



# **Solar Resources Measurements in Houston, TX – Equipment Only**

## **Cooperative Research and Development Final Report**

**CRADA Number: CRD-06-204**

NREL Technical Contact: Tom Stoffel

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**CRADA Report**  
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### **Cooperative Research and Development Final Report**

In accordance with Requirements set forth in Article XI.A(3) of the CRADA document, this document is the final CRADA report, including a list of Subject Inventions, to be forwarded to the Office of Science and Technical Information as part of the commitment to the public to demonstrate results of federally funded research.

**CRADA Number:** CRD-06-204

**CRADA Title:** Solar Resources Measurements in Houston, TX - Equipment Only

**Parties to the Agreement:** Texas Southern University

**Joint Work Statement Funding Table showing DOE commitment:**

Estimated Costs	NREL Shared Resources
Year 1	\$ 16,431.00
Year 2	\$ 00.00
Year 3	\$ 00.00
TOTALS	\$ 16,431.00

#### **Abstract of CRADA work:**

Loaning Texas Southern University equipment in order to perform site-specific, long-term, continuous, and high-resolution measurements of solar irradiance is important for developing renewable resource data. These data are used for several research and development activities consistent with the NREL mission:

- Establish a national 30-year climatological database of measured solar irradiances
- Provide high quality ground-truth data for satellite remote sensing validation
- Support development of radiative transfer models for estimating solar irradiance from available meteorological observations
- Provide solar resource information needed for technology deployment and operations.

Data acquired under this agreement will be available to the public through NREL's Measurement & Instrumentation Data Center - MIDC (<http://www.nrel.gov/midc>) Or the Renewable Resource Data Center - RReDC (<http://rredc.nrel.gov>). The MIDC offers a variety of standard data display, access, and analysis tools designed to address the needs of a wide user audience (e.g., industry, academia, and government interests).

**Summary of Research Results:**

Faculty and staff at Texas Southern University collected solar resource measurements at the Houston campus using equipment on loan from the National Renewable Energy Laboratory. The equipment was used to train students on the operation and maintenance of solar radiometers and was returned to NREL's Solar Radiation Research Laboratory upon completion of the CRADA. The resulting data augment the solar resource climatology information required for solar resource characterizations in the U.S.

**Subject Inventions Listing:** Not Applicable

**Report Date:** July 6, 2012

**Responsible Technical Contact at Alliance/NREL:** Tom Stoffel

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