جامعة عجمان
AJMAN UNIVERSITY

2025

SDG 13 CLIMATE ACTION

13.4.1 Commitment to carbon neutral university



THE GLOBAL GOALS

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Introduction

The transition to a net-zero economy is the defining challenge of the 21st century, and universities are no longer just observers of this transition; they are its architects. As hubs of scientific inquiry, societal influence, and vast physical infrastructure, higher education institutions hold a unique dual responsibility: to uncover the solutions of tomorrow while decarbonizing the campuses of today.

This report serves as an update on Ajman University's journey toward carbon neutrality by 2030 and net zero by 2050. While many institutions set targets, AU is focused on the mechanisms of delivery. We are moving beyond aspirational rhetoric by embedding climate action into our institutional DNA through these core pillars:

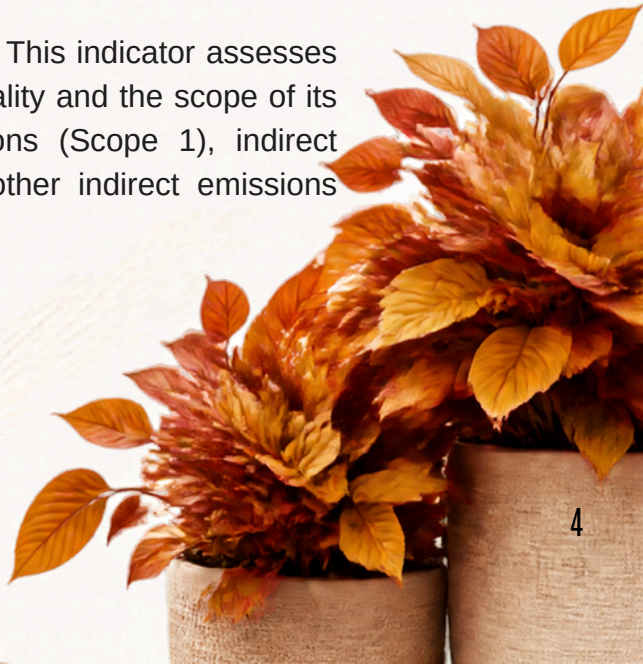
Scientific Rigor: Utilizing the Greenhouse Gas Protocol to track, measure, and publicly report Scope 1, 2, and 3 emissions with third-party verification.

Strategic Capital: Deploying innovative financial models to overhaul campus infrastructure without draining university capital.

Systemic Adaptation: Addressing the complex intersection of institutional growth (such as a 19.5% increase in student enrollment) with the need to decouple our carbon footprint from our campus expansion.

To evaluate the University's performance, we will focus on the following key indicator:

- **Commitment to Carbon Neutral University (13.4.1):** This indicator assesses the University's target date for achieving carbon neutrality and the scope of its emissions reduction efforts, including direct emissions (Scope 1), indirect emissions from purchased energy (Scope 2), and other indirect emissions (Scope 3).



Executive Summary

Ajman University's commitment to achieving carbon neutrality by 2030 and net zero by 2050 is backed by verifiable action, financial innovation, and transparent governance. Moving beyond aspirational policy, AU has successfully demonstrated its ability to decouple institutional growth from environmental impact.

Key performance highlights for the 2024–2025 academic year include:

- Significant Direct Reductions: Scope 1 (direct) emissions were successfully slashed by 20.86% compared to the baseline, driven by a 41% reduction in LPG use and a 48% drop in refrigerant leakage.
- Decoupling Growth from Carbon: Despite a 19.5% surge in student enrollment (from 6,515 to 7,783 students), AU achieved a 4.63% improvement in energy consumption per capita. This proves that our operational efficiency measures are outpacing rapid campus expansion.
- Financial Innovation & Capital Action: AU secured a fully financed AED 7.7 million Energy Performance Contract (zero capital outlay). This transformative retrofit across three major buildings is forecast to cut electricity use by 30.8% and avoid 1,894 tCO_2e annually.
- Rigorous Transparency: Our data is robust. All GHG inventories are aligned with the GHG Protocol and independently verified by third-party consultants (Axiomatic), while our retrofit savings are verified quarterly by independent engineers (Griffin).
- Science-Aligned Targets: AU has established clear, measurable pathways, including a 50% absolute emissions reduction by 2030, 100% renewable electricity by 2040, and 50% fleet electrification by 2030.

Message from our VCIPE

As we face the urgent challenge of climate change, our University is committed to taking bold and decisive action to reduce our carbon footprint.

"By setting ambitious targets for carbon neutrality, we are demonstrating our leadership in sustainability and our commitment to a greener future.

Achieving carbon neutrality for both Scope 1 and Scope 2 emissions is a significant milestone in our journey towards a sustainable campus. By implementing energy-efficient practices, reducing waste, and investing in solar power projects across campus, we are taking concrete steps to minimize our environmental impact.

We believe that by setting a strong example, we can inspire our students, faculty, and staff to embrace sustainable practices and contribute to a more sustainable world."



Ajman University is committed to become carbon neutral by 2030

PROF. MUSTAHSAN MIR
VICE-CHANCELLOR FOR INSTITUTIONAL PLANNING AND EFFECTIVENESS

13.4.1 Indicator:
Commitment to carbon neutral university

Ajman University's Climate & Sustainability Strategy 2022-2030

Ajman University is deeply committed to becoming a carbon-neutral institution. Our Climate & Sustainability Strategy 2022-2030 outlines a clear pathway to achieving this ambitious goal, aligning with the UAE's Green Agenda, Net Zero by 2050 Strategy, the National Climate Change Plan of the UAE 2017–2050, and the UN Sustainable Development Goals.

