

Vision for a Comprehensive Sustainability Funding Program

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The University of Illinois could benefit greatly from a comprehensive approach to funding sustainability projects and programs. There are several possibilities to fund sustainability efforts substantially out of the services provided by the Office of Sustainability, Facilities & Services, and other entities. There are a variety of these services and funding mechanisms that could be implemented to institute such a program.

Currently, the University system level pays the utility costs, while the campus level Facilities & Services enacts the changes necessary to reduce energy consumption. This disconnect has made it difficult to set up large scale mechanisms to fund energy conservation projects on campus. In the future, possibly in July of 2009, the individual campus units will be responsible for their own energy bills. This will provide clearer incentives to individual units to employ energy conservation efforts. However, the units need to have access to capital and services to be successful.

There are several services that could be offered that could improve the sustainability and reduce the costs of the University's operations. Possible services include: loans, energy/resource audits, energy/resource analysis, greenhouse gas inventory, grant writing and coordination, LEED assistance, curriculum development, and educational programs. These services could be offered at a charge to interested departments, colleges, and units.

There are several methods to charge units for these services. Possibilities include a percentage of loans, percentage of savings, flat service fee, user fee, or a carbon tax. The method and appropriate amount would depend on the service.

This system would also require a dedicated fund for loans and other services. Possible initial funding sources include the Student Sustainability Committee and the UIF Endowment. Several energy conservation measures yield rates of return greater than the Endowment's 10 year average and would be more stable in times of economic hardship. Added benefits include positive environmental impact and increased publicity for the University's efforts. With a modest amount of starting funds, the Office of Sustainability can create a revolving loan fund that would grow the amount of funds available for sustainability efforts while providing worthwhile services to the campus community. These funds can be used in conjunction with the Student Sustainability Committee to provide additional loans for projects with a large return as well as funding projects with an environmental benefit that have less direct cost savings.

Loans could be provided to units to implement energy conservation efforts with high rates of return. The loan could be repaid out of the savings, with a small percentage for the service, increasing the size of the funds. This concept could also be applied to new buildings where an incremental efficiency measure would save the department money, but they need access to additional funds. Additional funding would be brought in through the other previously mentioned services, including identifying additional energy savings opportunities. These services would not only cover their own costs, but would lead to the identification of additional loans, which would in turn bring in revenue. The

specific cost levels and funding mechanisms for each service would need to be determined. These would most likely need to be adjusted based on actual experience.

The most established example of this type of system can be found at Harvard, through their Office of Sustainability's Green Campus Loan Fund. In 2001, Harvard provided \$3 million for interest-free loans to fund energy conservation projects with paybacks of 5 years or less. President Summers has doubled this amount twice. The GCLF also provides Support Services to those interested in applying for loans. It was initially funded out of the interest of the loan fund, but is now funded by a 3% administrative fee on the loans. The more loans they were provided, the less interest and the more work, which initiated the change. They are now headed towards funding loan fund administration through the general capital projects loan fee, according to Nathan Gauthier, Assistant Director of the Office of Sustainability.

Although the specifics of the funding mechanisms and services need to be determined, there would be a strong benefit to instituting such a program through the Office of Sustainability. A well planned and publicized program would greatly increase the sustainability efforts of the University, while providing a financial return to individual departments

Descriptions of possible services and funding mechanisms

Services

Loans: The Office of Sustainability could provide revolving loans to units interested in pursuing energy conservation efforts with a significant return on investment. Units could

be charged for this service through a variety of methods, including a percentage of the loan, percentage of the savings, or a flat service fee. This would replenish the funds and allow the Office to fund projects with lower rates of return that still have environmental benefits.

Energy/Resource Audits: This service would help units identify ways to save energy, water, and other resources. There could be a few different levels of depth to the reports, allowing for various fees and services. A lower level could incorporate a quick walk through and write up of possible conservation level. A high level could include building energy modeling as well as the lower level activities. A flat service fee could be charged. Reduction of audit fees with a loan could encourage units to actually act on these recommendations.

