



STUDENT SUSTAINABILITY COMMITTEE

Funding Application – Step II

Funding Criteria

A. General Rules

1. Students, faculty, and staff are encouraged to submit requests for funding. Student-led projects require a faculty or staff sponsor in order to have funds awarded.
2. Funding can only go to university-affiliated projects from students, faculty, staff, and departments.
3. All SSC projects must make a substantial impact on students. This may be a direct impact or an impact through education and engagement. All SSC funding is 100% from student green fees, so the projects funded by the students must benefit them.
4. SSC encourages innovation and new technologies – creative projects are encouraged to apply.
5. Unless a type of expense is specifically listed below as having restrictions, SSC can generally fund it. The items referenced below should not be taken as comprehensive list.

B. Things SSC Can Fund, On A Case-By-Case Basis

1. SSC can fund feasibility studies and design work; however, it must work toward ultimately addressing a sustainability need on campus.
2. SSC can fund staff positions that are related to improving campus sustainability. Strong preference will be given to proposals receiving matching funding from departments and/or plans for maintaining continuity of the position after the end of the initial grant.
3. SSC can fund outreach events with a central theme of sustainability, provided their primary audience is the general campus community.
4. SSC discourages funding requests for food and prizes but will consider proposals on a case by case basis that prove significant reasoning.
5. SSC can fund repairs and improvements to existing building systems as long as it works toward the goal of improving campus sustainability; however, a preference is shown to projects utilizing new or innovative ideas.
6. SSC can provide departments with loans for projects with a distinct payback on a case by case base. Loans will require a separate memorandum of understanding between SSC and departmental leadership pledging to repay the award in full and detailing the payback plan.

C. Things SSC Will Not Fund:

1. SSC will not fund projects with a primary end goal of generating revenue for non-University entities.
2. SSC will not fund personal lodging, food, beverage, and other travel expenses.
3. SSC will not fund any travel expenses.
4. SSC will not fund tuition or other forms of personal financial assistance for students beyond standard student employee wages.

Your Step 2 funding application should include this application, the supplemental budget form, and any letters of support.

Please submit this completed application and any relevant supporting documentation to 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 Student Sustainability Committee at sustainability-committee@illinois.edu.

General & Contact Information

Project Name: [Steven S. Wymer Hall](#) (Wymer Hall), formerly the South Campus Center for Interdisciplinary Learning (SCCIL) (The Board of Trustees approved renaming the facility [Steven S. Wymer Hall](#) at the March 30 meeting.)

Total Amount Requested from SSC: \$500,000 (Gies and the project team recommend dividing into two to four tranches and are flexible on how the amounts are divided among the funding cycle.)

Project Topic Areas: Land & Water Education Energy
 Transportation Food & Waste

Applicant Name: Arlene Vespa, Capital Construction and Building Project Manager

Campus Affiliation (Unit/Department or RSO/Organization): Gies College of Business

Email Address: vespa2@illinois.edu

Check one:

- This project is solely my own **OR**
 This project is proposed on behalf of (name of student org., campus dept., etc.): Gies College of Business and the Office of the Provost

Project Team Members

Name	Department	Email
Dean Jeffrey Brown	Gies College of Business	brownjr@illinois.edu
Shelley Campbell	Gies College of Business	scampbe2@illinois.edu
Kari Cooperider	Gies College of Business	kacoop@illinois.edu
Arlene Vespa	Gies College of Business	vespa2@illinois.edu
Brian Bundren (formerly Paul Redman on the Step 1 application)	Office of the Provost	bundren@illinois.edu

Student-Led Projects (Mandatory):

Name of Faculty or Staff Project Advisor: N/A

Advisor's Email Address: N/A

Financial Contact (Must be a full-time University of Illinois staff member)

Contact Name: Shelley Campbell, Associate Dean of Finance and Administration

Unit/Department: Gies College of Business

Email Address: scampbe2@illinois.edu

Project Information

Please review the proposal materials and online content carefully. It is highly recommended you visit a working group meeting sometime during the proposal submission process.

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

You may copy and paste your Step 1 application answer if nothing has changed.

Commencing construction this May, **Steven S. Wymer Hall** (Wymer Hall), formerly known as the South Campus Center for Interdisciplinary Learning, or SCCIL, will be a four-story building with deep green aspirations to expand the new campus paradigm to inspire future campus improvement projects using geothermal exchange, thermal storage, and optimized building designs.

