



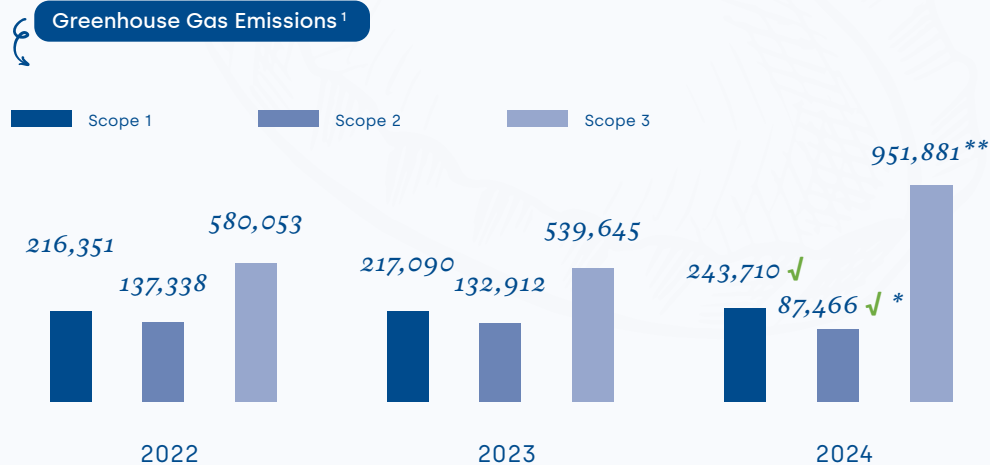
ANADOLU  
EFES

CARBON FOOTPRINT  
MAPPING ACROSS THE  
VALUE CHAIN

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

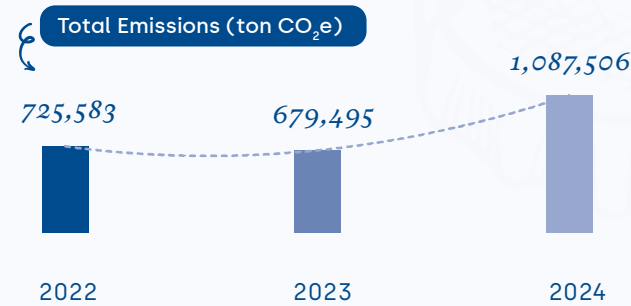
With the carbon footprint mapping we completed in 2022, as of 2024, we at Anadolu Efes no longer view our carbon footprint as limited to our own operations. Instead, we are conducting a comprehensive emissions mapping study that covers our entire value chain. We consider these efforts a strategic step on our journey toward achieving our net-zero target aimed at mitigating the impacts of climate change.

In line with the GHG Protocol's Corporate Accounting and Reporting Standard and the Value Chain (Scope 3) Standard, we are enhancing our processes by including Scope 3 emissions—in addition to Scope 1 and Scope 2 emissions—within the scope of our calculations. Within this framework, while defining our organizational boundaries, we adopt the financial control approach and take a holistic view of our facilities, sales offices, and warehouse operations in Turkey, Russia, Kazakhstan, Moldova, Ukraine, and Georgia.



**Figure 1.** Scope 1, Scope 2, and Scope 3 Emission Amounts (tCO<sub>2</sub>e) for the Years 2022, 2023, and 2024

<sup>1</sup> Emissions from operations in Russia and Ukraine are included in Scope 1 and Scope 2, but not included in Scope 3 calculations.  
 \* Total Scope 2 (Market-Based)  
 \*\* The Scope 3 Category 1 purchased goods emissions data from Türkiye and Kazakhstan have been audited.  
 Türkiye 305,617 ton CO<sub>2</sub> ✓, Kazakhstan 94,101 ton CO<sub>2</sub> ✓



**Figure 2.** Total Emission Amount (tCO<sub>2</sub>e) for 2022–2023–2024

**Our Scope 1 emissions** cover direct sources, namely stationary combustion systems (e.g., generators, boilers), mobile combustion sources (fleet vehicles), and refrigerant-related emissions. We regularly collect activity data from facilities related to these sources (such as natural gas consumption, diesel usage, and quantities of refrigerant refills), and calculate emissions using DEFRA 2024 and IPCC 2006 emission factors, in alignment with the GHG Protocol and IPCC 2006 Guidelines.

**Our Scope 2 emissions** consist of indirect emissions resulting from purchased electricity consumption. These calculations are performed using location-based emission factors derived from local sources such as TEİAŞ and IEA data. Electricity consumption data is collected from our operations (Tier 3), and transmission & distribution (T&D) losses, along with upstream emissions, are accounted for under Scope 3.

When calculating **our Scope 3 emissions**, we apply different methodologies depending on the data availability and reliability for each category. We develop tailored methodological approaches for each category, combining information obtained from both primary and secondary data sources with the most up-to-date emission factors to carry out our analyses.

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

### Category 1 - Purchased Goods and Services

For the raw materials we procure, we apply activity-based calculation methods, while for service procurements, we use spend-based approaches. We primarily request emission factors for purchased materials directly from our suppliers. Where supplier-provided data is deemed reliable, based on benchmarking against established emission factor databases, we use the values provided. For all other materials, we apply emission factors from the Ecoinvent 3.10 database. For financial-based estimations, we rely on the EPA v1.3 dataset. Quantity data for products is collected from facilities in metric tons, while the financial values of services are converted to 2022 USD (the functional unit year of EPA v1.3) using current exchange rates (CBRT) and inflation adjustments (World Bank).

### Category 2 - Capital Goods

Emissions from capital goods acquired during the year are calculated using a spend-based method with EPA v1.3 emission factors based on 2024 financial values. Currency conversions to USD are done using the same exchange rate and inflation data as in Category 1.

