

Northwestern School Corporation
Monthly Wind Turbine Production Report
December 2016

In December 2016 the turbine electric production was **185,613.5 kWh**. On the electric bill we received in December for the main campus the average cost per kWh was **\$0.0977**, therefore the December production will result in an approximate **\$14,292.23 reduction** in our electric bills.

Compared to 2015

In December 2015 the turbine electric production was **219,898 kWh**. On the electric bill we received in December for the main campus the average cost per kWh was **\$0.0891**, therefore the December production will result in an approximate **\$19,592 reduction** in our electric bills.

MONTHLY PERFORMANCE REPORT

DECEMBER-2016

Prepared For

Northwestern School Corporation

Blaan Snoddy, Superintendent of Northwestern School Corporation

Blake Betzner, Assistant Superintendent of Northwestern School Corporation



Prepared & Submitted by:

PowerGrid Partners

Global Green Energy Solutions

www.powergridpartners.com

Total Power Production Reported by SCADA = **185,613.5 kWh**

Average Availability Reported by SCADA = **93.21 %**



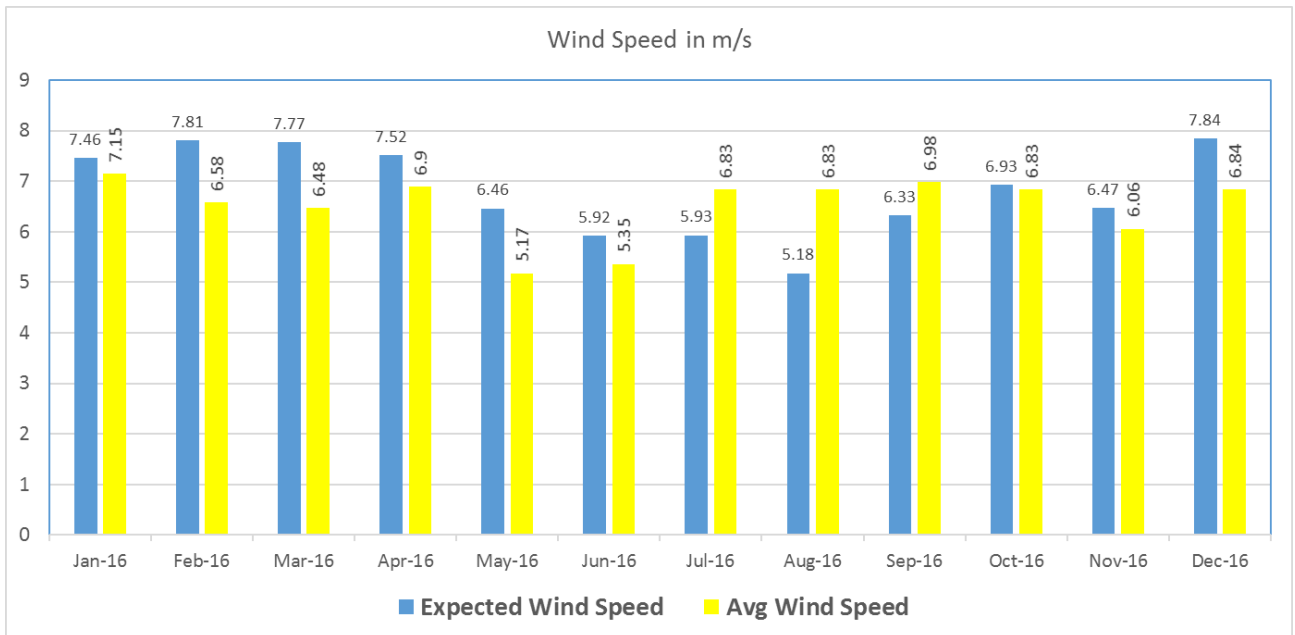
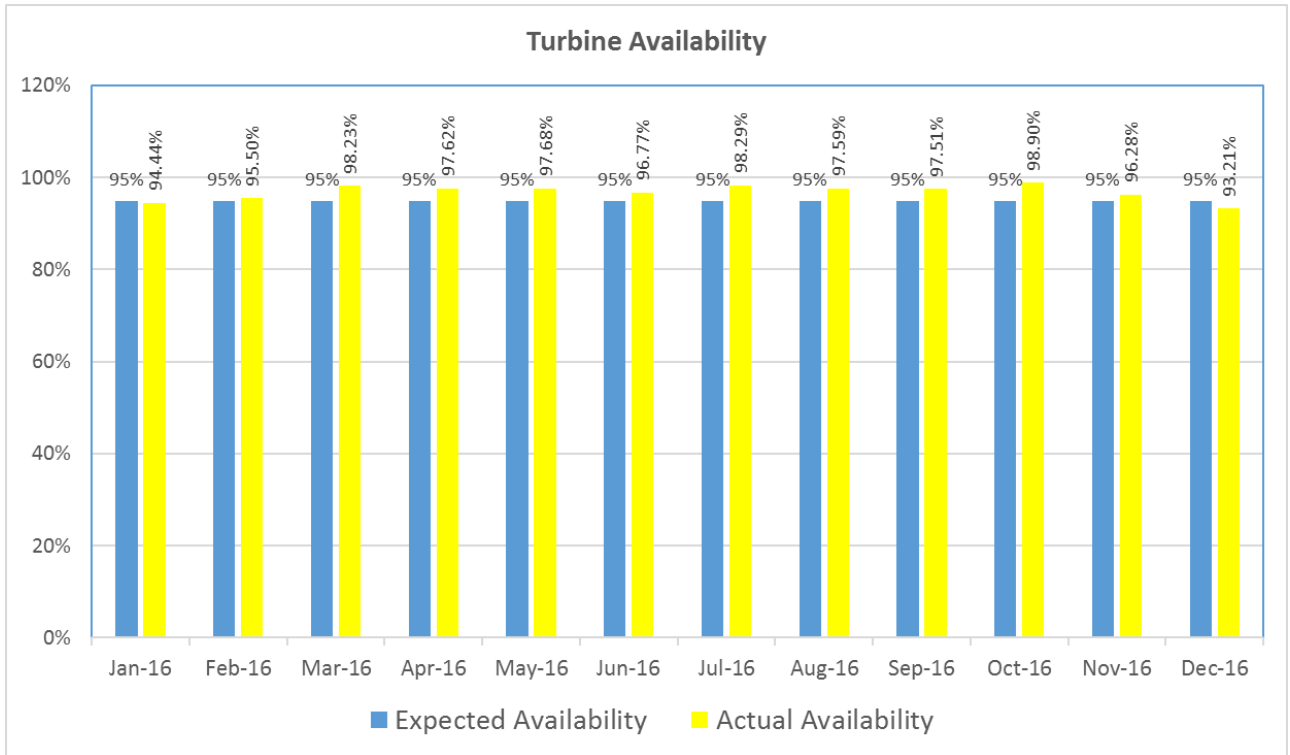
Date	Availability (%)	Wind Speed (m/s)	Production (kWh)	Comments
01-Dec	100 %	9.4 m/s	11107 kWh	n/a
02-Dec	100 %	6.7 m/s	3966.5 kWh	n/a
03-Dec	100 %	2.7 m/s	221 kWh	n/a
04-Dec	93.03 %	4.6 m/s	2676 kWh	n/a
