

CONNECTICUT COLLEGE
State of the Environment Report
for 2006-2007

Submitted by Amy Cabaniss,
Campus Environmental Coordinator
to the
Environmental Model Committee

September, 2007

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Environmental Stewardship

Connecticut College is proud of its pioneering tradition of ecological awareness and responsibility and intends to remain a leader in safeguarding the environment. The arboretum campus is an ecological showpiece, and the College's procedures and programs aim to preserve and protect the environment, both locally and globally, and to prepare citizens sensitive to the need for responsible environmental stewardship. -- *Connecticut College Mission Statement excerpt*

The Environmental Model Committee (EMC)

The EMC was established in the early 1970s under the leadership of Professors Richard Goodwin and William Niering, who also created the innovative Human Ecology Program and major that is now Environmental Studies. The committee was first appointed by then President Charles Shain to support the commitment that Connecticut College daily operations as a residential and academic community should and could provide a model for living in an environmentally sustainable fashion. It has operated continuously since that time, with members appointed by the President. The expectation is that, through its operations, the college can educate by example: after four years of living in an environmentally conscious community, students take the ideas, information and daily routines established here and transplant them to their lives beyond the campus. Over the years, the ideal of working toward environmental sustainability has become part of the college ethos and it is an integral aspect of the college's identity for many students, staff, faculty and alumni. Environmental initiatives have also frequently resulted in positive and highly visible public recognition. National publicity for our support of renewable energy to offset our electricity purchases demonstrates the public relations value such programs can generate.

The EMC provides leadership, develops policies, initiates programs, and coordinates community education that allow College operations to function as a model of environmental sustainability. Working with the appropriate administrative, faculty, and student offices, committees and groups, the EMC:

- Develops programs and policies to help conserve energy, water, and other natural resources.
- Provides research, support and advice to Physical Plant for maintaining and improving the college waste management program.
- Undertakes research on environmentally sustainable products and systems and recommends them to the appropriate departments.
- Monitors and encourages the college's progress towards sustainability and annually prepares a report on campus environmental issues and initiatives for the EMC and college community.

In Academic Year 2006-2007, structural changes were made to the EMC through the recommendation and cooperative effort of the EMC and the Faculty Steering and Conference Committee (FSCC). The changes include: election of an EMC Chair from among the committee faculty members, reporting to the Dean of Faculty; the decrease of voting member positions from 21 to 18; some appointee title changes and permitting of member designees to serve as temporary replacements; the addition of a consultant category; and some wording changes. (See Appendix A.) EMC member and Economics Professor Gerald Visgilio became the first faculty chair of the EMC in January, 2007, replacing Amy Cabaniss, Campus Environmental Coordinator, who served in this position during fall semester. At Gerald Visgilio's request, Amy Cabaniss served unofficially as co-Chair of the EMC for the Spring Semester 2007.

EMC Appointed Members, 2006-2007

Administration and Staff

Vice President for Administration	Ulysses Hammond
Director of the Arboretum	Glenn Dreyer
Campus Environmental Coordinator	Amy Cabaniss
Manager of Buildings & Grounds Services	Ed Pistel
Director of Physical Plant	Jim Norton
Manager of Capital Projects	Steven George
Engineering Systems & Project Manager	Peter Horgan
Area Coordinator, Residential Life	William Harper
Grounds Supervisor	Jim Luce
Manager of Printing Services	Chris Barclay
Director of Environmental Health & Safety	Steve Langlois
Director of Media Relations	Eric Cárdenas
Library/Information Services Representative	Gary Tiller
Board Plan Manager, Dining Services	Michael Kmec

Faculty

Director of the Goodwin-Niering Center	Bob Askins, Biology
2005-2008 Faculty Appointee	Candace Howes, Economics
2005-2007 Faculty Appointee	Gary Parker, Computer Science
2004-2007 Faculty Appointee/EMC Chair	Gerald Visgilio, Economics

Students

SGA Senator	Leia Crosby ('09)
SGA Senator	Sara Trapido ('08)
Student at Large	Jordan Motzkin ('10)
Student at Large	Tyler Raymond ('10)

Friends of EMC were numerous and varied in 2006-2007, representing each campus sector. This year, student group leaders were personally invited and encouraged to attend each meeting, as were the House Environmental Representative Coordinators and the Building Environmental Representatives. Many of the invitees regularly attended meetings. The EMC meetings are open to any College employee or student interested in attending. Participation in the meetings is welcomed although voting privileges are reserved for committee members.

Part 1: Summary of 2006-2007 Sustainability Initiatives

Connecticut College has adopted strategies to systematically address the sustainability issues of the institution. Environmental stewardship is addressed in the college Mission Statement and executed via committees, policies, programs and practices. This year, wording on the College's commitment to environmental stewardship and sustainability was included in both the CC Vision and Strategic Priority documents thereby formally institutionalizing our environmental culture.

The Environmental Model Committee (EMC) addresses a number of key campus environmental issues including energy conservation, renewable energy, recycling, green building and communications. Added to the EMC agenda and addressed through subcommittee participation, was Earth Day-Community Day (ED-CD), an expanded Earth Day event with broadened outreach to the community.

The EMC subcommittees, implemented in 2005, continued to be an effective means of involving interested participants, identifying action items and fostering progress. Comprised of EMC members and other volunteers (i.e. Friends of EMC), the subcommittees met monthly to discuss, and identify action items on, the key issues listed above. Each of the six subcommittees included a chairperson, staff, faculty, student representatives and the Campus Environmental Coordinator. The year's EMC subcommittee chairs were: Energy conservation – Tyler Dunham, Renewable Energy–Gerald Visgilio, Recycling–Jim Luce, Green building–Glenn Dreyer, Communications–Holly Camerota, ED-CD–Amy Cabaniss and William Harper. (See Appendix B.)

Energy

Energy Conservation, Efficiency and Emissions

The trend in campus electricity purchase has generally been upward since tracking began in 1990, with a slight decline in 2006-2007 from the prior year purchase of 15,795,743 kWh (see Figure 1.) This year's campus consumption of 15,570,704 kWh of electricity once again necessitated actions to decrease energy use; it was a top priority of the EMC.

