



FAYETTEVILLE PUBLIC LIBRARY

ICMA Solar Test-Bed Grant Project
Scope of Work and Operational Requirements

Version 2
9/2/09

- I. General
 - a. All work at the library will be performed by appointment only with Sam Palmer, Director of Facilities & Sustainability.
 - b. All persons involved in the project are subject to FPL's policies and procedures governing employee & volunteer conduct, including:
 - i. Drug Free Workplace
 - ii. Harassment
 - iii. Basic conduct standards, including professionalism
- II. Structural
 - a. A primary focus of the solar test-bed project is to utilize the array to test the efficiency of new panels.
 - i. The solar panel mounting design must allow for ease of interchanging panels in the array, and will include quick connections for wiring.
 - ii. University of Arkansas engineering students will design and construct the mounting system in accordance with the grant proposal.
 - b. A licensed building contractor of the library's choice will do the roof penetrations and anchoring system for the solar mounting hardware.
 - c. An independent third party engineering firm must certify the structural integrity and integration of the panel mounting system to the library roof.
 - d. All weld joints, nuts, bolts, and exposed metal that has potential to rust must be painted with a rust prevention coating.
- III. Mechanical
 - a. All mechanical equipment will be in good order and adhere to all local codes.
- IV. Electrical
 - a. All wiring must conform to local and state code requirements and must be inspected by a third party licensed electrician.
 - b. All wiring will be run in a raceway, chase, conduit, track, cable tray.
 - i. All communication wiring will be installed in the same fashion with no exposed wiring.
- V. Inverter

- a. The inverter mount and installation must allow for easy removal and installation of alternate inverters for testing, i.e. quick connectors.
- b. Any inverter used must include a data logger capable of transmitting power generation data via Ethernet connection with comparable functional specifications of the Xantrex Communications Gateway (see attached) to provide data to the education kiosk to be developed by the library.

VI. Kiosk

- a. Data will be generated from the inverter as specified above.
- b. Physical housing and implementation of kiosk is at the discretion of FPL and must adhere to established FPL aesthetics.
- c. FPL will design and develop the kiosk interface and content.
- d. UA and AEPI will provide agreed upon deliverables for kiosk content in requested format.