

GHG Emissions Inventory FY 2017

University of Wyoming

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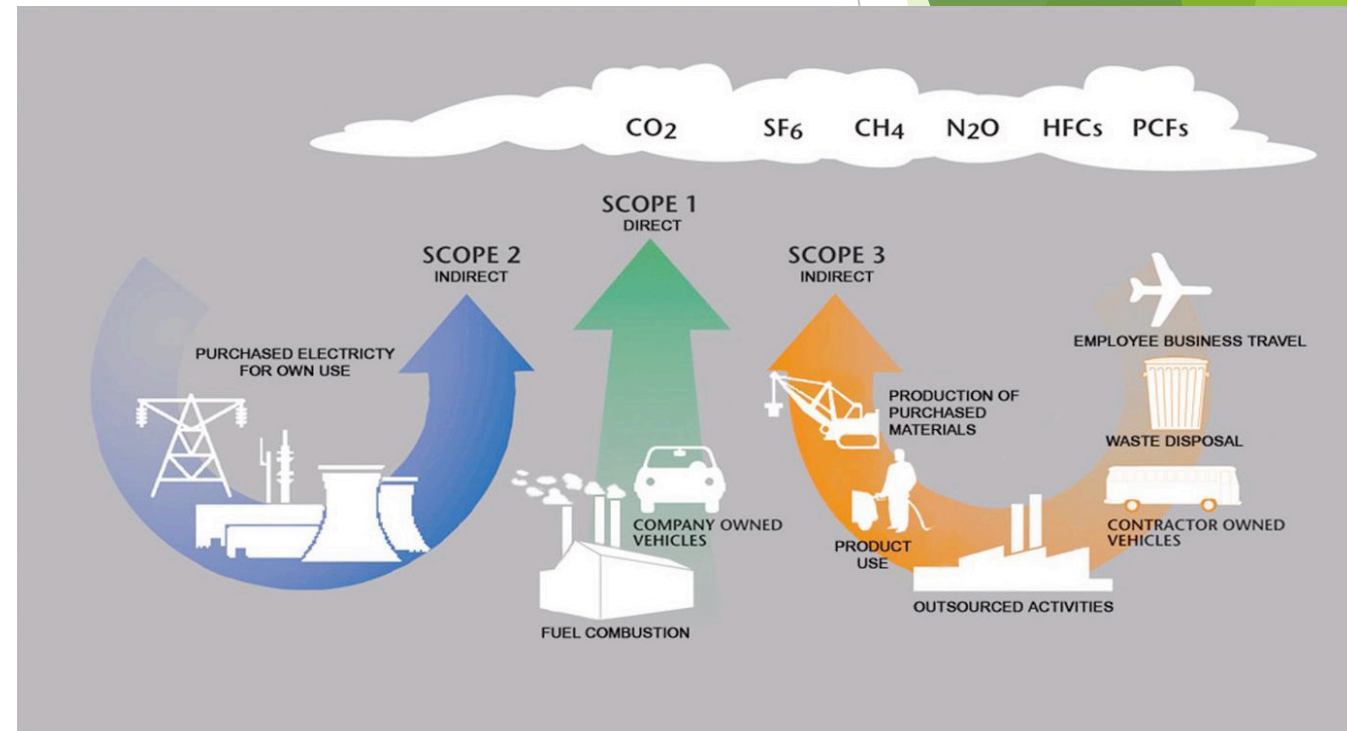


Climate Action Plan

- ▶ The Climate Action Plan is divided into three phases:
 - ▶ Phase I (2010-2015): reduce carbon emissions to 15 percent below 2005 levels by 2015.
 - ▶ Phase II (2015-2020): reduce carbon emissions to 25 percent below 2005 levels by 2020.
 - ▶ Phase III (2020-2050): achieve carbon neutrality by 2050.

Scopes

- ▶ Scope 1:
 - ▶ On-campus stationary sources (Central Energy Plant)
 - ▶ Natural gas, propane, coal
 - ▶ Direct transportation sources (University Fleet)
 - ▶ Refrigerants/chemicals
 - ▶ Agriculture
- ▶ Scope 2:
 - ▶ Purchased electricity
- ▶ Scope 3:
 - ▶ Student, faculty, staff commuting
 - ▶ Directly financed travel (reimbursements for flights/gas)
 - ▶ Solid waste



