



Wind Farm Monitoring at Storm Lake I Wind Power Project – Equipment Only

Cooperative Research and Development Final Report

CRADA Number: CRD-10-369

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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.

Parties to the Agreement: MidAmerican Energy Company

CRADA Number: CRD-10-369

CRADA Title: Wind Farm Monitoring at Storm Lake I Wind Power Project - Equipment Only

Joint Work Statement Funding Table Showing DOE Commitment:

Estimated Costs	NREL Shared Resources
Year 1	\$ 12,105.00
TOTALS	\$ 12,105.00

Abstract of CRADA Work:

Long-term, high-resolution wind turbine and wind power plant output data are important to assess the impact of wind power on grid operations and to derive meaningful statistics for better understanding of the variability of wind power. These data are used for many research and analysis activities consistent with the Wind Program mission:

- Establish a database of long-term wind power similar to other long-term renewable energy resources (e.g., solar irradiance and hydrology)
- Produce meaningful statistics about long-term variation of wind power, spatial and temporal diversity of wind power, and correlation of wind power, other renewable energy resources, and utility load
- Provide high quality, realistic wind power output data for system operations impact studies and wind plant and forecasting models validation.

Summary of Research Results:

This Equipment Only CRADA produced multi-year wind power plant data that have been organized in databases and analyzed statistically to characterize variability of plant output at different time scales. The data can be used for wind power integration studies, improvements of wind power forecasting methods, and other wind power-related modeling efforts by NREL and others. All NREL-owned equipment was returned to NREL upon project completion.

Subject Inventions Listing:

No inventions were made under this CRADA

Report Date:

6/1/15

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