Project Information:

Please provide the following information (take as much space as you need to provide details):

Department:	Alliant Energy Center	Total project costs:	\$25,650
Address:	1919 Alliant Energy Center Way	Funding amount in current budget:	\$0
	Madison, WI 53713	Funding amount requested:	\$25,650
Project Title:	Exterior & Lobby LED Lighting Upgrades		

Project Location: Exhibition Hall and Veterans Memorial Coliseum

Project Description: This project will replace a total of 348 exterior and lobby fixtures on the Alliant Energy Center campus with a total of 308 energy efficient LED fixtures. The following is a breakdown of the fixture replacements:

Coliseum East and West Entrances – Replace 32 175W metal halide fixtures with 32 FFLED 39W fixtures.

Large Entrance Gate Signs – Replace 6 1000W sign fixtures with 6 FFLED 52W fixtures

Small Entrance Gate Signs – Replace 4 500W quarts sign fixtures with 4 FFLED 39W fixtures

Exhibition Hall Exterior Soffits – Replace 54 50W fixtures with 14 40W LED fixtures

Exhibition Hall Lobby – Replace 22 90W metal halide fixtures with 22 50W LED fixtures and replace 230 52W fixtures with 230 27W LED fixtures.

Describe how the proposed project moves the county toward meeting the following Sustainability Principles. (See the guiding questions in the box below.) Responses to this section will be used to determine the relative level of sustainability for each project.

- Reduce and eventually eliminate county government's contribution to fossil fuel dependence and to wasteful use of scarce metals and minerals; This project works to reduce county government's contribution to fossil fuel dependence by reducing the amount of electricity to light the lobbies and exteriors of the Coliseum and Exhibition Hall. The LED lights will also eliminate the need to send metal halide bulbs to the landfill each time they are replaced. Based on an average usage of eight hours per day, this project will save 60,310 kilowatt hours of electricity usage per year, which will reduce greenhouse gas emissions by 42.6 metric tons. The reduced energy usage should save the Center \$8,945 per year and reduce maintenance costs by \$3,480 per year. The total savings per year of \$12,425 results in a payback period of 2.06 years for this project.
- Reduce and eventually eliminate county government's contribution to dependence upon persistent chemicals and wasteful use of synthetic substances; **N/A**
- Reduce and eventually eliminate county government's contribution to encroachment upon nature and harm to life-sustaining ecosystems (e.g., land, water, wildlife, forest, soil, ecosystems); **N/A** and
- Reduce and eventually eliminate county government's contribution to conditions that undermine people's ability to meet their basic human needs. N/A

Include in your description any estimated reductions of GHGs / CO2 equivalent emissions related to your proposal. Please use the following calculator to do this: http://www.epa.gov/cleanenergy/energy-resources/calculator.html

Describe how the proposal furthers implementation of the Dane County Government Sustainable Operations Plan goals, objectives, and strategies in your department and/or countywide. Please identify specific plan goals, objectives, and strategies accomplished. This project furthers the Sustainable Operations Plan goal of reducing greenhouse gas emissions generated by all county operations and facilities, and to planning for and implementing climate adaptation measures to build resilience in the face of current and future impacts of global climate change on government operations and our community. This objective of this project is to work toward avoiding and reducing greenhouse gas emissions in its operations and facilities. This objective will be achieved by reducing the energy consumption involved in lighting the lobbies and exteriors of the Coliseum and Exhibition Hall, thereby reducing greenhouse gas emissions.

Describe how the county might build upon the outcomes of the proposed project to work toward greater sustainability. The outcomes of this project can help serve as the basis for similar LED lighting applications throughout the county, just like similar lighting projects on campus served as a basis for this project request.

Does the proposed project include a strong sustainability education component? If yes, describe the educational component, who it will reach, and how it will be communicated. This project does not include a strong sustainability education component. It does help show event staff and visitors to the building that the Alliant Energy Center supports the County's sustainability goals.

Does the proposed project pilot an innovative new sustainability-advancing technology in county operations and can it be demonstrated by the applicant department to hold promise for additional future applications in county facilities? If yes, describe the elements of the innovative technology being proposed. This project is not a pilot project of an innovative new sustainability-advancing technology. However, it is a direct result of the success experienced with the replacement similar LED lighting projects that were funded by a SMART Fund grants the past few years.

[Questions continued on next page]

Describe how your department will track and measure outcomes of the proposed project (i.e., annual cost savings, annual energy savings, resource use reductions, maintenance reductions, etc.). Include a timeline for measurement and reporting outcomes, and the staff member contact who is responsible for conducting the tracking and measurement and reporting back. The outcomes of this project will be measured by savings in the Alliant Energy Center's electric costs. Savings from this project will be difficult to measure given the annual changes in events held on campus. That being said, given the location and purpose of these lights, their usage should be relatively consistent from year to year because they are not significantly impacted by event changes.

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