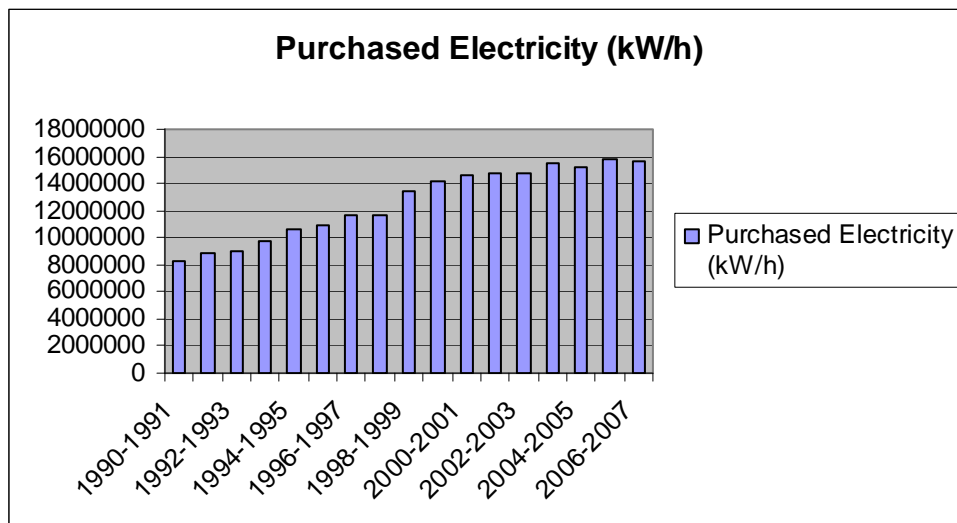


Figure 1. 1990-2007 Purchased Electricity, Connecticut College (even years labeled)

To improve energy efficiency and conservation on campus, a number of energy-saving initiatives took place this school year. These include:

- **American College & University Presidents Climate Commitment:** President Higdon became a charter signatory of the ACUPCC in January, 2007 and in February a subgroup of the EMC (i.e. Gerald Visgilio, Peter Horgan, Glenn Dreyer and Amy Cabaniss) met with President Higdon to discuss the Climate Commitment and EMC initiatives. A subcommittee of the EMC was then set up to address the Climate Commitment Challenge Options. The Association for the Advancement of Sustainability in Higher Education (AASHE) plans to release an ACUPCC Implementation Guide in August or September, 2007 that will be used by the Climate Commitment Subcommittee of the EMC to guide College steps toward 'climate neutrality.' For the purposes of the ACUPCC, climate neutrality is defined as having no net GHG emissions, to be achieved by minimizing GHG emissions as much as possible and using carbon offsets or other measures to mitigate the remaining emissions (per correspondence with AASHE, 1/07).
- **Building Energy Assessments:** One of the activities of the Building Environmental Representatives was to undertake energy assessments of their buildings (a.k.a. the Lights Out and Eliminate the Drafts programs). Using an assessment checklist (See Appendix C) and receiving training provided by Peter Horgan, Engineering Systems and Project Manager, the BERs examined their offices and/or buildings for areas for improvement in energy conservation and efficiency. Included in the assessment were: computers and other electronic equipment, light bulbs, air conditioning and heating, windows, faucets and sink and toilet water flow rates.
- **Energy Conservation and Efficiency Policy Draft:** An ad-hoc committee of the EMC with members, Gary Parker, Gary Tiller and Amy Cabaniss, drafted an Energy Conservation and Efficiency Policy that was presented at the final EMC meeting in May. (See Appendix D). This draft policy will be readdressed in the September EMC meeting. The EMC, where possible, seeks to identify low cost ways to reduce our energy use.
- **Concert from Conservation:** This student initiative to reduce the consumption of heating fuel and electricity on campus with the incentive of a concert supported by a percentage of the money saved from conservation. More specifically, if the college used less electricity than it had in previous years (a five year average), 25% of the savings would go towards the Student Activities Council. The result: a 12% savings of electricity from the five year average, equivalent to 108,000 kWh and \$8,867 (2,216.73 was given to the SAC to support their events).
- **Greenhouse Gas Emissions Inventory** – Jeff Nemeč ('09), Summer Sustainability Intern, updated the GHG emission report for the college using the Clean Air-Cool Planet e-calculator and format. This report updates the previous reports by students, Jennifer Dziubeck and Elizabeth Parillo, covering academic years 1990-2007.

Greenhouse Gas Emissions Inventory

The GHG Emissions Inventory has been done by summer sustainability interns who analyzed and reported data for each year since 1990. The emissions data are analyzed using the Clean-Air Cool Planet (<http://www.cleanair-coolplanet.org/>) "e-calculator." The emissions per student between 1990 and 2000 averaged 6.5 metric tonne equivalents of CO₂, remaining below 7 metric tonne e CO₂. The average emissions rate increased for 2001-2006 with a range of 7.6 – 8.7 metric

tonne e CO₂. Campus community (i.e. students, faculty and staff) emissions have shown the same upward trend post-2000, albeit with lower collective emissions. Between 1990 and 2000, emissions averaged below 5 metric tonne equivalents of CO₂. The average rose for the 2001-2006 timeframe, with a range of 5.5 – 6.3 metric tonne e CO₂. Despite the relative increase over prior years, a downward trend (i.e. lower GHG emissions) appears to be occurring between 2003 and 2006 (See Figures 2 and 3).

