRANSPORT	Logistics records	9.123,69	-	-	-	-	-	9,12	
	Food Services - Road Transport	Logistics records	2.718,47	0,05	18,04	-	-	-	2,74	
	WTT - FOOD SERVICE - ROAD TRANSPORT	Logistics records	670,16	-	-	-	-	-	0,67	
	Waste Transport - Road	Waste declaration and Motat records	8.410,44	1,95	91,36	-	-	-	8,50	
	WTT - WASTE TRANSPORTATION - ROAD	Waste declaration and Motat records	2.067,79	-	-	-	-	-	2,07	
	WTT - LNG	Logistics records	79.436,83	-	-	-	-	-	79,44	
	WTT - Diesel	Logistics records	35.295,75	-	-	-	-	-	35,30	
	WTT - PETROL	Logistics records	42.406,36	-	-	-	-	-	42,41	
	WTT - ELECTRICITY	Invoice Records - Company Statement	24.851,53	-	-	-	-	-	24,85	
Business Travel - Airline	Accounting records	2.041,14	0,25	17,34	-	-	-	2,06		

	Accommodation	Accounting records	1.220,00	-	-	-	-	-	1,22	
Category IV	Raw Material Usage	Raw Material Usage Quantities	17.927.197,71	-	-	-	-	-	17.927,20	18.118,900
	Waste Disposal	Waste declaration and Motat records	52.703,38	-	-	-	-	-	52,70	
	Water Usage	Water Bills and Consumption Quantities	2.351,45	-	-	-	-	-	2,35	
	Wastewater Disposal	Water Bills and Consumption Amounts	2.270,91	-	-	-	-	-	2,27	
	Services Received	Accounting records	134.376,14	-	-	-	-	-	134,38	
Category V	End of Useful Life of Sold Products	Accounting records	21,78	-	-	-	-	-	0,02	0,02
Category VI	Electricity - Losses and Theft	Invoice records	28.468,27	-	-	-	-	-	28,47	28,70
	WTT-Electricity-Losses and Theft	Invoice records	236,44	-	-	-	-	-	0,24	
<b>TOTAL</b>									<b>71.459,41</b>	

Table 4 Greenhouse Gas Inventory Report Data Sources

#### 4 GREENHOUSE GAS INVENTORY REPORT

The total emission value of the business amounted to **71.459,41** tonnes of CO<sub>2</sub>e, and data on the total emission quantities from the identified greenhouse gas sources are provided in Table 5.

LİKİT KİMYA GREENHOUSE GAS INVENTORY REPORTING BOUNDARIES										
Scope	Category	Source	Emissions						Greenhouse Gas Tonnes CO <sub>2</sub> e	
			CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFC	PFC	SF <sub>6</sub>		
Direct Greenhouse Gas Emissions	I	Stationary Combustion - LNG	247.101,69	322,16	630,46				248,05	730,32
		Diesel - STATIONARY COMBUSTION - Generator	67.960,71	76,77	150,23				68,19	
		Diesel - STATIONARY COMBUSTION - Fire Pump	8.548,02	9,66	18,90				8,58	
		Mobile Combustion - Diesel OFF ROAD	6.351,43	9,92	669,24				7,03	
		Mobile Combustion - Diesel ON ROAD	65.222,68	95,77	937,15				66,256	
		Mobile Combustion - Petrol ON ROAD	160.143,5819	245,00	3.595,95				163,985	

		Water Coolers and Refrigerators R-134a				76,53			0,077	
		Water Dispensers and Refrigerator R-600A				0,00			0,00	
		Air Conditioners - R22A				15,48			0,02	
		Air conditioners - R32A				25,98			0,026	
		Air conditioners - R-410A				22.555,00			22,56	
		Air Dehumidifier R-134A				171,36			0,171	
		Transformer						1.179,36	1,18	
		Fire Extinguishers - CO2-Leak	1,4						0,001	
		Fire Extinguishers - CO2-Refill	205						0,205	
		Fire Extinguishers - FM200 Refill	144.000						144,000	
	II	Electric	258.802,45						258,802	258,80
Indirect Greenhouse Gas Emissions	III	LNG TRANSPORTATION - Road	1.841,22	0,42	23,93				1,87	52.322,66
		WTT - LNG INCOMING TRANSPORT - ROAD	452,68	-	-				0,45	
		Raw Material Transport - Sea Transport (Overseas)	23.183.374,96	7.651,88	273.281,43				23.464,31	
		WTT - INCOMING TRANSPORT - SEA FREIGHT	5.328.987,96	0,00	0,00				5.328,99	
		Incoming Freight - Road Transport	1.723.258,44	400,51	18.718,70				1.742,38	
		WTT - INCOMING TRANSPORT - ROAD	423.679,16	-	-				423,68	
		Product Transport - Road	16.292.371,99	3.698,61	211.745,36				16.507,82	
		WTT - PRODUCT TRANSPORTATION - ROAD	4.005.593,39	-	-				4.005,59	
		Product Transport - Sea Transport	484.484,41	159,91	5.711,01				490,36	
		WTT - PRODUCT TRANSPORTATION - SEA FREIGHT	111.364,79	-	-				111,36	
		Staff Services - Road Transport	37.124,12	1,02	367,50				37,49	
		WTT - SERVICE - ROAD TRANSPORT	9.123,69	-	-				9,12	
		Catering Services - Road Transport	2.718,47	0,05	18,04				2,74	
		WTT - FOOD SERVICE - ROAD TRANSPORT	670,16	-	-				0,67	
		Waste Transport - Road Transport	8.410,44	1,95	91,36				8,50	

	WTT - WASTE TRANSPORTATION - ROAD	2.067,79	-	-				2,07	
	WTT - LNG	79.436,83	-	-				79,44	
	WTT - Diesel	35.295,75	-	-				35,30	
	WTT - Petrol	42.406,36	-	-				42,41	
	WTT - ELECTRICITY	24.851,53	-	-				24,85	
	Business Travel - Airline	2.041,14	0,25	17,34				2,06	
	Accommodation	1.220,00	-	-				1,22	
IV	Raw Material Usage	17.927.197,71						17.927,20	18.118,90
	Waste Disposal	52.703,38						52,70	
	Water Usage	2.351,45						2,35	
	Wastewater Disposal	2.270,91						2,27	
	Services Received	134.376,14						134,38	
V	End of Useful Life of Sold Products	21,78						0,02	0,02
VI	Electricity - Losses and Theft	28.468,27						28,47	28,70
	WTT-Electricity-Losses and Theft	236,44						0,24	
<b>TOTAL</b>		<b>70.906.738,32</b>	<b>12.673,88</b>	<b>515.976,59</b>	<b>22.844,35</b>	<b>0,00</b>	<b>1.179,36</b>	<b>71.459,41</b>	<b>Tonnes CO2e</b>

Table5Greenhouse Gas Inventory

#### 4.1 Greenhouse Gas Inventory Report Calculations and Analyses

The total values of the company's greenhouse gas emissions are shown in Table 6 according to their scope. It can be seen that a large proportion of emissions originate from indirect greenhouse gas emissions. Direct greenhouse gas emissions totalled 730,32 TonCO<sub>2</sub>e, while indirect greenhouse gas emissions totalled 70.729,09 TonCO<sub>2</sub>e.

