

View results

Respondent

6 Elise Riehle

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Time to complete

Instructions:

Please adhere to the session word counts. Project leads must attend one SSC working group meeting post step 1 application submission. If you have any questions about the application process, please contact the SSC at Sustainability-Committee@illinois.edu.

1. Have you attended a working group meeting and presented your project to the committee before this application? The SSC requires attendance at a working group meeting to remain eligible for SSC funding. If you have not attended a working group meeting, please do so and then continue the application.

Linked below is our calendar with all of our working group meetings
<https://studentengagement.illinois.edu/student-sustainability/ssc/calendar/>

*

Yes

No

2. Please enter the dates of the working group meetings you attended. As a reminder, the working group meetings are structured as followed:

- Energy + Transportation and Infrastructure working group.
- Food & Waste + Land, Air, and Water working group.
- Education and Justice working group.

*

10/4/23 and 11/9/23

3. Project Name: *

CABBI Greenhouse Solar Array

4. Total Funding Requested From the SSC. *

\$150,000

5. Date of application. *

6. Project Lead Full Name: *

7. Project Lead University Email Address. *

8. Project Abstract: (In less than 100 words, briefly describe the project.) *

9. Project Category *

- Education & Justice
- Energy
- Food & Waste
- Land, Air & Water
- Transportation & Infrastructure

10. Do you have a change in team members? *

- Yes
- No

Project Questionnaire:

11. Any press releases or educational/promotional materials involving the project must acknowledge SSC funding. How will you bring awareness and publicize the project on campus? In addition to SSC, where will information about this project be reported? *

a. This greenhouse will be a high-profile addition to campus facilities. Our hope to add solar panels with the support of SSC was mentioned during the groundbreaking ceremony with many campus leaders present.

b. If this project is approved, the press release about the completed greenhouse will give credit to SSC for funding the solar panels. This will be featured on the CABB I website and likely garner local news coverage. The greenhouse will likely be regularly featured in news releases about CABB I research.

c. CABB I reports quarterly and annually to the Department of Energy, and the acknowledgement of SSC funding would be included.

d. In addition, we frequently get high-profile visitors to campus, such as the recent visit from the U.S. Secretary of Energy. This project will continue to generate publicity about the SSC on-campus and with the broader community.

12. 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 below *

a. The greenhouse construction was funded by the Office of the Provost, the Department of Plant Biology, the College of LAS, the College of ACES, the Department of Crop Sciences, and the School of Integrative Biology. Plant Biology/LAS would own and operate the CABB I greenhouse/headhouse.

b. The CABB I research team is multi-disciplinary, spread across 11 departments in 3 colleges across campus. The team consists of faculty, staff, postdoctoral researchers, graduate students, and undergraduate students who will benefit from the project.

c. Total cost for the greenhouse facility is \$6.5 Million Dollars. Due to current challenges with the cost of materials and rising interest rates, additional funding was required following early budget exercises, and difficult value engineering decisions had to be made. Maintaining the integrity of the research program was prioritized which is one of the reasons we are seeking alternative funding for solar.

13. Please attach any letters of commitment or support here along with any other supplemental media that will support your application (presentations, pictures, etc.)

 [CABB I Greenhouse Financial MOU-Final. Elise Riehle.pdf](#)

14. How does this project impact environmental and social justice? 250 word max *

a. This project contributes to environmental and social justice because the use of solar energy reduces air pollution that disproportionately affects economically disadvantaged people and people of color.

b. Research that will be conducted in the greenhouse is to create a bioeconomy that is economically viable and ecologically sustainable, which should enable better environmental outcomes and counteract climate change.

c. In addition, middle schoolers and undergraduate students from underrepresented populations will benefit from conducting research in the greenhouse and learning about the use of solar energy. This will be facilities through the Pollen Power program with IGB and the CABB I RISE (Research Internship in Sustainable Bioenergy) program.