We have set a target to become carbon neutral by 2030, with a longer-term goal of reaching net zero emissions by 2050. This commitment is backed by our track record of achieving important sustainability milestones in recent years. Our dedicated team is driving forward a range of initiatives to reduce our greenhouse gas emissions across all scopes.

Scope 1 emissions from our own operations are being tackled through energy-efficient upgrades and a shift to renewable power. For Scope 2 emissions from purchased electricity, we are investing in on-site solar generation and procuring green tariffs. Scope 3 emissions from travel, procurement, and waste are being addressed through sustainable travel policies, supply chain engagement, and waste reduction initiatives.

Our progress towards carbon neutrality is being tracked and reported publicly in line with the Greenhouse Gas Protocol. We are committed to transparency and accountability in our climate action journey. By becoming a carbon-neutral university, we aim to make a significant contribution to national and global efforts to combat climate change.

Ajman University's commitment to carbon neutrality demonstrates its role as a leader in sustainable practices within the higher education sector.

The AU Climate and Sustainability Strategy 2022-2030 is a practical guide on how the University will deliver key climate commitments, such as reducing greenhouse gas emissions, supporting a carbon-neutral campus, reducing energy consumption, investing in energy optimization solutions and renewable energy, exploring new ways to decrease direct and indirect CO2 emissions, minimizing the environmental impact rating of the University activities and processes, and creating awareness on taking action for climate change. The strategy considers how to achieve resilience to the impacts of climate change across University operations and supports a smooth and fair transition to a low and eventually zero carbon future.



This comprehensive strategy outlines a clear path for achieving our climate goals. Learn more about key initiatives like:

- Reducing greenhouse gas emissions
- Creating a carbon-neutral campus
- Lowering energy consumption
- Investing in energy-saving solutions and renewable energy
- Exploring innovative methods to minimize CO2 emissions
- Reducing the environmental impact of university operations
- Raising awareness about climate action



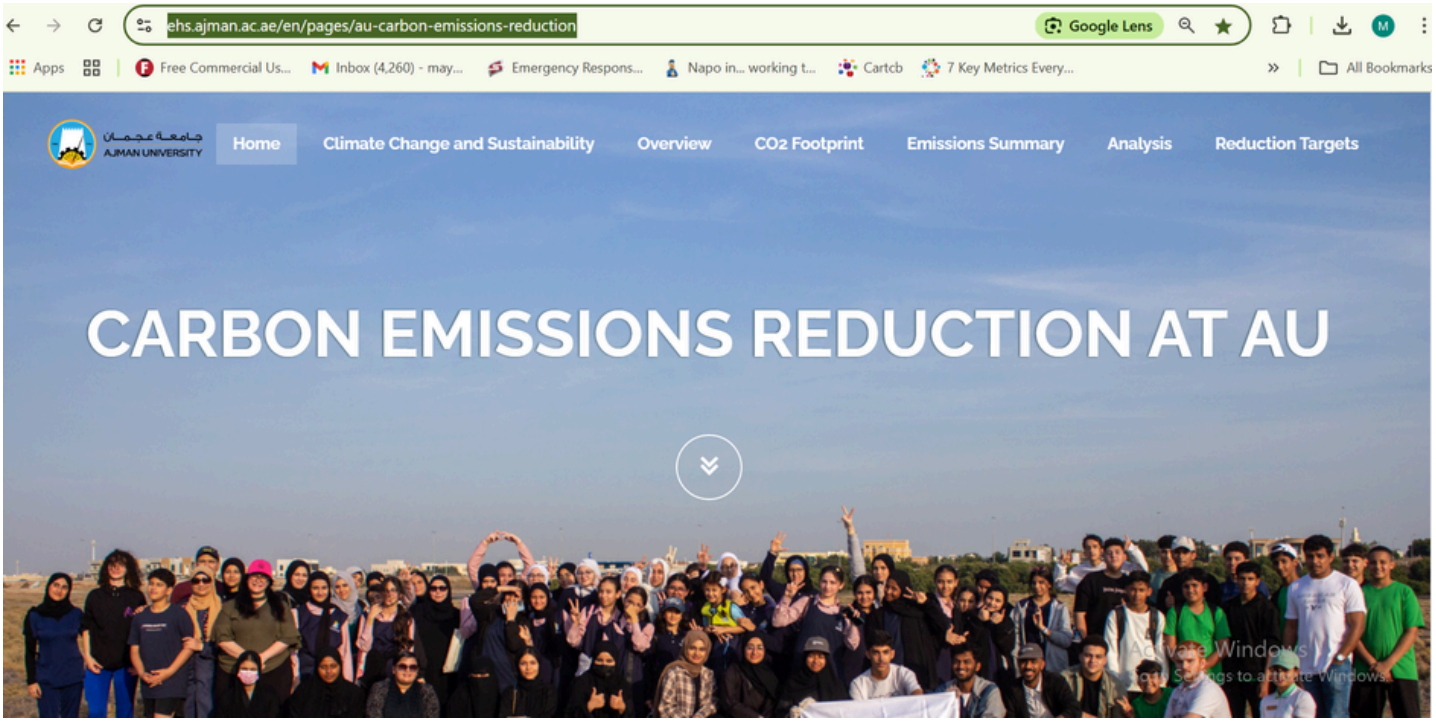
The strategy also addresses building resilience against climate change impacts and transitioning towards a low-carbon future.