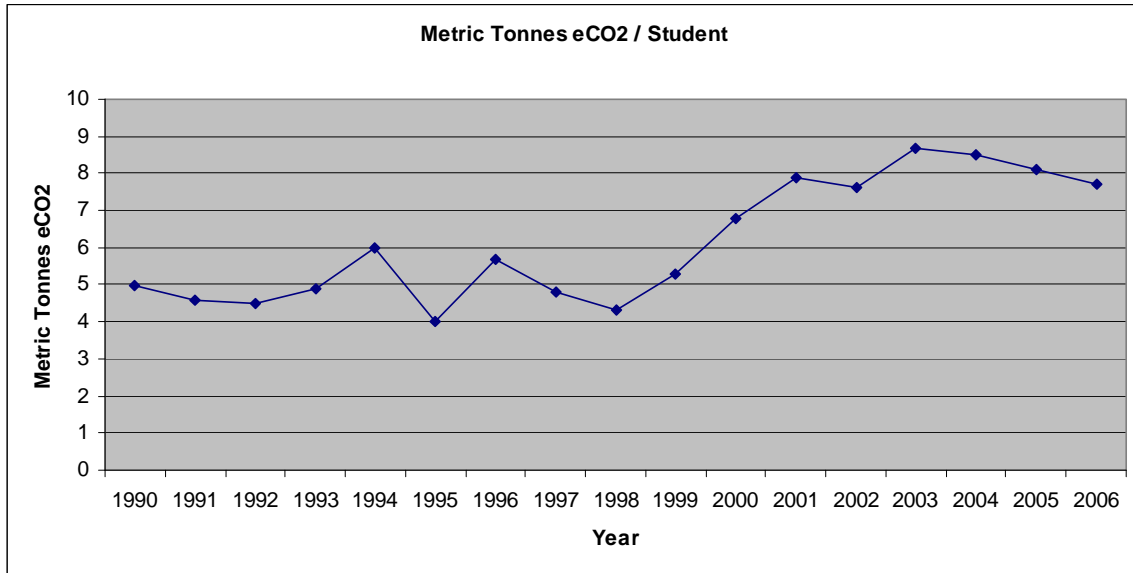


Figure 2. Emissions per student in metric tonne equivalents/student/year from 1990-2006

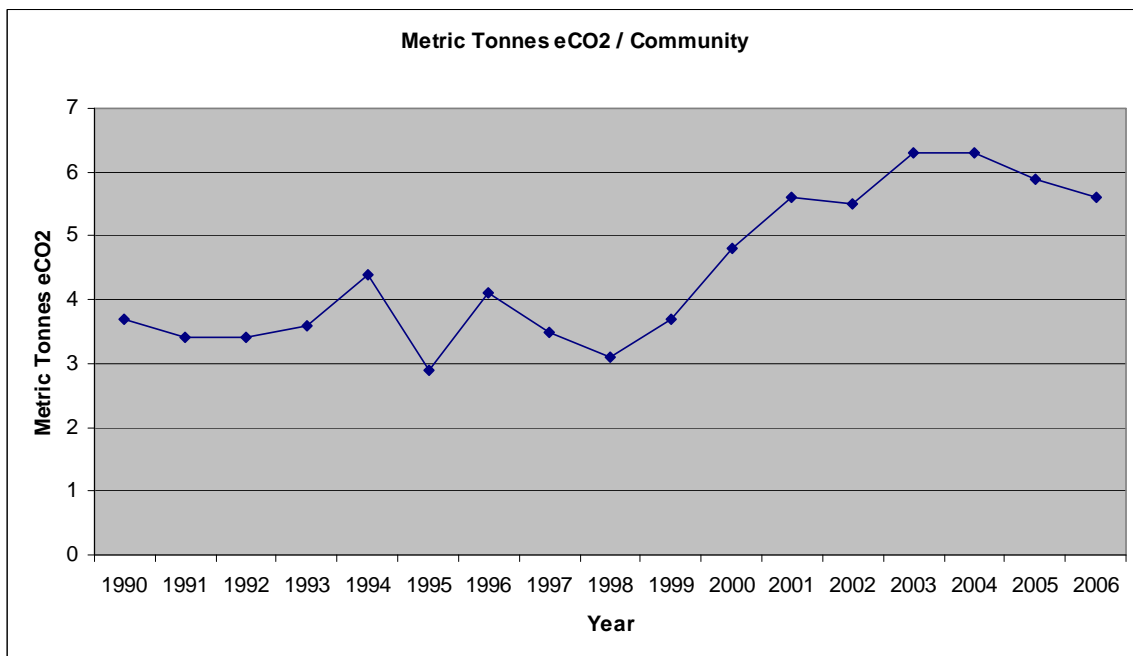


Figure 3. Collective emissions per CC community members (i.e. students, faculty, staff) in metric tonne equivalents/year from 1990-2006

Overall Greenhouse Gas Emissions - The total emissions of carbon dioxide equivalent of greenhouse gases at Connecticut College has increased by about 48% from 9,226 metric tonnes of CO₂ in 1990 to the emission of 13,680 metric tonnes of CO₂ in 2007. The majority of these emissions is a result of the amount of on-campus stationary sources of energy that account for about 52% yearly (in FY 2006-2007), and the amount of electricity purchased by the college that accounts for about 46% (in FY 2006-2007) of emissions yearly. (See Figures 4 and 5.)

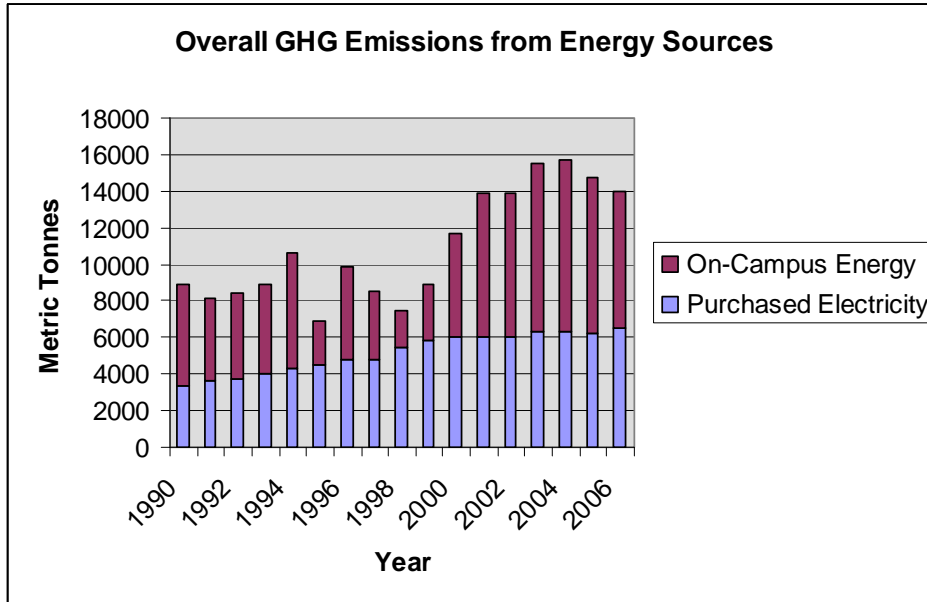


Figure 4. 1990-2006 overall greenhouse gas emissions generated by campus energy use – metric tonnes of CO₂ equivalents

