*Please submit this completed application, the supplemental budget spreadsheet, and any relevant supporting documentation by the deadline indicated in your Step 1 notification letter to* [*Sustainability-Committee@Illinois.edu*](mailto:Sustainability-Committee@Illinois.edu)*.The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the SSC at* [*Sustainability-Committee@Illinois.edu*](mailto:Sustainability-Committee@Illinois.edu)*.*

# General Information

**Project Name:** Green Labs – student interns

**Total Amount Requested from SSC:** $11,000 of a $170,000 project

**Project Topic Area(s):** Energy Education Food & Waste

Land Water Transportation

# Contact Information

### Project Lead

Applicant Name: Morgan White

Unit/Department: F&S

Email Address: mbwhite@illinois.edu

Phone Number: 217-333-2668

### Financial Contact *(Must be Full-time University of Illinois Staff Member)*

Contact Name: Mike Alsip

Unit/Department: F&S

Email Address: alsip@illinois.edu

Phone Number: 217-244-4049

Organization Code: 701012

### Facilities Management Contact *(If Applicable)*

Contact Name: Name of Applicant or Project Lead

Email Address: Preferred Email Address

**Primary Project Team**

|  |  |  |
| --- | --- | --- |
| **Name** | **Department** | **Email** |
| Ximing Cai | iSEE | xmcai@illinois.edu |
| Name | Department/Organization | Email Address |
| Name | Department/Organization | Email Address |
| Name | Department/Organization | Email Address |

# Project Description

**Please provide a brief background of the project, the goals, and the desired outcomes:**

The Green Labs Pilot Program will be an interdepartmental collaboration led by a full time visiting Green Labs Coordinator with guidance from a Steering Committee and assistance from student interns. Over the course of the three-year pilot, the Green Labs Coordinator will complete a detailed inventory of campus research labs, develop and track behavior change initiatives (like Shut the Sash, the Freezer Challenge, and a Certified Green Lab program), and work with campus stakeholders to recommend policies and procedures for the university to enhance the sustainability of campus labs.

We are requesting SSC support for the student interns who would assist with the awareness building of the behavior change efforts, collection of lab inventory data, review the results, and help develop the policy recommendations and the final report at the end of the three year pilot program.

This project was originally envisioned by the Energy Conservation and Building Standards (ECBS) SWATeam in support of iCAP objective #2.3, which includes the potential strategy of a “Campus Fume Hood Efficiency Program,” and objective #2.4, “Engage and incentivize the campus community in energy conservation.” The SWATeam recommendation led to several discussions with stakeholders across campus, including safety professionals and new faculty who were shocked we did not already have a program in place. Additionally, inquiries were made with peer institutions that are successfully running a Green Labs program (some focused on fume hoods, others more wholistic). Through these discussions the program was broadened beyond fume hoods to include other energy and water consuming equipment, zero waste efforts (including Styrofoam and glove recycling), and goals for building a stronger culture of sustainability around campus.

This pilot has specific deliverables expected by the conclusion of the program:

1. A detailed inventory of research laboratory space on campus, beyond the campus-level space use database. This inventory will focus on equipment and occupant behavior, as well as opportunities to enhance sustainability and related education.
2. A set of policy/procedure recommendations to guide our campus to be recognized for prioritizing Safe and Sustainable behavior throughout this tier one research university.
3. A financial report to campus administration describing resources saved through the program, with the intent that the results 1) improve campus sustainability as a whole and 2) can be demonstrated to clearly pay for themselves.

**How will the project improve the sustainability of the Illinois campus and how will the project go above and beyond campus standards?**

The iCAP specifies energy conservation as a main category in which to achieve numerous goals contributing to the carbon neutrality target specified in the iCAP. The energy conservation objectives that connect to a Green Labs program include:

* Engage and incentivize the campus community in energy conservation, including a comprehensive energy conservation campaign, with at least 50% of units participating by FY20.
* Strengthen centralized conservation efforts focusing on building systems, to achieve a 30% reduction in total campus building energy use by FY20.
* Maintain or reduce gross square footage (through space efficiency and space utilization).

This project will address the above iCAP goals through the following specific efforts:

* Behavior change efforts, like Shut the Sash and a Certified Green Lab Program, combined with face-to-face conversations with faculty, postdocs, and research coordinators will provide immediate reductions in energy consumption and campus’s carbon footprint.
* A comprehensive audit of existing laboratories will identify the most high-priority areas of focus for energy conservation efforts and maintenance. This audit will also show which labs are underutilized or unutilized, allowing campus to pursue more efficient allocation of lab space.
* Finally, based on the results of the audit, the Green Labs Coordinator will propose data-driven policies that campus administration can consider and pursue to further meet iCAP goals.

**Where will the project be located? Will special permissions be required to enact the project on this site? If so, please explain and submit any relevant letters of support with the application.**

As a staff-based audit and behavior change program, no physical space will be required for this project beyond office space for the staff involved. This will be provided by partner departments with no charge to the SSC grant.

**Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments affiliated directly or indirectly by the project. This includes any entity providing funding (immediate, future, ongoing, matching, in-kind, etc.) and any entities that will be benefitting from this project. Please attach letters of commitment or support at the end of the application.**

This project is a partnership between the Facilities & Services and the Institute for Sustainability, Energy, and Environment. Additionally, this staff member will interface heavily with a proposed Green Labs Advisory Committee consisting of high-level administrators who oversee units, departments, and colleges with significant research activities, including the Vice Chancellor for Research office.

**Please indicate how this project will involve or impact students. What role will students play in the project?**

While the Green Labs Coordinator will be a full-time member of staff, much of the work will be done with the assistance of student interns. A combination of paid interns and students taking ENVS 491 for credit will be involved in the immediate execution of laboratory audits and the Certified Green Lab Program. They will gain hands-on experience in how to create a more sustainable environment on campus.