https://sustainablecampus.ajman.ac.ae/en/

https://www.ajman.ac.ae/upload/files/ehs/AU_Climate__Sustainability_Strategy_Document_2022_2030.pdf

https://www.educationracetozero.org/current-signatories

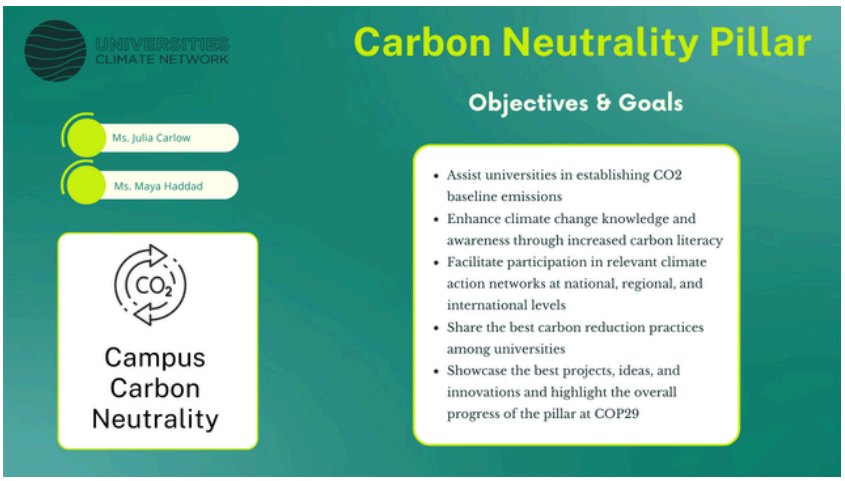
https://ehs.ajman.ac.ae/en/pages/au-carbon-emissions-reduction



Strategic Commitment to Carbon Neutrality

Ajman University recognizes the critical role that higher education institutions must play in addressing the urgent threat of climate change. As a responsible and forward-looking institution, AU is strategically committed to carbon neutrality.

- **Strategic Plan Integration:** To ensure accountability, AU has integrated the objective of carbon neutrality directly into its Strategic Plan 2022–2027 under the primary goal of "Institutional Sustainability." This ensures that climate action is not siloed within a single department, but rather cascaded as a formal Key Performance Indicator (KPI) across multiple operational and academic offices. This governance structure is championed by senior leadership, including the Vice-Chancellor for Institutional Planning and Effectiveness (VCIPE) and the Vice-Chancellor for Financial and Administrative Affairs (VCFAA), ensuring that climate action is backed by both academic rigor and financial resources.
- **Climate & Sustainability Strategy 2022–2030:** This practical guide outlines how the University will deliver key climate commitments, including reducing GHG emissions, supporting a carbon-neutral campus, investing in energy optimization and renewable energy, and minimizing the environmental impact of University activities.
- **National Alignment:** Our strategy aligns with the UAE Green Agenda, the National Climate Change Plan of the UAE 2017–2050, and the UN Sustainable Development Goals.
- **Sector Leadership:** Beyond our campus boundaries, AU is actively shaping the regional response to climate change. Our Sustainability Manager holds a leadership role in the UAE Universities Climate Network, spearheading the Carbon Neutrality/Campus Decarbonization Pillar. In this capacity, AU is assisting other institutions in establishing their own CO2 baseline emissions, enhancing climate literacy, and sharing best practices to accelerate the decarbonization of the higher education sector across the Emirates.



Carbon Accounting Methodology & Institutional Boundary

To ensure that our commitment to carbon neutrality is credible, Ajman University (AU) adheres to the most rigorous international standards for greenhouse gas (GHG) accounting. We do not rely on estimates or theoretical models; instead, our carbon footprint is calculated using empirical data, verified by independent third parties, and reported transparently. This robust framework ensures that every tonne of CO_2e we claim to have reduced is traceable and verifiable.

The Accounting Framework

AU strictly utilizes the Greenhouse Gas Protocol (GHG Protocol) Corporate Accounting and Reporting Standard, developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). This is the globally recognized gold standard for carbon accounting. Where applicable, our methodologies are further informed by guidelines from the Intergovernmental Panel on Climate Change (IPCC), the International Organization for Standardization (ISO 14001), and the UK Government's greenhouse gas conversion factors.

Institutional Boundary and Operational Control

AU applies the **Operational Control** approach to define its institutional boundary. This means that we account for 100% of the emissions from operations over which the University has full authority to introduce and implement operating policies.

- **Physical Boundary:** The inventory encompasses all 13 buildings on our 215,000 m² campus, including academic facilities, administrative offices, research labs, student dormitories, on-campus cafes, and sports complexes.
- **Operational Boundary:** The inventory includes all university-owned or controlled mobile fleets (buses, maintenance vehicles, and mobile dental clinics), on-site stationary combustion (such as the LPG used by the College of Dentistry), purchased electricity, and university-managed water consumption.

Comprehensive Scope Definition

To provide a complete picture of our climate impact, AU measures emissions across all three scopes:

- **Scope 1 (Direct Emissions):** Includes stationary combustion (LPG), mobile combustion (petrol and diesel from the university fleet), and fugitive emissions (refrigerant leakage from HVAC systems).



- **Scope 2 (Indirect Emissions from Purchased Energy):** Covers all purchased electricity consumed across the campus. Given the climate in the UAE, the vast majority of this electricity is utilized for cooling and HVAC operations, making our energy efficiency retrofits a primary driver of Scope 2 reduction.
- **Scope 3 (Indirect Value-Chain Emissions):** AU is committed to a comprehensive Scope 3 inventory. Our reporting includes seven upstream categories: Purchased Goods and Services, Capital Goods, Fuel and Energy-Related Activities (including T&D losses), Upstream Transportation and Distribution, Waste Generated in Operations, Business Travel, and Employee/Student Commuting.

Data Collection, Quality, and Verification

Data integrity is the foundation of our reporting. AU utilizes a hybrid data collection model:

- **Utility Data:** Electricity and water consumption are collected via utility bills and sub-metering systems, including our new Building Management System (BMS) installed as part of the Energy Retrofit Project.
- **Fleet & Refrigerants**: Fuel consumption is tracked via fuel cards and internal logs, while refrigerant top-ups are meticulously recorded by facilities management.
- **Scope 3 Data:** Employee and student commuting is calculated using statistically significant annual commuter surveys, extrapolated across the campus population. Purchased goods and services are calculated using a hybrid life-cycle assessment approach (prioritizing physical quantities where available and expenditure-based factors where not).

