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</tbody>
</table>
Introduction

Executive Summary
The University of Chicago Greenhouse Gas Emissions Inventory Overview 2012–2018 is the latest release of the greenhouse gas emissions inventory, which has been updated from the 2016 and 2018 releases of the inventory results.

This overview includes a brief background on environmental sustainability at the University of Chicago, a look at how the University’s greenhouse gas emissions are calculated, a summary of changes from the previous releases of the inventory results (2016 and 2018), and the results of the University’s current greenhouse gas emissions inventory.

The greenhouse gas emissions inventory includes the University of Chicago Hyde Park campus, excluding the medical campus.

The University of Chicago
The University of Chicago is located in the Hyde Park community on Chicago’s South Side, 15 minutes south of the city center. Chicago’s Hyde Park campus covers 217 acres and includes more than 135 buildings operated and managed by Facilities Services. These buildings host and support multiple academic programs, research, arts, and culture. Various space functions include classrooms, laboratories, administration, athletics, and recreation. Facilities Services (facilities.uchicago.edu) is responsible for the design, construction, renovation, operation, and maintenance of campus and residential buildings, property, and infrastructure.

UChicago Sustainability
The University of Chicago is committed to creating a sustainable campus. With its tradition of rigorous inquiry, the University is positioned to evaluate the challenges of sustainability and create measurable results.

One such challenge is climate change, a complex and global phenomenon that requires an in-depth understanding of greenhouse gas emissions. These emissions are a reflection of natural resource consumption across several sources, so understanding the scopes and sources of emissions is a critical step in campus sustainability planning. Managing greenhouse gas emissions is one of the University’s top sustainability priorities.

Raising visibility and awareness of environmental issues on campus, and engaging students, faculty, and staff to develop and implement sustainable initiatives is also important.

The University of Chicago Sustainability Plan includes goals in nine areas: Climate Change and Energy, High Performance Buildings, Multi-Modal Transportation, Waste Reduction, Food Systems, Green Space, Water Conservation, Environmentally Preferable Procurement, and Building Awareness and Partnerships. The Climate Change and Energy area of the Sustainability Plan outlines the 2025 goal.

2025 Goal
Greenhouse gas emissions reduction is the key sustainability goal as the University seeks to understand and reduce its contribution to climate change.

2025 goal: the University has a goal to reduce its greenhouse gas emissions by 20% by 2025.

Greenhouse gas emissions are tied to all major campus operations, including buildings, transportation, waste, food, landscape, and procurement. Each of these areas is included in the Sustainability Plan, with energy efficiency in buildings as the top priority. By reducing building energy use, the University reduces greenhouse gas emissions and realizes major economic benefits.

The first step in managing greenhouse gas emissions is quantifying the emissions. The University’s greenhouse gas emissions inventory provides a clear understanding of the emissions profile. Understanding the inventory enables the Office of Sustainability (sustainability.uchicago.edu), in collaboration with Facilities Services Operations and various partners across campus, to develop and implement sustainability initiatives targeted to areas of specific concern or inefficiency. Further, it allows the monitoring of sustainability progress for cost effectiveness, environmental benefit, and social responsibility.
Inventory Overview
Greenhouse gas emissions inventory data was collected for fiscal years 2009 through 2018. The inventory was completed according to widely accepted referenced standards and approved calculation tools. The greenhouse gas emissions were quantified using Sustainability Indicator Management and Analysis Platform (SIMAP™). The referenced standards used for the greenhouse gas emissions inventory include The Climate Registry General Reporting Protocol, Version 2.0 (2013), The Climate Registry General Reporting Protocol, Version 3.0 (2019), and The World Resources Institute Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) (2004).

Calculations
Emissions from greenhouse gases (such as carbon dioxide, methane, and nitrous oxide) can be calculated by taking the amount of fossil fuel consumed and multiplying it by the appropriate emissions factor and global warming potential.

The global warming potential is used to convert metric tons of specific greenhouse gases to metric tons of carbon dioxide equivalents. This conversion is based on the gas’s relative impact on climate change compared to that of carbon dioxide. The global warming potential indicates the contribution each gas makes to climate change relative to carbon dioxide.

