Final Progress Report

Project Title: National Orange Show Photovoltaic Demonstration
Covering Period: 10/1/07 – 2/9/08
Date of Report: March 31, 2008
Recipient: National Orange Show
Award Number: DE-FG36-06GO86077
Working Partners: California Construction Authority
Cost-Sharing Partners: Southern California Edison – SGIF incentive

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DOE Project Team:	DOE Field Contracting Officer	-	Beth Dwyer
	DOE Field Project Officer	-	Margie Bates
	Project Monitor	-	Yana Rasulova

Project Objective: The objective of the project, National Orange Show Photovoltaic Demonstration, is to create a 400kw Photovoltaic self-generation plant at the National Orange Show Events Center (NOS). The NOS owns a 120-acre state fairground where it operates an events center and produces an annual citrus fair known as the Orange Show. The NOS governing board wants to employ cost-saving programs for annual energy expenses. Upon completion, the Photovoltaic program could result in a 75% savings on electricity for the Orange Show, help reduce the State's energy demands as relating to electrical power consumption, improve quality of life within the affected grid area as well as increase the energy efficiency of buildings at our venue. In addition, the potential to reduce operational expenses would have a tremendous effect on the ability of the Orange Show to service its community.

Background:

The mission of the Department of Energy's Solar Energy Technologies Program is to bring reliable and affordable solar energy technologies to the marketplace. This project will contribute to the Solar Program by integrating solar technologies for distributed-energy production, which adds diversity to the U.S. energy market and reduces the environmental signature (air emissions) by displacing fossil-fuel energy systems with cost effective solar energy systems.

DOE funds will be used to cover construction/installation of the 400KW photovoltaic self-generation plant including purchase of photovoltaic panels, inverters, vertical framing,

equipment and personnel working on the project. The NOS project has also been approved for a Self-Generation Incentive Program by Southern California Edison.

Status: Most construction has been completed and they are testing and energizing the system. All work will be completed in the next 30 days.

- Task 1: Selection of Contractor – Project was publicly bid out and a contract was awarded to Shanks Electric.

- Task 2: Design - Project was designed by California Construction Authority, Tom Baker, a licensed Electrical Engineer in the state of California.

- Task 3: Panels - Sharp NT-180UI Photovoltaic panels were purchased and installed.

- Task 4: Inverters – Four Xantrex PV 100 S208 inverters were purchased.

- Task 5: Installation Contract - Was publicly bid and construction work was done by Shanks Electric.

- Task 6: Project Management and Reporting - Project management provided by California Construction Authority, which does project management and inspection for Fairgrounds across the state of California.

Patents: NONE

Publications / Presentations/Travel: There have been no publications or presentations to date.

Major Task Schedule

Task Number	Task Description	Task Completion Date				Progress Notes
		Original Planned	Revised Planned	Actual	Percent Complete	
1	Selection of Contractor			4/1/07	100	
2	Design			2/13/07	100	
3	Panels			2/7/07	100	
4	Inverters			10/17/06	100	
5	Installation Contract			11/1/07	100	
6	Project Maintenance			12/31/07	100	

Project Period: 7/1/07 – 9/30/07

Spending Summary - Phase I

Current Quarter: Final

Object Class Categories Per SF 424a	Approved Budget Phase I	Project Expenditures	
		This Period	Cumulative to Date
a. Personnel	25,500		0
b. Fringe Benefits	15,000		0
c. Travel	10,000		3,515
d. Equipment	1,657,500	-8,412.00	2,266,259
e. Supplies	5,000		100
f. Contractural	0		0
g. Construction	232,500		431,181
h. Other	0		0
i. Total Direct Charges (sum of a to h)	1,945,500		2,700,955
j. Indirect Charges			12,830
k. Totals (sum of i and j)	\$1,945,500	286,868.84	\$2,713,785
DOE Share	445,500		
Cost Share	1,500,000		
Calculated Cost Share Percentage	77%		

Cost Share Contributions - Phase I

Funding Source	Approved Cost Share		This Quarter		Cumulative to Date	
	Cash	In-Kind	Cash	In-Kind	Cash	In-Kind
Construction loan					\$2,713,785	
Total						
Cumulative Cost Share Contributions					\$2,722,197	

No costs were incurred from 12/31/07 – 2/9/08.