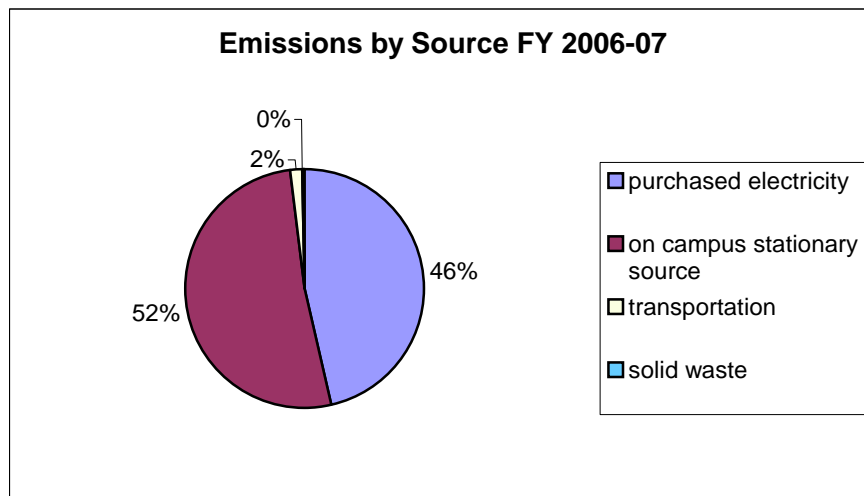


Figure 5. Percentage emissions from energy consumed on-campus for FY 2006-2007

On-Campus Stationary Sources - As shown in Figure 4, on-campus stationary sources of emissions (e.g. oils, natural gas, and propane used to run the campus heat-generating boilers) are the biggest fuel sources consumed and contributing to campus emissions. An estimated 52% of all Connecticut College greenhouse gas emissions are generated from this source. These fuels are used for heating the campus and other energy purposes. For example, boilers generate steam that

is then distributed across campus and used primarily for heating the campus buildings, as well as for hot water for showers and for cooking in the dining halls. Usage of one fuel versus another is weather and cost dependent for specific years. For example, in the year 2000, no residual oil was used and the boilers ran on 101,005 MMBtus of natural gas. Other years, No. 6 fuel oil was predominantly used with little natural gas burned. Regardless of which fuel is consumed in the greatest quantity, on-campus stationary fuels remain the largest source of emissions. Excerpted from *Connecticut College Greenhouse Gas Emissions Inventory Report (2007)*.

Renewable Energy

To decrease our dependence on non-renewable fossil fuels and nuclear power, the EMC has examined renewable energy options for on-campus generation and to offset electricity purchases. A number of renewable energy initiatives took place during the year, including:

Wind Feasibility Study - During the Fall 2006 semester, Global Energy Concepts (GEC) of Seattle, Washington, undertook a wind feasibility study for the College to determine if an on-campus wind turbine would be a practical means of generating electricity. Commissioned by the EMC, the goals were to:

- perform a detailed site inspection
- establish the estimated wind resource range
- evaluate turbine site conditions
- determine project scale

The feasibility study was set up to be conducted in two phases. Phase I quantified the amount of wind available on campus and indicated what scale turbine, if any, would be practical to place on campus. Phase II, if needed, would have examined regulatory, economic, engineering, environmental and aesthetic issues associated with the project. Based on the data gathered in Phase I, GEC did not recommend a wind turbine on campus. While the campus experiences significant wind resources at times, our site is at the minimum range for a 100 kW wind turbine to be economically feasible. In addition to low wind, limitations presented in the GEC report are:

- **Site Availability** — There are few sites on campus where a turbine could be located. This is due to several factors including occupied space, visual impact, a safety zone set-back requirement, and electrical connection access.
- **Energy Generation** — A 100 kW wind turbine would supply only enough energy to compensate for about 1% of the college's energy demand. A smaller turbine would provide a negligible contribution.

Baseline Noise Survey – On November 27th and 28th, 2006, a baseline noise survey was conducted with measurements by Mr. Paul Heishman of PH/PE, Inc. of Boiling Springs, PA. Mr. Heishman, the parent of CC student, Emma Heishman, provided his services gratis. Other students Tyler Dunham and Noah Fralich, and Amy Cabaniss participated in the field study. Results presented in the final report indicate that, “Monitoring was performed at several locations in the vicinity of the most likely turbine location during different times of day. Traffic noise from I-95 provided a steady background source. Traffic on Williams Street was more intermittent, but due to its proximity it was louder. Less regular sources included airplanes, sirens and train horns in the distance, and birds.” A copy of the *Baseline Noise Survey Report* can be obtained from Amy Cabaniss. Gerald Visgilio sent a thank you note to Mr. Heishman on behalf of the EMC.

Purchase of Green-e[®] Certified, 100% wind Renewable Energy Certificates (RECs) from 3 Phases Energy Services (CA) for one year (July 1, 2006–June 30, 2007) to offset 15,000,000 kWh, equal to almost 100% of our electricity purchase. The estimated environmental impact of offsetting 100% of our total energy use is prevention of 20 million pounds of CO₂ emission. This is roughly equivalent to taking 2,000 cars off the road or planting 7,728 acres of trees annually,

according to 3 Phases Energy. Funding for the REC purchase comes from the student comprehensive fee surcharge of \$25/student. This purchase is permissible under the Renewable Energy Policy and was supported by the EMC, Renewable Energy Club and SGA. The magnitude of this electricity purchase compensation and support of wind energy resulted in a U.S. EPA award to the College through its EPA Green Power Partnership Program. CC was recognized as the top New England Small College Athletic Conference Champion at the Second Annual Campus Sustainability Conference in MD.