### Category 3 - Fuel- and Energy-Related Activities (Not Included in Scope 1 or Scope 2)

This category includes upstream emissions related to Scope 1 and Scope 2 energy use, such as transmission and distribution (T&D) losses and well-to-tank (WTT) emissions. For Scope 1 fuel consumption, we calculate WTT emissions; for Scope 2 electricity use, we calculate T&D losses using emission factors from DEFRA 2024 and IEA 2023 Edition databases.

### Category 4 - Upstream Transportation and Distribution

In this category, we account for emissions from logistics activities for which we are responsible, including transportation of raw materials and packaging. Distances are obtained from operational data, and calculations are based on transport modes (road, sea, rail, air) using DEFRA 2024 emission factors.

### Category 5 - Waste Generated in Operations

We calculate emissions from the disposal of waste and wastewater generated in our facilities based on waste type and treatment/disposal method. Appropriate categorization is made for methods such as composting, incineration, recycling, and landfilling, and corresponding DEFRA 2024 emission factors are applied.

### Category 6 - Business Travel

Emissions from business travel by air are included in this category. We distinguish flights by class and distance and analyze travel data using distance sources such as Google Maps and AirMilesCalculator. Emissions are then calculated with DEFRA 2024 factors. Fuel consumption from company owned vehicles is reported under Scope 1.

### Category 7 - Employee Commuting

Emissions from the fuel consumption of our service vehicles are calculated using IPCC AR6 emission factors, based on facility-specific distances and fuel types. Fuel consumption from company-owned vehicles is reported under Scope 1. Well-to-tank (WTT) emissions associated with fuel consumption are calculated using DEFRA 2024 emission factors.

### Category 8 - Upstream Leased Assets

We calculate emissions from electricity consumption in rented warehouses used in our operations using the same approach as Scope 2 emissions.

# CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

## Category 9 - Downstream Transportation and Distribution

Emissions from transportation processes under our responsibility for delivering products to customers are calculated using the same methodology as in Category 4 (freight cost, distance, and transport mode) with DEFRA 2024 emission factors.

## Category 10 - Processing of Sold Products

No relevant activities are performed under this category; therefore, it is excluded from our reporting boundary.

## Category 11 - Use of Sold Products

We calculate emissions from the energy consumption and refrigerant leakage of cooling cabinets used by distributors. Emissions are calculated using IPCC leakage rates and IEA 2023 electricity emission factors. T&D losses and upstream emissions related to electricity are also included under this category.

## Category 12 - End-of-Life Treatment of Sold Products

Emissions from the end-of-life treatment of our products and packaging are determined using country-specific waste treatment rates (TURKSTAT, Eurostat) and are calculated using the same methodological approach as in Category 5.

## Category 13 - Downstream Leased Assets

No activities are conducted under this category; it is excluded from our reporting boundary.

## Category 14 - Franchises

In this category, we account for emissions from franchise operations by calculating emissions from electricity and fuel consumption based on data provided by our dealers, using a methodology consistent with Scope 2 calculations. We consider our licensed production in Iran under this category.

## Category 15 - Investments

We report emissions from associates and joint ventures outside our financial control but with which we have an investment relationship. As we do not have direct control over these entities, we include their Scope 1 and Scope 2 emissions proportionally to our ownership share. If primary energy data is not available, we use literature-based average values for electricity and fuel consumption for office-type operations.

We include in our emissions inventory only those emissions that originate from high-materiality sources with measurable and methodologically reliable data. In this context, refrigerant gases used in vehicle air conditioning systems are excluded from our scope due to their limited impact on total annual emissions. Similarly, emissions from employee commuting via personal vehicles are not included in our Scope 3 assessment, as sufficient data could not be obtained for these activities.

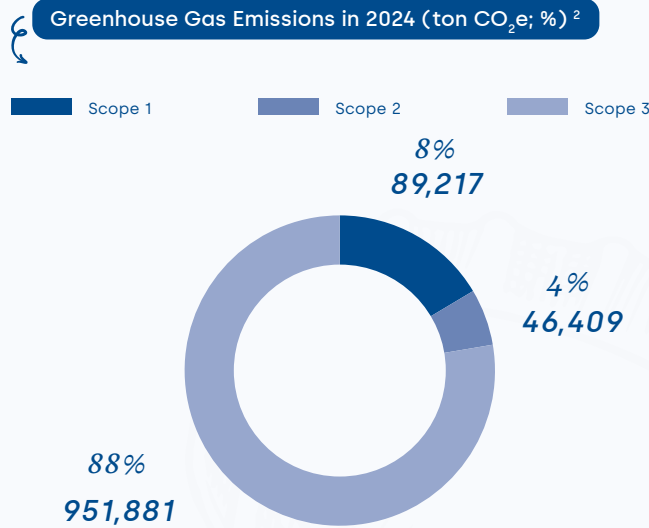
For all greenhouse gas calculations, we collect activity data through invoices, declarations, SAP system records, and operational monitoring forms obtained from the relevant departments. In our calculation processes, we utilize internationally recognized secondary data sources such as DEFRA 2024, EPA v1.3, IEA 2023, Ecoinvent 3.10, and the IPCC. When necessary, we also perform cross-checks using supplier-provided data to ensure accuracy and consistency.

We assess the assumptions in our calculation methodologies and the uncertainties related to data acquisition in accordance with TSRS and ISO standards. Quantitative and qualitative uncertainty analyses are conducted for each category. The level of uncertainty in the activity data and emission factors used in the calculations varies depending on the type of data source (e.g., measurement device, invoice, declaration) and the origin of the emission factor. To ensure data quality, we regularly review our calculations through periodic internal controls and subject them to independent verification processes each year. This approach enables us to ensure that the emission data we report is transparent, consistent, and auditable.

