



# **Winnebago Resource Study**

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

**CRADA Number: CRD-09-329**

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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:** Winnebago Tribe of Nebraska

**CRADA Number:** CRD-09-329

**CRADA Title:** Winnebago Resource Study

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

<b>Estimated Costs</b>	<b>NREL Shared Resources</b>
Year 1	\$ 22,000.00
<b>TOTALS</b>	<b>\$ 22,000.00</b>

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

Since 2005 the NREL Native American Tall Tower Loan program has assisted Native American tribes to assess their wind resource by lending a tall (30m-50m) anemometer. This program has allowed tribes a lower risk way to gather financeable wind data for potential utility scale wind energy projects. These projects offer Tribes a significant economic development opportunity.

### **Summary of Research Results:**

50m met tower operated from 11/9/2009 to 11/2/2010, nearly 1 year. Based on internal notes at NREL, the data from the met tower had been compromised, but recovery efforts were successful.

Key findings were:

- Datalogger clock was off by ~12 hrs;
- Extraneous data was added to each daily file, corrupting many of them—it appeared to be added text, and likely not affecting the wind speed data;
- Data recovery efforts by NREL were successful in making usable ~12 months of data.

The Mean Wind Speed for the period 11/9/2009 to 11/2/2010 was 6.43 m/s at 52m. The long-term estimate for wind speed at this site is 6.42 m/s meaning that the measured data is reasonably representative of the expected long-term resource. The long-term mean wind speed at 80m is estimated to be 7.17 m/s.

The included slide deck displays some of the more useful data extracted from the “recovered” dataset.

**Subject Inventions Listing:** None

**Report Date:** 3/10/2011

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