For example, emitting a metric ton of methane (CH₄) has the same impact on climate change as emitting 28 metric tons of carbon dioxide. The global warming potentials of several prominent gases relative to CO₂ are reported in Table 1.1. By converting all emissions into the same unit, the contribution of emissions sources can be more easily aggregated and compared. This also enables comparison between organizations. Therefore, the units of measure shown at right are used for greenhouse gas emissions.

Table 1.1: 100-Year Global Warming Potentials

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Chemical Formula</th>
<th>GWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td>CO₂</td>
<td>1</td>
</tr>
<tr>
<td>Methane</td>
<td>CH₄</td>
<td>28</td>
</tr>
<tr>
<td>Nitrous oxide</td>
<td>N₂O</td>
<td>265</td>
</tr>
<tr>
<td>Source: IPCC Fifth Assessment Report</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Units of Measure
Carbon Intensity
kilograms equivalent carbon dioxide per square foot per fiscal year
(kg eCO₂/sqft/FY)

Absolute Emissions
metric tons equivalent carbon dioxide per fiscal year
(MT eCO₂/FY)

Where:
eCO₂ = equivalent carbon dioxide
FY = fiscal year
MT = 1 metric ton = 1,000 kilograms

Note the update in global warming potentials in the FY2012-2018 UChicago greenhouse gas emissions inventory from the Intergovernmental Panel on Climate Change Fourth Assessment Report to the Fifth Assessment Report. See page 8 for additional information.
Temporal Boundary
The temporal boundary is fiscal years 2012 through 2018. The University’s fiscal year is July 1 through June 30. For example, fiscal year 2012 is July 1, 2011, through June 30, 2012. See page 7 for more information.

Organizational Boundary
The operational control approach was used to define the organizational boundary, since this is how the University can make the most impact for a positive change. Operational control is defined as having the authority to introduce and implement operating policies. Under the operational control approach, emissions from each operation within the University’s operational control must be reported.

Operational Boundary (Scopes)
Emissions from scopes 1, 2, and 3, as applicable to the University of Chicago, are tracked and reported, as indicated in Table 1.2.

The 2025 goal is based on carbon intensity (emissions per square foot) and includes scopes 1 and 2.

Greenhouse gas emissions from refrigerants and chemicals, including HFCs (hydrofluorocarbons) and PFCs (perfluorocarbons), are omitted from this report. The following greenhouse gases are also not reported: SF6 (sulfur hexafluoride) and (NF3)3 (nitrogen trifluoride).

The following greenhouse gases are tracked and reported: CO2 (carbon dioxide), CH4 (methane), and N2O (nitrous oxide).

Scope 1: Direct Emissions (mandatory reporting)
- Combusting fuels on campus for heating and cooling
- Combusting fuels to power campus-owned transportation vehicles
- Off-gassing of fertilizers used on campus
- Fugitive release of refrigerants and chemicals that are greenhouse gases (not reported)

Scope 2: Indirect Emissions (mandatory reporting)
Off-campus combustion of fuels to produce electricity, steam, or chilled water for the campus

Scope 3: Other Indirect Emissions (optional reporting, not included in 2025 goal)
- Air and ground travel for University business and air travel for study abroad
  (fuel combusted in personal or transit vehicles/aircraft)
- Solid landfilled waste
  (landfill methane and/or emissions from incineration only)
- Transmission and distribution losses from scope 2 electricity
### Reporting and Methodology

Table 1.2: Data Compiled for the Greenhouse Gas Emissions Inventory

<table>
<thead>
<tr>
<th>Institutional</th>
<th>Unit of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student, Faculty, and Staff Population</td>
<td>[count/FY]</td>
</tr>
<tr>
<td>FICM Gross Area</td>
<td>[sqft/FY]</td>
</tr>
<tr>
<td><strong>Scope 1: Direct Emissions (mandatory reporting)</strong></td>
<td></td>
</tr>
<tr>
<td>Distillate Fuel Oil #2</td>
<td>[gallons/FY]</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>[MMBtu/FY]</td>
</tr>
<tr>
<td>Unleaded Fuel (University-Owned Fleet and UGo Shuttles)</td>
<td>[gallons/FY]</td>
</tr>
<tr>
<td>Diesel Fuel (University-Owned Fleet and UGo Shuttles)</td>
<td>[gallons/FY]</td>
</tr>
<tr>
<td>Refrigerants and Chemicals, Fugitive Emissions†</td>
<td>[pounds/FY]</td>
</tr>
<tr>
<td>Fertilizer, Nitrogen</td>
<td>[pounds N/FY]</td>
</tr>
<tr>
<td><strong>Scope 2: Indirect Emissions (mandatory reporting)</strong></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>[kWh/FY]</td>
</tr>
<tr>
<td><strong>Scope 3: Other Indirect Emissions (optional reporting)</strong></td>
<td></td>
</tr>
<tr>
<td>Business Travel (Air, Automobile)</td>
<td>[miles/FY]</td>
</tr>
<tr>
<td>Study Abroad Travel (Air)</td>
<td>[miles/FY]</td>
</tr>
<tr>
<td>Landfilled Waste</td>
<td>[short tons/FY]</td>
</tr>
</tbody>
</table>