In monitoring our greenhouse gas emissions, we not only report our past performance but also continuously enhance and implement our advanced methodological approach to measure the effectiveness of our sustainability strategy, identify carbon reduction opportunities, and plan the actions needed to realize these opportunities.

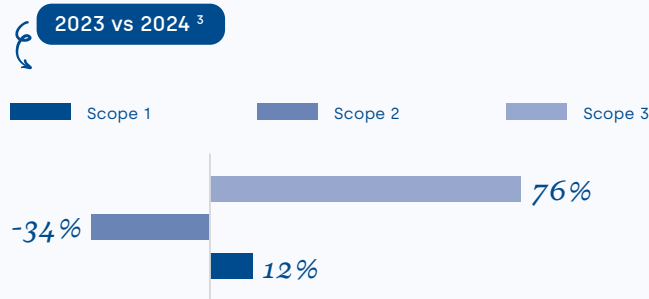


# CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN



**Figure 3.** Greenhouse Gas Emissions Distribution for 2024

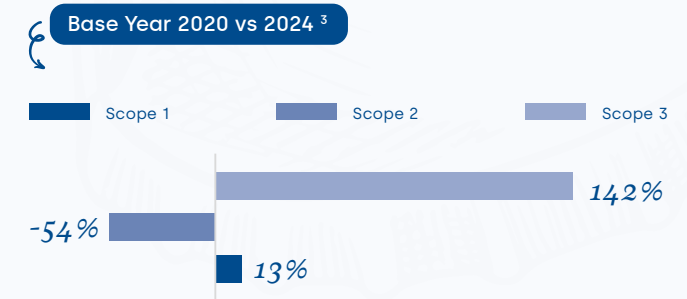
Scope 3 emissions accounted for the largest share of our total emissions in 2024, making up 88%. Our energy-related indirect emissions (Scope 2) decreased by 54% compared to our base year of 2020, now representing only 4% of our total emissions in 2024. This reduction was primarily achieved through sourcing nearly half of our electricity from renewable sources and accelerating the implementation of energy-efficiency projects. On the other hand, our Scope 1 emissions increased by 13% compared to 2020 due to higher production volumes and accounted for 19% of our total emissions in 2024.



**Figure 4.** Emissions Comparison Between 2023 and 2024

Compared to last year, our Scope 1 emissions increased by 12% in 2024 due to higher production volumes. However, we successfully reduced our energy-related indirect emissions (Scope 2) by 34% compared to 2023. Our Scope 3 emissions - representing other indirect emissions from our value chain - increased by 76% compared to last year. This rise is primarily due to the expanded coverage of emission sources included in our Scope 3 boundary. Nevertheless, thanks to the methodological improvements we implemented, this year we have achieved the most accurate and comprehensive calculation to date.

In 2024, through our expanded and enhanced greenhouse gas emissions inventory efforts compared to previous years, we are analyzing not only our own operations but also the emissions across our entire value chain in a more detailed and holistic manner. As part of this analysis, we consider all fifteen categories in alignment with the GHG Protocol Scope 3 Standard.



**Figure 5.** Emissions Comparison Between the Base Year and 2024

With the new methodological approaches implemented this year, we are making significant updates especially in the categories of downstream use of sold products (including cooler usage), emissions from investments, and fuel- and energy-related indirect emissions. In measuring these categories, we achieve more precise and accurate results by combining industry best practices, literature data, and actual data obtained from our suppliers.

Additionally, for the first time this year, we have included previously excluded categories such as upstream leased assets and end-of-life treatment of products in our emissions inventory. The categories excluded from our inventory represent less than 1% of our total Scope 3 emissions.

<sup>2</sup> Emission data covers operations in Turkey, Kazakhstan, Georgia, and Moldova.

<sup>3</sup> Scope 1 and Scope 2 emission data cover operations in Turkey, Kazakhstan, Georgia, Moldova, Russia, and Ukraine. Scope 3 emission data, however, cover operations in Turkey, Kazakhstan, Georgia, and Moldova, excluding Russia and Ukraine.

## Category-Based Scope 3 Emissions for (2022-2024)

Scope 3 - Categories	Category Name	2022	2023	2024	Percentage of Total Scope 3 in 2024 (%)
Category 1	Purchased Goods and Services	427,856.97	389,617.99	476,638.92*	50.1%
Category 2	Capital Goods	35,085.28	49,259.07	68,203.00	7.2%
Category 3	Fuel- and Energy-Related Activities (Not Included in Scope 1 or Scope 2)	-	-	26,137.00	2.7%
Category 4	Upstream Transportation and Distribution	19,197.55	17,371.74	93,523.00	9.8%
Category 5	Waste Generated in Operations	- 2,771.46	630.29	2,684.00	0.3%
Category 6	Business Travel	675.69	355.90	1,552.00	0.2%
Category 7	Employee Commuting	630.51	579.00	1,260.00	0.1%
Category 8	Upstream Leased Assets	-	-	275.70	0.0%
Category 9	Downstream Transportation and Distribution	81,832.56	65,323.77	12,764.00	1.3%
Category 10	Processing of Sold Products	-	-	-	0.0%
Category 11	Use of Sold Products	17,184.68	15,696.14	248,007.00	26.1%
Category 12	End-of-Life Treatment of Sold Products	-	-	11,866.16	1.2%
Category 13	Downstream Leased Assets	-	-	-	0.0%
Category 14	Franchises	361.27	811.01	8,969.00	0.9%
Category 15	Investments	-	-	0,31	0.0%

**Table 1.** Category-Based Scope 3 Emissions for 2022-2024

\* Türkiye and Kazakhstan purchased goods data have been audited. Türkiye 305,617 ton CO<sub>2</sub> ✓, Kazakhstan 94,101 ton CO<sub>2</sub> ✓

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

In 2024, our total Scope 3 emissions were calculated as 951,881 tons of CO<sub>2</sub>e. This amount represents 87,5% of our company's carbon footprint and highlights the critical importance of value chain-focused reduction strategies for achieving our net-zero targets.