Greenhouse Gas Emissions Distribution by Scope		
Emissions Scope	Percentage	Total Tonnes CO <sub>2</sub> e
Direct Greenhouse Gas Emissions	1,02	730,32
Indirect Greenhouse Gas Emissions	98,98%	70.729,09
<b>TOTAL Greenhouse Gas Emissions</b>		<b>71.459,41</b>

Table6Distribution of Greenhouse Gas Emissions by Scope

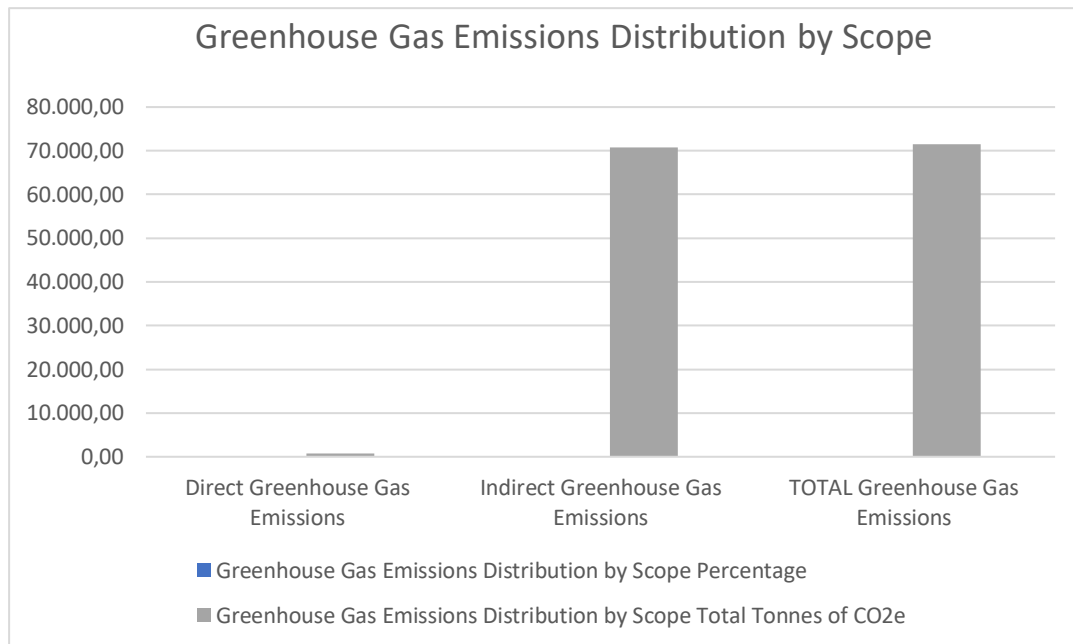


Figure 4 Distribution of Greenhouse Gas Emissions by Scope

The total values of the company's greenhouse gas emissions by category are shown in Table 7. It can be seen that emissions are largely derived from Category III emissions. The amount of Category III emissions is 52.322,66 tonnes CO<sub>2</sub> e, accounting for 73,22% of total emissions.

Distribution of Greenhouse Gas Emissions by Category		
Emission Category	Percentage	Total Tonnes CO <sub>2</sub> e
Category I	1,02%	730,32
Category II	0,36%	258,80
Category III	73,22%	52.322,66
Category IV	25,36%	18.118,90
Category V	0,00%	0,02
Category VI	0,04%	28,70
	<b>TOTAL</b>	<b>71.459,41</b>

Table 7 Distribution of Greenhouse Gas Emissions by Category

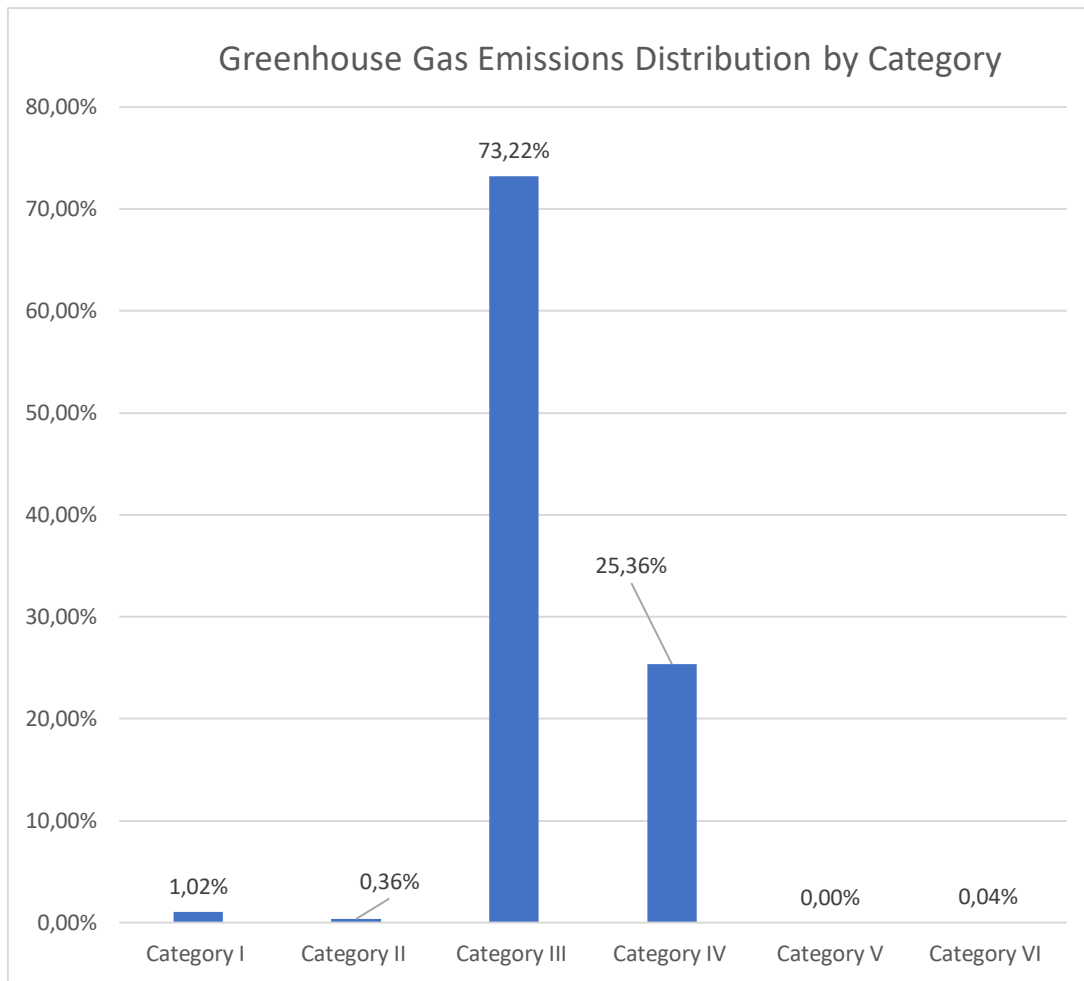


Figure 5 Distribution of Greenhouse Gas Emissions by Category

#### 4.1.1.1 Direct Greenhouse Gas Emissions Calculation and Analysis

Direct greenhouse gas emissions are fuel emissions from stationary and mobile combustion sources within the boundaries of the organisation, as well as fugitive/leakage emissions of gases used in anthropogenic systems.

