

Ajman University GHG Emissions (3-Year Period)

The following table shows the efforts made by the Ajman University (AU) Office of Sustainability in managing and reducing the AU's GHG emissions during the previous three years, based on our reporting and recommended reduction strategy:

Description	Baseline Year 2021-2022 (tCO ₂ e)	2022-2023 (tCO ₂ e)	Year-on-Year Change	Performance Year 2023-2024 (tCO ₂ e)	Year-on-Year Change	% Difference Baseline Year
Scope 1: Direct GHG Emission	1,240.36	966.6	-22.07%	1,090.2	12.79%	-12.10%
Scope 2: Indirect GHG Emission	12,576.45	12,586.4	0.08%	12,469.8	-0.93%	-0.85%
Scope 3: Indirect GHG Emission	7,661.86	7,703.3	0.54%	11,965.3	55.33%	56.17%
Total GHG Emissions	21,478.67	21,258.8	-1.02%	25,525.3	20.07%	18.84%
Source	2021-2022 (tCO ₂ e)	2022-2023 (tCO ₂ e)	Year-on-Year Change	2023-2024 (tCO ₂ e)	Year-on-Year Change	% Difference Baseline Year
LPG	778.88	528.13	-32.19%	505.25	-4.33%	-35.13%
Refrigerant Leakage	294.25	294.25	0.00%	308.97	5.00%	5.00%
Petrol	52.27	42.11	-19.44%	78.71	86.92%	50.58%
Diesel	114.96	102.15	-11.14%	197.3	93.15%	71.62%
Purchased Goods	118.78	682.95	474.97%	2,467.96	261.37%	1977.75%
Capital Assets	6740.85	6026.99	-10.59%	6,054.61	0.46%	-10.18%
TD Loss	1.83	7.08	286.89%	7.26	2.54%	296.72%
Waste	20.92	11.11	-46.89%	11.30	1.74%	-45.97%
Business Travel	604.85	806.46	33.33%	140.83	-82.54%	-76.72%
Employee Commuting	15.60	15.75	0.96%	15.07	-4.32%	-3.40%
WTT (Well-To-Tank)	158.98	155.51	-2.18%	3,268.30	2001.67%	1955.79%

Key Observations

- **Overall Emissions Control**

Total GHG emissions remained broadly stable over the three-year period, with a marginal decline in 2022–2023 (–1.02%) and a moderate rise in 2023–2024 (+20.07%) primarily due to expanded Scope 3 accounting. AU continues to demonstrate effective control of its operational (Scope 1 and Scope 2) emissions.

- **Scope 1 and Scope 2 Improvements**

Direct emissions (Scope 1) decreased by **12.1%** from the baseline year. Indirect energy emissions (Scope 2) remained consistent, with only a **0.85%** reduction, indicating stable electricity consumption and sustained energy efficiency performance.

- **Growth in Scope 3 Emissions**

A significant increase of **55.3%** was observed in Scope 3 emissions during 2023–2024, with respect to the previous year. This rise is primarily attributed to more comprehensive data coverage and the inclusion of upstream activities (Purchased Goods and Well-to-Tank),

which represent improved transparency and reporting completeness rather than a deterioration in performance.

- **Energy and Fuel Trends**

LPG emissions declined by **35%**, confirming progress in reducing dependence on fossil fuels for thermal energy. Diesel and petrol emissions increased in 2023–2024, due to higher logistics, though overall Scope 1 control remains robust.

- **Operational Efficiencies**

Emissions from waste and employee commuting remained low and stable, while waste-related emissions dropped by **46%**, highlighting the effectiveness of waste reduction and recycling practices.

- **Procurement and Supply Chain Influence**

Purchased goods emissions rose sharply (+1,978%) in 2023–2024, emerging as a key area for future mitigation. This change reflects more comprehensive Scope 3 boundary accounting, aligning the AU with GHG Protocol best practices for supply-chain disclosure.

- **Data Quality and Maturity**

The increase in indirect (Scope 3) emissions signals an **advancement in the AU's data maturity**, incorporating upstream and embodied carbon data that were previously underrepresented.

- **Alignment with Net Zero Pathway**

The consistent management of Scopes 1 and 2, coupled with improved Scope 3 reporting, demonstrates that the organization is **progressively transitioning toward a comprehensive Net Zero strategy** based on accurate measurement, operational efficiency, and supply-chain engagement.

Recommendations

1. Axosomatic recommends considering the replacement of vehicles with hybrid and/or electric vehicles (EVs).
2. Carbon emissions from refrigerant leakage are based on an estimated leakage rate.
 - Axosomatic recommends measuring refrigerant top-up amounts to record actual leakage.
 - Axosomatic suggests that AU implement the recommended actions from our previous report to reduce electricity consumption.
3. We recommend that AU deal with suppliers that are GHG compliant to reduce emissions related to some sources of scope 3.
4. Regarding the annual SBTi reduction target, we recommend that AU continue adopting our reduction strategy to meet the requirements of SBTi.

Ajman University has made substantial progress in reducing its GHG emissions in several areas, in line with the 1.5°C global goal. Direct (Scope 1) and energy-related (Scope 2) emissions have both declined compared to the baseline year, reflecting improved operational efficiency, optimized fuel consumption, and sustained energy management practices. Significant reductions in LPG use and waste-related emissions demonstrate the university's commitment to sustainability and resource efficiency across campus operations.

While Scope 3 emissions increased due to the inclusion of TD Loss, the comprehensive Well-to-Tank calculation reflects enhanced transparency and a more thorough accounting framework aligned with the GHG Protocol. Overall, Ajman University continues to strengthen its carbon management system, integrating sustainability into its planning and operations, and remains firmly on track to achieve Net Zero in alignment with national and global climate targets.