†Omitted from reporting. Expected to be a very small amount of overall University emissions. Reporting is anticipated when verifiable and reliable data is available.

‡1 short ton = 2,000 pounds
Target Base Year

The target base year is used as a basis for setting and tracking progress toward a greenhouse gas emissions reduction goal. In other words, the target base year is used to assess greenhouse gas emissions performance. For example, to assess performance for fiscal year 2018, the greenhouse gas emissions from fiscal year 2018 are compared to the greenhouse gas emissions from the target base year.

The target base year can be calculated or selected based on when reliable and verifiable emissions data are available. If calculated, the target base year is an average of annual emissions over several consecutive years. This is done to account for unusual fluctuations (such as weather) in greenhouse gas emissions that would make a single year’s data unrepresentative of the University’s typical emissions profile. The target base year emissions should be as close to a “typical” year as possible.

The results of the greenhouse gas emissions inventory data integrity analysis indicated that in order to comply with The World Resources Institute Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) (2004), the target base year should be calculated using an average of fiscal years 2012 through 2014 because of the following reasons:

- This average is typical of the University’s emissions profile.
- The data from these years is verifiable and reliable.

The target base year is an average of greenhouse gas emissions for fiscal years 2012, 2013, and 2014.

Therefore, the decision was made to begin the inventory at fiscal year 2012, but still keep the fiscal years 2009 through 2011 data on file for historical purposes. The result is that the University of Chicago official greenhouse gas emissions inventory begins at fiscal year 2012.

Analysis

The greenhouse gas emissions inventory was evaluated in two ways:

- Absolute Emissions (MT eCO2/FY)
- Carbon Intensity (emissions per square foot) (kg eCO2/sqft/FY)

Carbon intensity (emissions per square foot) allows the emissions to be examined without penalty or reward for changes in area (square footage) such as new construction or demolition. Carbon intensity is used for the 2025 goal, and is therefore the metric reported on throughout this overview.

2025 Goal Reporting Summary

2025 goal: The University has a goal to reduce its greenhouse gas emissions by 20% by 2025.

The 2025 goal is based on carbon intensity (emissions per square foot) and includes scopes 1 and 2.

The 2025 goal is measured by comparing 2025 greenhouse gas emissions to the target base year greenhouse gas emissions.

The target base year is an average of greenhouse gas emissions for fiscal years 2012, 2013, and 2014.

Emissions from scope 3, as applicable to the University of Chicago, are tracked and reported, although they are not part of the 2025 goal.
The below items were updated from the FY2012–FY2017 University of Chicago greenhouse gas emissions inventory.

Global Warming Potentials
The global warming potentials were updated by the Intergovernmental Panel on Climate Change from the Fourth Assessment Report to the Fifth Assessment Report. This update was included in the UChicago FY2012–FY2018 greenhouse gas emissions inventory to reflect the latest global warming potentials available, as it is best practice. This update impacts emissions from all scopes in the inventory, but the impact on overall University greenhouse gas emissions was negligible.

Emissions Factors
Regional emissions and generation resource integrated database (eGRID) emissions factors were updated by the United State Environmental Protection Agency to eGRID2016. This update to the most recently available regional emissions factors was included in the UChicago FY2012–FY2018 greenhouse gas emissions inventory, as it is best practice. This update had significant impact on scope 2 emissions (electricity), as discussed on page 9. This update also impacted scope 3 emissions (transmissions and distribution losses from scope 2 electricity). However, scope 3 is not part of the 2025 goal. For a summary of what is new in eGRID2016, refer to the United States Environmental Protection Agency.

