

ENSP 250: Seminar on Campus Sustainability  
Project Proposal for Greening William and Mary:  
Establishment of Revolving Loan Fund



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## **I. Project Description**

Although the College is ideologically ready to implement campus sustainability programs, budget constraint has been a constant and impassable obstacle. Though there has been a lot of investment in and excitement about making the College campus more sustainable, the Campus Sustainability Seminar being an obvious example, adequate and stable funding is the only way of seeing real and future change on campus. The recent passing of the Green Fees on the part of the student body demonstrates just how passionate students are about funding sustainability projects. It also represents the shared realization that funding is the way to see a more sustainable campus. If there is no program to provide funding for sustainability projects, and if the projects chosen cannot pay back their initial costs, then sustainability has no long-term future at the College.

A Revolving Loan Fund (RLF) is a proven way to directly address the need for fully funded sustainability projects. An RLF needs only to acquire an initial investment to establish the fund. Once it is established, the RLF will be self-sustaining because it is based on a business plan. The RLF will only implement sustainability projects that can pay back the initial loan, usually within a period of five years. Different departments around campus can apply for this loan should the project meet criteria set forth by the RLF committee.

The RLF committee, though usually chaired and organized by the Office of Sustainability, will in this case be comprised of faculty, staff, and students. We are adamant that every part of campus be represented. If possible, the proposed Committee on Sustainability (to replace the Landscape Energy Environmental Committee) would be the proper managing body. If not, we will establish another committee to consist of two faculty members from the Environmental Studies and Government Departments, one faculty from the Business School, one member from the Office of Administration, one member from Facilities Management, and two students from the Student Environmental Action Coalition. This way each member may contribute to the RLF by working with his or her different constituents. The committee will spearhead all fundraising, education, application, and implementation efforts.

We feel that soliciting an initial investment for the RLF can be accomplished by July 1<sup>st</sup>, 2009 because there is already an awareness of environmental issues among faculty, staff, students, and alumni. We feel that the majority of the initial contributions will come from alumni and the senior class, assuming that the committee collaborates with the Office of Development to secure donations. The committee may also apply for a portion of the recently passed Green Fees. The academic year of 2008 will be dedicated to this fundraising as opposed to receiving projects. Project proposals will be received by summer 2009.

Once the initial funds are acquired, the committee will ensure that departments are applying for the loan and that the projects being implemented are paying back their loan. The RLF is therefore a long-term investment as opposed to a short-term project. The hope for the RLF is that it can be expanded over time to fund more and more projects that may need a larger pay back period.

## II. Needs Assessment

The major challenge for sustainability efforts in the William and Mary community has been financial constraint. There is a fundamental tension between the need for William and Mary to conserve funds and the fact that energy inefficiency comes at an initial cost to the College. The College spends \$5.6 million annually on energy consumption on 71 million kilowatt hours, often having to rely on state loans to absorb this debt.<sup>1</sup> In an institution that is restricted by funding, it is particularly important that sustainability efforts be economically viable and beneficial.

The recycling program is an apt example of how budgetary constraints have been the main deterrent to the College's capacity to institute sustainable practices. Rather than managing the recycling program so that it might increase savings as the University of Virginia has done (recycling saved the university \$70,000 annually as of 2002), the College was spending that same amount per year to recycle.<sup>2</sup> It is no surprise, then, that the program was cut in 2002. According to Anna Martin of the Office of Administration, the decision was a matter of "cutting recycling instead of cutting people."<sup>3</sup> Even though the program was reinstated in 2005 as a joint funding project between the Student Assembly and Office of Administration, the history of our recycling program demonstrates how the administration and management of funds allocated for sustainable practices thus determines their fate. Where they have not directly cut programming, budgetary constraints have certainly halted the progress of other programs. The College has had plans to install energy meters in every building for years, but as of yet we only have three on campus. As is demonstrated in the Objectives and Outcomes section, universities across the country have established these funds with varying amounts of initial investment. Because of the College's financial instability, we believe that a financially feasible and eventually beneficial program is vital to campus sustainability.