##### 4.1.1.1.1 Calculation of Direct Greenhouse Gas Emissions from Stationary and Mobile Combustion Sources

The activity data for fuels included in the calculation of direct emissions from mobile combustion sources are expressed in mass. For data provided in volume, density coefficients were used to convert the activity data to mass units.

Table8 Greenhouse Gas Inventory Fuel Density References

FUEL NAME	Density	Unit	Density References
Diesel	830,57	kg/m <sup>3</sup>	DEFRA 2024 – Fuel Properties - Diesel (100% mineral diesel)
Petrol	746,27	kg/m <sup>3</sup>	DEFRA 2024 – Fuel Properties – Petrol (100% mineral petrol)

In the second stage, the activity data of fuels in terms of mass was converted to activity data in terms of "Tj" using NCV coefficient values.

$$\text{Activity Data}_{(fuelTj)} = \text{Activity Data}_{(fuelGg)} \times \text{NCV}_{(fuel)}$$

Table9 Greenhouse Gas Inventory Fuel NCV References

FUEL NAME	NCV (Tj/Gg)	NCV References
Diesel	43,0	IPCC 2006 Volume 2 Chapter 1 TABLE 1.2
Petrol	44,30	IPCC 2006 Volume 2 Chapter 1 TABLE 1.2
LNG	44,2	IPCC 2006 Volume 2 Chapter 1 TABLE 1.2

In the third stage, the CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O gas emissions of fuels were determined using the following formula, in kilograms.

$$\text{Greenhouse Gas Emission (CO}_2\text{)} = \text{Activity Data}_{(fuelTj)} \times \text{Emission Factor (CO}_2\text{)}$$

$$\text{Greenhouse Gas Emissions (CH}_4\text{)} = \text{Activity Data}_{(fuelTj)} \times \text{Emission Factor (CH}_4\text{)}$$

$$\text{Greenhouse Gas Emissions (N}_2\text{O)} = \text{Activity Data}_{(fuelTj)} \times \text{Emission Factor (N}_2\text{O)}$$

Table10 Greenhouse Gas Inventory Fuel Emission Factor References

Activity Data Name	Combustion Type	EF CO <sub>2</sub> Kg/Tj	EF CH <sub>4</sub> Kg/Tj	EF N <sub>2</sub> O Kg/Tj	Emission Factor References
Diesel - Off-Road	Mobile	74.100	4,15	28,6	IPCC 2006 Vol. 2 Ch. 3 TABLE 3.3.1
Diesel - ON ROAD	Mobile	74.100	3,9	3,9	IPCC 2006 Vol. 2 Ch. 3 TABLE 3.2.1 and TABLE 3.2.2
Petrol – ON ROAD	Mobile	69.300	3,8	5,7	IPCC 2006 Vol. 2 Ch. 3 TABLE 3.2.1 and TABLE 3.2.2
LNG	Stationary	64.200	3	0,6	IPCC 2006 Vol. 2 Ch. 2 TABLE 2.3
Diesel	Stationary	74.100	3	0,6	IPCC 2006 Vol. 2 Ch. 2 TABLE 2.3

#### 4.1.1.2 Direct Greenhouse Gas Emissions Calculation from Anthropogenic System Leakages

In determining the leakage quantities of greenhouse gases used in anthropogenic systems, the leakage rates provided in the IPCC tables were utilised according to the device type. The leakage quantities of the identified greenhouse gases were considered in kilograms.

Table11 Greenhouse Gas Inventory Anthropogenic Systems Leakage Rates References

Device Type	Leakage Rate %	Leakage Rate Reference
Refrigerators / Water Dispensers	0,1	IPCC 2006 Vol. 3 Ch. 7 TABLE 7.9
Air Conditioners	1	IPCC 2006 Vol.3 Ch.7 TABLE 7.9
Air conditioners	10	IPCC 2006 Vol.3 Ch.7 TABLE 7.9
Fire Extinguisher-Leak	4	IPCC 2005 Ch 9 Fire Protection TABLE 9.2
Chiller-Air Dryer	2	IPCC 2006 Vol. 3 Ch. 7 TABLE 7.9
Transformer	0,026	IPCC 2006 Vol.3 Ch.7 TABLE 7.9

In the final stage of calculating direct greenhouse gas emissions from anthropogenic systems with stationary and mobile combustion, each greenhouse gas was multiplied by its own 100-year global warming potential (GWP) coefficient and converted to kg CO<sub>2</sub> e.

The GWP values used in the calculation are specified in Table 12.

$$CO_2 \text{ GHG Emission (kg CO}_2\text{e)} = \text{Greenhouse Gas Emission (CO}_2\text{)} \times \text{GWP (CO}_2\text{)}$$

$$CH_4 \text{ GHG Emission (kg CO}_2\text{e)} = \text{Greenhouse Gas Emission (CH}_4\text{)} \times \text{GWP (CH}_4\text{)}$$

$$N_2O \text{ GHG Emission (kg CO}_2\text{e)} = \text{Greenhouse Gas Emission (N}_2\text{O)} \times \text{GWP (N}_2\text{O)}$$

All values calculated in kg CO<sub>2</sub>e were added together and converted to tonnes CO<sub>2</sub>e for reporting purposes.

$$\text{Total GHG Emissions (Tonnes CO}_2\text{e)} = (\text{CO}_2 \text{ GHG Emissions (kg CO}_2\text{e)} + \text{CH}_4 \text{ GHG Emissions (kg CO}_2\text{e)} + \text{N}_2\text{O GHG Emissions (kg CO}_2\text{e)}) / 1000$$