**Figure 6.** Distribution of Scope 3 Emissions in 2024

When examining the category distribution of our Scope 3 emissions, the largest share, 50.1%, comes from purchased goods and services (Category 1). This clearly highlights the critical importance of sustainable procurement processes and sourcing products and services with a low carbon footprint. Emissions from the use of sold products (Category 11) increased approximately sixteen-fold compared to last year, reaching 26.1% of the total. This rise is due to the expansion of our methodology and more detailed measures of emissions from the use of our cooling cabinets.

Supply chain logistics and product distribution to customers (Categories 4 and 9) together account for 11.2% of total Scope 3 emissions. This proportion underscores the importance of logistics optimization within our carbon reduction strategies. Emissions from capital goods (Category 2) make up 7.2% of our total Scope 3 emissions and have increased by approximately 38% compared to last year. This rise is due to our more comprehensive financial-based calculation of the carbon impact from facility investments and fixed asset acquisitions made in 2024.

For the first time this year, we calculated fuel- and energy-related indirect emissions (Category 3; losses and well-to-pump processes), which account for 2.7% of our total other indirect emissions, highlighting opportunities in energy management. Additionally, emissions from the end-of-life treatment of our products and packaging (Category 12), also calculated for the first time this year, represent 1.2% of our total Scope 3 emissions. These inaugural measurements indicate that the emission impact at the end of life for our products and packaging is significant.

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

### *Value Chain Steps - Absolute Emission (ton CO<sub>2</sub>e)*

Value Chain Steps	2022	2023	2024	GHG Protocol Mapping
Agriculture & Purchased Goods	187,473	149,158	209,002	Category 1 (excluding Packaging)
Processing of Brewing Ingredients	24,068	18,281	20,116	Only Scope 1 and Scope 2 production emissions within Turkey
Packaging	240,384	240,460	267,637	Category 1 (Packaging)
Operations	118,690	122,199	118,194	Scope 1 + Scope 2 – Only Scope 1 and Scope 2 production emissions within Turkey + Category 5 (Waste)
Transportation & Logistics	101,030	82,696	106,287	Categories 4 + 9
Capital Goods & Coolers	52,270	64,955	316,210	Categories 2 + 14 (Coolers calculated separately)
Other Scope 3 Categories	1,667	1,746	50,060	Categories 3 + 6 + 7 + 8 + 12 + 14 + 15

Through this detailed emissions mapping study, we identify the stages in our value chain that generate the highest carbon impact. This allows us to clarify our emission reduction priorities and focus on both traditional improvement projects and innovative practices. Additionally, we have initiated the transformation process to digitize our greenhouse gas data and monitor it through a centralized software platform. This enables us to manage our resources more efficiently with the aim of achieving net zero across all our operations by 2030.

Moving forward, we will continue to review and improve our greenhouse gas emissions calculation methodology by gaining access to better data sources, increasing supplier-based performance data, and strengthening alignment with industry best practices.

**Table 2.** Value Chain Stage Emissions (ton CO<sub>2</sub>e)



## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

*Carbon Footprint Mapping in Our Value Chain*



**Figure 7.** Carbon Footprint Mapping in Our Value Chain

<sup>4</sup> Fuel- and energy-related activities (not included in Scope 1 or Scope 2), Leased assets, End-of-life treatment of sold products, Investments, Business travel, Employee commuting

## Annex-1: Anadolu Efes Biracılık ve Malt Sanayii A.Ş. 2024 Carbon Footprint Mapping Report - Reporting Principles

### General Reporting Principles

This reporting guideline ("Reporting Principles") provides information on the methodologies for the preparation, calculation and reporting of data for the indicators included in the Anadolu Efes Biracılık ve Malt Sanayii A.Ş. ("Company" or "Anadolu Efes") 2024 Carbon Footprint Mapping Across the Value Chain ("2024 Carbon Footprint Mapping Across the Value Chain") within the scope of the limited assurance review.

These indicators include environmental and social indicators. It is the responsibility of the management of the "Company" to ensure that appropriate procedures are in place to prepare these indicators set out below, in all material respects, in accordance with the Guidelines.

The information in this Guideline covers the 2024 fiscal year ending December 31, 2024 (January 1 - December 31, 2024) and includes a total of 21 production locations in 6 countries, Türkiye, Russia, Kazakhstan, Georgia, Moldova and Ukraine which are under the responsibility of Anadolu Efes Biracılık ve Malt Sanayii A.Ş., unless otherwise stated, as detailed in the "Key Definitions and Scope of Reporting" section. Unless otherwise stated, Scope 3 - Category 1 Emissions From Purchased Goods indicator includes the production sites located in Turkey and Kazakhstan under the ownership of Anadolu Efes Biracılık ve Malt Sanayii A.Ş.

In preparing this document, consideration has been given to following principles:

- Information Preparation – to highlight to users of the information the primary principles of relevance and reliability of information; and
- Information Reporting – to highlight the primary principles of comparability / consistency with other data including prior year and understandability / transparency providing clarity to users.