Introduction

A state-of-the-art building to prepare Illinois students for futures of purpose and impact and a partnership between Gies Business and campus, this hybrid educational facility will house collaboration spaces, traditional and flexible classrooms, informal learning environments, content creation studios, academic offices and support spaces. This project has deep green aspirations, seeking grant funding for a **\$7.1 million district-scale geothermal field providing heating and cooling for the building, a campus first**, with expansion potential to surrounding facilities. The project is targeting *LEED platinum* certification with aspirations to achieve *net zero energy* and *net zero carbon within its first year of operation*.

Project Description

Steven S. Wymer Hall will provide an advanced, high-tech facility with programming space for learners on campus as well as advanced studio space for serving online students and courses. Wymer Hall will:

- Provide expanded studio space and recording capabilities to serve online courses and programs throughout campus.
- Facilitate experiential learning and group work, as well as offer collaborative spaces for campus students.
- Support enrollment growth with additional and much-needed larger classroom spaces for the south campus.
- Provide needed office space for faculty and support staff in Gies College of Business that have increased to serve growing online programs.

Building space for achievement and growth

Located in the heart of south campus, Wymer Hall will be home to spaces that will enable learners – both on campus and online – to achieve their potential. At just under 100,000 square feet, it will include:

Classrooms

- 1 200-seat auditorium
- 2 80-seat classrooms
- 4 60-seat classrooms

Studios

- 2 sound stages
- 5 blackbox studios
- 6 control booths

Offices and meeting rooms

- 18 meeting and collaborative rooms of varying sizes
- 84 offices

The leading-edge online teaching studios will bring the educational power of the University of Illinois to the world. Classrooms and gathering spaces will provide the tools and technology learners need to discover ways to make a positive impact on the world. Flexible classrooms will allow quick transition from a lecture format to collaborative group interaction.

Sustainability

The [Business Instructional Facility \(BIF\) was the first LEED certified campus building](#), having achieved a platinum rating in 2009. The State of Illinois minimum required LEED certification is silver for new construction projects over 10,000 SF. At the project outset, the team identified higher aspirational goals. This resulted in a minimum requirement of LEED gold in the Request for Proposal (RFP) to which project teams responded, suggesting a goal of LEED platinum, with aspirations for LEED Zero Energy. As the project has evolved, Gies and the project team's steadfast commitment to sustainability has not wavered. In fact, the College has not only set its sights on LEED platinum for Wymer Hall, but in collaboration with the Project team, it has established a vision to become the first Net Zero College on the Illinois campus.

The Project will be all electric, eliminating its dependence on the Abbott Power Plant (including adding to campus resiliency). While the existing plant has an efficient combined heat and power system, it also relies on fossil fuel to generate energy that has a large carbon footprint. With the geothermal exchange system, the total energy load required from the central heating and cooling systems will be reduced for this facility, enabling the Project to secure renewable energy sources for the remainder of its annual energy demands.

We strive to reduce our energy use intensity (EUI) with a suite of energy efficiency measures, including a chilled beam system, high efficiency lighting and equipment, and passive desiccant humidity control.

In the future, the system could be expanded to provide renewable energy sharing with other buildings. The ground-source exchange system will not impede the pedestrian and civic amenities that the students enjoy on and around the Military Axis. Once the system is installed, the impacted land will be restored to its original condition and be able to support student events.

This Project will be a milestone for the University's goal of being carbon-neutral by 2050, delivering a forward-looking design and systems to transition the campus towards a cleaner tomorrow.

Where will the project be located? Are special permissions required for this project site?

If special permission is required for this location, please explain and submit any relevant letters of support with the application.

Located at 503 East Gregory in Champaign, Wymer Hall will be constructed between Business Instructional Facility and Huff Hall. The geothermal field will be located on a portion of the Military Axis. It will consist of 70 wells located between Krannert Art Museum to the south, the Business Instructional Facility to the north,

Sixth Street to the east and the Siebel Center for Design to the west. The geothermal system is designed to be expandable, with the ability to be connected to other buildings, allowing for multiple phases. This strategy and approach could also be leveraged at other campus areas adjacent to similar green spaces and quads.

In February 2021, the Project completed the Site Selection Process as outlined by the [University Office of Capital Programs & Real Estate Services](#). Parking lot E12 (503 East Gregory in Champaign) was chosen by the Site Selection Committee and confirmed by the Chancellor's Capital Review Committee.

The Project held its ceremonial groundbreaking on April 14, 2023 and will formally commence construction on May 8, 2023. The Project, including the geothermal component, is scheduled to be completed by January 2025.

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 benefit from this project. Please attach letters of commitment or support at the end of the application.

