Cleveland State University

Greenhouse Gas Emissions Inventory FY2020

In FY2020, CSU emitted 41,454 metric tons of carbon dioxide equivalent (MTCO2e). Compared with our 2007 baseline year, we have decreased our campus carbon footprint by 47,493 MTCO2e, representing a **53% reduction** in greenhouse gas emissions. This inventory includes 3.5 months of atypical data due to a university shutdown in response to the COVID-19 pandemic.



EMISSIONS MTCO2E

Scope 1 emissions: on-campus fuel combustion (natural gas), transport fuels, fertilizers and refrigerants **Scope 2 emissions**: off-campus combustion of fuels for purchased electricity, steam, and chilled water **Scope 3 emissions**: air travel, commuting, waste, wastewater, and transmission and distribution (T&D) losses associated with Scope 2 emissions

Gross emissions: total emissions produced through CSU's buildings and operations Net emissions: total campus emissions minus any investments the university makes in carbon offsets

Results are displayed in metric tons of carbon dioxide equivalent (MtCO2e).

The following graph illustrates the major components of CSU's greenhouse gas emissions by source category.



Emissions associated with purchased electricity are 58% lower than they would be without our annual purchase of green power through Green-e certified Renewable Energy Certificates (RECs) and our commitment to the EPA Green Power Partnership program.



The following graph illustrates the major components of CSU's greenhouse gas emissions by scope category 1, 2 or 3 based on the type and location of emissions generated.



Scope 1 emissions: on-campus fuel combustion (natural gas), transport fuels, fertilizers and refrigerants **Scope 2 emissions**: off-campus combustion of fuels for purchased electricity, steam, and chilled water **Scope 3 emissions**: air travel, commuting, waste, wastewater, and transmission and distribution (T&D) losses associated with Scope 2 emissions

NOTES ON DATA AND RESULTS:

FY20 data includes approximately 3.5 months (mid-March through June) of atypical data due to the COVID-19 pandemic. The university-wide shut-down period during this time resulted in an associated decrease in emissions from utilities and commuting.

The CSU campus continues to see a downward trend in GHG emissions over time for the following reasons:

Scope 1 emissions attributable to steam generation have decreased in recent years due to Cleveland Thermal's transition from coal to natural gas in 2016.

Scope 2 emissions have been decreasing since 2011 due to conservation and energy efficiency efforts.

Scope 2 emissions attributable to purchased electricity continually decrease due an increase in the proportion of renewable electricity (Green-e certified RECs) included in CSU's electricity supply contract.

- 2014 to 2015 = 15% green power
- 2016 to 2019 = 30% green power
- 2019 to 2022 = 58% green power

Additional notes about the report:

Scope 3 emissions stemming from food and purchased goods are not included in this inventory due to lack of data.

This report was completed using <u>SIMAP</u>, a carbon and nitrogen-accounting platform that tracks and analyzes campus wide emissions in the higher education sector.

The greenhouse gas emissions inventory reporting platform can be found at the <u>Second Nature CSU</u> <u>Dashboard</u>. Reports date back to 2007.

Climate Action Planning

CSU became a signatory to the Presidents' Climate Leadership Commitment in 2011. Our Carbon Commitment focuses on reducing the emissions of harmful greenhouse gases and mitigating our contribution to climate change. The Presidents' Climate Leadership Commitment requires each signatory to develop or update a campus Climate Action Plan every five years. A new CSU Sustainability Plan has been drafted in collaboration with campus stakeholders. This Plan sets targets for emissions reductions, energy efficiency and renewable energy.

Jennifer McMillin, CSU Director of Sustainability May 13, 2021