Table 1. Renewable Energy Purchases – Direct Power and Renewable Energy Credits

Academic Year	Vendor	Green Electricity Purchased (kWh)	Total Electricity Purchased at CC (kWh)	% of Electricity Off-set
2001 – 2002	Connecticut Energy Cooperative	Exact Amount Unknown (direct power purchase)	14,782,706	15 – 20%
2002 – 2003	EAD Environmental	3,200,000 (wind energy credits)	14,712,876	24.75%
2003 – 2004	EAD Environmental	6,316,667 (wind energy credits)	15,534,784	40.66%
2004 – 2005	EAD Environmental	6,316,667 (wind energy credits)	15,192,077	41.58%
2005 – 2006	3 Phases Energy Services	7,500,000 (wind energy credits)	15,795,743	47.48%
2006 – 2007	3 Phases Energy Services	15,000,000 (wind energy credits)	15,570,704	96.33%

- *Donation of Green-e® Certified Renewable Energy Certificates (RECs)* from 3 Phases Energy Services (CA) for the Presidential Inauguration of Leo Higdon on Saturday, October 14, 2006. The donation was for 99 MWhs of landfill gas RECs to offset on-campus and transportation energy consumption.
- *Solar* – The metered photovoltaic solar panels atop Park dormitory are generating an average of 23.26 kilowatts/day, an increase from last year’s estimated 22 kW/day. Solar street lighting was again considered and further specifications will be obtained and plans made in the 2007-2008 academic year. Physical Plant offered to begin by purchasing one street light and photovoltaic apparatus to serve as a pilot project.

Waste Management

Recycling

Connecticut College is committed to recycling and proper waste management. Between 1989 and 2007, excluding a few years due to inadequate or inaccurate data, the average tonnage of trash generated on campus was 459 tons. This compares to 203.7 tons of material recycled. The average recycling rate on campus is estimated to be 31%. (See Table 2 on next page.)

Table 2. Tonnage of Trash and Recyclables, 1989 – 2007

<u>Year</u>	<u>Trash (tons)</u>	<u>Recycling (tons)</u>	<u>Total weight (tons)</u>	<u>% recycled</u>
1989-1990	397	199	597	33
1990-1991	427	194	621	31
1991-1992	439	231	670	35
1992-1993	422	217	639	34
1993-1994	406	225	632	36
1994-1995	433	216	649	33
1995-1996	466	214	680	31
1996-1997	433	201	634	32
1997-1998	367	216	583	37
1998-1999*	457	<i>no data</i>	<i>no data</i>	<i>no data</i>
1999-2000*	463	<i>no data</i>	<i>no data</i>	<i>no data</i>
2000-2001	480	209	689	30
2001-2002	526	213	739	29
2002-2003*	<i>no data</i>	<i>no data</i>	<i>no data</i>	<i>no data</i>
2003-2004	526	156	682	23
2004-2005	502	154	657	23
2005-2006**	721	690	1,411	49
2006-2007	603	207	810	26

*Given lack of data, these years were not included in the following data averages.

**This data includes the college's bulky waste recycling in addition to bottles, cans, paper, that is not reflected in prior years' computations. It is therefore not included in the data averages.

- As of 2005, the College began collecting 'mixed paper' (e.g. office paper, magazines, catalogues, newspaper and cardboard) instead of separated office paper, newspaper and cardboard. Capture rates for mixed paper were approximately 2.7 lbs/week/person, as indicated by data collected for RecycleMania 2007, the intercollegiate, 10-week recycling competition. All totaled for 2006-2007, approximately 27 tons of mixed paper were brought to the New London Transfer Station and another 121.2 tons of cardboard and paper products (including discarded books) were hauled by Tinnerello Waste Removal and Recycling Services (*Waste and Recyclable Material Inventory, FY 2006-2007*). Please see Figure 5.
- The College does not currently compost its organic materials. On average, 13,370 lbs. of food waste is generated weekly from the dining halls when the college is in session. Harris Refectory, the College's main dining hall, generates 73% of the material. Most of the organic remains are sent to Saccarelli Farms, a piggery in Norwich at a cost of \$425/month, regardless of actual material produced. In an effort to compost organic materials, students associated with the student club, Sprout, applied for a \$25,000 award through GE/mtv-U. The grant challenged applicants to "develop new, creative ways to green their campus." The entry, "Community, Conservation, Compost: A Holistic Approach," proposed using commercial-sized compost bins ("Earth Tubs") to reduce the amount of food waste generated by the College. While identified as one of the top 10 entrants, the money was not awarded for their proposed composting project. Instead, an anonymous donation was made to make the institutional composting a reality. The Earth Tubs have been purchased and a site prepared for set-up in September.