Campus groups that have a stake in the Project include the following:

- Facilities and Services (F&S)
- The Center for Innovation in Teaching and Learning (CITL)

Funding sources include the following:

- Gies philanthropy efforts by the Dean and Gies Advancement team have gained support from a wide range of donors. Alumnus, Steven S. Wymer, has generously provided a gift of \$25m in support of the Project.
- The remaining Project costs will be covered through financing and repayment by Gies and the Provost office.

The Project is leveraging a novel "Public Private Partnership" structure. In simplistic terms, this means that the University is working with several private sector entities (both for profit and not-for-profit) that will assist in delivering the Project. As part of the transaction, the University will sign a 30-year lease for the improvements. The geothermal component will be on University land outside of the proposed ground lease area. The benefits, resulting in reduced utility costs, accrue directly to the Office of the Provost and the Gies College of Business.

How will this project involve and/or benefit students?

This includes both direct and indirect impact.

Student leadership has inspired the deep green aspirations of Wymer Hall and its ambitious goals. This Project builds on a concept originally conceived and developed by University students and faculty and the first large scale geothermal installation on the Bardeen Quad.

However, the origins of these ambitious projects are directly tied to the faculty and students that have supported these initiatives, including the SSC. This concept was originally conceived and developed by University students and faculty, so student involvement has been key since its infancy. Dr. Yu-Feng Lin was funded by the SSC in 2016 to pilot a new method for designing and monitoring geothermal exchange system in

order to reduce the cost of geothermal installation and optimize the operation for future campus projects like Wymer Hall.

Dr. Andy Stumpf assisted the team by conducting geothermal property analysis, and in 2018 the SSC funded a geothermal exchange system for greenhouses at the Woody Poly Perennial site. Both Drs. Lin and Stumpf were also instrumental in the design and inspiration of the Campus Instructional Facility, and they continue to inspire our latest initiative, the most ambitious campus geothermal installation in Wymer Hall. At every step of the way, these initiatives have involved students conducting research and inspiring several of the most direct investments in deep green initiatives on campus.

The Project team envisions a partnership with the Student Sustainability Committee, as well as expanded teaching and research opportunities during the design, construction, and operation of Wymer Hall:

- The Project's design and engineering will be available to students and faculty for research.
- During construction, the Project team welcomes faculty and student engagement for safe site visits, Project team engagement and analysis of the building construction and geothermal installation.
- Post-occupancy, the interface between the geothermal exchange system and distribution of the heating and cooling will allow for digital monitoring and controls, putting real time energy and emissions savings on display.
- The Project itself, as well as the members of the Project team, will be available for student engagement, showcasing the University's dedication to its climate commitments.

The Project team envisions deep collaboration with the faculty and staff in the Departments of Civil and Environmental Engineering, Mechanical Engineering and Geology, and Energy Systems Program, iSEE, and Facilities and Services. Additionally, we propose that students be involved in the Project at several stages, including in the design phase, during construction, and operation of the geothermal system.

We also want to showcase the interface between the geo-exchange system and distribution of the heating and cooling from the digital monitoring and control room. Real time energy and emissions savings will be displayed that further engage the students post-occupancy. Operationally, the students will benefit from the comfort of the chilled beam system in their learning environment.

The Project team proposes to seek publicity and coverage in trade and scientific publications, in the media, in conferences and workshops (talks, posters, flyers), and in communications with campus administrators, public officials and regulatory agencies.

Ultimately, this Project uniquely touches all students at the University – those attending in-person, as well as those participating in the innovative programs developed in the Project's studios, generating content broadcast throughout the world.

How will you bring awareness and publicize the project on campus? In addition to SSC, where will information about this project be reported?

The Project team wishes to collaborate with the SSC to publicize the Project and its impact on campus. We also believe that the Project's story will have relevancy at a regional and national scale based on the Project's deep green aspirations.

In the budget, several concepts are included, though there is room for further exploration with the SSC.

Both Gies and the Provost office will acknowledge the support of SSC in news and media coverage, included in [website information](#), and on signage throughout the building. Facilities and Services also maintains an archive of certified campus buildings on the [Illinois Climate Action Plan \(iCAP\) web portal](#) to which this Project is expected to be added.

Communicating the college sustainability story is a priority, incorporating both physical signage and digital engagement. Realtime monitoring of the geothermal system, as well as energy demand will be put on display. Gies and the University will partner with the Student Sustainability Committee to engage students and amplify these initiatives.

Embedded throughout the project, there will be opportunities for potential student engagement and interaction with high performance, healthy features — all visible and tangible to the students. However, we understand invisible engineering strategies can have the highest impact on emission reductions. Our aim is to make as many of these "behind-the-scenes" engineering operations visible for teaching and instructional opportunities.

