

# Northern Arizona University GHG Emissions

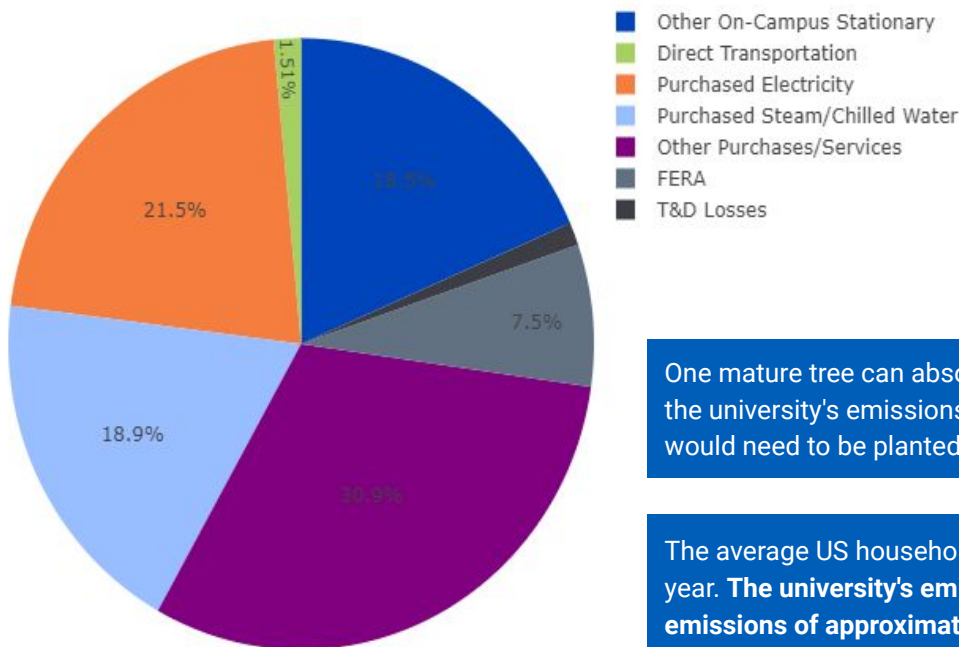
Fiscal Year 2023

**Scope 1:** In Scope 1, the university's main sources of direct emissions were from on-campus stationary activities, contributing 20,557.96 metric tons of carbon dioxide equivalent (MTCDE), as well as transportation emissions amounting to 1,665.15 MTCDE.

**Scope 2:** Under Scope 2, purchased electricity was the largest contributor, accounting for 23,630.43 MTCDE of emissions. purchased steam/chilled water resulted in emissions of 20,908.01 MTCDE. Combined with Scope 1, the direct and indirect emissions for the university reached a total of 88,830.14 MTCDE.

**Scope 3:** Scope 3 emissions were also significant, totaling 44,069.89 MTCDE. The largest contributing factor being our purchasing behavior, accounting for 30.9% of NAU's total emissions this year.

Overall, Northern Arizona University emitted a net total of 111,277.00 MTCDE during Fiscal Year 2023, encompassing all scopes and accounting for both direct and indirect emissions. The data underscores the importance of continued efforts in sustainability and emission reduction strategies to mitigate the university's impact on climate change.



## What are scopes 1, 2, and 3?

Scope 1 includes direct emissions from sources owned or controlled by the university, such as on-campus stationary sources and transportation. Think on campus natural gas and fleet vehicle gas/diesel usage.

Scope 2 covers indirect emissions from purchased electricity and steam/chilled water.

While Scope 3 encompasses other indirect emissions, including purchased goods and services, fugitive emissions, and transmission and distribution losses.

## Emissions By GHG

The university reported a total of **104,923,698 kg of carbon dioxide emissions**, **215,310 kg of methane emissions**, and **1,279 kg of nitrous oxide emissions** across all scopes. The gross greenhouse gas emissions for the year amounted to 111,291.19 MTCDE. Although there were no specific offsets accounted for during this fiscal year, the university did utilize composting practices, leading to a reduction of **14.18 MTCDE of greenhouse gas emissions**.

One mature tree can absorb about 22 kg of CO<sub>2</sub> per year. To offset the university's emissions, approximately 5,059,864 mature trees would need to be planted and maintained for a year.

The average US household emits about 7.5 metric tons of CO<sub>2</sub> per year. **The university's emissions are equivalent to the annual emissions of approximately 14,837 households.**

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