05-Dec	100.00%	2 m/s	2539 kWh	Grid Drop
06-Dec	99.98 %	7.2 m/s	6417 kWh	n/a
07-Dec	100 %	7.6 m/s	6268.5 kWh	n/a
08-Dec	100 %	11.2 m/s	16370 kWh	n/a
09-Dec	100.00%	6.5 m/s	3530 kWh	Grid Ph Diff/Volt Low
10-Dec	100 %	4.1 m/s	902.5 kWh	n/a
11-Dec	100 %	6.1 m/s	5096 kWh	n/a
12-Dec	100 %	8.3 m/s	9223.5 kWh	n/a
13-Dec	100 %	5.4 m/s	2324 kWh	n/a
14-Dec	100 %	7.3 m/s	6696 kWh	n/a
15-Dec	100 %	7.7 m/s	7461.5 kWh	Grid disturbance
16-Dec	100 %	7 m/s	3179 kWh	Grid disturbance
17-Dec	96.69 %	4 m/s	0 kWh	Yaw Limit Switch Err
18-Dec	42.18 %	8.1 m/s	0 kWh	Yaw Limit Switch Err
19-Dec	54.01 %	3.7 m/s	0 kWh	Yaw Limit Switch Err
20-Dec	56.71 %	7.6 m/s	3640 kWh	n/a
21-Dec	100 %	7.1 m/s	5372 kWh	n/a
22-Dec	100 %	7.1 m/s	5458.5 kWh	n/a
23-Dec	98.93 %	6.6 m/s	6393 kWh	CNV Err/Grid Disturb.
24-Dec	100 %	4.4 m/s	2430 kWh	n/a
25-Dec	100 %	8 m/s	7654 kWh	n/a
26-Dec	99.98 %	11.4 m/s	17048 kWh	n/a
27-Dec	100 %	9.2 m/s	10943 kWh	n/a
28-Dec	100 %	6.6 m/s	4855 kWh	Maintenance
29-Dec	94.73 %	11.7 m/s	16650 kWh	n/a
30-Dec	100 %	9.5 m/s	11911 kWh	n/a
31-Dec	88.94 %	3 m/s	5281.5 kWh	n/a

Availability [%] – Percentage of daily uptime

Wind Speed [m/s] – Daily average wind speed in meters per second

Production [kWh] – Daily cumulative energy export in kilowatt hours

n/a – Not Applicable



DOWNTIME EXPLANATION (For availability less than 75%)

n/a.

SCHEDULED MAINTENANCES

For Queries, please email to rkamble@powergridpartners.com
