

# PROGRESS REPORT

FY 2013



Universities have a special role and a special responsibility to address the global challenges of climate change and sustainability. A university community must not only carry out research, but also translate the findings of that research into action.

-President Drew Gilpin Faust

## ENERGY AND EMISSIONS

Goal: 30% reduction in Greenhouse Gas emissions, from a 2006 baseline, by 2016, including growth

**21%**

reduction in greenhouse gases including growth and renovation (FY06-FY13)



**31%** excluding growth



Over **1,300** energy conservation measures implemented (FY06-March 2014) saving an estimated

**\$8-9 million**

annually

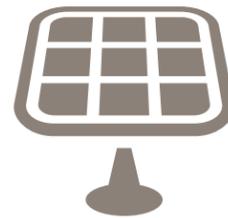
**5%**

energy reduction including growth and renovation (FY06-FY13)



**18%**

excluding growth



**17%**

electricity from renewable energy sources including 1MW on-campus installed solar

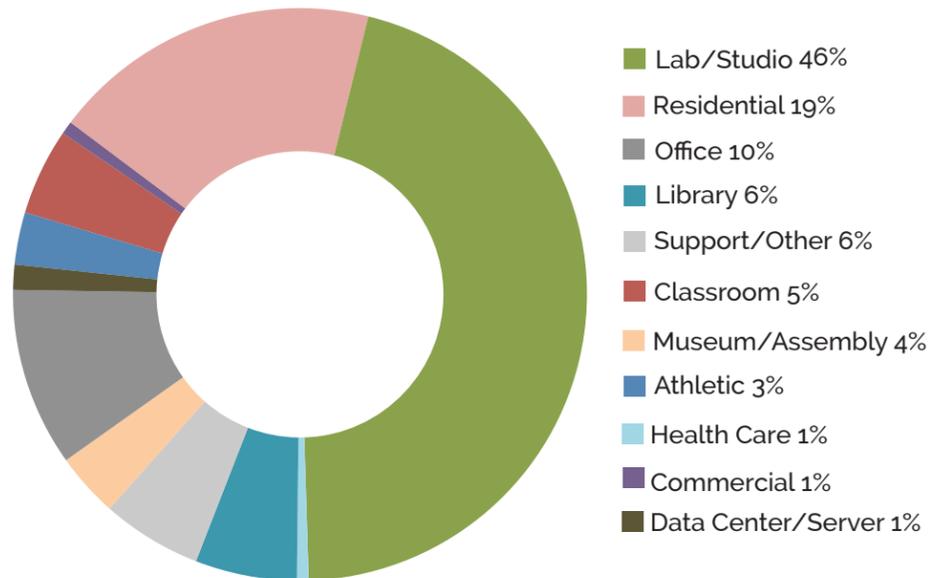
**116** total LEED projects

89 certified; 27 registered as of March 2014



Green Building Standards ensure all capital projects and renovations incorporate long-term impacts and costs into decision-making

Energy Use by Space Type



Approximately **200 NPV+**

projects funded by Harvard's award-winning \$12 million Green Revolving Fund (2002-2013) with nearly:

**\$5.4 million**

projected in annual utility savings and:

**14,000**

annual metric tons of carbon dioxide equivalent reduction



### LIVING LAB

Students in the ESg6 Engineering Design Seminar regularly conduct in-depth analysis of on campus energy challenges, including expansion of geothermal heating at Radcliffe Institute for Advanced Study. Graduate School of Design students designed two award-winning houses that use little or no energy, and provide universal lessons in sustainability.

# OPERATIONS AND MAINTENANCE



**53%** of total university waste was recycled or composted

**34%** reduction of waste per capita (FY06-FY13)

**54%** decrease in food waste in dining halls over 2005 averages thanks to student led campaigns



**23%**  
reduction in water use (FY06-FY13)

Organic landscaping on over  
**90 acres**  
including Harvard Yard



Certified green cleaning on more than  
**10 million**  
square feet of campus

**100%**

of landscape waste composted by Campus Services (500 tons)

**4**

Schools compost campus wide

**590**

tons (equal to 3,000 couches!) of material donated for reuse during move-out, freecycles, and other programs



## LIVING LAB

Each year at least half a dozen students tackle a sustainability-related challenge when developing their final project for the computer science class CS50. Professor David Malan also created [energy.cs50.net](http://energy.cs50.net) to show students how to visualize energy and emissions usage in undergraduate houses to influence student behavior and to support the undergraduate Resource Efficiency Program.