Type	Indicator	Scope
ENVIRONMENTAL	<b>Greenhouse Gas Emissions</b>	
	Scope 1 Greenhouse Gas Emissions (TonCO <sub>2</sub> e)	In the reporting period, this indicator refers to amount of greenhouse gas generated caused by using natural gas, gasoline, diesel, LPG, biogas, coolant gases, purchased carbon dioxide sources in the Company's facilities. The Company recognizes greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard (2004). Scope 1 greenhouse gas is reported in tCO <sub>2</sub> e on a consolidated basis
	Scope 2 Greenhouse Gas Emissions (Market Based) (TonCO <sub>2</sub> e)	Represents greenhouse gas emissions from electricity purchased at its facilities during the reporting period that is not certified with a renewable energy certificate (I-REC, YEK-G, etc.) or is not derived from renewable sources. The Company reports its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard (2004). Scope 2 emissions are disclosed on location basis.
	Scope 3 - Category 1 Emissions From Purchased Goods	Represents the greenhouse gas emissions from transportation of the purchased goods to the Company's facilities. The Company calculates greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard (2004). Scope 3 – Category 1 Emissions From Purchased Goods calculations only include Turkey and Kazakhstan locations.

## Data Preparation

### Environmental Indicators

#### Total Energy Consumption (MWh)

The Company's total energy consumption is the sum of MWh energy equivalents of natural gas, renewable and non-renewable electricity consumption, fuel oil, diesel (on-road company vehicles), diesel (off-road company vehicles), diesel (generator) gasoline (on-road company vehicles), gasoline (off-road company vehicles), LPG (on-road company vehicles), LPG (off-road company vehicles), biogas consumption.

The Company uses the following density and calorific values for MWh conversions of fuels included in energy consumption.

		Upper Heating Value		Referance
<b>NATURAL GAS</b>	Adana	39.317	kJ/sm <sup>3</sup>	Invoice
	Ankara	39.111	kJ/sm <sup>3</sup>	Invoice
	İzmir	39.049	kJ/sm <sup>3</sup>	Invoice
	Afyon	38.927	kJ/sm <sup>3</sup>	Invoice
	Bilecik	39.726	kJ/sm <sup>3</sup>	Invoice
	Almaty	34.499	kJ/sm <sup>3</sup>	Invoice
	Natakhtari	35.130	kJ/sm <sup>3</sup>	Invoice
	Vitanta	38.016	kJ/sm <sup>3</sup>	Invoice
	Chergivniv	34.576	kJ/m <sup>3</sup>	Invoice
	Mykolaiv	33.400	kJ/m <sup>3</sup>	Invoice
<b>CNG</b>	Konya	40.313	kJ/sm <sup>3</sup>	Invoice
<b>DIESEL OIL</b>	All	43,30	TJ/Gg	IPCC 2006
	Density	0,84	kg/L	CDP Technical Note: Conversion of fuel data to MWh
<b>BENZINE GAS</b>	All	44,80	TJ/Gg	IPCC 2006
	Density	0,74	kg/L	CDP Technical Note: Conversion of fuel data to MWh

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

		Upper Heating Value		Reference
<b>LPG</b>	All	52,20	TJ/Gg	IPCC 2006
	Density	0,54	kg/L	CDP Technical Note: Conversion of fuel data to MWh
<b>FUEL OIL</b>	All	41,70	TJ/Gg	IPCC 2006
	Karaganda	40,31	kJ/kg	Invoice
	Russia	35,28	kJ/kg	Invoice
<b>LNG</b>	All	46,90	TJ/Gg	IPCC 2006
	Density	0,47	kg/L	CDP Technical Note: Conversion of fuel data to MWh
<b>BIOGAS</b>	Chergivniv	18.820	kJ/m <sup>3</sup>	Direct Measurement
		5,213	kwh/m <sup>3</sup>	Direct Measurement
		24,000	kJ/m <sup>3</sup>	Direct Measurement
	Mykolaiv	6,648	kwh/m <sup>3</sup>	Direct Measurement
	Russia	24,000	kJ/m <sup>3</sup>	Direct Measurement
	Vitanta	28,500	kJ/m <sup>3</sup>	Direct Measurement
	Adana	35,100	kJ/m <sup>3</sup>	Direct Measurement
	İzmir	37,440	kJ/m <sup>3</sup>	Direct Measurement
	Ankara	34,200	kJ/m <sup>3</sup>	Direct Measurement
	Almaty	28,806	kJ/m <sup>3</sup>	Direct Measurement
	Natakhtari	28,806	kJ/m <sup>3</sup>	Direct Measurement

Tesis	KPI Name	Unit	Upper Heating Value
Ivanovo	Natural Gas	kJ/m <sup>3</sup>	34.112,48
Kaluga	Natural Gas	kJ/m <sup>3</sup>	34.179,84
Kazan	Natural Gas	kJ/m <sup>3</sup>	35.001,12
Klin	Natural Gas	kJ/m <sup>3</sup>	34.150,00
Novosibirsk	Natural Gas	kJ/m <sup>3</sup>	34.211,85
Omsk	Natural Gas	kJ/m <sup>3</sup>	34.139,44
Saransk	Natural Gas	kJ/m <sup>3</sup>	34.890,23
Ufa	Natural Gas	kJ/m <sup>3</sup>	34.667,83
Ulyanovsk	Natural Gas	kJ/m <sup>3</sup>	34.737,25
Vladivostok	Natural Gas	kJ/m <sup>3</sup>	40.092,00
Volzhsky	Natural Gas	kJ/m <sup>3</sup>	34.679,59

### Natural Gas

Represents the amount of natural gas purchased by the Company during the reporting year. Natural gas consumption is based on the Company's locations in Adana, Ankara, İzmir, Konya, Afyon, Bilecik, Türkiye Headquarters, Almaty (Kazakhstan), Natakhtari (Georgia), Georgia Headquarters, Vitanta (Moldova), Mykolaiv (Ukraine), Chernigiv (Ukraine) and Russia: Ivanova, Klin, Omsk (Brewery), Saransk (Brewery), Kazan (Brewery), Kaluga, Ufa, Volzhsky, Ulyanovsk, Novosibirsk.