Energy/Resource Analysis: This would be similar to audits, but would be more limited in scope. A unit could have a particular project concept analyzed quicker and at a lower cost than a full audit. This could be funded similarly to the audits.

Greenhouse Gas Inventory: This would provide the unit with an analysis of their greenhouse gas inventory, including energy and transportation. This could be coupled with a campus wide carbon tax or trading system.

Grant Writing and Coordination: This service would assist units in tracking down and developing grants for outside funding sources, like the Illinois Clean Energy Community Foundation and the Illinois Department of Commerce and Economic Opportunity. This could be charged based on a flat fee, percentage of grant, or percentage of savings.

LEED Assistance: This would provide assistance to LEED projects on campus to achieve credits and coordinate the necessary activities. The Office could also provide loans and grants to help projects achieve additional points and improve the efficiency and sustainability of the facility. Though the University is currently requiring projects over \$5 million to be LEED Silver Certified, there is no program to attain certification for LEED Existing Building: Operations & Maintenance. Instituting a mandatory requirement or voluntary goal to certify a certain number of buildings per year in LEED EB would provide additional LEED projects that would need more support. Several other Universities have experience with LEED EB, including Harvard and the University of California system, and could provide additional information for a successful program. Departments that take the initiative to get their buildings LEED certified could benefit from increased exposure, positive impact on the environment, reduced utility bills, and improved indoor environmental quality. Fees could be rendered based on a flat fee, percentage of loan, or percentage of savings.

Curriculum Development: This service would assist faculty in developing courses and degree programs related to sustainability issues. Several faculty members have an interest in expanding the emphasis of sustainability in their curriculum, but are overworked and underfunded. Implementing this service could help proliferate the amount of courses dedicated to sustainability, while also infusing traditional curriculum with sustainability themes. Coordination of team teaching for sustainability issues could also be provided and has been successful in other schools, notable Warren Wilson College. The program at Warren Wilson College focuses on one theme per semester. Several faculty members in different disciplines teach sections of the class. Students in

each discipline learn an aspect of the topic particular to their studies, but also come together with other students to learn about overarching themes and related issues in other disciplines. This program increases multidisciplinary learning opportunities while improving cooperation between faculty in different fields.

Educational and Certification Programs: The Office of Sustainability could develop and provide educational programs for units across campus that would improve sustainability on campus and in the actions of the campus community. This could materialize in Extension, Global Campus, and within the residence halls. For example, the Office could assist the residence halls in developing sustainability education programs for RAs and residents or create and manage energy conservation competitions. Another possible program could be from a laboratory sustainability education program. Fume hoods are a large source of energy consumption on campus and their impact could be lessened through educational efforts. Harvard has initiated a similar program and discussion for a similar program has been discussed in Facilities & Services. Certification and education programs for sustainability related professions could also be developed, including LEED AP accreditation, Home Energy Raters, and basic energy and sustainability education. Similar courses do exist on campus, but they suffer from lack of participation and coordination with other efforts. These would most likely be funded from flat service or user fees, but could also be funded from a percentage of estimated behavioral change or from the fees collected from other projects.

Funding Mechanisms

Percentage of Loans: Services could be funded based on a percentage of a provided loan for energy conservation or other efforts. The amount would depend on the level of effort the service requires. Similarly, a percentage of a grant amount from an internal or external entity could be arranged.

Percentage of Savings: For projects with a high return on investment, the services could be funded directly from these savings. This may allow for a higher amount of cost recovery, but may be more difficult for a user to accept.

Flat Service Fee: A service could be funded based on a flat service fee, with the amount dependent upon the amount and type of work. This would be more appropriate for energy/resource audits, analysis, and other services without a direct return on investment.

User Fee: This could be developed for services where multiple users participate, particularly for educational and certification programs.

Carbon Tax: There has been some discussion of a campus wide carbon tax or trading system. Managing this system could reap environmental and monetary benefits for the Office of Sustainability. Integrating it with other services and programs could maximize its effectiveness.

No Cost: Certain services and programs might be provided using the funds from other more economically beneficial projects. They could also be funded from other campus sources. For example, curriculum development might be funded by the Provost.