## III. Objectives and Outcomes

The Revolving Loan Fund project aims to establish a resource to help make environmental improvements on campus. The RLF will benefit environmental improvements that are usually discarded as a result of financial prioritizing and budget constraints. It is also the goal of the RLF to be a competitive business investment that has a strong rate of return on investment (ROI) so as to replenish the fund for future and constant use. This guarantees a reliable fund that will finance the greening of William and Mary in its initial steps and in the future.

Here is a list of tangible goals:

- Allocate initial funds to establish the RLF
- Create a management team, to be comprised of one or more staff members to select and audit projects
- Create an application process
- Seek support from campus leaders- including administration, faculty, staff, and students
- Educate the community about the funds, its uses, and its applicability to all of areas of campus life

<sup>1</sup> <http://greeningwm.com/thechallenge.html> (Accessed March 17, 2008).

<sup>2</sup> Hesler, Jim, J.P. Lee, and Omar Yunus, "Task force starts program", Flat Hat News, November 22, 2002 <http://flathat.wm.edu/November222002/newsinbrief.shtml>.

<sup>3</sup> Class lecture, February 27, 2008.

Generally, these funds are allocated towards electrical, heating and cooling upgrades or retrofits because they have the best ROI seen in energy savings. The RLF, by making sustainability projects economically viable, can have strong outcomes such as the reduction of energy usage and costs and the assurance of a long-term sustainability program.

RLF's on other campuses have been proven to be extremely successful. The Harvard University Green Campus Loan Fund (GLCF) was established in 2002 by a \$3 million investment delegated by the president. Within two and a half years, sustainability projects funded by the GLCF saved the University about \$900,000 annually, roughly a 35% rate of return. The GLCF's financial success was recognized and further promoted when the President agreed to double its budget in 2004 and again in 2006. The initial loans are for up to \$20,000 and require a pay back period of less than 5 years. The Harvard Green Campus Initiative (HGCI) is responsible for managing the loan, and it ensures that all Harvard schools and departments are educated about the fund and encouraged to create new and creative proposals (See Exhibit C under Appendix/Attachments and References Section). So far, the GLCF has given \$8 million dollars to over 160 sustainability projects around campus.<sup>4</sup>

The Connecticut College Energy Conservation & Efficiency Fund (ECEEF) is a good example of a successful RLF on a smaller budget. The ECEEF began with a \$1,000 donation from an alumnus to the Renewable Energy Club, although the College's Environmental Model Committee manages the fund with the assistance of the Finance Office and Physical Plant. The ECEEF is targeted towards reducing energy consumption; the programs associated with the ECEEF are typically infrastructure upgrades and conservation campaigns. There are no standard requirements for pay back projects or initial loans, but are rather negotiated on a case-by-case basis.<sup>5</sup>

UC Berkeley's RLF comes in the form of a Chancellor's Green Campus Fund (CGCF, the "Green Fund"), the most collaborative example of an RLF. Founded in 2004 by the University Chancellor, the CGCF allots up to \$10,000 for sustainability projects. As cited in the CGCF website, the "The Chancellor's Advisory Committee on Sustainability (CACS) selects Green Fund projects annually, and the Office of Environment, Health & Safety and the Berkeley Environmental Alumni Network (BEAN) help with CGCF administration."<sup>6</sup>

These examples highlight the different ways a fund can be initiated and the different players that may take part in it. Specific suggestions for the establishment and administration of an RLF for the College of William and Mary can be found in the Resources and Implementation Plan and Timeline sections.

## **IV. Resources**

### **Funding**

Funding that goes into an RLF varies widely and can be effective with as little as \$100,000 or as much as \$3 million, as in Harvard's GLCF. Obviously, the more you have the

<sup>4</sup> Harder-Thomas, Henry and Diebolt, Asa, "Creating a Campus Sustainability Revolving Loan Fund: A Guide for Students", published by the Association for the Advancement of Sustainability in Higher Education, 7.

<sup>5</sup> Ibid, 7.