15. Where is the project located, does it require Facilities and Services permissions? *

a. The project is located in the Research Park. It is part of a larger capital project being coordinated through the University Real Estate Services, in close collaboration with Research Park Design Services and Facilities and Services. Permissions and permits are being secured as needed.

16. Is this project student led? *

Yes

No

17. If applicable, have you received approval from Facilities & Services and/or site manager? *

- Yes
- No
- N/A

18. Do you have a plan for ongoing funding beyond SSC? (SSC does not guarantee ongoing financial support) *

- Yes
- No

19. Beyond SSC, do you have sources contributing funding or support (ex. staff time, external grants, etc.) to this project? *

- Yes
- No

20. Have you applied for SSC funding previously? *

- Yes
- No

21. Project Timeline:

(SSC funding agreements remain active for two years. List your project's proposed end date.) *

Construction of the CABBI Greenhouse will be complete in May/June of 2024. We would like to procure and install the solar panels in alignment with the construction schedule.
Approve purchase of Solar Panels - January 2024
Install Panels - March 2024
Turn over facility and begin operation - June 2024
If these panels are put into service by May of 2024, then we can file for the ITC credits in tax year 2024. The rebate would be used to pay down the balance of the revolving loan fund from F&S in 2025, freeing up dollars to fund future sustainability projects requested by University departments.

22. Provide a detailed project description:

(In 400 words or less, describe your project. What does your project hope to accomplish? What are your project's deliverables?) *

- a. This project deliverable is straightforward — the purchase and installation of solar panels at a new greenhouse that will be dedicated to research of bioenergy crops. Through these solar panels, the building would be partially powered with clean energy. Because this is new construction, it is the best time to most efficiently incorporate solar power into the building.
- b. Since our last application and meeting, we were able to increase the capacity of the system. By modifying the angle the panels will be installed, we could fit additional panels into the same footprint. This increases the project annual savings from 35K to 52K annually.

23. Environmental Impact:

(In 200 words or less, how does your project increase environmental stewardship at UIUC? If applicable, what is the carbon, water, waste, and/or energy savings?) *

- a. The environmental impact would be less fossil fuel energy use at a new campus facility.
- b. There are also environmental benefits of research being conducted in the greenhouse, with a goal of providing sustainable sources of energy to the world through bioenergy crops.
- c. 266.7 MWh of annual energy production

24. iCAP Objective Correspondence:

(In 200 words or less, does your project aim to advance one or more of the Illinois Climate Action Plan's (iCAP) objectives? If so, how?)

A full list can be found here: <https://icap.sustainability.illinois.edu/objectives>

This project falls squarely under the Energy iCAP objective. It is a way to increase the use of clean energy sources on campus. These solar panels would be located over a geothermal field of the adjacent building, so it is also an efficient use of land.

25. Student Impact:

(In 200 words or less, how will this project benefit students? How will students be involved with this project? What educational components are in your project?) *

- a. Students will benefit from the project through a week-long summer camp for middle school students (Pollen Power), a 10-week summer internship for undergraduates (RISE), and graduate student training. In all three programs, students will conduct research in the greenhouse and learn about the use of solar energy in the facility.
- b. In addition to giving students the opportunity to conduct research in a state-of-the-art greenhouse space partially powered with solar energy, this solar array will be an easily accessible example of SSC's investment in bringing our campus closer to carbon neutral.

Project Finances

26. See attached file, please be very descriptive and fill out the finalized budget and timeline Excel sheet, and submit it below.

<https://studentengagement.illinois.edu/student-sustainability/ssc/docs/SSC-Supplemental-Budget-Timeline.xlsx>

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 [SSC-Supplemental-Budget-Timeline Step 2 appli Elise Riehle.xlsx](#)

27. Project Finance Manager.

Must be a fulltime UIUC faculty or staff member** *

Elise Riehle

28. Finance Project Manager Department *

Real Estate Services

29. Project Finance Manager University Email *

eriehle@uillinois.edu