## NYSERDA Sustainable Market Development For Small Wind Energy (#6443) **Summary of Performance Statistics Olde Chautauqua Farm, NY** April 1 - June 30, 2004



Feriormance Stausucs				
	Quarterly	Cumulative		
Total Hours in Quarter	2,184	6,576		
Total Hours in Operation	2,184	6,054		
Wind System Availability, %:	89%	94%		
DAS Availability, %:	100%	100%		
Total Wind System Energy, kWh:	1,119	5,917		
Average Hub Height Wind Speed, m/s:	4.7	5.7		
Average Temperature, C°:	14.2	5.9		
Capacity Factor, %:	5.1%	10.1%		
Turbulence Intensity	22.0%	22.0%		







## **Calibration of Instruments**

Instrument	Manufacturer	Model	Date
Anemometer, 24 m	NRG Systems	Max. 40H	Feb-03
Anemometer, 12 m	NRG Systems	Max. 40H	N/A
Power Transducer	Ohio Semitronics	PC5-059A	N/A
Voltage Transducer	Ohio Semitronics	VT-240A	N/A
Data Logger	Campbell Scientific	CR10X	Mar-03
Temperature Sensor	Campbell Scientific	107	N/A

## **Unusual Occurrence Report**

The Olde Chautauqua Turbine was down for 249 hours due to a blown fuse in the turbine's down-tower disconnect and an over power problem. The fuse for the disconnect has since been replaced and the power processor's firmware will soon be upgraded to correct for the over power problem.

## Notes

"Power Curve" and "Distribution of Quarterly Average Hub Height Wind Speed and Energy Output": 24 m wind speed data is adjusted to 30 m (100ft) hub height using the 24/12 shear.

"Power Curve": Manufacturer curve was calculated using the Bergey Windpower WinCad Turbine Performance Model for the Excel-S at measured site conditions for the quarter.