

Yale University Greenhouse Gas Reduction Commitment

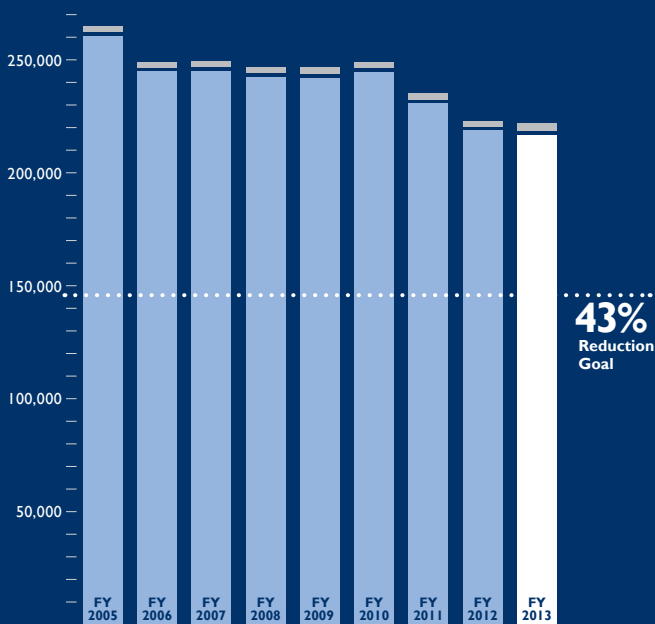
2013

In 2005, Yale University pledged to reduce its primary greenhouse gas emissions forty-three percent below 2005 levels by 2020. To date, the University has achieved a **sixteen-percent reduction despite a twelve-percent increase in campus size.**

Yale's greenhouse gas reduction strategy has focused on specific and effective programs that are technologically feasible, fiscally sound, and consistent with the university's mission. Effective strategies have included: reducing the energy intensity of buildings through conservation and efficiency, deploying new technologies, utilizing cleaner fuels, adhering to sustainable construction and renovation standards, promoting behavioral shifts and culture change, and investing in renewable energy technologies both on and off Yale's campus.

While these strategies are an essential component of our mitigation efforts, they will not impede the development of new initiatives and future plans. It is important to recognize that our greenhouse gas reduction strategy is continually evolving. Plans and strategies will be revisited and modified to reflect progress, improved technologies, economic conditions, and advances in the understanding of climate change. There is no single solution to carbon mitigation. Achievement of the university's goal to reduce campus emissions is being realized through the combined efforts of our students, faculty, and staff.

Greenhouse Gas Emissions (MTCO₂e)



Yale University committed to reducing its primary greenhouse gas emissions 43% below 2005 levels. Beginning in 2013, emissions from the University fleet are included in the reduction target.

University Fleet
Main Campus

Main Campus Emissions (MTCO₂e)



Yale has implemented a comprehensive energy conservation strategy that has significantly reduced emissions from its two power plants and main campus buildings.

West Campus Emissions (MTCO₂e)



In 2007, Yale purchased the Bayer Pharmaceutical campus to expand the University's science and medical research. The 2005 numbers above represent emissions from Bayer while it was operating at full capacity. Yale has yet to utilize the campus to its full capacity, as a result Yale's 2013 emissions are much lower than the 2005 baseline.

Main Campus Size (Gross Square Feet)



Yale's gross square footage has increased 12% since 2005.

Fleet GHG Emissions (MTCO₂e)



The apparent increase in the university fleet emissions from 2005 to 2013 is primarily attributed to a more accurate accounting of fuel purchases, not an actual increase in emissions.