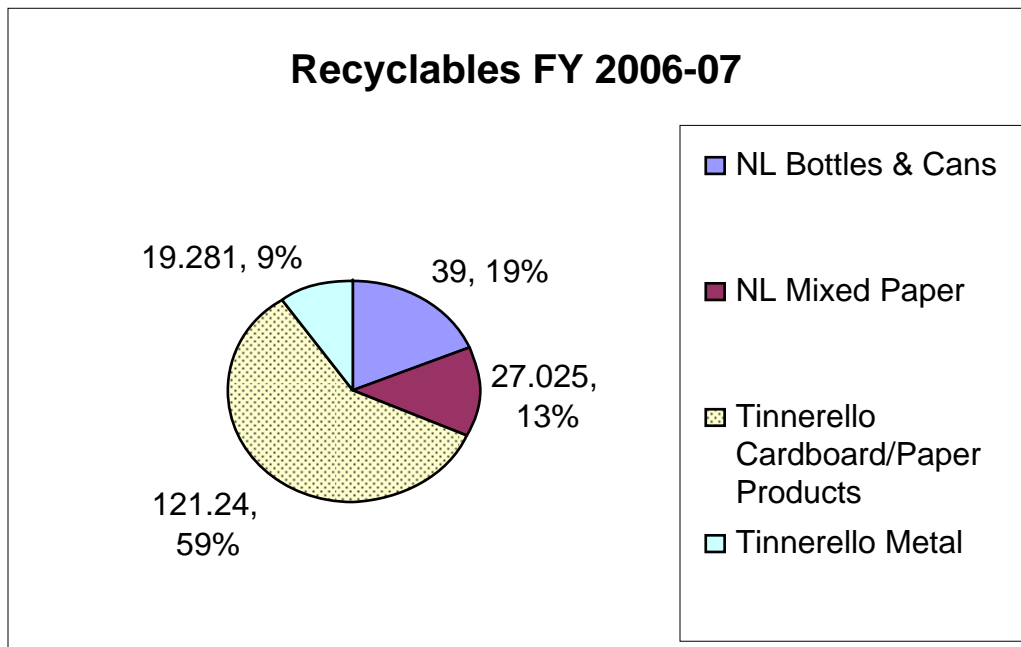


Figure 5. Tonnage of material recycled and disposal destinations

- *RecycleMania* – For a second year, Connecticut College participated in the 10-week, intercollegiate recycling competition, *RecycleMania–Per Capita Classic*. The Per Capita Classic is the traditional *RecycleMania* competition format in which schools compete to see who can collect the most recyclables. Between January 28th and April 7th, Jim Luce and student employee, Elizabeth Parillo ('07), worked to track and report CC's recyclable material weights (divided by campus population) to the competition organizers. Connecticut College ranked 24th out of the 201 U.S. colleges and universities enrolled (i.e. in the top 12%), with 39.5 lbs of cumulative recyclables/person. This compares to 5th place out of 87 schools in 2006 (i.e. top 6%). In one 2007 targeted material category, 'Food Service Organics,' CC ranked 4th. The decreased ranking, attributable to a decline in lbs/recyclables/person, may be due to several factors including the fact that the competition was no longer a novelty given participation the prior year. Awareness of the competition may not have been as high this year - the in-house newsletter, *Source*, was not distributed during this time (last year, *RecycleMania* was regularly highlighted). Also, the *RecycleMania* banner remained in Harris for the 10-weeks rather than being hung in Cro part of the time. Additionally, less 'tabling' was done by students this year. Tabling involves students setting up and staffing a table in Cro and/or Harris to talk with students, faculty and staff about the competition specifics and to encourage them to sign a 'Pledge to Recycle More' card that includes the incentive of entering the participant's name in a prize drawing. This year's prize of a Charles Chu print of the CC campus went to Gay Butts whose name was randomly selected from the collected commitment cards.
 - *RecycleMania* articles were presented in the *Voice*, *SGA On the Can*, *This Week at CC*, *Daily CONNTact*, and on the CC website. Also, the *NY Times* included an article on *RecycleMania*, highlighting CC and some of the other schools.
 - The amount of recyclables collected by the participating colleges and universities during the 2007 competition was an estimated 41.3 million pounds.

Green Building

In 2001, a Connecticut College Green Building Policy was drafted to reduce the environmental impact of campus construction projects, improve the quality of residential and work environments, and to maintain the College's position as an environmental leader. For appropriate new buildings and major renovation projects, the policy indicates the necessary use of a set of recognized environmental guidelines (such as Leadership in Energy and Environmental Design or LEED®), the use of green building materials, cleaning products, and maintenance methods, the use of energy efficient systems, the installation of water conserving systems, and the improvement of indoor air quality through use of appropriate building materials and ventilation systems. LEED standards are set by the U.S. Green Building Council (USGBC).

The EMC Green Building Subcommittee met several times during the school year to discuss the major renovations to the interiors of Marshall and Hamilton residence halls in the summer. This part of the "Plex" was first renovated in the summer of 2006 by Konover Construction Corporation, reconstructing the façade or exterior "envelope" with new siding, windows, roof covering and other features. The 2007 interior renovations included new bathrooms, electrical work, a new fire alarm and sprinkler systems, two additional single rooms and one additional triple added to both dorms, relocation of the House Fellow suites, replacement of interior doors, some resilient flooring, painting, a new ramp and a vestibule and window wall in the Marshall common area.

Summer Sustainability Intern, Jeff Nemeč ('09), worked with the assistance of Konover Construction Company to document the renovations by referring to LEED, Green Building Rating System for New Construction (LEED-NC version 2.2). He also examined the LEED-NC Application Guide for Multiple Buildings and On-Campus Building Projects (LEED-NC: AGMBC). This use of LEED constitutes the second year the College has documented the sustainability efforts undertaken in building renovations. The College has not, however, chosen to seek LEED certification as of yet.

Using LEED as a guide, the College satisfied twenty-one of the credit requirements. Of seven pre-requisites, 5 were met. The result of the assessment by Jeff Nemeč is the progress document, *Connecticut College Green Building Policy in Action: Hamilton and Marshall Renovations* (Summer 2007), a copy of which can be obtained from Amy Cabaniss. If CC was seeking LEED certification, at least 26 credits and all pre-requisites would have to be achieved. This is something to strive for in future major renovations and/or new building construction.

Earth Day-Community Day 2007

The planning for Earth Day-Community Day 2007 began in October. EMC members Will Harper and Amy Cabaniss, along with Natasja Eerens (OVCS) and Kathy Dame (Arboretum) led the charge with interested CC students and staff and off-campus representatives of the Sierra Club, New London Earth Day, and Three Rivers United Environmentalists (TRUE) from Three Rivers Community College. The ED-CD Subcommittee of the EMC was co-chaired by Will and Amy, who regularly reported to the EMC. The successful event on the Green was held on April 21st and featured over 40 displayers and vendors plus performers, arboretum tour leaders, event volunteers, and an estimated 600 participants. Events included:

- Arboretum-sponsored children's activities including games, crafts and storytelling
- "Reuse-A-Shoe Van" hosted by Pine Point School to collect old athletic shoes to be made into Nike Grind, a material that is used to make athletic courses and tracks and playground surfaces
- Songs of the Earth by folk singer, Geoff Kaufman

- Mystic Paper Beasts on Parade
- New London Public School Poetry Contest winners
- Circle dance and drumming hosted by the CC Dance Department
- Earth salsa dancing
- Displays by: CC student clubs, CC Arboretum, CGA Sustainability Club, Ammanah, Barefoot Books, The Body Shop at Home, Connecticut Fund for the Environment, Flavours of Life, Fiddleheads, FRESH New London, Mystic Aquarium, NAGWAG (Norwich Area Global Warming Action Group), New London Earth Day, The Pampered Chef, Project Oceanology, Reforest the Tropics, Regional Multicultural Magnet School, Shaklee, Sierra Club, TRUE, Turcotte candles, Smith Barney, SolarWrights, Southeastern CT Resource Recovery & Recycling Authority, Susan Stone Above Elite Studios, Urban Eden Soap Company, and Wild Ones.
- Food and beverages
- An evening concert for CC students

This year's event was broadened from past CC Earth Day celebrations to increase campus involvement and outreach to New London County.