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?

Wymer Hall has not previously applied for funding from the Student Sustainability Committee (SSC). However, Gies has applied and received funding in the past for various Business Instructional Facility (BIF) projects:

- \$81,863 photovoltaic system — above BIF Deloitte Auditorium. Construction was completed in the fall of 2008.
- \$10,000 prairie garden — replacement of original plantings. SSC funding was awarded May 2010, and construction was completed April 2011.
- \$60,000 photovoltaic system above new offices — part of BIF fourth floor expansion. SSC funding was awarded April 2017, and construction was completed summer 2019.

In addition to the above, the research and knowledge gained through past campus geothermal projects have directly contributed to this Project's viability.

If this project is implemented, will you require 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.

No ongoing funding is being requested. Replacement and operating costs will be covered by the Office of the Provost and the Gies College of Business.

Please include any other obtained sources of funding. Have you applied for funding elsewhere?

Please attach any relevant letters of support as needed in a separate document.

Wymer Hall will be funded with Academic Facilities Lease Revenue Bonds issued by the Illinois Finance Authority and funding contributions from the University, including significant commitments from alumni donors. The bonds will be issued for the purpose of providing funds to finance the cost of the design, development and construction of the Project. The University may elect to make additional contributions, such as Student Sustainability Committee support for the Project's sustainability goals.

Based on the high levels of energy efficiency the Project is pursuing, in part with this geothermal system and the chilled beam system, the Project is also eligible for benefits under the Inflation Reduction Act (IRA). These grants and benefits will cover a fraction of the cost of the geothermal system.

The Project held its ceremonial groundbreaking on April 14, 2023. The bond transaction occurs May 4, 2023, and construction will formally commence on May 8, 2023.

Environmental, Economic, and Awareness Impacts

How will the project improve environmental sustainability at the Urbana-Champaign campus? If applicable, how does this project fit within any of the [Illinois Climate Action Plan \(iCAP\)](#) goals?

The Illinois Climate Action Plan (iCAP) outlines a path for the University of Illinois Urbana-Champaign to achieve carbon neutrality as soon as possible, and no later than 2050. Our proposal is to reduce dependence on the Abbott Power Plant as the University transitions to a zero emission and zero carbon campus. While the existing plant has an efficient combined heat and power system, it also relies on fossil fuel to generate energy at a high carbon footprint. With the geothermal system, the total energy needed from chilled water is eliminated and provided to the building only for redundancy. This installation builds on past projects, *providing heating and cooling for the building, a campus first*, while also creating a template that can be replicated in other areas as the University works towards a cleaner future.

Eliminating emissions from Abbott and purchased electricity is a central vision outlined in the iCAP. The methods cited include a combination of reducing energy demands and shifting energy generation toward clean energy sources. The Project is all-electric and aims to utilize 100% solar power for its energy demands, while the geothermal system will vastly reduce its demand. In addition, the Project will use high-efficiency heat pumps. In this case all of the Project's heating will be met by non-fossil-fuel electricity rather than by combustion of fossil fuels. The iCAP specifically references our proposed geothermal concept:

One very promising technology for this involves the use of geothermal heat pumps. As an example of what can be accomplished with current technology, we consider Ball State University, which commissioned a large-scale district geothermal heating and cooling system in 2012. It uses large heat pump chillers to simultaneously produce chilled and hot water. The system has a design coefficient of performance of 3.8 for heating and 2.9 for cooling, meaning that for each unit of electric energy consumed 6.7 units of heat are moved. Ball State University is at almost the same latitude as our university, so similar systems could be evaluated for use on this campus. [...] An additional attraction of geothermal is the use of a hot water distribution system. A study of the benefits of a possible transition from steam to hot water thermal distribution was recommended by the 2010 iCAP, which suggested that this transition, either central or distributed, can yield considerable energy savings.

The iCAP conclusion cites this strategy (and others being deployed as a part of this Project) as the most viable technologies to achieve the campus goals:

At present, the most viable technologies and markets that appear promising for clean energy are: (1) electrification of our heating needs, through the use of geothermal and/or air-source heat pumps [...] [and] (4) power purchase agreements for zero-carbon electricity from off-campus sources [...].

How will you monitor and evaluate the project's progress and environmental outcomes? What short-term and long-term environmental impacts do you expect?

Some examples include carbon emissions, water conservation, green behavior, and reduced landfill waste.

We have used monitoring and performance data established from the Bardeen Quadrangle geothermal exchange to inform this Project's design. The geological and thermogeological characterization established baseline conditions that contributed to the design of the geothermal field.