Scope 2: Emissions from utility production not at the institution

Scope 1: Emissions from the direct activities of the campus

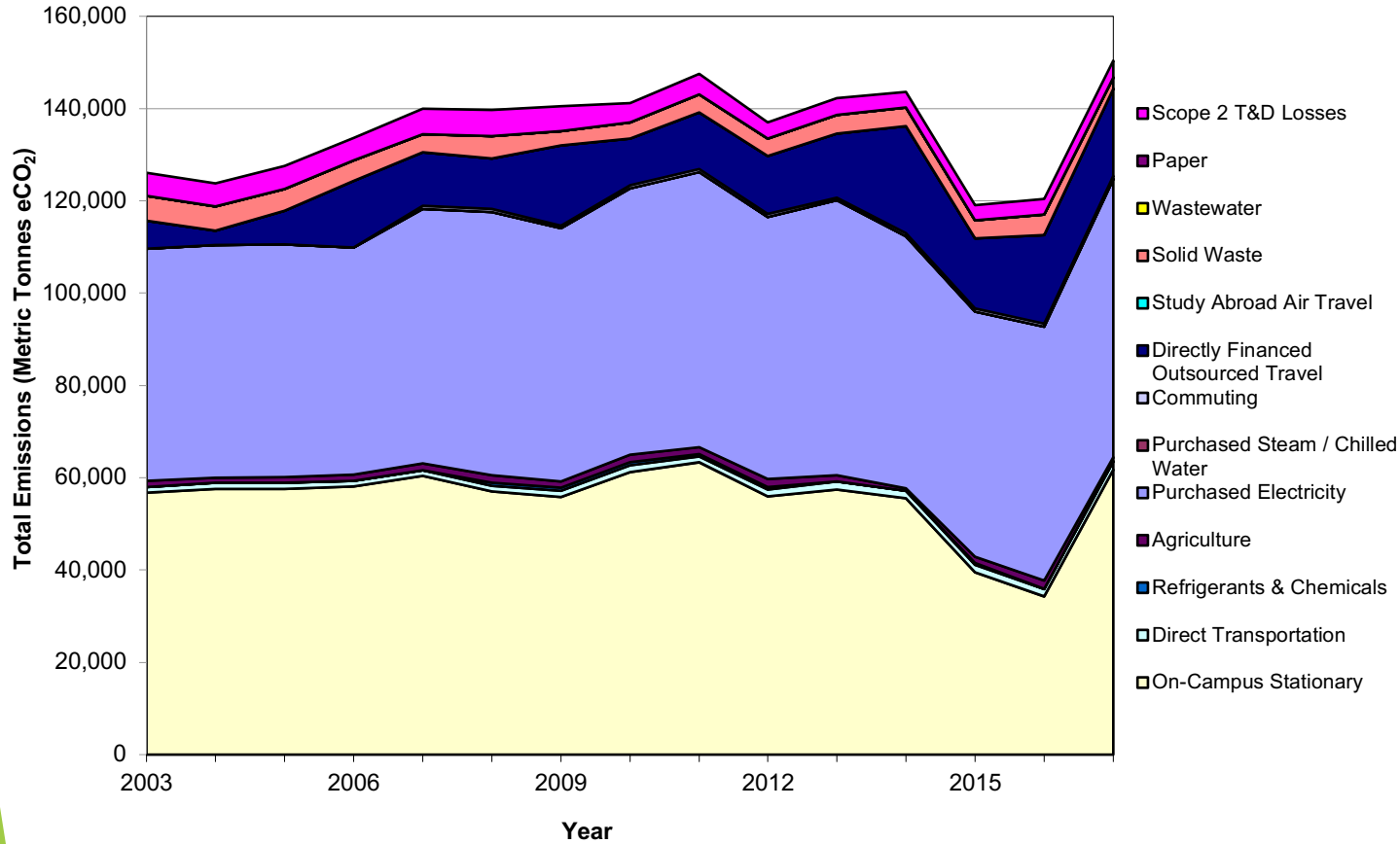
Scope 3: Indirect emissions including transportation, waste disposal, etc.

Courtesy of Clean Air Cool Planet

Calculator

- ▶ Campus Carbon Calculator
 - ▶ Version 9.1
 - ▶ Developed by University of New Hampshire Sustainability Institute
 - ▶ Recommended by Second Nature Climate Commitment
 - ▶ Converts raw data to CO₂ equivalents

Results: Total Emissions



▶ 150,382 MT eCO₂

▶ +21% from FY 2015

▶ +15% from FY 2005

▶ Major sources:

▶ On-campus stationary

▶ Purchased electricity

▶ Travel

Figure 1. Overall trend in UW's net emissions by source, 2003-2017.