Other 2006-2007 Campus Sustainability Efforts

In addition to the sustainability initiatives addressed above, other sustainability efforts were made on campus. These include:

- EMC undertook plans and preparations, via an ad-hoc committee, for its campus-wide environmental sustainability baseline audit in 2007-2008.
- Active student environmental groups: Renewable Energy Club, Students Against Violence to the Environment (SAVE), Sprout
- Earth Day 2007 at the Williams School – Several students and staff participated in the school's Earth Day event on Friday, April 20th.
- Students led environmental activities and discussions at the Regional Multicultural Magnet School's first environmental conference.
- Steve Curwood, Host of *Living on Earth*, spoke on campus (hosted by Student Life and introduced by Amy Cabaniss)
- Pesticide-free gardening – Students and staff worked on preparing and seeding the garden by Earth House
- The 2006 Northeast Campus Sustainability Consortium (NCSC) Conference at Yale was attended by Amy Cabaniss.
- A subgroup of similar NCSC school representatives was contacted to commence 'Campus Conversations' for potential collaboration on addressing environmental issues.
- The House Environmental Representatives and HER Coordinators were active in their efforts.
- The Building Environmental Representative program continued to grow, albeit slowly. BERs performed energy assessments of several building areas. Amy Cabaniss and Holly Camerota served as BER co-chairs.

Part 2: Looking Ahead to the 2007-2008 Academic Year

Recommended plans for the EMC and campus environmental initiatives are:

Meetings with the College President – In addition to facilitating the committee meetings, the Chair should maintain scheduled meetings with President Higdon to keep him apprised of EMC efforts and College environmental initiatives.

Enhanced EMC subcommittee member involvement – The subcommittee structure enables EMC members and 'Friends of EMC' to actively participate in, and make progress on, a wide variety of

campus environmental initiatives. Subcommittee involvement and activity should increase in the new academic year. Revised subcommittee descriptions will reflect this increased emphasis.

Environmental Sustainability Baseline Audit – Secure funding and begin the process of an ESBA. Part of a broader campus sustainability audit, the ESBA is an analysis of the structural and behavioral aspects of campus operations with emphasis on resource consumption and the identification of products and practices that can be implemented to decrease our community's resource use and waste. The ESBA will include a review, and partial incorporation, of other Sustainability Audit elements (e.g. Utility Master Plan & Analysis, Energy Conservation Study and Renewable Energy Assessment) to identify opportunities, conflicts and gaps that need to be addressed in our short- and long-term environmental sustainability efforts. The result of this undertaking will include a comprehensive Environmental Sustainability Plan to guide our steps and progress.

Energy Conservation & Efficiency Policy – Obtain final review and undertake the process for formalization and implementation of the policy.

Renewable energy – Continue investigation for on-site renewable energy generation (such as solar panels) and purchase Renewable Energy Certificates (REC) to offset 100% of our electricity purchase (or a lower percentage if the renewable energy student fee surcharge is used to fund other College renewable energy projects).

Earth Day-Community Day is scheduled for April 19, 2008 with a rain date of April 20th. The ED-CD Subcommittee of EMC will aid in forming a multi-sector planning team to develop and implement an enhanced event with broader reach. The goal once again is to offer an organized, well-publicized and well-attended environmental awareness, education, entertainment and advocacy event that includes greater college community involvement and the involvement of individuals and groups from New London and surrounding towns. Unlike the 2006-2007 event for which in-house funding was provided, the prospect of external donations will be discussed with Advancement.

Other - Most of the issues and initiatives addressed by the Environmental Model Committee in 2006-2007 will carry over into this academic year, for example, the Building Environmental Representative program (to be co-chaired once again by Amy Cabaniss and Holly Camerota) needs to have increased representation and activity.

With the goal of increasing the recycling rate on campus and decreasing the amount of trash generated, the College will enter into RecycleMania for a third year and include recycling and waste minimization.

Energy conservation and efficiency education and initiatives will continue such as installing more Vending Misers on vending machines to power them down when not in use. A solar street light is on the docket for Physical Plant to erect as a pilot project in the 2007-2008 academic year. While the major Plex renovations are completed, the Summer Sustainability Intern will continue to track application of the LEED guidelines to other construction and renovation projects on campus.

Active participation by EMC members and Friends of EMC during the 2007-2008 academic year is anticipated and appreciated.

Respectfully submitted by Amy Cabaniss

Appendices

5.6.18 ENVIRONMENTAL MODEL COMMITTEE

5.6.18.1 Membership:

1. There are 18 members of the Committee who vote on all items before the committee
 - a. Four faculty members serve on the committee: the Director of the Goodwin-Niering Center and three faculty members who are appointed from among the voting faculty and who serve overlapping three-year terms.
 - b. Four student members are selected as decided by the SGA.
 - c. The following staff members serve on the committee:
 1. Campus Environmental Coordinator
 2. VP for College Relations or their designee
 3. VP for Library and Information Services or their designee
 4. Director of the Arboretum
 5. Director of Physical Plant Services
 6. Dean of Student Life or their designee
 7. Director of Dining Services
 8. Manager of Planning, Design and Construction
 9. Manager of Engineering Systems
 10. Manager of Buildings and Grounds Services
2. Consultants. The committee may ask members of the faculty, staff and student body to serve as consultants as deemed necessary. Regular consultants to the committee include:
 1. Manager of Printing Services
 2. Director of Environmental Health and Safety
 3. Grounds Supervisor.
3. The committee shall elect its own chair annually from among the faculty members on the committee.