<sup>6</sup> <http://sustainability.berkeley.edu/greenfund/2005/04/about-greenfund-grants.html> (Accessed March 17, 2008).

more you can do. A tangible goal for William and Mary, at least in the beginning, would most likely be \$100,000. We propose a variety of ideas in order to establish the fund so that there is a stronger likelihood of attaining our goal, including: student Green Fees, allocation by the president and administration, donations from alumni, business, and graduating seniors, and potential government grants.

A portion of the recently passed student Green Fees could go towards the establishment of the fund. The president/administration method would require a very supportive leader to reallocate existing funds within the budget for the establishment of the RLF. We do not feel this would be a likely option for the College. Alumni, business, and senior class gift support could become a useful source of revenue. The management team could work with the Alumni Association and the Office of Development to find empathizing alumni who care about the College's environmental impact to elicit donations. We recognize that the relation between the RLF and the Office of Development is very important to the solicitation of alumni funding; we do not want to take donors away from the Annual Fund. Also, there could be a joint venture opportunity with a business. In this relationship, the fund would be named after the donor business to aid in their positive community involvement.

Our favorite idea is to establish a way for graduating seniors to earmark their Senior Class Gift donations to the fund with the University Development Office's approval. Traditionally, the Senior Class Gift raises over \$100,000 annually, but funds can only be earmarked for approved campus programs. Again, this will require a good, strong relationship between the RLF Committee and the Office of Development. It will be up to the Committee (detailed below) to spearhead these fundraising efforts.

### Human Resources

Universities across the country have taken different approaches to the management of the RLF according to the structure of the administration, but almost all include the participation of administration, faculty, staff, and students alike. This will surely be important to the continued success of an RLF at the College. Of course, the most obvious choice for management of the fund would be a Sustainability Coordinator, someone whose full time job is to manage campus sustainability efforts. Given that we do not have such a staff member currently, a board composed of faculty, staff, and students would manage the RLF. In terms of the fund management, a few key players from different areas of campus are needed. Anna Martin has proposed that the current Landscape Energy Environmental Committee, comprised of faculty and staff such as Professor Timmons Roberts and Dan Patterson, become the Committee of Sustainability. Ideally, the proposed Committee of Sustainability, working with the Advisory and the Provost, would manage the fund with the addition of two students from the Student Environmental Action Coalition (SEAC).

The committee that we propose here operates under the assumption that the change from the Landscape Energy Environmental Committee to the Committee of Sustainability does *not* occur. Should the change occur, we only ask that two students from SEAC be added to the committee. Because there is no Sustainability Coordinator, one of the members from the committee will have to be elected or appointed as chair. The chair should be someone who has experience with campus sustainability. For the short-term, we feel that either Professor Ivanova

or Professor Timmons Roberts would be best qualified for this position. Who ever did not serve as a committee chair would serve as a committee member. The chair would serve as a watchdog for the Fund. Working with Facilities Management, they would make sure that the funded projects are being implemented. Additionally, it would be up to the Chair to supervise the application process, establishing the application timeline and leading the discussion sessions. The chair would also organize the necessary meetings and delegate tasks to other members, although their tasks would naturally correspond to their sphere of influence.

A staff member from the Office of Administration would be included on the committee for the RLF to keep track of the fund and make sure it is self-sustaining. Fortunately, because the RLF is based on money, this task is straightforward and will not require much time. It would also be the task of the office administrator to establish the criteria for the loan such as the required pay back period and the upper limit to the loan. Anna Martin in particular has had to deal with budgetary constraints as they affect sustainability projects, and so she would be the likely candidate.

Project ideas and proposals will come from various departments and offices around campus, so it is crucial that there be a board member in charge of educating those who would best benefit from the fund. I propose one faculty member who is involved in the Environment Studies department such as Maria Ivanova or J. Timmons Roberts (whichever professor does not serve as chair) to distribute information about the RLF to other departments. Additionally, student representatives would be crucial to garner student support, most likely one or two officers from SEAC.