Independent Third-Party Assurance

To eliminate any risk of greenwashing and to ensure the highest level of accountability, AU's GHG inventory is calculated and reviewed by Axiomatic (FZC), an independent environmental consultancy. Axiomatic conducts a rigorous review of our activity data, applies the applicable UAE grid emission factors and global warming potentials (GWPs), and generates our annual GHG Inventory Reports.

Baseline Recalculation Policy

To maintain year-over-year comparability, AU employs a strict baseline recalculation policy. The 2021–2022 academic year remains our formal baseline. However, we recognize the contextual anomaly of the COVID-19 pandemic, which artificially suppressed baseline emissions. To provide a more accurate reflection of our operational progress, we also evaluate our performance against normalized indicators and post-pandemic reference years. This dual approach ensures that we are transparent about our historical context while accurately tracking the impact of our current decarbonization initiatives.

Greenhouse Gas Inventory Performance (2021-2025)

Overall Emissions Summary

TABLE 1: ANNUAL GHG EMISSIONS BY SCOPE (TCO_2E)

Scope	2021-2022 Baseline	2022–2023	2023–2024	2024–2025 Performance	% Change vs. Baseline
Scope 1 (Direct)	1,240.36	966.64	1,090.23	**981.65**	**-20.86%**
Scope 2 (Indirect – Electricity)	12,576.39	12,586.35	12,469.78	**12,801.41**	**+1.79%**
Scope 3 (Indirect – Value Chain)	11,654.99	17,232.15	11,706.58	**12,897.50**	**+10.66%**
Total	**25,471.74**	**30,785.14**	**25,266.59**	**26,680.56**	**+4.75%**

Analysis: Total emissions peaked in 2022–2023 as full campus operations resumed, but have since stabilized and trended downward. The 2024–2025 variance is largely driven by campus population growth, while operational efficiency has significantly improved.

Scope 1 & 2 Performance

- **Scope 1:** Demonstrated the greatest improvement, decreasing by 20.86% to 981.65 tCO_2e. This is attributed to a 41.06% reduction in LPG emissions and a 48.44% reduction in refrigerant leakage.
- **Scope 2:** Remained stable at 12,801.41 tCO_2e (+1.79%). However, energy consumption per capita decreased from 3,425.94 kWh to 3,267.19 kWh (a 4.63% improvement), proving that the University is using energy more efficiently even as the campus population grows.

Scope 3 Performance & Institutional Growth

Scope 3 emissions increased by 10.66% to 12,897.50 tCO_2e. The primary driver of this increase is Category 7: Employee & Student Commuting, which rose to 7,618.52 tCO_2e.

Justification for Commuting Increase:

This increase is not a failure of sustainability policy, but a direct mathematical consequence of rapid institutional growth. Between the 2021–2022 baseline and the 2024–2025 performance year, Ajman University experienced a 19.5% increase in total student enrollment (from 6,515 to 7,783 students). Naturally, a larger campus population results in higher daily commuting volumes.

Furthermore, the baseline year coincided with partial COVID-19 lockdowns, where campus attendance was artificially restricted. The 2024–2025 data represents normal, full-capacity operations. This growth was significantly offset by a 90.88% reduction in capital goods emissions (from 6,414.70 to 584.97 tCO_2e) due to lower major equipment procurement.



The Strategic Importance

Defining and reporting on Scopes 1, 2, and 3 is not just an accounting exercise. It is the critical first step in effective climate action. By understanding the full breakdown of its emissions, Ajman University can:

- Identify Hotspots: Pinpoint the most significant sources of emissions to prioritize reduction efforts.
- Set Meaningful Targets: Establish science-based or strategic targets for carbon reduction that address all relevant scopes.
- Manage Risks and Opportunities: Uncover risks in the supply chain and identify opportunities for efficiency, innovation, and cost savings.
- Demonstrate Leadership: Provide transparent accountability to stakeholders including students, faculty, government, and the public on its environmental performance and commitment to a sustainable future.

To view a copy of the detailed GHG Inventory Reports from 2020 to 2025, please refer to the below reports:

GHG Inventory Report for Year (2020-2022):

https://ehs.ajman.ac.ae/upload/files/ehs/AU_GHG_Inventory_Report_-_Final_(2020_-_2022).pdf

GHG Inventory Report for Year (2022-2023):

https://ehs.ajman.ac.ae/upload/files/ehs/AU_GHG_Inventory_Report_-_Final_2022_-_2023_(Revised_23_Oct_2025).pdf

GHG Inventory Report for Year (2023-2024):

https://ehs.ajman.ac.ae/upload/files/ehs/AU_GHG_Inventory_Report_Final_2023_-_2024_(Revised_Oct_2025)_2.pdf

GHG Inventory Report for Year (2024-2025):

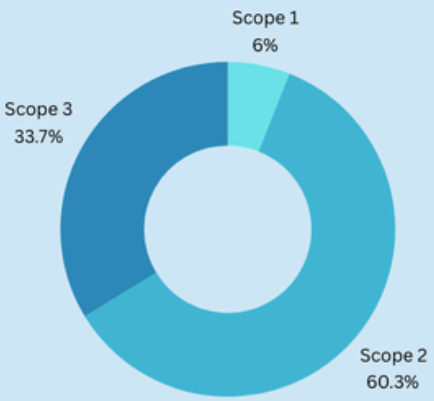
https://sustainablecampus.ajman.ac.ae/upload/files/ehs/AU_GHG_Inventory_Report_2021_-_2025.pdf



