# *Thank you for your commitment to green initiatives at the University of Illinois. One of the ongoing requirements listed in the terms of the funding agreement for your project is the submission of semesterly reports with key information about your project. In addition to this form, please provide additional financial documentation and/or progress photos if available.*

# *Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at* *sustainability-committee@illinois.edu**.*

**Project Name:** Speech and Hearing Building Solar

**Date of Report Submission:** 1/6/2018

**Project Purpose:**

Design and install rooftop solar PVs on the Speech and Hearing Sciences Building

**Detailed Accounting of Expenditures to Date:**

We paid $4,393.15 for Engineering Design work by Brian Finet and Kristine Chalifoux at F&S. That leaves $35,606.85 for materials and labor to install the panels and connect them to the building’s electrical system. With those funds, we can estimate a system size of about 11 kW DC. If SSC is willing to increase the funding for this project, we could increase the size of the array, accordingly. There is a Contractor Services dollar limit, which I suspect would constrain the installation at this time to approximately 30 kW DC. We will know more when we receive installation quotes.

**Project Progress to Date:**

The academic users in the building requested that this solar project be completed in conjunction with a capital project they are planning. Construction on that project (U10043) was rescheduled from Feb. 2018 to start in April 2018 instead. The current funding deadline is Jan. 2018. I will submit a scope change to update the schedule and to consider additional funds, as described below.

Kristine Chalifoux reviewed the roof structure and she found that the original structure was designed for a heavy roof structure which was subsequently upgraded to a lighter insulation material. Thus, the roof has plenty of capacity for the solar PVs and will not require a formal engineering review by a licensed structural engineering consultant.

Per the SSC request, Brian Finet designed a scalable system, so the SSC could choose to fund installation of additional solar PVs if desired. The final engineering design was completed Dec. 22, 2017. The total rooftop array could be 206 340-Watt panels, for a maximum system size of 70.04 kW DC. Based on a typical installation cost of $3.00/Watt, the total install for the full roof array would likely be over $200K.

The next step is for Contractor Services to seek quotes for installation. I have asked them to provide a cost for the original project scope (based on an expected total cost of $40K, as previously allocated) and for the full rooftop coverage, so that I can request an appropriate scope change from the SSC.

**Student Involvement and Outreach to Date:**

This project has involved students through discussions and ideation. The initial proposal came from a student class group, but the materials they selected are no longer available to purchase. One of the key student advocates for rooftop solar, Corey Weil, helped identify the Speech and Hearing Sciences Building as a good option for this effort. Niharika Kishore completed a proposal for a full scale rooftop solar PV retrofit for several campus buildings to reach the iCAP objective of 12,500 MWh/year of on campus solar generation by 2020. Niharika and Corey both participated in the F&S discussions through May 2017.

As this project moves toward installation, there will be many more opportunities for student outreach. I will reach out to the Speech and Hearing Sciences students to help them understand the benefits of the solar PVs on their roof and continue to building a culture of sustainability across the campus.

**Marketing and Promotion Efforts to Date:**

This solar array effort is on the iCAP Portal at <https://icap.sustainability.illinois.edu/project/speech-and-hearing-rooftop-solar-pvs>.

**Additional Comments:**



To the left is a view for the location of the proposed solar array, as seen from the parking deck at Fifth and Daniels.

The bottom left is the plan view of the roof, showing the extent of solar PVs anticipated to be installed using the existing funding.

This will allow 9 rows of 6 panels, or 54 panels, as shown on the bottom right.