# HEALTH AND WELL-BEING

**4**

community gardens



**7**

podcasts from the HMS Countway Garden

**200**

lbs of food grown at the HDS garden

**100**

lbs donated to local food pantry

## LIVING LAB

Environmental health PhD candidates and faculty from the Harvard School of Public Health worked with the Faculty of Arts and Sciences and the Office for Sustainability to integrate Harvard's river houses into a National Science Foundation-funded study looking at environmental factors, including impacts from climate change, that influence comfort, health, and sleep in buildings.

## LIVING LAB

HUDS partnered with National Geographic fellow and Harvard Center for Health and the Global Environment program director Barton Seaver to create a model institutional seafood purchasing program that balances cost, sustainability, and health.

More than **32%**

of HUDS food budget dedicated to locally grown or organic food



Weekly runs through **Harvard on the Move**  
**340** employees engaged in mindfulness workshops through **Healthy Harvard**

Cambridge Commuters (2012):

**43%** bike or walk  
**37%** take transit  
**3%** carpool

Longwood Commuters (2012):

**25%** bike or walk  
**52%** take transit  
**4%** carpool



**12**

**Hubway  
stations**

**56,000** trips on the Hubway Bike system

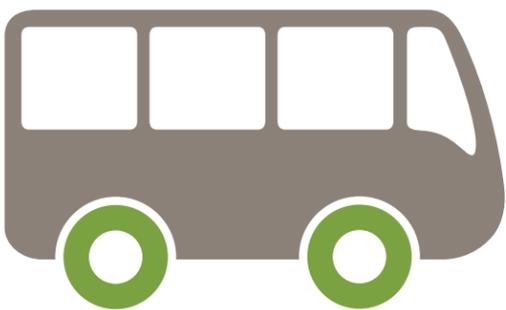
**= 60,000 miles**



All Harvard Police Department patrol cars are Hybrids

**77 vehicles**

including all shuttle buses, fueled by biodiesel



## LIVING LAB

Professor of Urban Planning Ann Forsyth has asked her students to conduct a detailed Environmental Health Impact Assessment of the Harvard Graduate School of Design campus, giving students an opportunity to apply the theory they learn in class to their own environment, understanding the real-world challenge of this type of assessment framework.

# CULTURE CHANGE AND COMMUNITY



More than **2,000** reusable mugs or water bottles distributed to first-year undergraduate students and graduate students

Over **3,000** super-efficient LED bulbs handed out to all first-year students and Harvard University Housing and Harvard Real Estate tenants.



**45** Student sustainability grants funded from 2010-2013 for on campus energy reduction and sustainability projects



**9** out of 49 Harvard Heroes recognized for sustainability efforts

**183** on-campus sustainability innovators recognized with Green Carpet Awards (since 2010)

**40** undergraduate and graduate students running peer-to-peer energy reduction campaigns

**56** members of the Green Team Leaders Network



All new employees learn about Harvard's environmental sustainability commitment in HR orientation.

**34** members on the Sustainability and Energy Management Council

## LIVING LAB

The Office for Sustainability brings faculty, students, and staff together with a goal of creating a sustainable community that supports Harvard's research and teaching mission.

For example, the Council of Student Sustainability Leaders, a group of more than 20 student environmental leaders, representing all Schools provides input to the University on how best to evolve its sustainability programming.



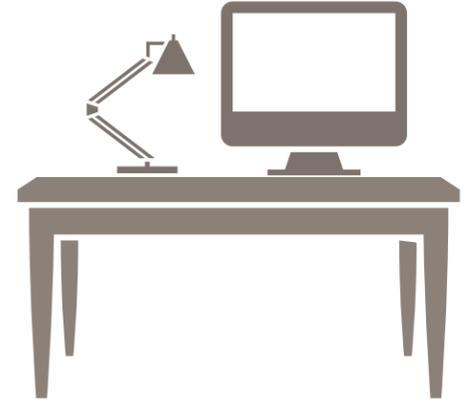
**\$240,00**

saved through the Shut the Sash competition in the Chemistry Department alone

**222** Green Offices

**3,542** Staff engaged

as of March 2014



**HARVARD**  
UNIVERSITY

| Sustainability

[www.green.harvard.edu](http://www.green.harvard.edu)

Harvard University is committed to developing and maintaining an environment that enhances human health and fosters a transition toward sustainability.