Table12 Greenhouse Gas Inventory Anthropogenic Systems KIP Values

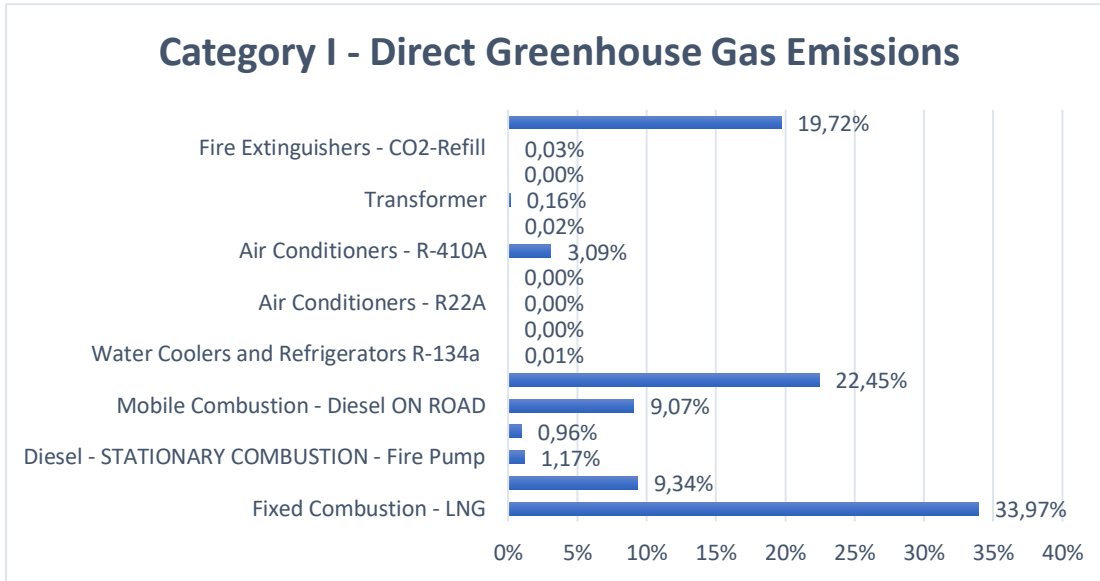
GREENHOUSE GAS	GWP (Global Warming Potential) 100	GWP Values References
CO <sub>2</sub>	1	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
CH <sub>4</sub>	27,9	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
N <sub>2</sub> O	273	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
R-410A	2255,50	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
R32	771	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
R22	1960	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
R-134A	1530	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
FM200	3600	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7
R600	3	DEFRA 2024 - Refrigerant & other
SF6	25200	IPCC AR6 WGI Chapter 7 TABLE 7.SM.7

#### 4.1.1.3 Direct Greenhouse Gas Emissions Analysis

The direct greenhouse gas emissions occurring within category I of the operation are provided in Table 13. While category I emissions amounted to 730,32 tonnes CO<sub>2</sub>e, the table analysis shows that the largest share within category I emissions was 248,05 tonnes CO<sub>2</sub>e from LNG. The share of stationary combustion-related LNG emissions within the Category I total was 33,97%.

LIKIT KIMYA GREENHOUSE GAS INVENTORY							
Direct Greenhouse Gas Emissions - CATEGORY I							
Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFC	PFC	SF <sub>6</sub>	Greenhouse Gas Tonnes CO <sub>2</sub> e
Stationary Combustion - LNG	247.101,69	322,16	630,46	-	-	-	248,05
Diesel - STATIONARY COMBUSTION - Generator	67.960,71	76,77	150,23	-	-	-	68,19
Diesel - STATIONARY COMBUSTION - Fire Pump	8.548,02	9,66	18,90	-	-	-	8,58
Mobile Combustion - Diesel OFF ROAD	6.351,43	9,92	669,24	-	-	-	7,03
Mobile Combustion - Diesel ON ROAD	65.222,68	95,77	937,15	-	-	-	66,26
Moving Combustion - Petrol ON ROAD	160.143,58	245,00	3.595,95	-	-	-	163,98
Water dispensers and refrigerators R-134a	-	-	-	76,53	-	-	0,08
Water dispensers and refrigerator R-600A	-	-	-	0,00	-	-	0,00
Air conditioners-R22A	-	-	-	15,48	-	-	0,02
Air conditioners-R32A	-	-	-	25,98	-	-	0,03
Air conditioners - R-410A	-	-	-	22.555,00	-	-	22,56
Air Dryer R-134A	-	-	-	171,36	-	-	0,17
Transformer	-	-	-	-	-	1.179,36	1,18
Fire Extinguishers - CO2-Leak	1,40	-	-	-	-	-	0,00
Fire Extinguishers - CO2 Refill	205,00	-	-	-	-	-	0,21
Fire Extinguishers - FM200	144.000,00	-	-	-	-	-	144,00
<b>CATEGORY I TOTAL EMISSIONS</b>							<b>730,32</b>

Table13Direct Greenhouse Gas Emissions Category I Data



*Figure 6 Category I – Distribution of Direct Greenhouse Gas Emissions*

#### 4.1.2 Indirect Greenhouse Gas Emissions Calculation and Analyses

##### 4.1.2.1 Calculation of Indirect Greenhouse Gas Emissions from Imported Energy

Data on electricity consumption, which is the source of the company's imported energy indirect emissions, was obtained from invoices in kWh and converted to MWh for inclusion in the calculation. Emission factors were obtained from TEİAŞ.

Electricity consumption indirect greenhouse gas emissions were calculated using the following formula.

$$TCO2 \text{ e GHG Emissions (Electricity)} = \text{Activity Data (electricity kWh)} \times \text{Electricity Emission Factor (TCO2e)}$$

*Table 14 Electricity Emission Factor Reference*

Activity Data Name	EF (tCO <sub>2</sub> e/MWh)	Emission Factor References
Imported Energy - Electricity	0,478	The emission factor was obtained from TEİAŞ.

##### 4.1.2.2 Analysis of Indirect Greenhouse Gas Emissions from Imported Energy Sources

The indirect emissions from imported energy sources within Category II for the business are provided in Table 15. Category II emissions amounted to 258,80 tonnes of CO<sub>2</sub>e, while the breakdown of Category II emissions by source is shown below according to the table analysis.

In 2024, it was determined that a total of 1.324,77 MWh of grid electricity in M. Ereğlisi caused 633,24 tonnes of CO<sub>2</sub>e emissions using the location-based method. However, the purchase of 1.200 MWh of I-REC certificates, all of which were sourced from renewable energy sources, from Hydro Electric TRAKYA ELEKTRİK PERAKENDE SATIŞ A.Ş. was declared. The emission calculation was performed by subtracting the amount of I-REC purchased from the total consumption amount.

LİKİT KİMYA GREENHOUSE GAS INVENTORY		
Indirect Greenhouse Gas Emissions - CATEGORY II		
Emission Source	CO <sub>2</sub>	Greenhouse Gas Tonnes CO <sub>2</sub> e
Electricity	258,80	258,80
<b>CATEGORY II TOTAL EMISSIONS</b>		<b>258,80</b>

Table 15 Indirect Greenhouse Gas Emissions Category II

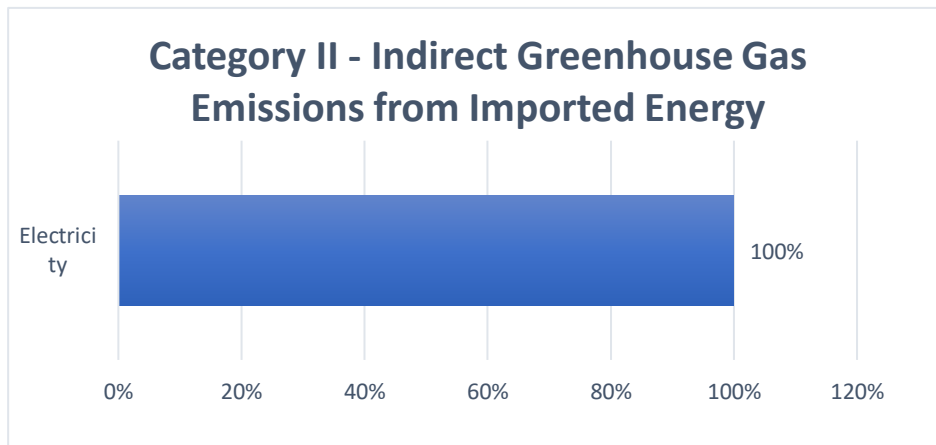


Figure7 Distribution of Indirect Greenhouse Gas Emissions from Imported Energy

#### 4.1.2.3 Calculation of Indirect Greenhouse Gas Emissions from Transport

In determining the activity data for transport-related emissions based on kilometres, the km information obtained from the [www.google.com/maps](http://www.google.com/maps) application for roads, [the https://tr.distance.to/](https://tr.distance.to/) application for airways, and the <https://sea-distances.org/> application for sea routes was utilised. For sea transport, when converting miles to kilometres, 1 mile was calculated as 1.85200 km based on Google data.

CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O gas emissions in kilograms were calculated using the following formula.

$$CO_2GHG \text{ Emissions } kg \text{ CO}_2e = \text{Activity Data (km/tonne.km)} \times \text{Emission Factor (kg CO}_2e \text{ of CO}_2\text{perunit)}$$

$$CH_4GHG \text{ Emissions } kg \text{ CO}_2e = \text{Activity Data kmtonne.km(X)} \times \text{Emission Factor kg CO}_2e \text{ of CH}_4\text{(perunit)X}$$

$$N_2O \text{ GHG Emissions (kg CO}_2e) = \text{Activity Data (kmper tonne-km)} \times \text{Emission Factor (kg CO}_2e \text{ of N}_2\text{Operunit)}$$

All values calculated in kg CO<sub>2</sub>e were added together and converted to tonnes CO<sub>2</sub>e for reporting purposes.

$$\text{Total GHG Emissions (Tonnes CO}_2e) = (\text{CO}_2 \text{ GHG Emissions (Kg CO}_2e) + \text{CH}_4 \text{ GHG Emissions (Kg CO}_2e) + \text{N}_2\text{O GHG Emissions (kg CO}_2e) ) / 1000$$

The emission factors used in the calculation of transport-related emissions are provided in Table 16.

Table15 Indirect Greenhouse Gas Emissions from Transport

Activity Data Name	EF			Emission Factor References
	Kg CO <sub>2</sub> e of CO <sub>2</sub> per unit	Kg CO <sub>2</sub> e of CH <sub>4</sub> per unit	Kg CO <sub>2</sub> e of N <sub>2</sub> O per unit	
Inbound Transport Road	0,17620	0,00004	0,00229	DEFRA 2024 - Freightng Goods
Inbound Sea Freight	0,01018	0,000003	0,00012	DEFRA 2024 - Freightng Goods
Outbound Freight Transport by Road	0,17620	0,00004	0,00229	DEFRA 2024 - Freightng Goods
Outbound Sea Freight	0,01018	0,0000	0,00012	DEFRA 2024 - Freightng Goods
WTT Inbound Freight Transport by Road	0,04332			DEFRA 2024 - WTT Delivery Vehicles & Freight
WTT Sea Freight	0,00234			DEFRA 2024 - WTT Delivery Vehicles & Freight
WTT Outbound Transport	0,04332			DEFRA 2024 - WTT Delivery Vehicles & Freight
Staff Services	0,16870	0,000005	0,001670	DEFRA 2024 - Managed Assets - Vehicle
WTT-Staff Services	0,04146			DEFRA 2024 - WTT Delivery Vehicles & Freight
Waste Transport - Road	0,81750	0,00019	0,00888	DEFRA 2024 - Managed Assets - Vehicle
WTT-Waste Transport	0,20099			DEFRA 2024 - WTT Delivery Vehicles & Freight
Catering Service	0,24858	0,000005	0,00165	DEFRA 2024 - Managed Assets - Vehicle
WTT-Food Service	0,06128			DEFRA 2024 - WTT Delivery Vehicles & Freight
WTT - LNG	912,2282			WTT - Fuels
WTT - Diesel	0,62409			WTT - Fuels
WTT - Petrol	0,60664			WTT - Fuels
WTT-Electricity	0,04590			DEFRA 2024 - WTT - UK electricity
Business Travel - Airline	0,10703	0,00001	0,00090	DEFRA 2024 – Business Travel Air-Eco.
Business Travel - Air	0,07880	0,00001	0,00067	DEFRA 2024 – Business Travel Air-Eco.
Accommodation - TURKEY		32,1		DEFRA 2024 – Hotel Stay
Accommodation-GREECE		34,6		DEFRA 2024 – Hotel Stay
Accommodation - Switzerland		6,6		DEFRA 2024 – Hotel Stay
Accommodation-GERMANY		13,2		DEFRA 2024 – Hotel Stay
Accommodation - United Kingdom		10,4		DEFRA 2024 – Hotel Stay

#### 4.1.2.4 Analysis of Indirect Greenhouse Gas Emissions from Transport

The indirect emissions from transport within category III for the business are provided in Table 17. Category III emissions amounted to 52.322,66 tonnes of CO<sub>2</sub>e, with the largest share within Category III emissions being 23.464,31 tonnes of CO<sub>2</sub>e, attributable to the transport of raw materials by sea. The share of indirect greenhouse gas emissions from raw material shipments arriving by sea within Category III was 44,85%.

Table 16 Indirect Greenhouse Gas Emissions Category III Data

<b>LİKİT KİMYA GREENHOUSE GAS INVENTORY</b>				
<b>Indirect Greenhouse Gas Emissions - CATEGORY III</b>				
<b>Emission Source</b>	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>Greenhouse Gas Tonnes CO<sub>2</sub>e</b>
LNG TRANSPORTATION - Road	1.841,22	0,42	23,93	1,87
WTT - LNG INCOMING TRANSPORT - ROAD	452,68	-	-	0,45
Raw Material Transport - Sea Transport (Overseas)	23.183.374,96	7.651,88	273.281,43	23.464,31
WTT - INCOMING TRANSPORT - SEA FREIGHT	5.328.987,96	-	-	5.328,99
Incoming Freight - Road Transport	1.723.258,44	400,51	18.718,70	1.742,38
WTT - INCOMING TRANSPORT - ROAD	423.679,16	-	-	423,68
Product Transport - Road	16.292.371,99	3.698,61	211.745,36	16.507,82
WTT - PRODUCT TRANSPORTATION - ROAD	4.005.593,39	-	-	4.005,59
Product Shipping - Sea Freight	484.484,41	159,91	5.711,01	490,36
WTT - INCOMING SHIPPING - SEA FREIGHT	111.364,79	-	-	111,36
Staff Services - Road Transport	37.124,12	1,02	367,50	37,49
WTT - SERVICE - ROAD TRANSPORT	9.123,69	-	-	9,12
Catering Services - Road Transport	2.718,47	0,05	18,04	2,74
WTT - FOOD SERVICE - ROAD TRANSPORT	670,16	-	-	0,67
Waste Transport - Road Transport	8.410,44	1,95	91,36	8,50
WTT - WASTE TRANSPORTATION - ROAD TRANSPORT	2.067,79	-	-	2,07
WTT - LNG	79.436,83	-	-	79,44
WTT - Diesel	35.295,75	-	-	35,30
WTT - Petrol	42.406,36	-	-	42,41
WTT - ELECTRICITY	24.851,53	-	-	24,85
Business Travel - Airline	2.041,14	0,25	17,34	2,06
Accommodation	1.220,00	-	-	1,22
<b>CATEGORY III TOTAL EMISSIONS</b>				<b>52.322,66</b>

