*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**.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 Program Advisor, Micah Kentfield, at* *kenfield@illinois.edu*

# General Information

**Project Name:** Krannert Center for the Performing Arts (KCPA) Lobby Lighting Upgrade

**Total Amount Requested from SSC:** $150,000 (We believe this amount to be adequate for the project, but we have investigated other sources, if supplemental funds are needed. One source of potential supplemental funds is the element of F&S that administers DCEO funds with which we have met, and it has agreed to review the project and will seek supporting information for the projected energy savings to allow it to provide the additional necessary funding. The Revolving Loan Fund Committee has expressed interest in providing the supplemental funding. Application to the RLF will be made upon award of the requested amount from SSC.

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

 [ ] Land [ ] Water [ ] Transportation

# Contact Information

### Project Lead

Applicant Name: Gaines Hall

Unit/Department: FAA/KCPA

Email Address: gbhall@illinois.edu

Phone Number: 630-235-4950

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

Contact Name: Cynthia Cae Howard

Unit/Department: KCPA

Email Address: choward1@illinois.edu

Phone Number: 217-333-9722

Organization Code: 262001

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

Contact Name: N/A

Email Address: N/A

**Primary Project Team**

|  |  |  |
| --- | --- | --- |
| **Name** | **Department** | **Email** |
| Gaines Hall | FAA | gbhall@illinois.edu |
| Michael Williams | KCPA | william7@illinois.edu |
| Cynthia Howard | KCPA | howard1@illinois.edu |
| Gregory Anderson | FAA | gnanders@illinois.edu |

# Project Description

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

The Lobby of KCPA is a large 5,000 square foot student-centric multiuse area, arguably one of the most used spaces in one of the most iconic buildings on the campus of U of I Urbana-Champaign. The facility hosts an estimated 200,000 thousand guests, employees, faculty and students every year. In addition to serving as the joint lobby for the four performing venues, each year the lobby is the setting for over 350 student and professional performances plus commencements, lectures, and other events. Furthermore, the lobby is the home of the café and lounge/informal entertainment stage where students can be found enjoying performing artists in an informal setting plus eating, frequenting the gift shop, relaxing, and studying every day of every week. The building is nearing its 50th anniversary, and assuring that the functions of the building continue to be upgraded and enhanced to maintain its popularity, frequent usage, and increased sustainable condition in keeping with the campus strategic plan is a priority of the Campus and the College of Fine and Applied Arts.

The project would encompass the replacement of 560 recessed ceiling light fixtures in the lobby that joins the four performing arts theatres. The original trim of the fixtures would remain. Approximately eight years ago, the 560 incandescent fixtures (150 watts each) were replaced with an early generation version of LED fixtures (32 watts each). That installation resulted in the exceptional annual reduction of 466,449 Kwh (592,943 – 126,494). This installation was a major energy saver for the building and the campus. The LED replacement fixtures, however, did not possess the now available technology of having LED lamps with a standard base that can be screwed into a fixture that could serve for decades, having only to change lamps perhaps every 10 years or so. Instead, the original LED fixtures had the similar 10-year expectancy of current LED lamps but with the disadvantage that requires the entire fixture replacement at the end of that time.

The goal of this project would be to replace the existing 560 LED fixtures (32 watts each) with new LED fixtures (18 watts each) that have the advantage of long term fixture life and with the added advantage of simply unscrewing an old LED lamp after 10 years or so and screwing in a new LED lamp. The need to replace fixtures after another 10 years will have been negated, and now the operations personnel of the building will be able to replace the lamps as needed for decades to come.

Such an upgrade from older LED technology to current LED technology would further reduce the energy consumption of these 560 fixtures from 89,062 Kwh to 50,097 Kwh annually, an additional 44% savings over the current usage. In addition, over the long term, the realization of not having to replace fixtures every ten years would be a further savings to the campus and amplify the work of the SSC and its contribution to such an effort.

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

Beyond the thousands of students on campus who have the opportunity to attend hundreds of performances a year within the building and to utilize the lobby and café area daily, over one thousand students who are enrolled in the School of Music, the Department of Theatre, and the Department of Dance utilize the building and lobby multiple times each day every semester and scores of times during their enrollment at U of I. Students will benefit from the more energy efficient public space to which they have access every day of the year for relaxation, food service, performance and study. This project will complete the overall goal of having converted almost 100% of the incandescent fixtures to LED fixtures in the interior of the KCPA building except for the stage performance lighting which may be possible in the foreseeable future.

**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.**

The Project is located at the Krannert Center for the Performing Arts. The intent of this project is to complete the 100% interior transition of the building, other than stage performance lighting, to LED from incandescent. Permission will be required to set up construction operations inside the lobby to coordinate with the uses of the building. It is anticipated that the work will begin immediately following graduation in May 2017 and be complete by 1 August 2017 before 2017 Fall classes begin. The Dean of FAA, the KCPA Director, the Lighting Director, and the Chief Building Operations Engineer of KCPA are very much in support of this project.

**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.**

Parties having a stake in this project are the Krannert Center for the Performing Arts, The College of Fine and Applied Arts, and the department of Facilities and Services. Those parties benefiting from the project would be students from all across the campus to attend performances; students from the School of Music, the Department of Theatre, and the Department of Dance who utilize the facility daily for rehearsal and performance; faculty who teach in the building; and the public in general who attend performances at KCPA. The Krannert Center will assist in the labor required to install the new LED fixtures of the Lobby, and the engineering staff of Krannert will be responsible for all future lamping of all fixtures in the Lobby. It is anticipated that DCEO, the Revolving Loan Fund, KCPA, and FAA could provide supplemental funding for the project if needed. Contacts already have been made to confirm the willingness of these entities to assist.