### Fuel Oil

Represents the amount of fuel oil purchased and consumed by the Company during the reporting year. Fuel oil consumption includes the Company's facilities in Ankara, Karaganda (Kazakhstan), Vladivostok (Russia), Novosibirsk (Russia) and Mykolaiv (Ukraine).

**Biogas**

This refers to the amount of biogas produced from wastewater and subsequently consumed by the company during the reporting year. Biogas consumption consists of consumption in Adana, Ankara, Izmir, Natakhtari (Georgia), Vitanta (Moldova), Mykolaiv (Ukraine), Chernigiv (Ukraine) and Klin, Omsk, Kazan, Kaluga, Ufa, Vladivostok, Volzhsky locations in Russia.

**Diesel****a. Company Vehicles (On-Road)**

Refers to the amount of diesel consumed by the company in on-road company vehicles (automobiles, etc.) during the year. The company's on-road diesel consumption includes the following locations: Türkiye, Almaty (Kazakhstan), Karaganda (Kazakhstan), Georgia, Vitanta (Moldova), Omsk Brewery (Russia), Saransk Brewery (Russia), Ufa (Russia), and Vladivostok (Russia).

**b. Company Vehicles (Off-Road)**

It refers to the amount of diesel consumed by the company in off-road company vehicles (forklift, tractor, etc.) during the reporting year. The Company's off-road diesel consumption includes the consumption in Konya location.

**c. Diesel (Stationary Combustion-Generator)**

Refers to the diesel consumption used by the Company during the year for generator and heating purposes during the reporting year. The Company's generator diesel consumption includes consumption in Adana, Ankara, Izmir, Konya, Afyon, Almaty (Kazakhstan), Natakhtari (Georgia).

**Gasoline****a. Company vehicles (Road)**

It refers to the total amount of gasoline consumed by the company in on-road company vehicles (automobiles, etc.) during the year. The Company's on-road gasoline consumption includes consumption in Türkiye, Almaty (Kazakhstan), Karaganda (Kazakhstan), Kazakhstan Office, Georgia, Moldova, Mykolaiv (Ukraine) and Klin, Omsk Brewery, Saransk Brewery, Kazan Brewery, Kaluga, Ufa, Vladivostok, Volzhsky, Ulyanovsk, Novosibirsk in Russia.

**b. Company vehicles (Off-Road)**

It refers to the total amount of gasoline consumed by the company in off-road company vehicles (forklift, tractor, etc.) during the year. The Company's off-road gasoline consumption includes consumption in Karaganda (Kazakhstan).

**LPG****a. Company Vehicles (On-Road)**

It refers to the total amount of LPG consumed by the company in on-road company vehicles (automobiles, etc.) during the reporting year. The Company's on-road LPG consumption includes consumption in Ivanova (Russia).

**b. Company Vehicles (Off-Road)**

It refers to the total amount of LPG consumed by the company in off-road company vehicles (forklift, tractor, etc.) during the reporting year. The Company's off-road LPG consumption includes Afyon, Bilecik, Almaty (Kazakhstan), Vitanta (Moldova), Chernigiv (Ukraine) and Ivanova, Klin, Omsk Brewery, Saransk Brewery, Kazan Brewery, Kaluga, Ufa, Vladivostok, Volzhsky, Ulyanovsk, Novosibirsk locations in Russia.

**Electricity****Electricity from the Grid**

It refers to the electricity consumption purchased by the Company from the grid during the year and monitored by the purchase invoices received from service providers. The Company's electricity consumption from the grid; Adana, Ankara, Izmir, Konya, Afyon, Bilecik, Türkiye Headquarters, Almaty (Kazakhstan), Karaganda (Kazakhstan), Natakhtari (Georgia), Vitanta (Moldova), Mykolaiv (Ukraine), Chernigiv (Ukraine) and Ivanova, Klin, Omsk Brewery, Saransk Brewery, Kazan (Brewery), Kaluga, Ufa, Vladivostok, Volzhsky, Ulyanovsk, Novosibirsk in Russia.



## Purchased Renewable Electricity

The amount of electricity purchased by the Company during the year and generated from renewable resources. The Company's renewable electricity consumption includes purchases in Natakhtari (Georgia) and Ivanova, Klin, Omsk Brewery, Saransk Brewery, Kaluga, Ufa, Volzhsky, Ulyanovsk, Novosibirsk in Russia.

## Total Electricity Consumption

Represents renewable electricity purchased by the Company during the year and electricity consumption from the grid. Calculated using the formula below;

Total Electricity Consumption (MWh) = Purchased Renewable Electricity (MWh) + Electricity from Grid (MWh)

Scope 1- Scope 2 Emissions (tCO<sub>2</sub>e)

Scope 1 and Scope 2 emissions are calculated with the operational control principle within the framework of the "Greenhouse Gas Protocol".

In scope 1 calculations; only CH<sub>4</sub> and N<sub>2</sub>O emissions from biogas emissions were converted to CO<sub>2</sub> equivalent value using IPCC AR6 coefficients and added to the total scope 1 calculations. CO<sub>2</sub> emissions from biogas combustion are not included in the scope 1 calculation.

In Scope 2 calculations, country-specific production emission factors from the International Energy Agency (IEA) 2023 document were used for location and market-based emission calculations. The same emission factors were used for market-based calculations.

Scope 3 - Category 1 Purchased Goods Emissions have been calculated based on emission factors obtained from Ecoinvent, Environmental Product Declaration (EPD), and suppliers.