### Category III - Analysis of Indirect Greenhouse Gas Emissions from Transport Sources

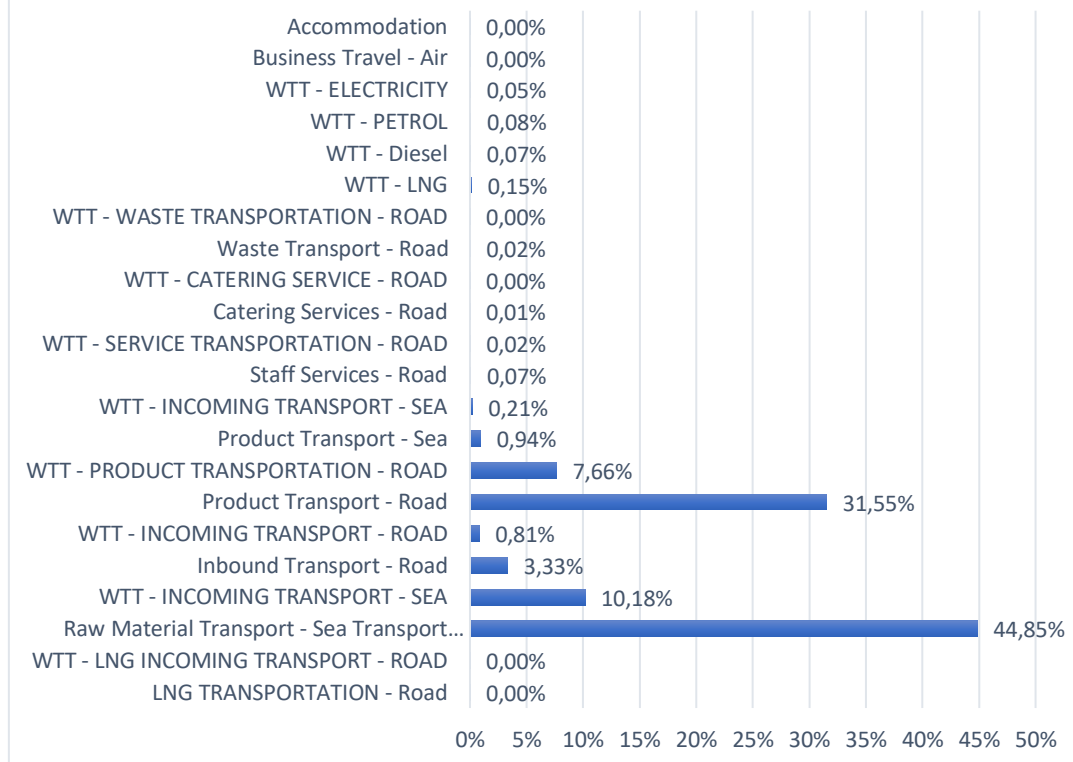


Figure 8 Category III – Indirect Greenhouse Gas Emissions from Transport Sources

#### 4.1.2.5 Calculation of Indirect Greenhouse Gas Emissions from Products Used

The activities included in the calculation of indirect emissions from the products used, the consumption units used, and the emission factors are shown in Table 18. The emission calculation was performed according to the following formula.

$$GHG\ Emission\ (Kg\ CO_2e) = Activity\ Data\ (m^3/kg/ton) \times Emission\ Factor\ (Total\ KgCO_2e)$$

Values calculated in Kg CO<sub>2</sub>e are reported in Ton CO<sub>2</sub>e.

Table 17 Indirect Greenhouse Gas Emission Factors from Products Used

Activity Data Name	Unit	EF Total Kg CO <sub>2</sub> e	Emission Factor Reference
Inorganic Chemical (Raw Material)	Kg	1,83	Ecoinvent 3.11-Chemical
Organic Chemical (Raw Material)	kg	2,61	Ecoinvent 3.11-Chemical
IBC-HDPE (consumable material)	Ton	3.086,39	DEFRA 2024 – Material Use
Plastic drum (consumable material)	Ton	3.086,39	DEFRA 2024 – Material Use
Plastic container (consumable material)	Ton	3.086,39	DEFRA 2024 – Material Use
Wooden pallet (consumable material)	Ton	269,50	DEFRA 2024 – Material Use
Wooden five-piece (consumable material)	Ton	269,50	DEFRA 2024 – Material Use
Corner board (consumable material)	Ton	1.282,74	DEFRA 2024 – Material Use
Sample container (consumable material)	Ton	3.164,78	DEFRA 2024 – Material Use
Plastic stretch film (consumable material)	Ton	3.164,78	DEFRA 2024 – Material Use
Plastic-label (consumable material)	Ton	3.086,39	DEFRA 2024 – Material Use
Waste Disposal	Ton	6.410,61	DEFRA 2024 – Waste Disposal
Household Waste	Ton	497,04416	DEFRA 2024 PROF. Waste Disposal
Water Usage	m <sup>3</sup>	0,153	DEFRA 2024 - Water Supply
Wastewater Disposal	m <sup>3</sup>	0,186	DEFRA 2024 - Water Treatment
Services Received	\$	0,1195	Greenhouse Gas Emissions Results by Commodity
Services Received	\$	0,1103	Greenhouse Gas Emissions Results by Commodity
Services Received	\$	0,1388	Greenhouse Gas Emissions Results by Commodity

#### 4.1.2.6 Analysis of Indirect Greenhouse Gas Emissions from Products Used

The indirect emissions from products used within category IV of the operation are presented in Table 19. Category IV emissions amounted to 18.118,90 tonnes of CO<sub>2</sub>e, with raw material use accounting for the largest share of category IV emissions at 17.927,20 tonnes of CO<sub>2</sub>e. The share of raw material usage in indirect greenhouse gas emissions within Category IV was 98,94%.

As the facility performs temporary storage operations, the use of certain raw materials (chemicals) has not been included in the calculation.