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

Every student on campus has the opportunity to attend hundreds of performances a year within the building. Hundreds of students who are enrolled in in the School of Music, the Department of Theatre, and the Department of Dance utilize all of the lobby multiple times every day during each semester and scores of times during their enrollment at U of I. Students will benefit from the updated LED fixtures that will not suffer the long term deterioration now being experienced by the early LED technology of the current fixtures. The new fixtures will bring with them the ease of changing a lamp in less than a minute by a member of the building operations staff which will, in turn, easily keep the 560 fixtures in full operating condition for many years. In addition, since the new fixtures will be programmable, an instructional opportunity will exist for those theatre students who have an emphasis on lighting by being taught the programmable features of the new system.

# 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?**

Yes. In 2014 FAA applied for funding for a lighting upgrade for the audience chambers of the three major performance spaces in the Krannert Center for the Performing Arts (KCPA). That project is over half completed and will be completed during the first half of 2017. KCPA recently received a $134,000 award from the Revolving Loan Fund which will fulfill the balance of the funding requirement for the project.

**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?**

This project, by its nature, should require no ongoing funding. The proposed LED lighting fixtures utilize standard base screw-in LED lamps that can be replaced when needed by the in-house operations staff. A few reserve fixtures will be purchased initially in the event a fixture is faulty or fails due to manufacturing defect. **Please note that SSC provides funding on a case by case basis annually and should not be considered as an ongoing source of funding.**

KCPA does not look to SSC for ongoing funding.

**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.**

Requests and/or applications are in process with the Revolving Loan Committee and the DCEO element of F&S to supplement the grant if needed.

# 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?**

The iCAP goals are front and center in the elements being addressed with this project application. With the implementation of this project, the interior lighting of KCPA, with the exception of the performance-specific stage lighting, will be approaching 100% LED, having replaced approximately 3,000 incandescent fixtures/lamps throughout the building.

**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?**

The building’s energy use has been measured constantly for the last several years, and the results of that monitoring have shown an 11.7% reduction in the energy usage for the entire building over the last four years. This measuring will continue with the introduction of the new replacement LED fixtures in the lobby.

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

The Krannert Center communications team will promote the completed project widely, using the Center’s established, effective communications infrastructure and working collaboratively with the Student Sustainability Committee to ensure best possible targeting and distribution. Over 30% of the tickets sold to Krannert Center events are sold to University of Illinois students, and every day over 600 students attend classes and/or work in the Center. University of Illinois faculty and staff represent another significant portion of the Center’s ticket-buyers and daily constituents. This combination of forces creates a highly desirable market for positive communications about the work of the Student Sustainability Committee.

In addition to standard recognition for the Student Sustainability Committee as a major supporter of Krannert Center, the project communications campaign will include:

• Ad in Krannert Center performance programs

4” x 3.25”; ad will be included in print programs distributed at over 125 performances throughout the year, reaching over 60,000 people annually

Copywriting and design cost covered by Krannert Center ($300 value)

Annual space/print cost $2,310

• Print ad in one issue of Krannert Center print newsletter

Mail distribution to 23,000 local/regional households

Copywriting and design cost covered by Krannert Center ($300 value)

Space/print cost per issue $2,500 value, for one issue

• Print signage/communications pieces at key locations within Krannert Center

Reaching hundreds of weekly visitors to the cafe, shop, and bar

Copywriting and design cost, and space placement value, covered by Krannert Center ($1,800 value)

Print production cost $1,200

• Ad on video screens in Krannert Center lobby

Exposure to hundreds of thousands of visitors annually

Item placed for one year

Copywriting and design cost, and space placement value, covered by Krannert Center ($3,000 value)

• Press release to local and regional media outlets (print, radio, online, and more)

Copywriting and distribution cost covered by Krannert Center ($300 value)

• News item on KrannertCenter.com

Approximately 20,000 sessions, and 15,000 users, per month

Item placed for one year

Copywriting and technical cost, and space placement value, covered by Krannert Center ($3,000 value)

• News item in two issues of weekly Krannert Center enewsletter

Sent to over 13,000 subscribers each week

Copywriting and technical cost, and space placement value, covered by Krannert Center ($3,000 value)

• Social media coverage by Krannert Center, linking across campus and community

Krannert Center has over 5,300 “likes” on Facebook and over 3,000 followers on Twitter, and regularly amplifies its reach through partnerships and creative collaborations

Copywriting, design, and placement value covered by Krannert Center ($3,000 value)

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

The outreach goals are to make all students, faculty, visitors, and patrons fully aware of the new lighting project upon its completion through the means outlined above. The measuring of the reach of the efforts will be partially measured in terms of the number of students known to be in the building daily for classes, the number of audience members who attend performances based on ticket count, and the estimated number of lobby users annually based on daily estimates and the number of people who attend functions that are held in the lobby annually in addition to performances.

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

We have stated it earlier in the application, but it seems important to emphasize the importance of this last major lighting upgrade inside the building. Except for the performance specific stage lighting, this project will have resulted in almost 100% of the approximately 3,000 incandescent lighting fixtures inside KCPA becoming LED fixtures, thereby lowering the carbon footprint between 250 and 300 tons annually.