Yale University Scope of Greenhouse Gas Emissions

2013

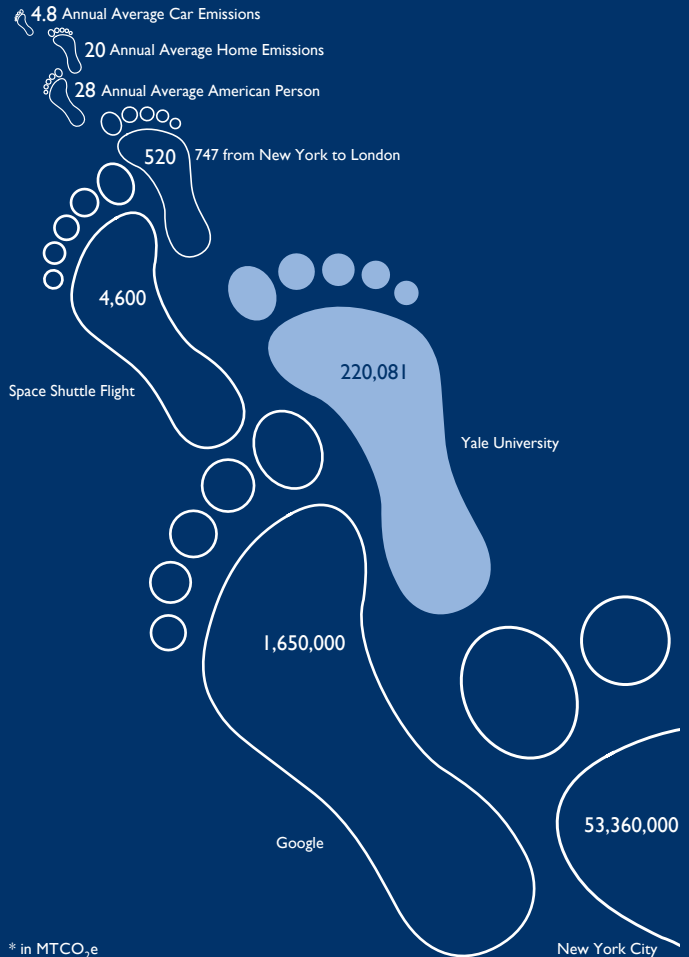
Yale's 2005 greenhouse gas baseline included energy consumed by all buildings connected to the University's two on-campus co-generation power plants and purchased electricity.¹ It did not include energy consumed by buildings not connected to the campus energy grid or the university fleet. Beginning in 2013, the 2005 baseline has been adjusted to include emissions from the university fleet. Though it represents only a small percentage of Yale's total greenhouse gas emissions, the fleet was added to more accurately reflect the university's scope 1 emissions sources.² As a separate effort, Yale is currently focusing on emission reductions at West Campus which was purchased in 2007.³

An inventory of scope 3 emissions from commuting, air travel, and paper purchases are analyzed on an annual basis, but are not currently included in the reduction target. As more accurate methodologies for accounting for scope 3 emissions are developed, Yale may consider expanding its emission reduction target to include this wider scope.

Additional information regarding Yale's progress can be found at sustainability.yale.edu.

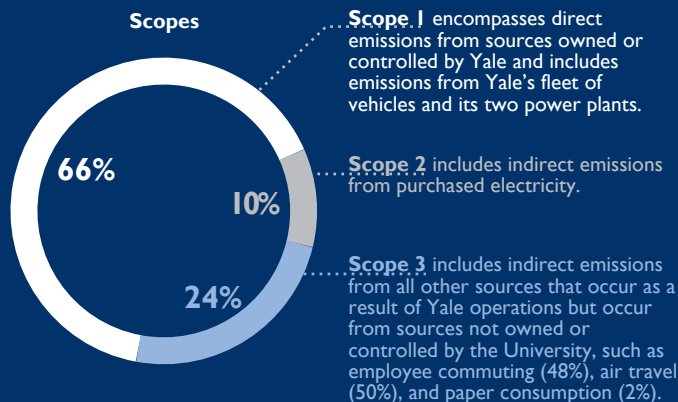
¹ Yale owns and operates two co-generation power plants; Central Power Plant and Sterling Power Plant.
² Based on guidance from the World Resource Institute and the World Business Council on Sustainable Development, the Greenhouse Gas Protocol defines three scopes of emissions sources. Scope 1 is a direct emission and scope 2 and 3 are indirect emissions.
³ West Campus, the former Bayer Pharmaceutical facility, is a 136-acre campus made up of 1.6 MM square feet of laboratories, offices and warehouse space.
⁴ Carbon equivalencies are sourced from the book "How Bad Are Bananas" by Mike Berners-Lee.

How does our footprint compare?⁴



Where do our emissions come from?

Based on guidance from the Greenhouse Gas Protocol, Yale's emissions are divided into three categories called "scopes."



A monthly view of our carbon emissions shows January and August as the peak months due to highest demand for heating and cooling respectively.