LIKIT KIMYA GREENHOUSE GAS INVENTORY		
Indirect Greenhouse Gas Emissions - CATEGORY IV		
Emission Source	CO <sub>2</sub>	Greenhouse Gas Tonnes of CO <sub>2</sub> e
Raw Material Use	17.927.197,71	17.927,20
Waste Disposal	52.703,38	52,70
Water Usage	2.351,45	2,35
Wastewater Disposal	2.270,91	2,27
Services Received	134.376,14	134,38
<b>CATEGORY IV TOTAL EMISSIONS</b>		<b>18.118,90</b>

Table18 Indirect Greenhouse Gas Emissions Category IV Data

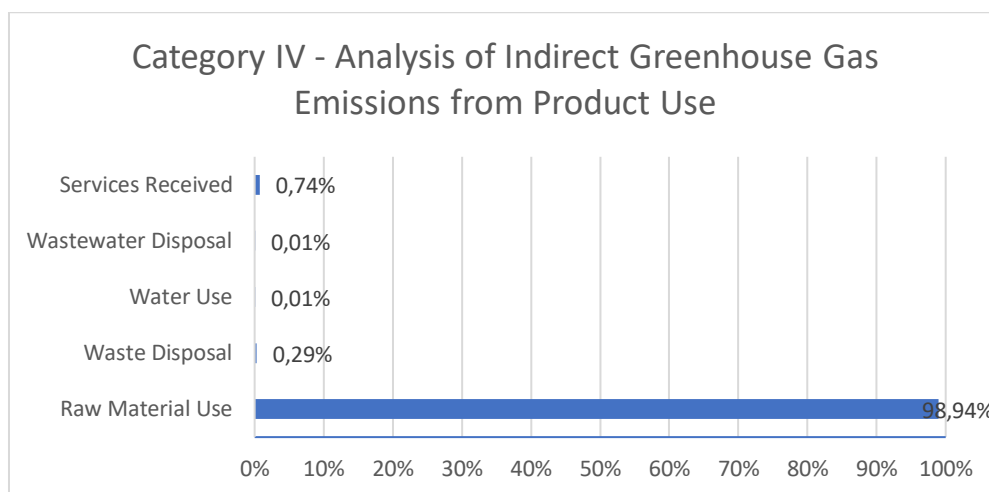


Figure9 Category IV – Distribution of Indirect Greenhouse Gas Emissions from Product Use

#### 4.1.2.7 Analysis of Indirect Greenhouse Gas Emissions from the Useful Life of Sold Products

The company's indirect emissions from sold products within Category V are provided in Table 20. Category V emissions amounted to 0,02 tonnes of CO<sub>2</sub>e, and the category V emissions are shown below according to the table analysis.

LIKIT KIMYA GREENHOUSE GAS INVENTORY		
Indirect Greenhouse Gas Emissions - CATEGORY V		
Emission Source	CO <sub>2</sub>	Greenhouse Gas Tonnes CO <sub>2</sub> e
END-OF-LIFE OF SOLD PRODUCTS	21,78	0,02
<b>CATEGORY V TOTAL EMISSIONS</b>		<b>0,02</b>

Table19 Indirect Greenhouse Gas Emissions Category V Data

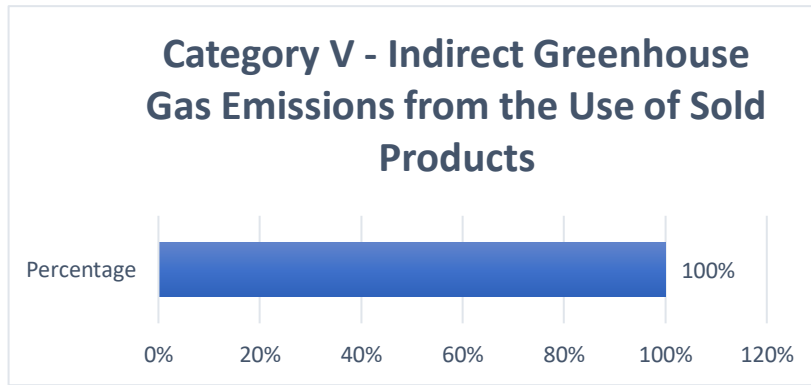


Figure10 Distribution of Indirect Greenhouse Gas Emissions from Product Use

#### 4.1.2.8 Other Indirect Greenhouse Gas Emissions Calculation

Leakage emissions generated during the transmission and distribution of purchased electricity have been calculated. The emission calculation was performed according to the following formula.

$$GHG \text{ Emission (Kg CO}_2\text{e)} = \text{Activity Data (kWh)} \times \text{Emission Factor (Total KgCO}_2\text{e)}$$

$$\text{Transmission and Distribution-Related GHG Emissions (Tonnes CO}_2\text{e)} = \text{Total Electricity GHG Emissions (Tonnes CO}_2\text{e)} \times \text{Emission Factor}$$

Table20 Other Indirect Greenhouse Gas Emissions Category VI Data

LİKİT KİMYA GREENHOUSE GAS INVENTORY		
Indirect Greenhouse Gas Emissions - CATEGORY VI		
Emission Source	CO <sub>2</sub>	Greenhouse Gas Tonnes CO <sub>2</sub> e
Electricity - Losses and Leaks	28,47	28,47
WTT-Electricity-Losses and Theft	0,24	0,24
<b>TEİAŞ Transmission Distribution Ratio %11</b>		
<b>CATEGORY VI TOTAL</b>		<b>28,70</b>

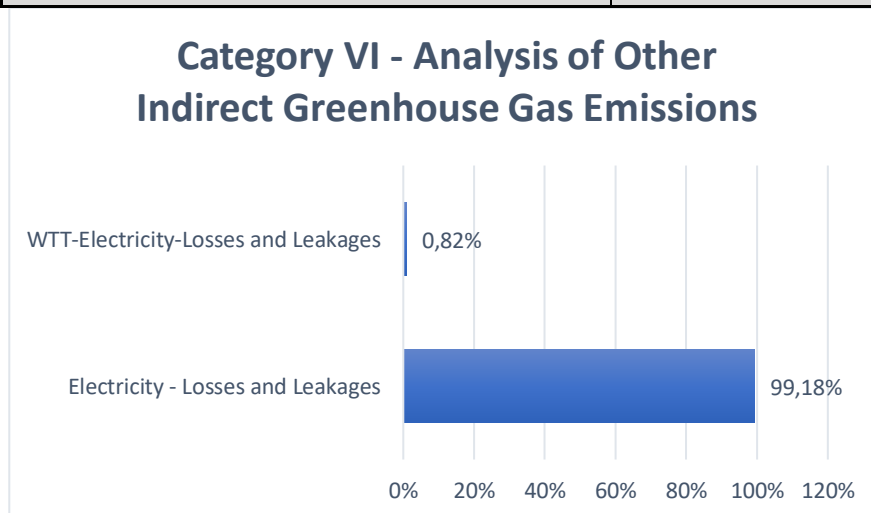


Figure11 Distribution of Other Indirect Greenhouse Gas Emissions

### 4.1.3 Assessment of Significant Indirect Emissions

Indirect emissions contributing at least 95% to the total indirect emissions are classified as significant indirect emissions and are shown in Table 22. The assessment of significant indirect emissions was based on the emission magnitude ratio.