CO<sub>2</sub> equivalent factors consisting of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and CO<sub>2</sub> equivalent emission factors were used in the calculations. The emission factors used are detailed in the table below. Global Warming Potential (GWP) coefficients are based on the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report. and the ton CO<sub>2</sub>-e value obtained was calculated by multiplying it with the appropriate coefficients.

The emission factors used in the calculations are as follows;

Categories						
		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Unit	Reference
Stationary Combustion - Heat	Natural Gas	56.100	0,02700	0,00000058	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	LNG	64.200	0,0810	0,02730	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	CNG	56.100	0,02700	0,16380	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	Fuel Oil	77,40	0,0810	0,02730	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	Motorin	74,10	0,0810	0,16380	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	Biogas		0,0081	0,16380	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	Gasoline	69,30	0,0810	0,02730	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
Steam		0,00016906	0,00000109	0,16380	tCO <sub>2</sub> /KWh	DEFRA

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

Categories		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Unit	Reference
Generator / CHP	Motorin Oil	74,10	0,0810	0,000000058	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	Fuel Oil	77,40	0,0810	0,16380	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
Refrigerants / Other Chemicals	R134A	1.530,00			GWP	IPCC AR6
	R22	1.960,00			GWP	IPCC AR6
	R32	771,00			GWP	IPCC AR6
	R410	2.256,00			GWP	IPCC AR6
	R404	4.728,00			GWP	IPCC AR6

Categories		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Unit	Reference
Refrigerants / Other Chemicals	R407 A	1.923,00			GWP	IPCC AR6
	R407C	1.908,00			GWP	IPCC AR6
	R432				GWP	IPCC AR6
	Fire CO <sub>2</sub>	1,00	0,00		GWP	IPCC AR6
	Fire HFC 227ea	3.600,00	0,00		GWP	IPCC AR6
	Circuit Breaker SF6	24.300,00	0,00		GWP	IPCC AR6
	R290	0,02	0,00		GWP	IPCC AR6
	R507	3.985,00	0,00		GWP	IPCC AR6
	R717	0,00	0,00		GWP	IPCC AR6

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

Categories						
		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Unit	Reference
<b>Forklift</b>	LPG	63,10	0,0270	0,02730	tCO <sub>2</sub> /TJ	IPCC 2006 – Mobile Combustion
	Gasoline	69,30	0,0810	0,16380	tCO <sub>2</sub> /TJ	IPCC 2006 – Mobile Combustion
	Motorin	74,10	0,0810	0,16380	tCO <sub>2</sub> /TJ	IPCC 2006 – Mobile Combustion
<b>Company Vehicles</b>	LPG	63,10	1,6740	0,05460	tCO <sub>2</sub> /TJ	IPCC 2006 – Mobile Combustion
	Gasoline	69,30	0,6750	2,18400	tCO <sub>2</sub> /TJ	IPCC 2006 – Mobile Combustion
	Motorin	74,10	0,1053	1,06470	tCO <sub>2</sub> /TJ	IPCC 2006 – Mobile Combustion
	Other	63,10	0,02700	0,02730	tCO <sub>2</sub> /TJ	IPCC 2006 – Mobile Combustion
<b>Auxiliaries</b>	LPG	63,10	0,0270	0,02730	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	NG/LPG	63,10	0,0270	0,02730	tCO <sub>2</sub> /TJ	IPCC 2006 – Stationary Combustion
	Acetylene	0,00351			tCO <sub>2</sub> /m <sup>3</sup>	2012 Climate Registry Default Emission Factors

Emission Factors - Scope 2	kgCO <sub>2</sub> e per CO <sub>2</sub>	kgCO <sub>2</sub> e per CH <sub>4</sub>	kgCO <sub>2</sub> e per N <sub>2</sub> O	Total kgCO <sub>2</sub> e	Reference
Purchased Electricity - Türkiye (MWh)	International Energy Agency (IEA) 2023 Emission Factors – Electricity (Production)				
Purchased Electricity - Georgia (MWh)	International Energy Agency (IEA) 2023 Emission Factors – Electricity (Production)				
Purchased Electricity - Moldova (MWh)	International Energy Agency (IEA) 2023 Emission Factors – Electricity (Production)				
Purchased Electricity - Kazakhstan (MWh)	International Energy Agency (IEA) 2023 Emission Factors – Electricity (Production)				
Purchased Electricity - Russia (MWh)	International Energy Agency (IEA) 2023 Emission Factors – Electricity (Production)				
Purchased Electricity - Ukraine (MWh)	International Energy Agency (IEA) 2023 Emission Factors – Electricity (Production)				

## CARBON FOOTPRINT MAPPING ACROSS THE VALUE CHAIN

Purchased Goods	Emission Factor (tCO <sub>2</sub> e)	Reference
Aluminium	5,81	Supplier - Ball
Aluminium	7,03	Ecoinvent 10
Aluminium	15,7	EPD-IES-0004793:001
Barley	0,5	Ecoinvent 10
Barley	0,69	Ecoinvent 10
Carton	0,76	Ecoinvent 10
Carton	0,76	Ecoinvent 10
Flavour	0,11	Supplier - Döhler
Glass	0,92	Ecoinvent 10
Glue	4,38	Ecoinvent 10
Hop	4,4	Supplier - Steiner
Hops	4,4	Supplier - Steiner
Malt	0,83	Supplier - Vikingmalt
Malt	1,59	Supplier - Grainrus
Metal	4,74	Ecoinvent 10
Metal	10,69	Supplier - Nippon
Metal	15,7	EPD-IES-0004793:001
Maya	2.75	Ecoinvent 10
Metal	4.74	Ecoinvent 10
Metal	10.69	Supplier - Nippon
Metal	15.7	EPD-IES-0004793:001