As noted earlier, the student interns would assist with the awareness building of the behavior change efforts, collection of lab inventory data, review the results, and help develop the policy recommendations and the final report at the end of the three year pilot program.

Additionally, students involved with research at all levels will be impacted by the Green Labs Messaging. Thousands of future faculty and researchers will learn how to make their research environment both Safe and Sustainable.

# Financial Information

*In addition to the below questions, please submit the supplemental budget spreadsheet available on the Student Sustainability Committee website. Submission of both documents by the submission deadline is required for consideration of your project.*

**Have you applied for funding from SSC before? If so, for what project?**

Facilities & Services has applied for SSC funding before for a number of projects ranging from the Solar Farm to an expanded recycling awareness campaign. The most notable project iSEE has requested in the past was funding for the Collaboratory space.

**If this project is implemented, will there be any ongoing funding required? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs?   
  
Please note that SSC provides funding on a case by case basis annually and should not be considered as an ongoing source of funding.**

This request has definite goals and expectations that the Green Labs Coordinator will achieve in its three-year timeline. The expectation is that this position will complete its audits and documented policy recommendations, with the expectation that this position or a similar one focused entirely on behavioral change can be justified to campus administration as a worthwhile expenditure. If campus is unable to financially support this proposal post-pilot, the anticipated deliverables (behavioral change messaging, a comprehensive lab audit, and recommended policy expectations) still justify the existence of the pilot program.

Regardless of the outcome of the program, there is no expectation that the Student Sustainability Committee contribute any further to the Green Labs program.

**Please include any other sources of funding that have been obtained or applied for. Please attach any relevant letters of support as needed in a separate document.**

If SSC is willing to contribute the intern costs for this three-year pilot program, the remaining funds will be covered via funds from the sales of the University of Illinois' Carbon Credits, and possible contributions from the related Vice Chancellor for Research units.

# Environmental, Economic, and Awareness Impacts

*In addition to the below questions, please indicate specific measurable impacts as applicable on the supplemental budget spreadsheet.*

**Which aspects of sustainability does your project address, and how? Does the project fit within any of the iCAP goals? If so, how does the project go beyond the university status quo standards and policies.**

As noted above, the iCAP specifies energy conservation as a main category in which to achieve numerous goals contributing to the carbon neutrality target specified in the iCAP. The energy conservation objectives that connect to a Green Labs program include:

* Engage and incentivize the campus community in energy conservation, including a comprehensive energy conservation campaign, with at least 50% of units participating by FY20.
* Strengthen centralized conservation efforts focusing on building systems, to achieve a 30% reduction in total campus building energy use by FY20.
* Maintain or reduce gross square footage (through space efficiency and space utilization).

This project will address the above iCAP goals through the following specific efforts:

* Behavior change efforts, like Shut the Sash and a Certified Green Lab Program, combined with face-to-face conversations with faculty, postdocs, and research coordinators will lead to immediate reductions in energy consumption and campus’s carbon footprint.
* A comprehensive audit of existing laboratories will identify the most high-priority areas of focus for energy conservation efforts and maintenance. This audit will also show which labs are underutilized or unutilized, allowing campus to pursue more efficient allocation of lab space.
* Finally, based on the results of the audit, the Green Labs Coordinator will propose data-driven policies that campus administration can consider and pursue to further meet iCAP goals.

**How will the environmental impacts of your project be measured in the near and long term? What specific monitoring and evaluation processes will you be using to track outcomes and progress?**

There are a number of ways the environmental impacts of this project will be measured:

* The campuswide laboratory audit will provide meaningful baseline data for the energy and water consumption of individual labs.
* Behavioral change campaigns will include comprehensive self-reporting on the practices at individual laboratories, allowing for tracking of incremental changes by labs
* Facilities and Services can track total utility consumption of lab buildings as a whole and measure if and when there are decreases in utility consumption pre- and post- efforts from the Green Labs program.

**What is the plan for publicizing the project on campus? In addition to SSC, where will information about this project be reported?**

A multi-pronged outreach campaign will be used for outreach:

* The Green Labs Coordinator and associated interns will be making face-to-face visits with occupants of the majority of labs on campus, providing a strong initial point of contact for messaging.
* The Green Labs Coordinator will be present at major information fairs for staff, faculty, and (where relevant) students.
* A Green Lab Program website will provide interested participants and the campus community with on-demand information about the program and ways they can be more sustainable.
* As the program has successes to report, iSEE and Facilities & Services will issue press releases to the community at large and spotlight the efforts of the position in their standard messaging (weekly newsletters, the iSEE Quarterly, and so on)

**What are your specific, measurable outreach goals? How will these be measured?**

The most notable outreach goal for this project will be reaching the vast majority of labs on campus with a Shut the Sash campaign as well as the Certified Green Lab Program. Metrics on number of labs contacted as well as enrollees in the above programs will be continuously tracked by the Green Labs Coordinator and student interns.

**Do you have any additional comments or relevant information to aid in evaluation of this application?**

Given the vast number of laboratories on campus, the level of detail required for analysis, and the time needed to develop and revise policies, a three-year timeline is required to fully execute all goals of this position. Additionally, a 3-year pilot guarantees that the Coordinator will be able to be fully involved in the drafting of relevant sections of the 2020 Climate Action Plan.

Several attachments support the proposal:

1. The SWATeam recommendation for this position as well as the iCAP Working Group assessment
2. A draft job description for the full-time Green Labs Coordinator
3. A chart of the proposed organizational structure of the position