TABLE 2. SUMMARY OF SCOPE 1, SCOPE 2 AND SCOPE 3 GHG EMISSIONS DURING 2021 – 2022

Description	GHG Emission (tCO2e)	% of Total
Scope 1: Direct GHG Emission	1,240.36(1,240,360 KgCO2e)	6
Scope 2: Indirect GHG Emission	12,576.450 (12,576,450 KgCO2e)	60.3
Scope 3: Indirect GHG Emission*	7,034.360 (7,034,360 KgCO2e)	33.7
Total	20,851.170 (20,851,170 KgCO2e)	100

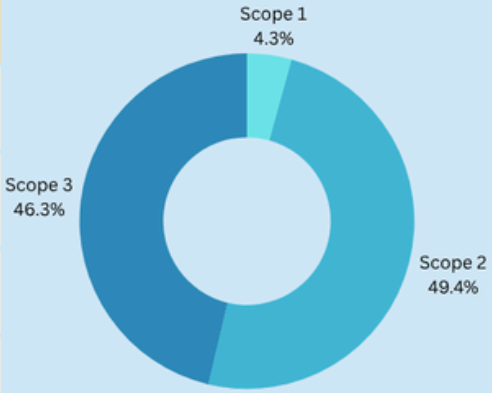
*Excluding data for business travel



BASE YEAR

TABLE 2. SUMMARY OF SCOPE 1, SCOPE 2 AND SCOPE 3 GHG EMISSIONS DURING 2023 – 2024

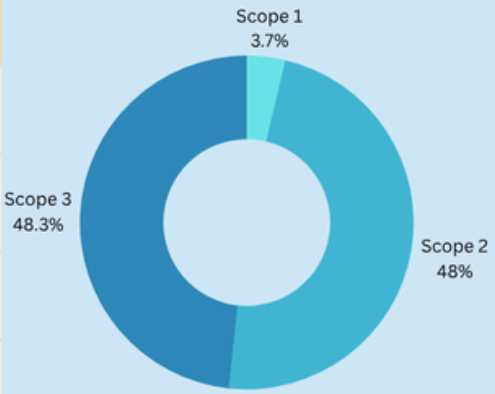
Description	GHG Emission (tCO2e)	% of Total
Scope 1: Direct GHG Emission	1090.20 (1,980,200 KgCO2e)	4.3
Scope 2: Indirect GHG Emission	12,469.80 (12,469,800 KgCO2e)	49.4
Scope 3: Indirect GHG Emission	11,706.53 (11,706,530 KgCO2e)	46.3
Total	25,266.53 (25,266,530 KgCO2e)	100



PREVIOUS YEAR

TABLE 2. SUMMARY OF SCOPE 1, SCOPE 2 AND SCOPE 3 GHG EMISSIONS DURING 2024 – 2025

Description	GHG Emission (tCO2e)	% of Total
Scope 1: Direct GHG Emission	981.65 (981,650 KgCO2e)	3.7
Scope 2: Indirect GHG Emission	12,801.41 (12,801,410 KgCO2e)	48
Scope 3: Indirect GHG Emission	12,897.50 (12,897,500 KgCO2e)	48.3
Total	26,680.56 (26,680,560 KgCO2e)	100



PERFORMANCE YEAR

Summary Findings (Years: 2020-2021 and 2021-2022)

Summary of Scope 1 Findings

Scope 1 direct GHG emissions attributed to Ajman University, occurred from the stationary combustion of LPG, and the mobile combustion of petrol and diesel-operated cars, buses, pickups, trucks, and mobile dental clinics owned by AU. Below is a summary of the findings

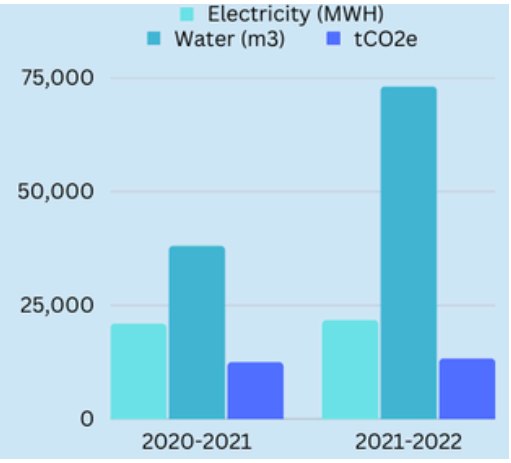
1. The GHG emissions from all sources, stationary and mobile, during the year 2020 – 2021 are lower than those during 2021 – 2022. This could be attributed to the fact that the period 2020-2021 was the lockdown period in the UAE. Teaching and administrative work were conducted online.
2. However, the GHG emissions from the consumption of LPG are the same in both periods. The reason is that the College of Dentistry, which consumes the LPG, was operational during the lockdown years.
3. The carbon emissions from the mobile combustion of diesel, in both years, are higher than the carbon emissions from the combustion of petrol. This may be attributed to the number of buses used for transportation.
4. The carbon emission from the consumption of LPG is the highest, compared to the mobile of combustion of petrol and diesel.

Summary of Scope 2 Findings

Scope 2 indirect GHG emissions attributed to Ajman University, occurred from the consumption of electricity and water.

The following table summarizes the electricity and water consumptions at AU during the periods of 2020 – 2021 and 2021 – 2022, with the associated carbon emission expressed in metric tons of CO2 equivalent.