Table 21 Assessment of Significant Indirect Emissions

PRIORITISATION Quantitative From Largest to Smallest					
Source	Greenhouse Gas Tonnes CO2e	Percentage	Cumulative Percentage	Quantitatively Significant	Could it affect emissions?
Raw Material Transport - Sea Freight (International)	23.464,31	33,17	33,17	IMPORTANT	YES
Raw Material Usage	17.927,20	25,35%	58,52%	IMPORTANT	YES
Product Transportation - Road	16.507,82	23,34%	81,86%	IMPORTANT	YES
WTT - INCOMING TRANSPORT - SEA	5.328,99	7,53%	89,40%	IMPORTANT	YES
WTT - PRODUCT TRANSPORT - ROAD	4.005,59	5,66%	95,06%	IMPORTANT	YES
Incoming Transport - Road	1.742,38	2,46%	97,52%	IMPORTANT	YES
Product Shipping - Sea Freight	490,36	0,69%	98,22%	NOT IMPORTANT	NO
WTT - INCOMING TRANSPORT - ROAD	423,68	0,60	98,81%	NOT IMPORTANT	NO
Electricity	258,80	0,37	99,18%	NOT IMPORTANT	NO
Services Received	134,38	0,19%	99,37%	NOT IMPORTANT	NO
WTT - INCOMING SHIPMENT - SEA FREIGHT	111,36	0,16	99,53%	NOT IMPORTANT	NO
WTT - LNG	79,44	0,11%	99,64%	NOT IMPORTANT	NO
Electricity - Losses and Theft	28,47	0,04	99,68	NOT IMPORTANT	NO
Waste Disposal	52,70	0,07	99,75	NOT IMPORTANT	NO
WTT - ELECTRICITY	24,85	0,04%	99,79%	NOT IMPORTANT	NO
Employee Commuting - Road Transport	37,49	0,05	99,84	NOT IMPORTANT	NO
WTT - Diesel	35,30	0,05%	99,89%	NOT IMPORTANT	NO
WTT - PETROL	42,41	0,06%	99,95%	NOT IMPORTANT	NO
WTT - SERVICE - ROAD TRANSPORT	9,12	0,01%	99,97%	NOT IMPORTANT	NO
Waste Transport - Road	8,50	0,01	99,98	NOT IMPORTANT	NO
End of Useful Life of Sold Products	0,02	0,00	99,98	NOT IMPORTANT	NO
Food Services - Road Transport	2,74	0,00	99,98	NOT IMPORTANT	NO
WTT - WASTE TRANSPORTATION - ROAD	2,07	0,00	99,98	NOT IMPORTANT	NO
Business Travel - Airline	2,06	0,00	99,99	NOT IMPORTANT	NO
LNG TRANSPORTATION - Road	1,87	0,00	99,99	NOT IMPORTANT	NO
Accommodation	1,22	0,00	99,99	NOT IMPORTANT	NO
Water Usage	2,35	0,00	99,99	NOT IMPORTANT	NO
Wastewater Disposal	2,27	0,00	100,00	NOT IMPORTANT	NO
WTT - CATERING SERVICE - ROAD TRANSPORT	0,67	0,00	100,00	NOT IMPORTANT	NO
WTT - LNG INCOMING TRANSPORT - ROAD	0,45	0,00	100,00	NOT IMPORTANT	NO
WTT-Electricity Theft	0,24	0,00	100,00	NOT IMPORTANT	NO

#### 4.1.4 Assessment of Uncertainty

When calculating greenhouse gas emission inventory uncertainties, two fundamental uncertainties were taken into account. The total uncertainty was calculated by jointly evaluating the uncertainty of the activity data at each emission source and the uncertainty of the emission factor.

The uncertainty formula is as follows:

$$B_{\text{toplam}} = \frac{\sqrt{(u1 * x1)^2 + (u2 * x2)^2}}{u1 + u2}$$

$u1$  = Activity data (ton CO<sub>2</sub>)

$x1$  = Emission uncertainty or emission factor uncertainty  
(%)

Uncertainty calculations are detailed in the attached 'Uncertainty Calculation Document'.

The calculation tables prepared by the GHG Protocol and IPCC were used in the uncertainty calculations. For 2024, the uncertainty rate was calculated as +/-1.3% for direct emissions and +/-3,2% for indirect emissions. The total uncertainty was calculated as +/- 3,1%, with a reasonable confidence level of +/- 96,9%. Published standards and forms, along with data collection systems, are being developed; this aims to reduce the uncertainty level by 0,5% through the collection of reliable data.

#### 4.1.5 Emission Reduction Target

To achieve an emission reduction target in line with absolute reduction methodologies:

It is recommended to conduct an energy audit and observe the existing potential. Devices with low energy efficiency can be replaced with those with high efficiency based on the existing potential.

Another carbon footprint reduction measure is to ensure the use of renewable energy. It is recommended that the company first invest in a solar power plant within its own premises.

Reducing electricity consumption from lighting by converting lighting throughout the facility to LED systems.

Increasing the energy efficiency of systems such as heating, ventilation and air conditioning in chemical storage areas by using smart sensors or frequency-controlled motors.

Tree planting and carbon sink area projects can be developed.

Strengthen strategic partnerships with suppliers to encourage the widespread adoption of low-carbon production processes. In addition, optimising logistics processes to reduce transport-related emissions and activating sustainable raw material supply mechanisms should be among the key priorities.

Reduce fuel consumption per unit of transport (tonne-km) by using Fuel Management Software and route optimisation for the transport fleet.

Aim to increase the use of recycled raw materials and recyclable materials in order to reduce the environmental impact of processes. In this regard, processes will be continuously improved to promote environmentally friendly packaging practices and increase the recycling rate of production waste. This will reduce the use of natural resources and support the circular economy approach.

Training programmes will be organised to raise employee awareness of their carbon footprint, and incentive schemes will be implemented for energy and resource conservation. It is recommended that sustainability goals become an integral part of the company culture.

To reduce transport-related emissions, it is recommended that fuel-efficient and hybrid vehicles be preferred in service operations.

Encourage key suppliers and logistics partners to have their own carbon footprint reduction targets or to meet sustainability criteria.

In relation to our emission reduction targets, reduction and removal initiatives and projects are also included in the Greenhouse Gas Management Systems Monitoring Procedure Target Tracking Table.

#### **4.1.6 Risk and Opportunity Assessment Targets**

14064-1: The business's risk assessment was carried out in the Risk and Opportunity Analysis Report within the scope of the 2018 standard. According to the Risk and Opportunity Analysis Report, factors that could affect data quality in our business have been identified and recorded according to risk levels based on the work areas where the data sources are located. In order to reduce risks and ensure data quality, processes will be systematically reviewed, weaknesses will be identified, causes affecting carbon emissions and critical points will be determined, and efforts will be made to eliminate negative aspects by improving teamwork and internal communication within the company.

#### **4.1.7 Greenhouse Gas Inventory Quality Management System**

A greenhouse gas management procedure has been established in our company, and within the framework of the procedures established under the greenhouse gas management system;

- Ensuring compliance with the principles of the ISO 14064-1:2018 standard
- Ensuring the greenhouse gas inventory is fit for purpose
- To routinely check the accuracy of the greenhouse gas inventory and address any deficiencies
- Undertake work to rectify any errors and deficiencies identified
- Document and archive greenhouse gas inventory records.

The relevant procedures and forms are published within the framework of the greenhouse gas management procedure and announced to all users.

Records pertaining to the greenhouse gas management system are retained for 10 years and regularly backed up by the information technology department.

Corrective and improvement activities are carried out annually through periodic internal audits and Sustainability Committee meetings.

Risk assessments regarding the data quality of greenhouse gas emission determinations and calculation data are carried out periodically.