Living Green

On
College and University Campuses
In Connecticut

"It's not easy being green!" Kermit T. Frog

Guidelines for Developing Sustainability Plans For College and University Campuses

At Eastern Connecticut State University

Sustainability Planning Initiative

The Institute for Sustainable Energy (ISE) at Eastern Connecticut State University (ECSU) has initiated a project to research, identifies and promotes effective processes and activities for developing Sustainability Plans on college and university campuses throughout Connecticut. The Institute is developing the capability to provide leadership and resources to Connecticut schools interested in taking a comprehensive sustainability approach that takes into account energy use and cost, greenhouse gases for building systems and transportation, water and sewer conservation, recycling, hazardous waste reduction and disposal and materials procurement. The model being developed will be tested and refined utilizing the Eastern Connecticut State University campus. The process uses a collaborative, integrated, team-based approach engaging administrative staff, students, faculty and technical experts. It targets thirteen areas of sustainability activity on typical campuses (attached). The model will be available to other universities later in 2003.

Towards this end, Eastern Connecticut State University and the Institute for Sustainable Energy has entered into a partnership with Clean Air – Cool Planet (CA-CP), one of New England's leading nonprofit organizations for identifying and promoting solutions to global warming, ECSU and ISE will assist in the further development of CA-CP's CO_2 inventory software and their process for creating climate change action plans with universities. CA-CP has offered to have ECSU becoming one of the universities that will set an example for other schools in Connecticut. ECSU was selected because the University has already taken exemplary initiatives such as installing the geothermal heating and cooling system in the high-rise dorm, the Silver LEED rating on the proposed Science building and has development the Institute for Sustainable Energy. The Institute is well positioned to promote clean air programs related to energy use and emission reduction, and to provide ongoing support to the Connecticut Climate Change Action Plan initiatives and sustainability planning already underway with other universities throughout Connecticut.

Why focus on Colleges and universities? In order to ensure a healthy, prosperous and sustainable future for human society, colleges and universities are ideally positioned to play a leadership role in addressing the issue of climate change. By engaging those institutions to implement solutions to climate change, ECSU, the Institute and CA-CP seeks to expand the role of universities in the national and international climate discourse, produce real emissions reductions, establish a network of universities and communities within Connecticut working together toward a common goal, and highlight models of local climate protection that can be replicated in other parts of the US and elsewhere. Perhaps most importantly, in acting to reduce their own contribution to climate change, colleges and universities will serve as learning laboratories where by the campuses are "learning by doing" with broad implications for society at large.

12 STEPS TOWARD SUSTAINABILITY

Suggested Actions for Campus Greening

1. **Teaching and Research** - Strengthen and prioritize undergraduate, graduate, and post-grad environmental studies, research, and policy programs. Teach environmental literacy to all students. Expand opportunities for using the campus physical plant and business operations as a "learning lab" for students. Develop community environmental education programs and participate in public dialogue on environmental issues in the wider community.

2. **Purchasing and Administrative Services** - Implement an environmentally-friendly products purchasing policy, i.e., buy only products which are durable, reusable, recyclable, made of recycled materials, non-hazardous, energy efficient, sustainably harvested, produced in an environmentally sound manner, etc.

3. **Solid Waste Reduction and Recycling** - Establish a waste reduction ethic in all areas, Perform waste stream analyses to determine recycling potential. Implement a recycling program starting with paper and cardboard and expand to metal, plastic and glass. Recycle tires, batteries, fluorescent lamps and ballasts, computers, scrap metal, Compost organic waste. Recycle hazardous waste-containing products, such as fluorescent lamps and ballasts, anti-freeze, solvents, batteries, computer monitor and TVs. Seek to recycle at least 50% of campus waste stream.

4. **Energy Conservation** - Create energy databases that documents energy use and completed energy conservation projects. Promote linkage between energy conservation effort with programs to reduce campus carbon dioxide emissions and contribution to global warming.

5. **Energy Purchasing** - Structure energy purchases to benefit your conservation program. Use energy efficiency measures to flatten campus load profile to lower electric rates. Phase out use of dirty fuels like oil. Buy green power.

6. **Water and Wastewater**- Implement water conservation program to repair leaks and retrofit inefficient plumbing fixtures. Protect ground water and storm run-off by minimizing use of salt for ice-melting. Use drought-resistant plantings and minimize irrigation unless using captured rainwater.

7. **Hazardous Materials -** Meet or exceed legal "haz mat" handling, collection, disposal and tracking requirements. Educate campus hazardous waste generators about minimization and proper disposal techniques. Develop a chemical tracking or inventory database, Implement a "chemical swapping" program. Switch to non/least toxic paints, solvents and cleaning agents. Switch print shop to soy-based inks. Use integrated pest management techniques to minimize or eliminate use of pesticides. Recycle and recover ozone-depleting CFCs. Avoid chlorine-based products and incineration of plastics.

8. **Transportation** - Encourage travel by carpooling, public transportation, bicycling, walking. Convert vehicle fleet to hybrid or alternative fuel, e.g., natural gas, electric and bio-diesel.

9. **Food and Food Service** - Buy regional produce in season. Support local organic farms. Promote less meat consumption and eating "low on the food chain" for health and environmental reasons. Minimize the use of disposable dinnerware. Implement a reusable mug program with discounted drinks at dining areas.

10. **Campus Grounds and Land Use** - Redefine campus beauty. Reduce lawn areas and grass cutting. Promote "natural succession" for unneeded lawn areas. Protect woodlands, wetlands, watershed, and wildlife. Implement a tree protection policy. Plant native species.

11. **New Construction -** Utilize sustainable or "green" design principles for all new construction and rehabs. Design for state-of-the-art energy efficiency and exceed energy codes. Incorporate renewable energy technologies including daylighting and passive solar. Include suitable recycling collection space in building design programs. Specify environmentally-friendly building materials and products. Evaluate options based on life cycle analysis.

12. **Campus Planning and Design -** Develop campus master plan which minimizes negative impacts and disruption of natural ecosystems and surroundings. Preserve and enhance green space. Protect natural areas from development. Concentrate buildings and arrange campus walkways and roads to minimize on-campus driving and create a convenient pedestrian and bicycle campus. Use water-efficient indigenous plantings; landscape for energy efficiency as well as aesthetics.