Additional Updates
In the Sustainability Plan (November 2016), the target base year was reported as 25.5 kg eCO2/sqft. This includes scopes 1, 2, and 3, and includes commuting.

In the FY2012–FY2017 greenhouse gas emissions inventory (May 2018), the target base year was reported as 16.5 kg eCO2/sqft. This does not include scope 3 or commuting. This is because the 2025 goal is based on scopes 1 and 2 only, and commuting, part of scope 3 emissions, had been dropped entirely from the inventory since a recent commuting survey had not been conducted, and reliable and verifiable commuting data was no longer available.

In the current greenhouse gas emissions inventory (FY2012–FY2018), the fiscal year 2016 and fiscal year 2017 carbon intensity is reported differently (it has decreased) from previous reporting. This is because of the change in regional United States EPA emissions factors as discussed at left. When regional United States EPA emissions factors are updated, they are applied retroactively, where applicable, making the greenhouse gas emissions inventory dynamic. To demonstrate this point, Table 1.3 summarizes the emissions factors used in fiscal year 2017 and fiscal year 2018 reporting.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>GWP EF</th>
<th>GWP EF</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2017</td>
<td>AR4</td>
<td>AR5</td>
</tr>
<tr>
<td>FY2018</td>
<td>AR4</td>
<td>AR5</td>
</tr>
<tr>
<td>2018</td>
<td>NA</td>
<td>AR5</td>
</tr>
<tr>
<td></td>
<td>rel. 2018, eGRID2016, 12th ed.9</td>
<td></td>
</tr>
</tbody>
</table>
Results

2025 goal carbon intensity decreased by 11% from the target base year to fiscal year 2018.

As shown in Figure 2.1, University carbon intensity for scopes 1 and 2 decreased by approximately 11% from the target base year to fiscal year 2018. A more detailed analysis of the results explains why.

Scope 2 electricity
As indicated in Figures 2.2 and 2.3, electricity was the largest contributor to greenhouse gas emissions at 43% of overall campus emissions in fiscal year 2018. Despite a 3% increase in electricity consumption from the target base year to fiscal year 2018, carbon intensity scope 2 electricity decreased by 16% from the target base year to fiscal year 2018. This is because:

- The United States Environmental Protection Agency regional eGrid emissions factors were updated as noted on page 8. This update caused emissions attributed to scope 2 electricity to decline, despite an increase in usage. Had the emissions factors not been updated, carbon intensity attributed to scope 2 electricity would have decreased by 7% from the target base year to fiscal year 2018.
- The consumption of electricity per area decreased 7% from the target base year when compared to fiscal year 2018.

Scope 1 On-Campus Stationary
On-campus stationary sources are the largest contributors to scope 1 greenhouse gas emissions and include natural gas and distillate fuel oil #2. As indicated in Figures 2.2 and 2.3, on-campus stationary sources were the second largest contributor to overall campus greenhouse gas emissions at 28% in fiscal year 2018. Since distillate fuel oil #2 was less than 1% of greenhouse gas emissions in fiscal year 2018, natural gas was 28% of overall campus emissions in fiscal year 2018.

Despite a 10% increase in natural gas consumption from the target base year to fiscal year 2018, carbon intensity attributed to scope 1 on-campus stationary sources declined nearly 2% from the target base year to fiscal year 2018 due to an increased efficiency on a per square foot basis.

Scope 1 Other
In addition to on-campus stationary sources, scope 1 includes direct transportation (UGo shuttles and University-owned fleet) at 1% of overall campus greenhouse gas emissions in fiscal year 2018, and agriculture (nitrogen in fertilizer) at less than 1% of overall campus greenhouse gas emissions in fiscal year 2018. Refer to Figures 2.2 and 2.3 for additional information.

Scope 3
While scope 3 is not part of the 2025 goal, it is important to note the third largest contributor to overall campus greenhouse gas emissions in fiscal year 2018 was business air travel at 19%. Other sources of scope 3 emissions in fiscal year 2018 included solid landfilled waste (4%), transmission and distribution losses from scope 2 electricity (2%), study abroad travel (2%), and business automobile travel (1%). Total scope 3 emissions were 28% of overall campus greenhouse gas emissions in fiscal year 2018. Refer to Figures 2.2 and 2.3 for additional information.