Results: Source Composition

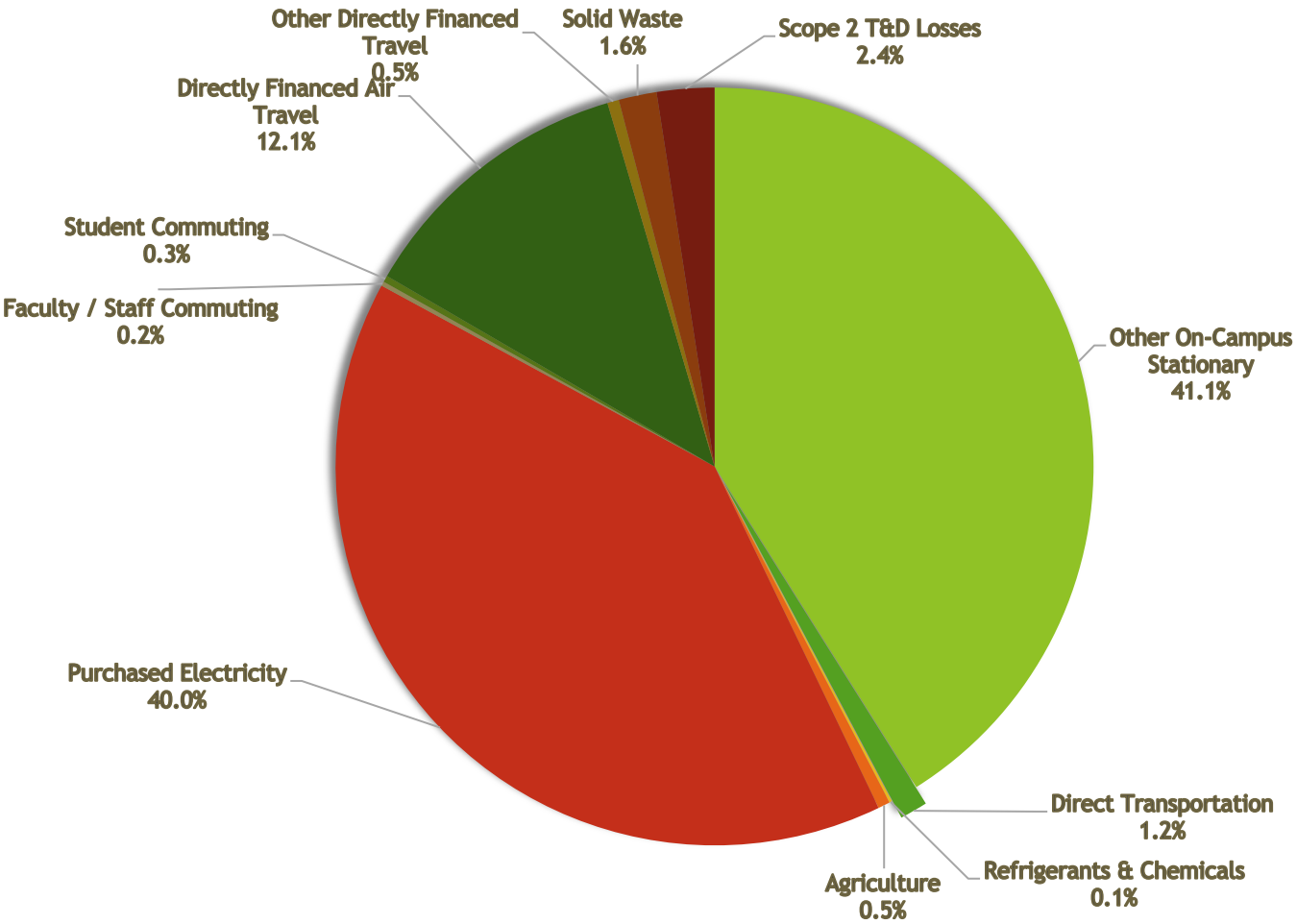
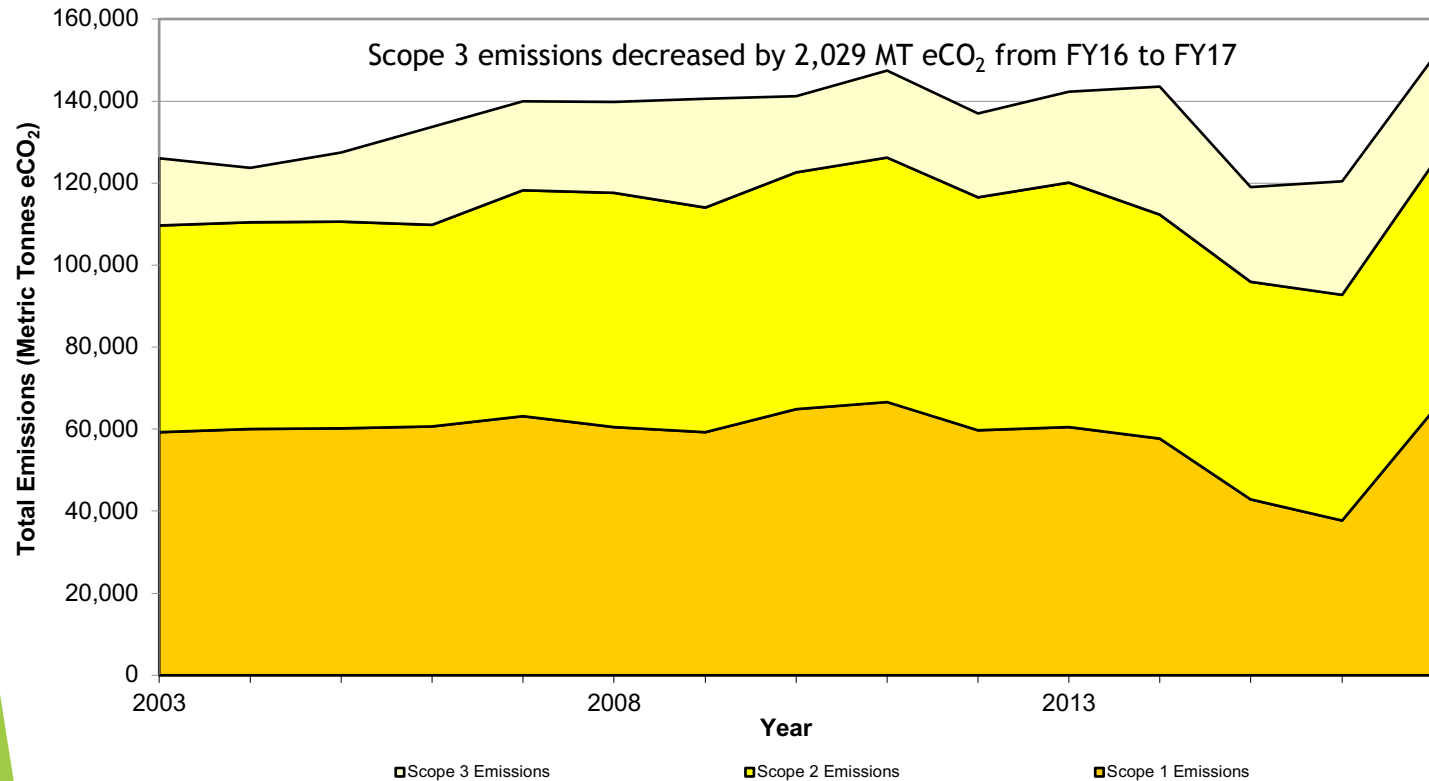