The Project site is uniquely positioned as the last building fronting the Military Axis in this area of campus. The geothermal well field is designed as expandable with the potential to serve future building projects. Multiple buildings on the district well field system could better balance the amount of heating and cooling circulated in the field (one building may require more heating and cooling than another, etc.). The geo-exchange system installation at this scale for Wymer Hall may make it financially viable for future neighboring facility additions to leverage geothermal by connecting to and expanding the system.

In addition, occupant behavior will be studied through post-occupancy surveys, student engagement and potential sensor use to determine optimal building system performance and occupant comfort levels. Mechanical systems will be based off energy modeled performance that provide optimal energy use and user comfort.

The primary environmental impacts, energy savings and a reduction in carbon emissions, will be tracked and made available via the outreach goals cited below.

What are your specific outreach goals? How will this project inspire change at UIUC?

We intend to involve students in the development of the Project and its geothermal exchange, leveraging this opportunity as a learning laboratory. Classes from a variety of programs, including the Gies College of Business, Grainger College of Engineering, and the Department of Geology, will be invited to the site to learn about various aspects of the Project's sustainability attributes and systems.

The Project team will continue to engage the SSC, seeking opportunities for further student engagement, developing digital communications on the SSC's involvement and contribution, real time data usage opportunities on the geothermal exchange system, and other sustainability metrics on the digital displays throughout Wymer Hall.

In terms of inspiring change at the University of Illinois, our goal is to develop a strategy and approach so that this concept can be incorporated into other new construction and renovation projects. The Project team envisions a future where many of the green spaces at the University could serve a similar purpose, all without impacting these beautiful spaces for the enjoyment of students, faculty, staff and visitors. This would make for a very compelling sustainability story and one we feel will resonate with a wide audience.

Lastly, the Project team is utilizing Wymer Hall as the inspiration to revisit the sustainability goals of the Gies College of Business. Through this collaboration, the team is actively exploring measures to make Gies the first

net zero energy college on campus. The Project team is receptive to teaming with the SSC and other campus groups to accomplish this ambitious goal. In doing so, we hope to create opportunities to utilize these spaces to become learning laboratories and communicating the business case for deep green.

If applicable, how does this project impact environmental injustice or social injustice?

N/A



STUDENT SUSTAINABILITY COMMITTEE

Step II Application

Please submit this completed application and supporting documentation to 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 SSC at Sustainability-Committee@illinois.edu.

GENERAL INFORMATION

Project Title:	Steven S. Wymer Hall (Wymer Hall), formerly the South Campus Center for Interdisciplinary Learning (SCCIL) (renamed Steven S. Wymer Hall at the Board of Trustees meeting on March 30)		
Total Amount Requested from SSC:	\$500,000		
Amount Requested as:	GRANT	(LOAN or GRANT)	

SCOPE, SCHEDULE, AND BUDGET VERIFICATION

If the project required you to obtain information from Facilities & Services Planning Division, please include that here and attach any supporting documentation.

Scope & Schedule

What is the plan for project implementation? Describe the key steps of the project including the start date, target completion date, target date for submitting a final report, and any

Task	Timeframe (# of weeks to completion)	Estimated Completion Date
Ceremonial Groundbreaking		April 14, 2023
Construction Start	87 weeks 2 days (to Substantial Completion)	May 8, 2023
Substantial Completion (SC)		January 7, 2025
Commissioning / Owner Move-In / Soft Opening		Spring / Summer 2025
Final Report to SSC		Spring 2025
First Classes Held		Fall 2025

Budget

List all budget items for which funding is being requested under the appropriate category in the following table. Include cost and total amount for each item requested. Please be as

Item	Cost Per Item	Quantity	Total Request
Equipment & Construction Costs			
Geothermal Field	\$977,500		\$500,000
Geothermal Equipment	\$988,400		\$0
Geothermal Loop Piping	\$410,525		\$0
Equipment, Piping, and End Units	\$4,664,056		\$0
Landscaping and Repair at Military Axis	\$55,300		\$0
		Subtotal	\$500,000

Publicity & Communication

Digital Screens and SSC Cross-Promotion Opportunities (to be coordinated with Gies Marketing & Communications)	To Be Determined		\$0
SSC physical signage acknowledgement	To Be Determined		\$0
		Subtotal	\$0

Personnel & Wages

			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
		Subtotal	\$0

Project Budget per F&S

			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
		Subtotal	\$0

General Supplies & Other

			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
			\$0
		Subtotal	\$0

TOTAL BUDGET \$500,000

End of Application