Purchased Goods	Emission Factor (tCO <sub>2</sub> e)	Reference
Metalized Paper	1,8	Supplier - Etap
Metalized Paper	1,29	Ecoinvent 10
Other	3,34	Ecoinvent 10
Other	0,76	Ecoinvent 10
Other	2,37	Ecoinvent 10
Other	8,52	Ecoinvent 10
Other	0,11	Supplier - Döhler
Paper	1,29	Ecoinvent 10
Plastic	3,69	Ecoinvent 10
Plastic	2,37	Ecoinvent 10
Plastic	4,22	Ecoinvent 10
Plastic	3,64	Ecoinvent 10
Plastic	0,3	
Rice	1,75	Ecoinvent 10
Sugar Derivatives	0,48	Ecoinvent 10
Sugar Derivatives	1,44	Ecoinvent 10
Wood	0,22	Ecoinvent 10
Yeast	2,75	Ecoinvent 10

### Restatement

The measuring and reporting of sustainability-related data inevitably involves a degree of estimation. Restatements are considered where there is a change in the data of greater than 5 percent at the Company level.

*Limited Assurance Report*

to the Board of Directors of Anadolu Efes Biracılık ve Malt Sanayii A.Ş.

We have been engaged by the Board of Directors of Anadolu Efes Biracılık ve Malt Sanayii A.Ş. and its subsidiaries (the "Group") to perform a limited assurance engagement in respect of the Selected Sustainability Information (the "Selected Information") stated in the Anadolu Efes 2024 Carbon Footprint Mapping Across the Value Chain ("2024 Carbon Footprint Mapping Across the Value Chain") for the year ended 31 December 2024 and listed below.

**Selected Information**

The scope of the Selected Information for the year ended 31 December 2024, which is subject to our limited assurance work, set out in the pages 2 and 6 of the 2024 Carbon Footprint Mapping Across the Value Chain with the sign "✓" is summarized below:

**Environmental Indicators**

- Scope 1 Greenhouse Gas Emissions (TonCO<sub>2</sub>e)
- Scope 2 Greenhouse Gas Emissions (Market Based) (TonCO<sub>2</sub>e)
- Scope 3 Greenhouse Gas Emissions – Category 1 Emissions from Purchased Goods and Services (Ton CO<sub>2</sub>e)

Our assurance was with respect to the Selected Information marked with "✓" in the in the 2024 Carbon Footprint Mapping Across the Value Chain, and we have not performed any procedures with respect to earlier periods or any information other than Selected Information marked with "✓" in the 2024 Carbon Footprint Mapping Across the Value Chain and, any other elements included in the 2024 Carbon Footprint Mapping Across the Value Chain and, therefore, do not express any conclusion thereon.

**Criteria**

The criteria used by the Group to prepare the Selected Information is set out in section Anadolu Efes Biracılık ve Malt Sanayii A.Ş. Carbon Footprint Mapping Across the Value Chain- Reporting Principles (the "Reporting Principles") on pages 10, 11, 12, 13, 14, 15, 16 and 17 of the 2024 Carbon Footprint Mapping Across the Value Chain.

**The Group's Responsibility**

The Group is responsible for the content of the 2024 Carbon Footprint Mapping Across the Value Chain and the preparation of the Selected Information in accordance with the Reporting Principles. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Selected Information that is free from material misstatement, whether due to fraud or error.

**Inherent Limitations**

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information.

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time. It is important to read the Selected Information in the context of the Reporting Principles.

In particular, the conversion of different energy measures to megawatt-hour (MWh) and energy used to carbon emissions is based upon, inter alia, information and factors generated internally and/or derived by independent third parties as explained in the Reporting Principles. Our assurance work did not include examination of the derivation of those factors and other third-party information.



## Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standard on Quality Management 1 and accordingly maintains a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## Our Responsibility

Our responsibility is to form a limited assurance, based on limited assurance procedures, on whether anything has come to our attention that causes us to believe that the Selected Information has not been properly prepared in all material respects in accordance with the Reporting Principles. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information', and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement under ISAE 3000 (Revised) and ISAE 3410. Consequently, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

Given the circumstances of the engagement, in performing the procedures listed above we:

- made inquiries of the persons responsible for the Selected Information;
- understood the process for collecting and reporting the Selected Information. This included analysing the key processes and controls for managing and reporting the Selected Information;
- evaluated the source data used to prepare the Selected Information and re-performed selected examples of calculation;
- performed limited substantive testing on a selective basis of the preparation and collation of the Selected Information prepared by the Group and
- undertook analytical procedures over the reported data.

**Limited Assurance Conclusion**

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that Group's Selected Information for the year ended 31 December 2024, is not properly prepared, in all material respects, in accordance with the Reporting Principles.

**Restriction of use**

This report, including the conclusion, has been prepared for the Board of Directors of the Group as a body, to assist the Board of Directors in reporting Group's performance and activities related to the Selected Information. We permit the disclosure of this report within the 2024 Carbon Footprint Mapping Across the Value Chain for the year ended 31 December 2024, to enable the Board of Directors to demonstrate they have discharged their governance responsibilities by commissioning a limited assurance report in connection with the Selected Information. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors of Anadolu Efes Biracılık ve Malt Sanayii A.Ş. as a body and Anadolu Efes Biracılık ve Malt Sanayii A.Ş. for our work or this report save where terms are expressly agreed and with our prior consent in writing.

PwC Bağımsız Denetim ve  
Serbest Muhasebeci Mali Müşavirlik A.Ş.

**Baran Yılmaz, SMMM**  
Independent Auditor

Istanbul, 13 August 2025



ANADOLU  
EFES