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**STOCKTON UNIVERSITY  
ANNUAL REPORT FOR  
2020 INITIATIVES PROJECT**

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<b>PROJECT LEADER(S):</b>	Michael Ferraro, Alice Gitchell
<b>PROJECT TITLE:</b>	Renewal Energy FLEXIBILITY Initiatives
<b>DATE:</b>	
<b>CC:</b>	Charles West, Tait Chirenje, Janet Wagner

- *The boxes below expand as needed to accommodate your notes. You may also include/submit appendices or attachments, if needed.*
- *Email a copy of this completed form to Jessica Kay, Planning Analyst at: [2020@stockton.edu](mailto:2020@stockton.edu) or [Jessica.Kay@stockton.edu](mailto:Jessica.Kay@stockton.edu).*

**Please provide a summary of the project and your experience.**

The project consisted of purchase and installation of two devices selected to demonstrate solar flexibility and independence through BATTERY STORAGE of solar electricity.

**Please attach a copy of your original proposal or list your stated objectives and expected outcomes.**

Stockton University makes extensive use of renewable solar electricity, but only INSTANTANEOUSLY through the campus electrical grid. The objective of this project is to make solar electricity more accessible, visible, user friendly and FLEXIBLE.

The following systems were selected for campus use with the expectation that they will be systematically evaluated in order to make decisions about future needs and that students will be involved in data collection and analysis:

1. Solar powered outdoor WORK STATION with battery storage, providing light and device charging capability 24/7 regardless of grid status for several days
2. Solar/wind HYBRID exterior light pole with battery storage, providing light 24/7 regardless of grid status for several days

**Please describe the results of your project and compare them to your original expectations. Elaborate on how well your objectives were met and how they might have changed. Note any particular obstacles that may have prevented your achieving full satisfaction on desired outcomes.**

The solar powered outdoor work station has been installed. The solar panel and battery are fully operational. Informal observation suggests high usage by students and employees for charging personal electronic devices. The data collection system is unable to maintain a consistent wi-fi connection. The problem will be referred to Stockton's Information Technology Services. It may be desirable to move the work station.

The hybrid light pole has been installed. The data collection system was not installed. Retrofit and integration with Stockton's telecom system are under consideration.

A number of problems were encountered during procurement of the hybrid light pole. An administrative decision was made to accept the pole as delivered and see if the telecom/data issue can be resolved. It is difficult to specify a product in a market evolving very quickly, with new technology becoming available from month to month.

In both purchases, vendors requested partial payment before delivery of product. This is not customarily approved by Stockton. The Office of Procurement and Contracting was helpful in accomplishing these payments.

**Please list any follow-up actions (publications, presentation venues, etc.)**

Generate and post web content to increase awareness of renewable energy on campus.

Estimate grid energy replaced by this on-site electricity generation.

Students may be involved with these activities, extending the reach of this project into the University's LEARNING strategic objective.

**Are you recommending the continuation of this project? If so:**

- **What are the next action steps you foresee or recommend?**
- **What are the expected budget requirements going forward?**
- **Please identify the program, department, or division you should be working with to secure continuation of funding for your project.**

*[Note: continuation proposals must be approved and incorporated into the appropriate budget process.]*

This project is complete.

**FINANCES: Based on your proposal, please outline below how the award has been spent.**

	Amount	Notes/Comments
<b>Beginning Budget Balance as of:</b>	<b>\$ 23,000</b>	

Salary Expenditures		
• Stipends	\$	
• Full-time staff salaries	\$	
• Full-time faculty salaries	\$	
• TES salaries	\$	
• Fringe Benefits	\$	
<b>Total Salary and Fringe Expenditures</b>	\$	
Non-Salary Expenditures ( <i>supplies, travel, etc.</i> )		
• Solar Outdoor Work Station	\$ 13,885	
• Hybrid Outdoor Light Pole	\$ 7,000	
•	\$	
•	\$	
•	\$	
•	\$	
<b>Total Non-Salary Expenditures</b>	\$ 20,885	
<b>Total Salary + Non-Salary Expenditures</b>	<b>\$ 20,885</b>	
<b>Ending Budget Balance as of:</b>	<b>\$ \$2,115</b>	

*If there are remaining expenditures required to complete the project, please itemize them with expected amounts and timing for payment.*

**IMPORTANT:** *Unused funds will revert to the general 2020 Initiative Fund at the end of the fiscal year if not approved and encumbered for project costs.*

Item	Expected Amount	Expected Timing for Payment
<b>Total</b>		