Year	2020 - 2021		2021 - 2022		
Source	Consumption	tCO2e	Consumption	tCO2e	% Increase
Electricity (MWH)	20,930	12,100	21,755	12,576	3.9%
Water (m3)	37,966	402	73,026	774	92.5%
Total		12,502		13,350	**6.8%**



Summary of Scope 3 Findings

Scope 3 indirect GHG emissions attributed to Ajman University, occurred from the consumptions of upstream activities listed in the following table:

TABLE 3 .LIST OF UPSTREAM ACTIVITIES 2021 – 2022

Activity	Emission Sources	Status
Purchased goods and services	Food & Beverages, Printing Papers, Toilet Papers, Tissue Papers, Water and Cloud Services	Included
Capital goods	IT Equipment, Office Furniture, Medical Equipment	Included
Fuel -and energy-related activities	Transmission and Distribution (T&D) losses of purchased electricity	Included
Upstream T&D	T&D of purchased good and capital goods	Included
Waste generated in operations	Wastewater, General Waste, Medical Waste, Food Waste, Paper Waste	Included
Business travel	Travel and accommodation of employees/ contactors	Not Included
Employee commuting	Employee commuting from and to AU	Included



Summary Findings (Year: 2022-2023)

Summary of Scope 1 Findings

Scope 1 direct GHG emissions attributed to Ajman University, occurred from the stationary combustion of LPG, and the mobile combustion of petrol and diesel-operated cars, buses, pickups, trucks, and mobile dental clinics owned by AU. Below is a summary of the findings:

1. The GHG emissions from all sources, stationary and mobile, during the year 2022 – 2023 are lower than those during 2021 – 2022, by 22%.
2. GHG emissions from LP are lower in 2022-2023 due to the lower consumption of LPG.
3. Similarly, the emission from mobile combustions is lower in 2022-2023 due to lower consumption of petrol and diesel. These emissions could be further reduced by replacing the existing vehicles with EVs and/or hybrid cars. Research by the European Energy Agency found that the carbon emission of an electric car is around 17 – 30% lower than driving a petrol or diesel car. This means that the GHG emissions of 144.26 tCO2e (table 15), would be reduced by 34 tCO2e.
4. The emissions from the mobile combustion of diesel, in both years, are higher than the emissions from the combustion of petrol. This may be attributed to the number of buses used for transportation.
5. The emission from the consumption of LPG and refrigerant leakage is the highest, compared to the mobile of combustion of petrol and diesel.

Summary of Scope 2 Findings

Scope 2 indirect GHG emissions attributed to Ajman University, occurred from the consumption of electricity from 13 buildings:

1. The GHG emissions due to purchased electricity remain almost the same as in the baseline year, albeit with an increase of 0.1%.
2. The GHG emissions of 58% of the sources are above 1000 tCO2e.
3. The GHG emissions of 50% of the sources in the performance year are less than those in the Baseline year.

Ajman University has secured the following achievements in emission reductions in the performance year (2002-2023), in reference to the baseline year (2021-2022):

1. The emission related to the consumption of LPG has been reduced by 32%.
2. The emission related to the consumption of petrol has been reduced by 19%.
3. The emission related to the consumption of diesel has been reduced by 11%.
4. The emission related to capital goods has been reduced by 10.59%.
5. The emission related to energy-related activities has been reduced by 2.18%.
6. The emission related to the waste generated in operations has been reduced by 23%.
7. The scope 1 emission has been reduced by 22%.
8. The emission of scope 1 + scope 2 has been reduced by 1.91%.
9. The total emission (scope 1, 2, and 3) has been reduced by 1.04%.

Summary of Scope 3 Findings

Scope 3 indirect GHG emissions attributed to Ajman University, occurred from the consumptions of upstream activities listed in the following table:

TABLE 3 .LIST OF UPSTREAM ACTIVITIES 2022 – 2023

Activity	Emission Sources	Status
Purchased goods and services	Food & Beverages, Printing Papers, Toilet Papers, Tissue Papers, Water and Cloud Services	Included
Capital goods	IT Equipment, Office Furniture, Medical Equipment	Included
Fuel -and energy-related activities	Transmission and Distribution (T&D) losses of purchased electricity	Included
Upstream T&D	T&D of purchased good and capital goods	Included
Waste generated in operations	Wastewater, General Waste, Medical Waste, Food Waste, Paper Waste	Included
Business travel	Travel and accommodation of employees/ contactors	Included
Employee commuting	Employee commuting from and to AU	Included



Summary Findings (Year: 2023-2024)

Summary of Scope 1 Findings

Scope 1 direct GHG emissions attributed to Ajman University, occurred from the stationary combustion of LPG, and the mobile combustion of petrol and diesel-operated cars, buses, pickups, trucks, and mobile dental clinics owned by AU. Below is a summary of the findings:

1. Total GHG emissions from all sources—both stationary and mobile—in 2023–2024 are 12% lower than in 2021–2022, although they are higher than in 2022–2023.
2. GHG emissions from LPG in 2023–2024 are lower than in the baseline year.
3. Emissions from mobile combustion (petrol and diesel) are significantly higher than in 2022–2023 and 2021–2022. These emissions could be further reduced by replacing current vehicles with electric or hybrid models. Research by the European Energy Agency indicates that electric vehicles produce 17–30% less carbon emissions compared to petrol or diesel vehicles.

Summary of Scope 2 Findings

Scope 2 indirect GHG emissions attributed to Ajman University, occurred from the consumption of electricity from 13 buildings:

1. GHG emissions from purchased electricity have remained nearly constant compared to the baseline year, showing a slight decrease of 0.85%, and a 0.93% reduction compared to the previous year. This indicates stable electricity consumption and consistent energy efficiency performance.
2. GHG emissions from electricity consumption in 33% of the buildings are lower than in the baseline year.
3. GHG emissions from electricity consumption in 17% of the buildings are significantly higher in the performance year compared to the baseline year.