The implementation of the proposals in an economically and environmentally beneficial matter will most likely be the responsibility of facilities management because most projects tend to involve the retrofitting of buildings or the replacement of HVAC systems. Dan Patterson, the Energy Manager, would also likely be involved as many of the programs surround energy issues. The committee chair would work with Dan Patterson to ensure that the programs are being physically implemented.

We feel that given the focus of the faculty members in the field of Environmental Studies, it would be important to have another faculty member with a background in business. Chris Adkins stands out as a faculty member who is trained in business but who is also invested in implementing sustainable projects on campus.

The beauty of this board system is that it would require no extra office space. Tasks associated with running the fund would be additional or substituted responsibilities and would incorporate seamlessly with the members' previous areas of expertise. The additional time required of each member would not be substantial. The majority of their time would be spent in the first months, soliciting funds and working with the Office of University Development. Once the fund is established, their main meetings would revolve around the selection process of project proposals- writing and advertising the application and deciding which loans to award. Although several hours would be dedicated to this selection process, these hours would be confined to a period of a few weeks. During the rest of the year, a few hours per week on the part of the student and faculty representative would be more than sufficient. The member from the

Office of Administration, however, would have to devote more time than the rest in order to track the fund's account and the pay back progress of each loan program.

## **V. Implementation Plan and Timeline**

\*Please see Exhibit A under Appendix/Attachments and References Section.

The first step in the establishment of the RLF is for the proposed committee members to accept their nominations. Once the committee is established, they may appeal to the Board of Visitors and the President to get their seal of approval. Ideally, the President would announce the official establishment of the RLF and publicize the contact information of the committee. We would like this to happen at the very beginning of the 2008 academic year. The 2008 academic year will be used to garner support, solicit funds for the initial establishment of the fund, and also to educate faculty, staff, and students about the Fund.

Once they get the authority to do so, the committee will begin to work with Office of Development, the Student Assembly, and other campus leaders to outline their priorities and their plans for soliciting funding from alumni donors, the Green Fees, and the Student Assembly budget. Our financial goals, listed in the Gantt Chart, are as follows: \$25,000 by November 1, \$50,000 by February 1, \$75,000 by April 1, and \$100,000 by July 1.

The committee will establish protocol for soliciting funds throughout the year. After this is accomplished, the committee may then concentrate their efforts on following this protocol and on designing the application, to take place from November 2008- January 2009. This application should be put on a website created in early spring to provide the protocol for departments interested in applying for funding in the fall of 2009. (See Exhibit B under Appendix/Attachments and References Section). The establishment of this website will be crucial in assisting the Educational Outreach; it will provide updates on the amount raised so far. Once we are in the process of implementing programs, the website can track how much money the College is saving with the new program to continue support of and excitement about the RLF. Educational Outreach will be an integral part to the RLF once the committee has a firmer grasp of what needs to be done and who needs to work with whom. We think it is very important that students, faculty, and staff are invested in the RLF so that applications for the loan are strong and well planned.

## **VI. Evaluation Plan**

There are two different areas in which to evaluate the effectiveness of this project. One is measuring the effectiveness of the project setup and another is the effectiveness of specific loan projects.

The evaluation plan should follow the guidelines of the RLF Gantt Chart in order to keep track of the committee's progress. It is important to remember that the Gantt Chart is a guideline to accomplish certain tasks, and as such it may need to be revised as new obstacles arise. For example, the first phase should be setting up the management team (or committee) in the first 2 months and then meeting with campus leaders, the Office of University Development, and the Student Assembly to garner support for the fund. If they were unable to establish the committee in established time frame, then the committee would need to reevaluate the feasibility of the Gantt chart and redesign its protocol.

The more support the fund has from administration, board of visitors, staff, professors and students, the better its progress will be. Evaluation of the fund progress would primarily be based on its ability to reach monetary benchmarks established in the Gantt Chart to reach the \$100,000 goal by July 1st, 2009. However, the committee should also consider the diversity of fund resources. If money is coming from many areas, as designed, the portfolio will be stronger ensuring the fund's growth and sustainability. If all the money is only coming from one single arena, then there is more ambiguity in the livelihood of the fund. The rest of the evaluation can simply be judged on whether or not the tasks outline in the Gantt Chart are accomplished in designated time frame.

