



# **GridAgents DER Testing**

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

**CRADA Number: CRD-08-265**

NREL Technical Contact: Kevin Harrison

NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, operated by the Alliance for Sustainable Energy, LLC.

**CRADA Report**  
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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-08-265  
                              WR89

CRADA Title:    GridAgents DER Testing

Parties to the Agreement:        Infotility

Joint Work Statement Funding Table showing DOE commitment:

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

Abstract of CRADA work:

The project objectives are to perform research, development, and pilot-scale testing of advanced, next-generation distribution operational strategies using ConEdison’s 3G: Distribution System of the Future and associated infrastructure for the real-world Test Bed (demonstration network) combined with the Infotility GridAgents: Secure Agent Framework for Energy as the software platform for advanced operational strategies development. The objective is to accelerate high-payoff technologies that, because of their risk, are unlikely to be developed in a timely manner without a partnership between industry and the Federal government. NREL will be responsible for the evaluation of equipment design and control methods for DER integration and testing of prototype DER technologies and control equipment at the NREL test facility.

Summary of Research Results:

NREL completed the installation of the required hardware to accommodate the Infotility GridAgents. Multiple wireless GridAgent Control Nodes were installed at NREL’s Distributed Energy Resources Test Facility (DERTF) to enable the monitoring and off-site data archiving of real-time sensors attached to a photovoltaic array, battery, load and inverter. Data from these sensors was successfully transferred via

the wireless Infotility GridAgents to the primary hub (AccessNode) in north Boulder, CO. Evaluation of the interactions of hardware, software and the distributed energy resources at NREL's DERTF were successful and are now complete.

Subject Inventions listing: None.

Report Date: 10-Feb-2012 Responsible Technical Contact at Alliance/NREL: Kevin Harrison

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