5.6.18.2 Jurisdiction:

1. The Committee provides leadership in college-wide environmental sustainability planning and implementation by developing policies, initiating programs and overseeing community education. The Committee ensures that college operations function as models of environmental sustainability by working with the appropriate administrative, faculty and student offices, committees, and groups.
2. The committee is specifically concerned with the conservation of energy, water and other natural resources; the minimization of environmental pollution; and the minimization of solid waste generation through effective materials recycling programs.

5.6.18.3 Procedures:

1. The Committee, through the Campus Environmental Coordinator, prepares an annual report on campus environmental issues and initiatives.
2. The Committee may establish subcommittees as deemed necessary. Subcommittees will be chaired by a voting member of the Committee when possible.
2. The Committee reports to the Dean of the Faculty.

Environmental Model Committee

2006-2007 EMC Subcommittees

- **Communications Subcommittee**
Identifies, contacts and provides copy to media sources for salient environmental initiatives addressed by EMC
(Holly Camerota, Eric Cárdenas, Kathryn Gutleber)
- **Earth Day-Community Day Subcommittee**
Provides representation and recommendations to the 2007 Earth Day-Community Day organizing and event management team comprised of CC students and staff and external community representatives
(Will Harper, Elizabeth Parillo)
- **Energy Conservation & Efficiency Subcommittee**
Addresses energy consumption issues on campus and identifies and recommends or facilitates methods for decreasing energy use through conservation and efficiency
(Tyler Dunham, Peter Horgan, Cara Donovan, Sarah Trapido, Tyler Raymond)
- **Green Building Subcommittee**
Evaluates, and makes recommendations for, existing and future renovation and building efforts so that environmental considerations are included
(Glenn Dreyer, Steve George, Gary Parker, Leia Crosby, Will Harper)
- **Recycling Subcommittee**
Examines the campus recycling infrastructure and identifies and recommends ways of improving our recycling and waste management efforts; involved in supporting RecycleMania 07 (recycling and waste minimization) on campus
(Jim Luce, Ed Pistel, Jordan Motzkin, Michael Kmec, Misha Johnson)
- **Renewable Energy Subcommittee**
Fosters campus awareness and understanding of college renewable energy efforts and seeks to identify and recommend other viable renewable energy options
(Gerald Visgilio, Maureen Boyd, Peter Horgan, Tyler Dunham)

Amy Cabaniss, Campus Environmental Coordinator, served on all EMC subcommittees as a participant and liaison.

Connecticut College
Non-Residential Energy Assessment Checklist – Winter 2007

Building Name: _____ Floor: _____ Room: _____
 Date: _____

Contact Name: _____ Extension: _____ E-mail: _____

Please use this checklist to identify areas for improvement in energy conservation and efficiency.

	yes	no	n/a	dnk	Comments
1. Offices/classroom/common areas					
1.1 Computers – Computers in sleep mode when not in use >15 min.					
1.2 Computers – Computers and peripherals turned off at end of day					
1.3 Computers – Connected to central printer (not multiple printers)					
1.4 Other Electronic equipment – In sleep mode when not in use					
1.5 Lights – Turned off when room is unoccupied					
1.6 Light bulbs – Compact Fluorescent bulbs used in place of incandescent					
1.7 Light bulbs – Thin T-8 or T-5 fluorescent bulbs used					
1.8 Occupancy sensors installed (rooms: _____)					
1.9 Air-conditioning - Local air conditioner installed					
1.10 Air-conditioning – Local air conditioner covered/removed for winter					
1.11 Heat – Radiator valve operable					
1.12 Heat - Thermostats low at end of the day					
1.13 Heat – Doors closed in cold season to maintain temperature					
1.14 Heat – Windows closed in cold season to maintain temperature					
1.15 Heat – Storm windows down					
1.16 Heat – Drafts/gaps caulked and sealed to reduce heat loss					
2. Bathrooms					
2.1 Light bulbs – Thin T-8 or other (_____) fluorescent bulbs used					
2.2 Lights – Turned off when room is unoccupied					
2.3 Occupancy sensors installed					
2.4 Faucet(s) operable (i.e. not dripping)					
2.5 Toilet flow restrictors					
3. Other					
3.1					
3.2					
3.3					

CONNECTICUT COLLEGE ENERGY CONSERVATION & EFFICIENCY POLICY
7/10/07 draft

In order to reduce its environmental impact and to maintain its position as a model for environmental stewardship and as a resource for environmental education the College will, with cooperation from all sectors of the College, implement the following energy conservation and efficiency measures:

- For all new college acquisitions of desktop and laptop computers, use ENERGY STAR rated computers; modify old operating systems to comply with energy standards to the extent possible;
- When making appliance purchases, select ENERGY STAR appliances;
- Keep “sleep modes” (i.e. standby or power down) enabled on computers, printers, copiers, fax machines and other electronics;
- Turn off computers and peripherals at the end of each day and if they are anticipated to have 4 or more hours of inactivity. This is a user responsibility since others will not know if background processes are in operation.
- Use multifunctional ENERGY STAR printer/copier/fax machines for shared workspaces;
- Use energy-efficient light fixtures and light bulbs to the extent possible; conserve energy by turning off lights in unoccupied rooms;
- Install water-conserving systems and products; conserve water;
- Cover or remove air conditioning units during the months of October through April;
- Maintain Building Automation System and room/building thermostats at 68°F-70°F during the winter months and no higher than 60°F in unoccupied residential halls during winter break;
- Keep the doors and windows closed in areas that are heated or air conditioned;
- Integrate energy conservation and efficiency measures in all building renovation projects;
- For new construction and whole building renovation, follow LEED guidelines to attain LEED certification.

In applying this policy:

- An Energy Conservation and Efficiency Subcommittee of the Environmental Model Committee will help to sustain the energy conservation and efficiency objectives through communication and collaboration with committees, departments and individuals representing all sectors of the college community;
- A campus-wide, professional environmental sustainability audit will be performed in AY 07-08 and subsequent years, including an energy audit to improve energy conservation and efficiency and reduce greenhouse gas emissions, following recommendations to the extent possible;
- Energy efficiency systems will be integrated in existing building retrofits and new building construction;
- Environmentally- and fiscally-responsible individual and collective actions will be encouraged through repeat campus communication of energy conservation steps and annual informal energy assessments performed by Building Environmental Representatives and other campus community members.