

A Sustainability Agenda

A sustainability agenda requires attention to many areas, but one of the most important will be reducing our community's emission of greenhouse gases.

A recent analysis completed by students at CMU found that the activities that make the most significant contribution to the university's carbon footprint are

- 39%- air travel for faculty and students
- 30%- electricity generation and use
- 22%-steam heat/ chilled water production

To set an agenda for reducing emissions, community members must understand what mitigation options are realistic and appropriate. For example, the national exposure of mitigation options such as solar and wind power may encourage some people to suggest these as a good mitigation option for CMU. However, while Carnegie Mellon can support research and education into solar and wind power, solar and wind power generation at CMU is probably not feasible and certainly not cost effective.

Representatives from Carnegie Mellon's Green Practices Committee suggest that we can reduce greenhouse gas emissions at CMU by focusing on

- Conserving electricity and making adjustments to how we use buildings, electronics, and appliances.
- a Carbon Offsets Initiative

Your Carbon Footprint: "What can I do?"

While Carnegie Mellon will have its own sustainability plan, individuals should also assess their activities and establish a personal sustainability plan.

Our Campus Conversation will focus on eliciting informed opinions that can provide guidance to policy makers at CMU, but below is a list of actions individuals can adopt to make a contribution to sustainability.

In the home and office

- Replace incandescent light bulbs with compact fluorescent bulbs (CFLs)
- Walk, bike, carpool, or use mass transit
- Conserve Water (e.g., low-flow showerheads)
- Adjust thermostat (-2 in winter, +2 in summer)
- Use powerstrips and unplug, turn off, or power-down electronics when not in use (e.g., computer, DVD, television)
- Purchase Energy Star appliances (e.g., washers, dryers, refrigerators)
- Be aware of the environmental impact of food choices
 - Drink tap water. Avoid bottled water
 - Reduce meat consumption
 - Choose organic foods
 - Buy locally produced food

In the community

- Not all mitigation options (e.g., solar or wind power) are appropriate or feasible for all communities. Individuals should learn how their community uses resources so they can support appropriate mitigation options.
- Become informed and help your family and friends to learn about climate change.
- Find out how policy makers at all levels propose to address climate change
- Actively support the policies you decide are most appropriate.
- Send letters of support for policies you find valuable and letters indicating your lack of support for policies you do not see as helpful to addressing climate change.

To get a copy of the full background materials and review the resources cited in this pamphlet visit: caae.phil.cmu.edu/cc/polls/



CLIMATE CHANGE AND THE CAMPUS

SETTING AN AGENDA FOR SUSTAINABILITY AT CARNEGIE MELLON

Receive balanced information on the issue

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Get answers from a panel of experts

MAKE PLANS TO JOIN US

TUESDAY APRIL 7, 2009
4:30 PM-6:30 PM
STEVER HOUSE

contact: campusconversationscmu@gmail.com

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Carnegie Mellon
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Pittsburgh Climate Initiative

FOCUS THE NATION EMPOWERING A GENERATION TO POWER A NATION

Climate change and the Campus

Across the nation, universities are becoming more sustainable communities. CMU pursues sustainability through environmental education, research, and outreach to the Pittsburgh region. The university has a Green Practices Committee, is co-chair of Pittsburgh's Higher Education Climate Coalition, is a member of the Association for the Advancement of Sustainability in Higher Education (AASHE), and it receives an annual 'Sustainability Report Card' from the Sustainable Endowments Institute (SEI). In 2007, Sierra Magazine acknowledged CMU's commitment to sustainability by naming it the 10th 'coolest school' in the nation.

Recently universities have faced pressure to publicly commit to specific targets and actions by signing pledges, such as the American College and University President's Climate Commitment (PCC). However, policymakers at CMU find that such pledges do not account for local constraints on actions and options, they set unrealistic timelines for planning and decision-making procedures, and they lack clarity about key terms, such as 'climate neutrality.'

For a local sustainability plan, institutions need a clear sense of specific challenges, resources, and realistic options. Such information can spur the imagination of all community members so individuals and policymakers can establish local targets and identify useful actions.

Questions for Campus Conversation

How should policymakers at CMU involve the community in sustainability planning?

Should CMU encourage university-wide changes to curricula and research that promote and gather information for a sustainability plan?

Conservation and Efficiency

Students, faculty, and staff expect CMU to be 'turned on' 24-hours a day. However, producing the energy needed to heat and cool buildings, power labs and computer clusters, and light performance spaces and sports facilities creates a significant carbon footprint.

A sustainability agenda will require that we make our facilities more efficient and that we use our facilities more efficiently.

CMU pursues LEED® certification for new construction and purchases a portion of its electricity from renewable resources (29%). However, CMU cannot meet its energy needs solely from renewable sources, and it is often prohibitively expensive to pursue LEED® certification when renovating older buildings.

A more efficient use of facilities may involve changes that pay for themselves in decreased energy costs (installing occupancy sensors and CFL bulbs). However, facilities managers and policymakers may also develop plans to 'power down' equipment (copiers, computers) at times of low demand during the day, and they may choose to restrict overnight access to facilities, which will affect the availability of libraries, studios, labs, and computer clusters.

Questions for Campus Conversation

How do you think CMU can use facilities more efficiently?

How might you be affected by a plan to 'power down' equipment and restrict access to facilities ?

Carbon Offsets

Emissions from the Bellefield Boiler Plant, which provides much of CMU's electricity and steam, will be reduced when this plant is fully converted to natural gas on July 1, 2009. However, CMU cannot meet its energy needs solely from renewable sources. Air travel, too, is necessary for faculty research and for the personal travel of our diverse, international community.

Individuals and institutions can offset unavoidable local emissions by paying for the production of renewable energy in other places. However, the carbon-offset market is currently unregulated. It lacks a legal framework for standards and enforcement, although some offset providers voluntarily participate in third-party verification programs.

Any carbon-offset initiative at CMU will require new funding. For example, carbon offsets for travel might be funded with a mandatory student fee (\$7-\$30/semester) or by charging departments for the professional travel of faculty members (\$17 - \$67/semester). Alternately, funds could be supplied voluntarily. In addition, any initiative will require an infrastructure to manage these funds.

Questions for Campus Conversation

For a carbon-offset initiative, policy makers at CMU will need to decide

- Are offsets a legitimate option?
- How should offsets be funded (voluntary or mandatory)?
- How much should individuals contribute?
- Who should manage the fund and decide how its funds should be distributed?