Figure 2. Percent contributions to total GHG emissions in FY 2017.

Results: Total Emissions by Scope



- ▶ FY16 to FY17 Changes
- ▶ Scope 3: -8%
 - ▶ Air travel and Solid waste
- ▶ Scope 2: +9%
 - ▶ Purchased electricity
- ▶ Scope 1: +42%
 - ▶ Natural Gas to Coal

Figure 3. Total emissions for scope 1, 2 and 3 in FY 2017.

Climate Action Plan

- ▶ 2005 baseline: 127,518 MT eCO₂
- ▶ 2015 target: 108,390 MT eCO₂ (15% decrease)
 - ▶ Actual: 119,019 MT eCO₂ (7% decrease)
 - ▶ Since 2010, there has been a 6% increase in emissions
- ▶ 2020 target: 95,638 MT eCO₂ (25% decrease)
 - ▶ 2017: 150,382 MT eCO₂
 - ▶ Eliminate 54,743 MT eCO₂ over next 3 years (57% decrease)

Conclusions

- ▶ Increase in total emissions since FY 2015 and FY 2016
 - ▶ Due to an 9% increase in Scope 2
 - ▶ Electrical suppliers use a large amount of coal
 - ▶ Increase in total building space/research building space
 - ▶ Two buildings came on line (High Bay and STEM)
 - ▶ Due to a 42% increase in Scope 1
 - ▶ Shift from natural gas to coal

Thank You

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Data Contributors