



ENERGY CHALLENGE

Notre Dame Science

Energy & Sustainability Newsletter

College of Science Committee on Sustainability

Spring 2009

Committee Members

Margaret Dobrowolska-Furdyna (Physics)

Jessica Hellmann (Biological Sciences)

Prashant Kamat (Radiation Laboratory)

Ken Kuno (Chemistry and Biochemistry)

Anthony Serianni (Chemistry and Biochemistry): Coordinator

Vision

The College of Science Committee on Sustainability (COSCOS) will become a key resource on the Notre Dame campus for individuals or groups of individuals interested in studying energy use and sustainability, and in applying sustainability principles and methods to specific human problems and activities. The Committee will identify strategic areas of study, and engage COS and other faculty with energy related interests, including global climate change, alternative energy research, and sustainability. The Committee will promote active research by stimulating and supporting new energy-related and sustainability research proposals involving COS faculty. The Committee will raise the level of awareness to sustainability issues within the Notre Dame community through oral and written communication, courses, meetings, seminars, workshops, and symposia. The Committee will engage in community outreach efforts at local elementary and high schools to promote a culture of sustainability in future generations. COSCOS will also engage local and national policymakers to inform them about scientific understanding on issues related to energy and sustainability.

Mission

To identify, discuss, research, communicate and publicize energy-related and sustainability problems, issues and challenges as they relate to the Notre Dame, South Bend, state, national, and global communities.

Flip a Switch and Support a Student *COS Challenges the Dome on Energy Use*

The Dean of the College of Science, Gregory Crawford, and his Committee on Sustainability recently surveyed our buildings and associated infrastructure with an eye towards reducing energy consumption and promoting sustainability. To complement ongoing investments in energy-conserving technologies on campus, the College of Science believes it can reduce its energy footprint substantially and experience a substantial savings annually. This can be accomplished by promoting cultural change in its students and faculty and by managing energy use more closely in its lecture halls and laboratories. In the first phase of this plan, college staff, administrators and professors will work with students to reduce electrical use while COSCOS members will work with facility managers in Galvin, Stepan, Nieuwland and Jordan halls on a similar objective. The Dome will support college efforts by converting

the annual savings into funding for undergraduate and graduate students working in a sustainability related area. The program will start in February 2009, and the annual savings will be calculated by comparing the energy budgets for 2009 and subsequent years to the baseline 2008 budget. At the same time, Dean Crawford has challenged Provost Burish to a friendly energy competition between the college and the Dome, to which Provost Burish responded, "This is a wonderful idea in which everyone will win - Let the competition begin!". According to Dean Crawford, "The college hopes to assume a prominent role at Notre Dame on energy conservation and sustainability matters, and will continue to collaborate with the newly-formed Office of Sustainability, other colleges and efforts on campus, and other groups both on and off campus to fulfill its mission."

Tips to reduce home electrical consumption:

Replace exterior home lighting incandescents with more energy-efficient fluorescent lamps (CFLs). If a 100-W conventional bulb burns 12 h per day, this translates into 1.2 kW h per day or 37 kWh per 31-day month. At 10 cents per kWh, this costs you \$3.70 per month. A lumen equivalent CFL consumes 23 W, or 8.6 kWh (85 cents) per month. If you reduce the on-time to 7 h per day (on at 10 PM/off at 5 AM), total monthly kWh = 5 and cost is 50 cents. That is 13% of the original cost of \$3.70. Obviously, the more routine-use incandescents you replace, the more you save. If you are concerned about mercury in CFLs, replace bulbs in exterior fixtures only.

Wash your clothes in cold water whenever possible: the high heat capacity of water makes heating water expensive, even if you have an Energy-Star electric or gas hot-water heater. Another option is to install one or more on-demand electric hot water heaters with capacities sufficient for your home needs. In this case, you heat only what you use.

Want to participate in COSCOS? We are looking for a few good men and women to help promote the mission and work of COSCOS. If you want to participate as a committee member, or as a periodic contributor, please let us know. We will also be contacting people in the college from time to time to help us with specific projects.

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