Ajman University has secured the following achievements in emission reductions in the performance year (2023-2024), in reference to the baseline year (2021-2022):

1. The emission related to the consumption of LPG has been reduced by 35.13%.
2. The emission related to capital goods has been reduced by 10%.
3. The scope 1 emission has been reduced by 12.10%.
4. The scope 2 emission has been reduced by 1%.
5. The emission of scope 1 + scope 2 has been reduced by 1.86%.
6. The emission related to wastewater has been reduced by 41.95%.
7. The emission related to Plastic waste has been reduced by 57.92%.
8. The emission related to Food waste has been reduced by 15.99%.
9. The emission related to waste has been reduced by 46%
10. The emission related to business travel has been reduced by 76.72%.
11. The emission related to employee commuting has been reduced by 3.40%.

Summary of Scope 3 Findings

Scope 3 indirect GHG emissions attributed to Ajman University, occurred from the consumptions of upstream activities listed in the following table:

TABLE 3 .LIST OF UPSTREAM ACTIVITIES 2023 – 2024

Activity	Emission Sources	Status
Purchased goods and services	Food & Beverages, Printing Papers, Toilet Papers, Tissue Papers, Water and Cloud Services	Included
Capital goods	IT Equipment, Office Furniture, Medical Equipment	Included
Fuel -and energy-related activities	Transmission and Distribution (T&D) losses of purchased electricity	Included
Upstream T&D	T&D of purchased good and capital goods	Included
Waste generated in operations	Wastewater, General Waste, Medical Waste, Food Waste, Paper Waste	Included
Business travel	Travel and accommodation of employees/ contactors	Included
Employee commuting	Employee commuting from and to AU	Included



Summary Findings (Year: 2024-2025)

Summary of Scope 1 Findings

The following summary presents the key trends in AU's Scope 1 emissions from the 2021–2022 baseline year to the 2024–2025 performance year, as shown in the table and chart above. It highlights the main changes in stationary, fugitive, and mobile emission sources over the four years:

1. Total Scope 1 emissions decreased by 20.86%, from 1,240.36 tCO_2e in 2021–2022 to 981.65 tCO_2e in 2024–2025, despite fluctuations during the comparative years.
2. Stationary-combustion and fugitive emissions declined by 42.16%, from 1,073.13 tCO_2e to 620.74 tCO_2e, and remained the largest component of Scope 1 emissions.
3. LPG emissions recorded a sustained reduction of 41.06%, falling from 778.88 tCO_2e in the baseline year to 459.00 tCO_2e in the performance year.
4. Refrigerant-leakage emissions decreased by 48.44% to 151.71 tCO_2e, while 9.90 tCO_2e of nitrous oxide emissions were reported for the first time in 2024–2025. Stationary diesel and heating oil were not applicable.
5. Mobile-combustion emissions increased by 115.81%, from 167.23 tCO_2e to 360.91 tCO_2e, driven by increases of 80.78% in petrol emissions and 131.74% in diesel emissions compared with the baseline.

Summary of Scope 2 Findings

1. Total Scope 2 emissions increased slightly from 12,576.39 tCO_2e in 2021–2022 to 12,801.41 tCO_2e in 2024–2025, representing a recalculated increase of approximately 1.79% from the baseline.
2. Annual emissions were relatively stable during the first three years, increasing by only 0.08% in 2022–2023 and decreasing by 0.93% in 2023–2024, before rising by 2.66% in 2024–2025.
3. The largest reductions from the baseline occurred at 4083 J2, 4089 J2, and 4088 J2, where emissions declined by approximately 25.29%, 19.10%, and 14.95%, respectively.
4. The largest increase occurred at 5614 S. Hub, where emissions rose from 1,383.92 tCO_2e to 1,854.65 tCO_2e, an increase of approximately 34.01%. Emissions at 4086 J1 also increased materially by approximately 22.18%.
5. SZC, J2 + S. Field, J1 + Labor Camp, both female hostels, and the Sports Complex recorded moderate increases, indicating that energy-efficiency gains were not consistent across all buildings.
6. In 2024–2025, 5614 S. Hub was the largest individual Scope 2 source, followed by 4092 Female Hostel, J2 + S. Field, SZC, 4083 J2, and 4086 J1.
7. The overall result indicates limited progress in reducing electricity-related emissions, as reductions in several buildings were insufficient to offset rising emissions in the highest-consuming facilities. Priority attention may therefore be directed toward 5614 S. Hub, 4086 J1, 4092 Female Hostel, SZC, and J2 + S. Field.

Summary of Scope 3 Findings

Scope 3 indirect GHG emissions attributed to Ajman University, occurred from the consumptions of upstream activities listed in the following table:

TABLE 3 .LIST OF UPSTREAM ACTIVITIES 2024 – 2025

Activity	Emission Sources	Status
Purchased goods and services	Food & Beverages, Printing Papers, Toilet Papers, Tissue Papers. Water supply, Bottled Water, Cloud Services	Included
Capital goods	IT Equipment, Office Furniture, Medical Equipment	Included
Fuel -and energy-related activities	Upstream LPG, Petrol, Diesel and Purchased-Electricity emissions, including electricity T&D losses	Included
Upstream T&D	T&D of Purchased Good	Included
Waste generated in operations	Wastewater, General Waste, Medical Waste, Food Waste, Paper Waste	Included
Business travel	Travel and accommodation of employees/ contactors	Included
Employee commuting	Employee and Student commuting from and to AU	Included



Reduction Targets

While direct operations (Scope 1) and purchased energy (Scope 2) are foundational to our carbon mitigation strategy, Ajman University recognizes that our true environmental impact extends far beyond our campus walls. Our most significant carbon footprint lies within our value chain; these are our Scope 3 emissions.

