Project Information:

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

Department:	Alliant Energy Center	Total project costs:	\$83,500		
Address:	1919 Alliant Energy Center Way	Funding amount in current budget:	\$0		
	Madison, WI 53713	Funding amount requested:	\$83,500		
Project Title: Coliseum High Speed Doors					
Project Location: Veterans Memorial Coliseum					
Project Description: This project will replace two 14'x20' slow speed roll up doors in Veterans Memorial Coliseum with					
two new 14'x16' high speed Rytec Spiral doors.					

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 and gas used to cool and heat the Coliseum building. The current slow speed roll up doors are left in the open position throughout show ingress and egress no matter the time of year. In addition, depending upon the event, they will remain in the up position during the event. The attached pictures were taken during move in for the Sesame Street Live event that was just held in early January. The doors remained open for approximately 10 hours that day when the high temperature was less than 20 degrees. The proposed high speed doors will enable us to keep them closed when people and vehicles are not entering and exiting the building. Assuming that the existing doors are left open an average of one day per week for 8 hours each day, this project is estimated to save approximately 13,085 therms of natural gas and 11,346 kWh of electricity on an annual basis using the Ashrae Handbook of Fundamentals. This results in an estimated reduction in greenhouse gas emissions of 77.4 metric tons. For purposes of the savings calculations the doors are assumed to be open between the hours of 8 AM and 4 PM. Also, there is no savings assumed when the temperature is between 50 and 60 degrees. This project is estimated to result in annual heating costs savings of \$9,972 and air conditioning savings of \$1,532. The annual energy savings is estimated to be \$9,972, resulting ins payback period of approximately 8.4 years.
- 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: <u>http://www.epa.gov/cleanenergy/energy-resources/calculator.html</u>

Updated January 2019

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 heating and cooling the Coliseum, 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 high speed door applications throughout the county, just like the Exhibition Hall high speed doors served as a basis for this project request. There was a more than 131,000 kWh reduction (7.7%) in the electrical usage in the Exhibition Hall from 2017 to 2018. The high speed exterior doors played a major role in that reduction.

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 of the old slow speed loading dock doors in the Exhibition Hall that were funded by a SMART Fund grant back in 2015.

[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 gas and electric costs. Savings from this project will be difficult to measure given the annual changes in events held on campus. That being said, the overall number of events in the Coliseum that utilize the spiral doors is relatively stable from year to year. We are hopeful that the improvements to the Coliseum over the past few years will result in increased activity in the building, thereby decreasing the payback period of this project.

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