



Cooper Farms' Wind VW

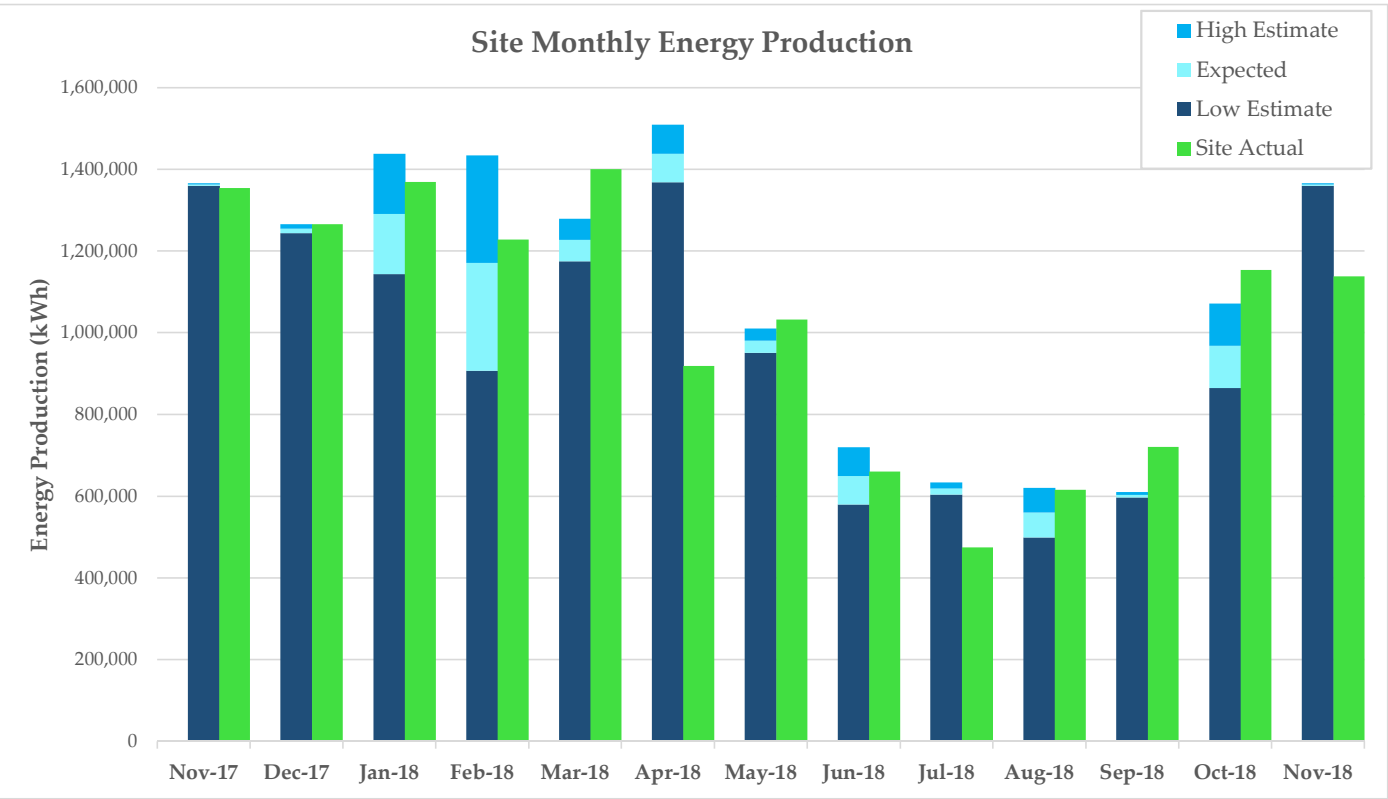
Van Wert, OH

A. Site Energy Production Summary

	Energy Production (kWh)				
	Site		By Turbine		
	Expected Production	Actual Production	WTG 1	WTG 2	WTG 3
Nov-17	1,362,692	1,354,336	447,934	467,136	439,266
Dec-17	1,254,397	1,265,600	312,430	468,440	484,730
Jan-18	1,290,968	1,369,330	300,220	544,990	524,120
Feb-18	1,170,349	1,227,684	415,536	413,210	398,938
Mar-18	1,227,217	1,400,340	500,650	409,470	490,220
Apr-18	1,438,497	918,970	311,290	302,960	304,720
May-18	980,450	1,031,960	343,900	352,850	335,210
Jun-18	649,158	660,000	219,170	215,060	225,770
Jul-18	618,687	474,100	152,310	157,510	164,280
Aug-18	559,508	615,620	204,140	199,030	212,450
Sep-18	603,085	720,940	241,440	243,200	236,300
Oct-18	967,926	1,153,610	388,960	373,700	390,950
Nov-18	1,362,692	1,138,070	381,630	373,480	382,960
Production 2018 (ytd) (kWh)	10,868,538	10,710,624	3,459,246	3,585,460	3,665,918
Total Production (kWh)*	12,122,935	11,976,224	3,771,676	4,053,900	4,150,648
Capacity Factor*	30.38%		*Value calculated over the last 12 months		

B. Site Energy Production Graph

November-2018



Monthly Report

November-2018



C. Safety Summary

	This Month	Project Cumulative
Recordable Incident(s)	0	0
Near Miss(es)	0	0

D. Planned Maintenance Events

Date	Event	Duration (hr)	Turbine
January-2019	Goldwind 6.5 Year Maintenance	~8	WTG 1
January-2019	Goldwind 6.5 Year Maintenance	~8	WTG 2
January-2019	Goldwind 6.5 Year Maintenance	~8	WTG 3

E. Actual Maintenance Events

Date	Event	Planned/Unplanned	Duration (hr)	Turbine
11/15-16/2018	Icing Event	Unplanned	37.35	WTG 1, WTG 3
11/15-16/2018	Icing Event	Unplanned	38.35	WTG 2

F. Turbine Availability & Downtime

Availability (%)	This Month	Year to Date
WTG 1	99.72%	98.93%
WTG 2	99.78%	99.54%
WTG 3	99.79%	99.58%
Avg	99.77%	99.35%

Downtime (hr)	This Month	Year to Date
WTG 1	39.35	507.80
WTG 2	39.91	482.78
WTG 3	38.85	490.39
Total	118.11	1480.97

G. Wind Speed & Capacity Factor

Wind Speed (mph)	This Month	2018 Annual
WTG 1	12.64	13.04
WTG 2	12.50	12.13
WTG 3	12.98	12.63
Estimated	15.58	13.39

Capacity Factor (%)	This Month	2018 Annual
WTG 1	35.34%	28.77%
WTG 2	34.58%	29.82%
WTG 3	35.46%	30.49%
Low Estimate	41.95%	28.70%

H. Report Notes and Comments