



# **Solar Resource Measurements in Humboldt State University, Arcata, California**

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

**CRADA Number: CRD-08-262**

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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-08-262

**CRADA Title:** Solar Resource Measurements in Humboldt State University, Arcata, CA.  
Equipment Loaned to Participant

**Parties to the Agreement:** Humboldt State University

### **Joint Work Statement Funding Table showing DOE Commitment:**

<b>Estimated Costs</b>	<b>NREL Shared Resources</b>
Year 1	\$ 1,575.00
Year 2	\$ 00.00
Year 3	\$ 00.00
<b>TOTALS</b>	<b>\$ 1,575.00</b>

### **Abstract of CRADA Work:**

Site-specific, long-term, continuous, and high-resolution measurements of solar irradiance are 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 ([www.nrel.gov/midc](http://www.nrel.gov/midc)) or the Renewable Resource Data Center - RReDC (<http://rredec.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:**

Since 2006, faculty and staff at Humboldt State University collected solar resource measurements at their campus in Arcata, California, using equipment on loan from NREL. The equipment was used to train students on the operation and maintenance of solar radiometers. The resulting data augment the solar resource climatology information required for solar resource characterizations in the United States. The cooperative agreement also supported NREL's goal of developing an educated workforce to advance renewable energy technologies.

Additional information about the Renewable Energy Student Union and their Solar Radiation Monitoring Station is available from <http://now.humboldt.edu/news/monitors-fill-gap-in-sun-map/> and NREL's MIDC.

**Subject Inventions Listing:**

N/A

**Report Date:**

September 11, 2013

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