FY2017 to FY2018
While the 2025 goal is based on a comparison between the target base year (an average of emissions for fiscal years 2012, 2013, and 2014) and the current fiscal year being evaluated, it is interesting to compare the current fiscal year being evaluated (2018) with the previous fiscal year (2017).

While Figure 2.1 shows that carbon intensity has decreased annually from the target base year through fiscal year 2017, carbon intensity has increased approximately 1.4% from fiscal year 2017 to fiscal year 2018. This increase in carbon intensity from fiscal year 2017 to fiscal year 2018 occurred because of an increase of natural gas consumption between fiscal year 2017 and fiscal year 2018. Natural gas consumption increased 10% from fiscal 2017 to fiscal year 2018. When weather-dependent energy consumption data from fiscal years 2017 and 2018 (found to be natural gas) are weather normalized using the ratio-based method, there is still a 4% increase of natural gas consumption from fiscal year 2017 to fiscal year 2018.
## Results

Figure 2.1: Scopes 1 and 2 Carbon Intensity (Greenhouse Gas Emissions Per Square Foot)

**UNIVERSITY GREENHOUSE GAS EMISSIONS**
Carbon intensity (greenhouse gas emissions per square foot) is measured in kilograms equivalent carbon dioxide per square foot (kg eCO₂/sqft). The 2025 goal is based on scopes 1 and 2 carbon intensity.

**A NOTE ON TARGET BASE YEAR** The target base year is calculated and is the average of the greenhouse gas emissions from fiscal years 2012 through 2014. It is used for setting and tracking progress toward the Sustainability Plan greenhouse gas emissions reduction goal. For example, to assess performance for fiscal year 2018, the greenhouse gas emissions from fiscal year 2018 (14.7 kg eCO₂/sqft) are compared to the greenhouse gas emissions from the target base year (16.5 kg eCO₂/sqft). This comparison reveals an approximate 11% decrease in greenhouse gas emissions. Greenhouse gas emissions for each subsequent year will be compared to the target base year, and performance will be assessed accordingly.

<table>
<thead>
<tr>
<th>FY</th>
<th>Carbon Intensity (kg eCO₂/sqft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 (FY 2017)</td>
<td>14.9</td>
</tr>
<tr>
<td>2016 (FY 2016)</td>
<td>14.7</td>
</tr>
<tr>
<td>2017 (FY 2015)</td>
<td>14.9</td>
</tr>
<tr>
<td>2018</td>
<td>14.7</td>
</tr>
<tr>
<td>2025 Goal</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Approximate 11% decrease in greenhouse gas emissions from the target base year
Results

Natural gas and electricity usage contributed to approximately 71 percent of University greenhouse gas emissions in fiscal year 2018.

- **SCOPE 1**
  - ON-CAMPUS STATIONARY: 28%
  - NATURAL GAS

- **SCOPE 2**
  - ELECTRICITY: 43%
  - OTHER: 29%

- **SCOPE 3**
  - OTHER: 19%
  - BUSINESS AIR TRAVEL

*Natural gas, distillate fuel oil #2
†Other includes business air and automobile travel, study abroad travel, solid waste, and transmission and distribution losses from scope 2 electricity.

SCOPE 1
- ON-CAMPUS STATIONARY: 28%
- NATURAL GAS

SCOPE 2
- ELECTRICITY: 43%

SCOPE 3
- OTHER: 19%
- BUSINESS AIR TRAVEL

FY 2018 GHG EMISSIONS
- ELECTRICITY: 43%
- ON-CAMPUS STATIONARY, DIRECT TRANSPORTATION, AGRICULTURE

Study abroad travel 2%
Study abroad travel

Business auto travel <1%
Rental car; personal mileage reimbursement

Direct transportation 1%
University-owned fleet; UGo shuttles

Transmission and distribution 2%
T&D = transmission and distribution

Solid waste 4%

Agriculture <1%
Nitrogen in fertilizer

Table:

<table>
<thead>
<tr>
<th>Source</th>
<th>Emissions (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Power Consumption</td>
<td>43%</td>
</tr>
<tr>
<td>On-campus Stationary Natural Gas</td>
<td>28%</td>
</tr>
<tr>
<td>Distillate Fuel Oil #2</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Other</td>
<td>29%</td>
</tr>
<tr>
<td>Other Business Air Travel</td>
<td>19%</td>
</tr>
<tr>
<td>Other Business Auto Travel</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>4%</td>
</tr>
<tr>
<td>T&amp;D Losses</td>
<td>2%</td>
</tr>
<tr>
<td>Study Abroad Travel</td>
<td>2%</td>
</tr>
</tbody>
</table>

Gross GHG emissions contributed to approximately 71 percent of University greenhouse gas emissions in fiscal year 2018.
Managing greenhouse gas emissions is a top priority for the University of Chicago and it allows for progress in multiple areas of the Sustainability Plan.

The results of the UChicago 2012–2018 greenhouse gas emissions inventory indicate progress, but demonstrate the need for additional action, especially in area 2 of the Sustainability Plan, High Performance Buildings.

Since the 2025 goal is based on scopes 1 and 2 greenhouse gas emissions, and natural gas and electricity use in campus buildings contribute to approximately 70% of the University’s greenhouse gas emissions, reducing electricity and natural gas consumption in campus buildings will make the biggest impact on reducing University greenhouse gas emissions.

Energy efficiency projects are currently underway and planned through 2025, as outlined in the University of Chicago Greenhouse Gas Emissions Reduction Plan (FY2018–FY2025).

Only by collaborating together as a campus community, will the 2025 goal be achieved. For ways to get involved, please visit sustainability.uchicago.edu.
Additional Resources

Acronyms and Chemical Formulas

- **BTU**: British thermal unit
- **CH₄**: methane
- **CBECS**: Commercial Buildings Energy Consumption Survey
- **CO₂**: carbon dioxide
- **CBECS**: Commercial Buildings Energy Consumption Survey
- **EF**: emissions factor
- **eGRID**: emissions and generation resource integrated database
- **FICM**: facilities inventory and Classification Manual
- **FS**: facilities services
- **(FS)²**: facilities services facility standards
- **FY**: fiscal year
- **GHG**: greenhouse gas
- **GWP**: global warming potential
- **HFC**: hydrofluorocarbons
- **IPCC**: Intergovernmental Panel on Climate Change
- **kWh**: kilowatt hour
- **MMBtu**: 1 MMBtu = 1x10⁶ Btu
- **MT**: 1 metric ton = 1,000 kg
- **(NF₃)₃**: nitrogen trifluoride
- **N₂O**: nitrous oxide
- **OS**: Office of Sustainability
- **PFC**: perfluorocarbons
- **SF₆**: sulfur hexafluoride
- **SP**: Sustainability Plan

Links

- The University of Chicago: uchicago.edu
- Facilities Services: facilities.uchicago.edu
- Office of Sustainability: sustainability.uchicago.edu
- Sustainability Plan: sustainability.uchicago.edu/sp
- Facilities Services Facility Standards (FS)²: facilities.uchicago.edu/about/partners/facilitiesstandards

Sources

- **Referenced Standards**
  - The Climate Registry General Reporting Protocol, Version 2.0 (2013)
  - The Climate Registry General Reporting Protocol, Version 3.0 (2019)

- **Global Warming Potentials**
  - IPCC Fifth Assessment Report

- **Emissions Factors**
  - United States Environmental Protection Agency Emissions and Generation Resource Integrated Database (eGRID)
    - The eGRID sub-region symbol is RFCW.
    - The eGRID region name is RFC West.

- **Calculation Tool**
  - Sustainability Indicator Management and Analysis Platform (SiMAP™)

- **Area** (square footage)
  - Facilities Inventory and Classification Manual (FICM)

- **Climate Zone**
  - Chicago is in CBECS climate zone 2.
  - United States Climate Zones for 2003 CBECS
GREENHOUSE GAS EMISSIONS INVENTORY OVERVIEW 2012–2018

October 2019

sustainability.uchicago.edu

ACKNOWLEDGMENTS
Collecting the data required for the University of Chicago greenhouse gas emissions inventory for fiscal years 2009 through 2018 was a collaborative effort, involving contributions from many University departments and individuals. The Office of Sustainability offers a sincere thank you to everyone who contributed.

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