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# Duke Energy to Invest \$1 Million in USFSP Research Project

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Duke Energy Florida has awarded USF St. Petersburg (USFSP) a one million dollar SunSense® grant that will fund research to explore the integration of storing solar energy in new battery systems. As part of the grant, a 100 kW solar photovoltaic (PV) system will be installed on the top of the University's 5th Avenue South parking garage.

Energy produced by the new solar PV system will be stored in new battery systems and high resolution data will be collected on all aspects of PV and energy storage, maximizing synergy between the two systems. The new energy storage system would operate in conjunction with two existing USF storage systems.

“This effort is a true collaboration with USF St. Petersburg and the USF College of Engineering,” said Alex Glenn, State President, Duke Energy Florida. “This partnership allows us to enhance our efforts to research and develop alternative energy solutions that will benefit our customers and the environment.”

“This is an incredible opportunity to manage energy costs, while promoting sustainability on campus,” said USFSP Regional Chancellor Sophia Wisniewska. “We are pleased and proud to have been awarded this grant, and to provide faculty and students with a chance to help build something of lasting impact. USFSP has long enjoyed a strong partnership with Duke Energy and we look forward to future collaborations.”

USFSP faculty representing all three colleges – Arts & Sciences, Business, and Education – submitted signed letters stating how this project and sustainability will be incorporated into curriculum. Faculty have pledged to include sustainability education in Business Law, Financial Reporting, Marketing, Environmental Economics and Managing Global Sustainability courses, among others.

The 100 kW solar array at USF St. Petersburg would measure approximately 7,100 square feet, with 328 individual panels. It will be designed as a freestanding canopy with space beneath for parking. The energy needs of USFSP average approximately 19.1 million kWh per year and solar panels of this size can produce on average 164,250kWh of energy a year.

“A project like this is huge in reinforcing the importance of sustainability on our campus,” said Daniel McGarigal, an Interdisciplinary Social Sciences senior who assisted in gathering faculty support for the grant proposal. “Given the size and visibility of the solar panels, people will really be able to feel and appreciate our commitment to environmental responsibility.”

“This new 100 kW solar array represents one of the largest and most efficient solar arrays in St Petersburg, said Joe Pietrzak, Duke Energy Senior Planning Analyst. “One of the current challenges to solar is that the sun is not always available when customers need it most. The data and technical research we will gain from the battery storage aspect of this project will assist us in to promoting and using the sun to help offset the growing need for some electricity in Florida.”

USFSP has an existing 2.0kW solar energy system located at its Central Facilities Plant that was constructed in partnership with Duke Energy (as Progress Energy Florida) and the USF Tampa School of Engineering. Additionally, a series of solar panels provides power for decorative lights on campus.