Scope 3 encompasses all indirect greenhouse gas (GHG) emissions, a complex web of activities from the extraction of raw materials to the end-of-life of the products we use. This includes:

- Upstream: Procurement of goods and services, capital equipment, fuel, and energy-related activities not covered in Scope 2, business travel, employee commuting, and waste generated in operations.
- Downstream: Transportation and distribution of our products, the use of sold products, end-of-life treatment of sold products, and investments.

Addressing Scope 3 is not just an add-on; it is a fundamental imperative for any institution serious about achieving net zero and building resilience against climate risks. The Greenhouse Gas Protocol categorizes these emissions to provide a complete picture of our contribution to global warming, driven by the rising atmospheric concentration of carbon dioxide, methane, and other gases like chlorofluorocarbons.

Our Integrated Strategy for Scope 3 Mitigation

Our commitment to a profound decrease of greenhouse gas emissions across our value chain is embedded in our core climate policy. We are moving beyond mere measurement to active mitigation and adaptation through a multi-faceted approach:

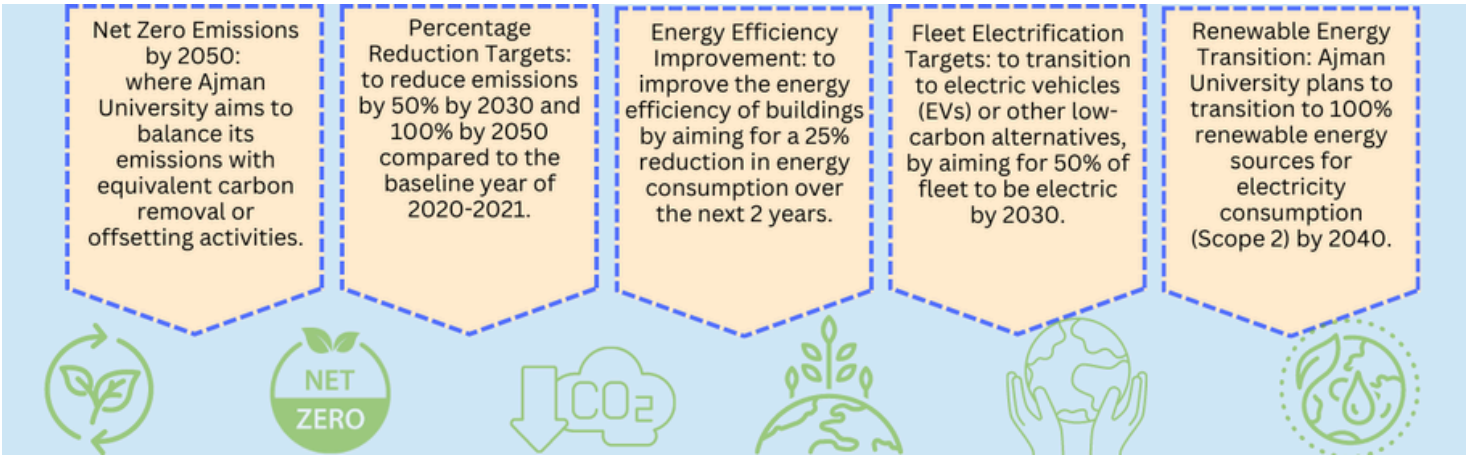
- Sustainable Procurement: We are leveraging our purchasing power to prioritize suppliers committed to energy efficiency, renewable energy, and zero-emissions logistics, thereby reducing embedded carbon emissions in our supply chain
- Advancing a Circular Economy: We are minimizing waste and promoting recycling and reuse across all operations, directly tackling emissions from landfill methane and resource extraction.
- Greening Our Commute and Travel: We are incentivizing low-carbon commuting for our staff and students and integrating sustainability criteria into our business travel policies.
- Investing in Natural Solutions: We champion urban forestry and green infrastructure on campus and in our community, enhancing natural carbon sequestration while providing cooling effects to counter rising temperature.
- Driving Innovation and Efficiency: Our research and operations are focused on energy conservation, the potential of carbon capture technologies, and a transition away from fossil fuels.

By analyzing a wide range of data and modeling various sustainability scenarios, we can make informed predictions and strategically allocate resources for maximum impact. This comprehensive effort is our proactive response to the threat of climate change disaster, ensuring we are part of the global solution.

Ajman University is committed to setting ambitious carbon reduction targets covering Scope 1, 2 and 3 emissions in alignment with the urgency to combat climate change. These targets vary in terms of their specific emission reduction goals, timelines, and strategies, but they all share a common aim of transitioning to a low-carbon economy and reducing dependence on fossil fuels. Ajman University is focusing on reduction targets for its Scope 3 emissions. These include emissions from business travel, procurement, waste, and other indirect sources. While more challenging to measure and influence, Scope 3 emissions represent a significant portion of our overall carbon footprint. We are implementing strategies to reduce Scope 3 emissions, such as promoting sustainable travel options, engaging with suppliers on their emissions performance, and minimizing waste and emissions throughout our supply chain. By taking a comprehensive approach to emissions reduction across all scopes, Ajman University is demonstrating its commitment to achieving carbon neutrality and contributing to a more sustainable future.

By achieving these targets, Ajman University will make a significant contribution to national and global efforts to limit warming to 1.5°C above pre-industrial levels, as recommended by the Intergovernmental Panel on Climate Change (IPCC). We are committed to tracking our progress transparently and to continually refining our strategies to ensure we meet our emissions reduction goals. This will involve regular monitoring and reporting of our emissions, as well as seeking opportunities for innovation and improvement in our sustainability practices.

Through our commitment to reducing Scope 1, 2, and 3 emissions, Ajman University is demonstrating its leadership in climate action within the higher education sector. We recognize that universities have a critical role to play in modeling sustainable practices, building awareness, and developing the solutions that will be needed to combat climate change. By achieving carbon neutrality, we aim to create a sustainable and resilient future for our students, staff, and the wider community.



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