The second aspect would be evaluating how successful the loans are at making positive environmental impacts on campus. Due to the fact that the fund and loan procedure are monetarily based, its success is easy to track. The main criteria should be based on making sure the accepted projects keep to the deadline of finishing upgrades and also payments back into the fund. If projects are unable to make payments in designated time frame, they will be rated poorly. At the end of every project, the committee should also evaluate whether or not the project meets its originally intended environmental goals as outline in the application of the said project.



## Exhibit B: Sample Application Letter<sup>7</sup>

William and Mary Green Campus Loan Fund  
**Project Proposal**

### I. Administration

1. Project Sponsor (Faculty or Department)	2. Project Title (Department Name-Target Infrastructure-Intended Modification)
3. Project Executive	4. Building Name and Number

### II. Project Description

<p>A. Objective  <i>Describe project objective. What operations/behaviors does this project address?</i></p>
<p>B. Implementation Plan  <i>Describe specific project details. How will the project objective be met?</i></p>
<p>C. Environmental Impact Reductions  <i>Describe in detail the project's anticipated environmental impact reductions, including yearly utility reductions.</i></p>

### III. Funding and Accounting

A. Project Loan Scheduling	Anticipated Start Date:	Anticipated Completion Date:	Project Payback Period:
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### B. Project Finances

Capital Budget \_\_\_\_\_

Non-Capital Budget \_\_\_\_\_

Total Budget \_\_\_\_\_

Is this project eligible for rebates? Yes \_\_\_\_\_ No \_\_\_\_\_

Please attach a detailed breakdown of all anticipated expenses.

### IV. Approval (Type or print name and date, then initial for approval)

Title	Date
1. Project Executive:	
2. Project Sponsor	
3. WMGCLF Coordinator:	
4. WMGCF Committee:	
5. WMGCF Co-Chair:	

<sup>7</sup> [http://www.greencampus.harvard.edu/gclf/documents/hgci\\_gclf\\_app.pdf](http://www.greencampus.harvard.edu/gclf/documents/hgci_gclf_app.pdf)

## **Exhibit C:**

### **Revolving Loan Fund Interview**

With Michael Crowley at Harvard

#### **What person/group/organization initiated the RLF?**

In the 90s by the president of the college through the office of the treasurer. However with out full time staff it dwindled and then was reinstated later as “Resource Conservation Incentive Program” with a full time coordinator.

#### **Who controls the account and its actions?**

Green Campus Initiative-interfaculty initiative with 2 co-chairs one a professor another Director of Operations at the college. Account is run through the University Operation Services.

#### **Where did you come up with the initial capital/loan money?**

Given by president through office of treasurer (budgeted). 3 millions is the amount they currently control that sits in an account accruing interest.

#### **What stipulations/terms are set when money is designated for a project?**

Criteria-conservation focused, project payback of 5 years or less (ex: lighting project for 20,000 must payback 5,000/year back to RLF), engineering calculations must be done.

#### **How does the account fit into the college budget?**

Handled under department of University Operation Services.

#### **How do you measure amount of money projects saves the school to be put back into the account?**

Part of the engineering calculations projected in begging stipulations of project. Easy with lighting projects measure wattage usage before and after. Heating and ventilation more complex dealing with motor size etc... Key to success is that the engineering calculations can often be done for free by requiring the vendors you want to come in and do renovations to figure out for you as part of proposal. Also many rebates can be found from local utility companies.

#### **How is money paid back to RLF? From which college account?**

Yearly basis paidback on how much projects saved.

#### **What was the ROI for sustainable projects completed by RLF?**

Average ROI was 35%

#### **More information can be found at their website:**

[www.greencampus.harvard.edu](http://www.greencampus.harvard.edu)

Interview conducted by AJ Dronkers

**VIII. Authors**

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