Proposal to Create the Energy Conservation and Efficiency Fund (ECEF)

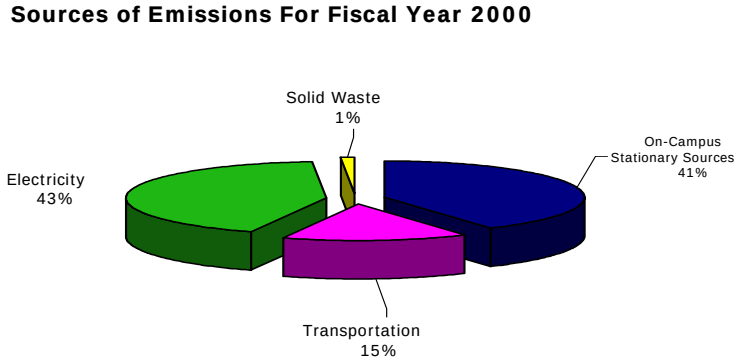
I. Purpose of the ECEF:

In keeping with Connecticut College's longstanding tradition of environmental stewardship and in accordance with the goal of "remaining a leader in safeguarding the environment" expressed in the College's Strategic Plan, the Environmental Model Committee (EMC) hereby establishes the Energy Conservation and Efficiency Fund (ECEF).

The purpose of the ECEF is to provide the capital necessary to make improvements in energy efficiency and to run effective energy conservation efforts. Reducing energy consumption will benefit the College both economically and environmentally. By cutting down on energy use, the College can lower its operating costs. Every dollar that is not spent on energy is a dollar that can be spent on other College priorities.

Aside from the economic benefits, reducing energy consumption also has a significant environmental benefit. Currently, electricity production in the New England power grid relies heavily on technologies that have severe environmental consequences. In 2002, 28.9 % of the energy in the New England grid was generated from gas, 26.6% was from nuclear power, and 15% was from coal. By reducing our energy usage, we also reduce the production of many toxic emissions associated with electricity generation such as mercury, NOx, SOx, particulate matter and radioactive waste.

In addition to reducing toxic pollution, by engaging in energy efficiency projects with the proposed fund we will be reducing the College's greenhouse gas (GHG) emissions. These gases may be contributors to the problem of global climate change. According to the GHG Audit conducted in 2002, the emission of anthropogenic green house gases at Connecticut College has increased by 19.59% between 1990-2002. The study also showed that electricity usage was responsible for 43% of the College's GHG emissions. Connecticut College should act on this opportunity to be an environmental model by investing in projects to mitigate its contribution to global climate change.



Sources of Connecticut College's emissions, by percent, for Fiscal Year 2000. Total emissions are equal to 20,740 metric tonnes of CO_2 equivalents.

II. Funding:

The ECEF will be available exclusively for College use as a revolving loan fund. The initial funding will be a $1000 donation from the Renewable Energy Club (REC). This money was donated to the REC by an alumna and was earmarked specifically for use in energy efficiency projects. Additional funds will come from a variety of sources, including, but not limited to:

1) The Renewable Energy Club - In addition to the initial donation, the Renewable Energy Club will continue to raise money for the ECEF through its normal Club fundraising activities and will make an annual donation at the end of every academic year.

2) Other environmentally conscious constituencies - The ECEF will actively solicit donations from environmentally conscious constituencies, both on-campus and off-campus. Possible donors include environmentally conscious students, faculty, staff, alumni and trustees, as well as government entities such as the Connecticut Clean Energy Fund and non-governmental organizations such as the Sierra Club. Any solicitation of alumni, parents and friends must be approved by College Advancement; and any proposal submitted to a corporation, foundation, or government agency must be cleared through the Corporate, Foundation and Government Relations Office within College Advancement.

3) Interest paid on the loans from previous projects - A third source of revenue for the ECEF will be derived from the interest paid on the loans from previous ECEF-funded projects. The College will be expected to pay the ECEF back the original loan amount in full plus interest with the savings that are generated by the project. The interest rate and loan repayment schedule will be negotiated on a project-by-project basis by the EMC, Physical Plant, the Finance Office and all other appropriate parties.

4) The College Budget – Once this program has succeeded with its initial projects, the REC may request contributions to the ECEF from the Priority Planning and Budget Committee (PPBC) using the normal Above Current Level (ACL) budget process. The most compelling reason for the College to contribute is that the ECEF's projects will be making a measurable reduction to the operating cost of the College. By contributing to the ECEF, the College will be investing in its infrastructure and will be positioning itself to reap the economic and environmental benefits of reduced energy consumption in the future.

III. Project Eligibility

Money from the ECEF can be loaned to any project or campaign that has the expressed purpose of reducing energy consumption on campus. The proposed project or campaign must be able to demonstrate a measurable and verifiable reduction in real energy usage.

Proposals for ECEF funding will be accepted and evaluated on a rolling basis. All proposals must be approved by Physical Plant and the Finance Office before they may be considered for ECEF funding.

IV. Repayment and Ongoing Obligations

It is expected that the ECEF will be reimbursed for the full amount of the loan plus interest on a schedule as negotiated. Priority will be given to projects with a short payback period.

V. Appropriation Process

The ECEF will be administered by the EMC. The EMC, as the executor of the ECEF, will be responsible for coordinating the development of projects with all appropriate parties, Physical Plant and the Finance Office. The EMC will also be responsible for approving how the ECEF will be allocated. Project funding must be approved by a simple majority of votes from of all voting members of the EMC.

VI. Energy Efficiency Success Stories at Other Institutions

From 1993-1998, Harvard University employed a fund similar to the proposed ECEF known as the Resource Conservation Incentive Program. After the program's completion, the university conducted a study of the efficiency of using an interest-free revolving loan fund as an incentive for environmentally preferred buildings. This study found that the $2.6 million total loaned yielded a 34% return on investment and five-year savings amounting to $4.5 million. Of this savings, 55% was a result of decreased electricity use. The school also reduced its CO_2 emissions by 8.8 million pounds over this time period.[1]

Tuft's University has also achieved economic success with the implementation of energy efficiency programs. For example, the university undertook a project to reduce the energy consumption of campus vending machines by equipping 75 machines with Vending Misers. Vending Misers plug into the machines to reduce their energy use with a sensor that turns off the lights when no one is near the machine, yet still maintain the same cool temperatures. A study conducted by the university over a one week period indicated that the machines with the Vending Misers consumed about half the power than those without. Furthermore, over 52 weeks a vending machine without the Miser would cost $381 to operate, while the machine with it would cost only $189, assuming an electricity cost of $0.11/kWh. The pay-back on this energy efficiency investment was less than one year.[2]

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[1] Harvard Green Campus Initiative
http://www.greencampus.harvard.edu/programs/GCLF_history.shtml

[2] Tuft's Climate Initiative http://www.tufts.edu/tie/tci/CO2reudctions.html