NREL
NATIONAL RENEWABLE ENERGY LABORATORY

Quantification Testing SPI Simulator 5600SLP

Cooperative Research and Development Final Report

CRADA Number: CRD-12-482

NREL Technical Contact: Keith Emery

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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-12-482

CRADA Title: Qualification Testing SPI Simulator 5600SLP

Parties to the Agreement: Spire Corporation

Joint Work Statement Funding Table Showing DOE Commitment:

Estimated Costs	NREL Shared Resources
Year 1	$ 10,000.00
Year 2	$ 10,000.00
TOTALS	$ 20,000.00

Abstract of CRADA Work:

Under this CRADA, NREL will assess the Spire equipment's fitness for use for calibration and certification laboratories.

Summary of Research Results:

In May of 2013, we measured the spectral irradiance of the simulator and confirmed that it met specifications. We corresponded with Spire on issue related to the field of view of the simulator and its lack of spectral change during the flash.

On February 6, 2014, we sent Spire an email documenting a bug in their code that will impact customers' results when certain conditions are met. The documentation included the criteria when data will be impacted and the offending sections of code.

Since its installation, we have measured more than 3,300 module IV curves for customers, and we are investigating the repeatability and reproducibility of the simulator.

Subject Inventions Listing: None

Report Date: September 12, 2014

Responsible Technical Contact at Alliance/NREL: Keith Emery

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