



Cooper Farms' Wind VW

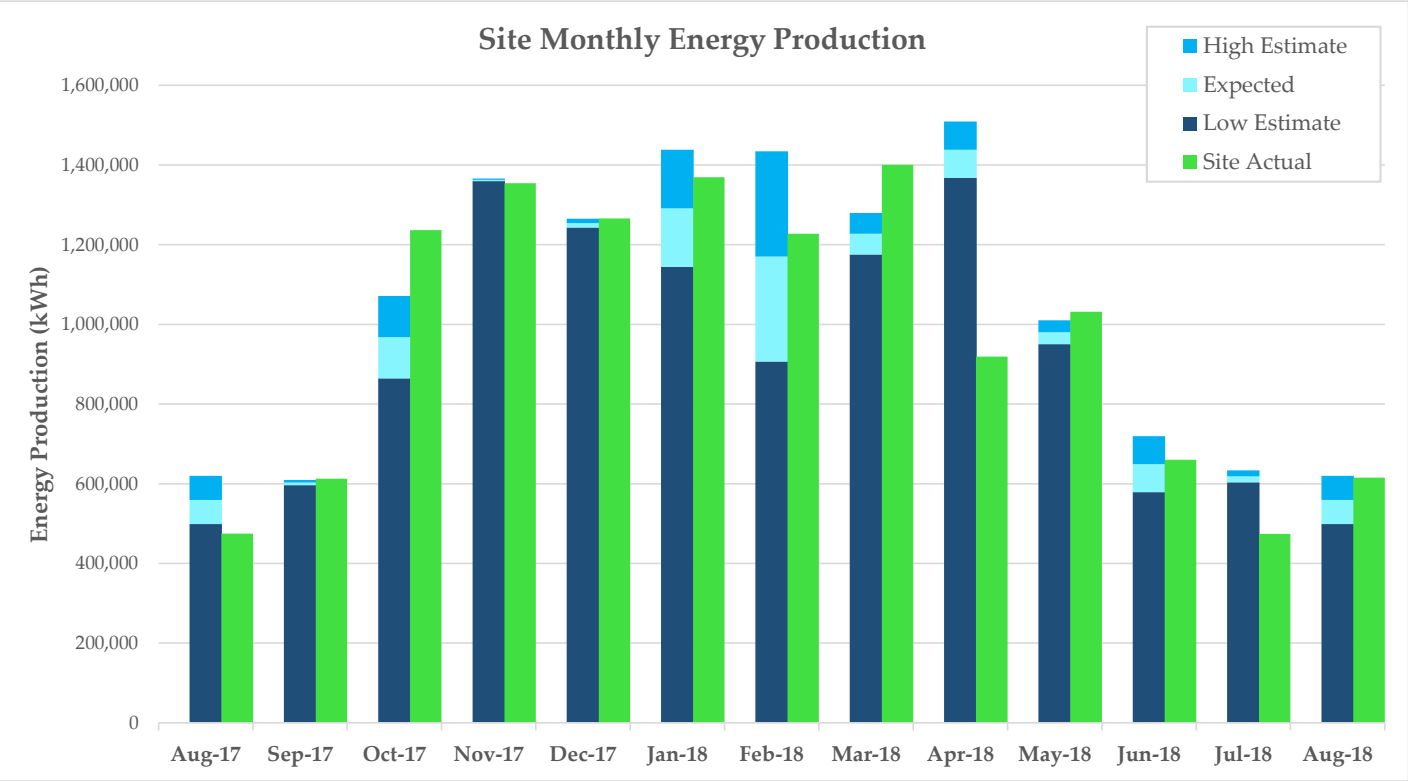
Van Wert, OH

A. Site Energy Production Summary

	Energy Production (kWh)				
	Site		By Turbine		
	Expected Production	Actual Production	WTG 1	WTG 2	WTG 3
Aug-17	559,508	475,092	176,146	172,986	125,960
Sep-17	603,085	612,820	204,550	207,830	200,440
Oct-17	967,926	1,236,610	415,110	393,660	427,840
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
Production 2018 (ytd) (kWh)	7,934,835	7,698,004	2,447,216	2,595,080	2,655,708
Total Production (kWh)*	12,122,935	12,167,370	3,827,240	4,132,146	4,207,984
Capacity Factor*	30.87% *Value calculated over the last 12 months				

B. Site Energy Production Graph

August-2018



Monthly Report

August-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
November-2018	Goldwind 6.5 Year Maintenance	~8	WTG 1
November-2018	Goldwind 6.5 Year Maintenance	~8	WTG 2
November-2018	Goldwind 6.5 Year Maintenance	~8	WTG 3

E. Actual Maintenance Events

Date	Event	Planned/Unplanned	Duration (hr)	Turbine
8/2/2018	Goldwind 6 Year Maintenance	Planned	2.25	WTG 1
8/2/2018	Goldwind 6 Year Maintenance	Planned	2.71	WTG 2
8/2/2018	Goldwind 6 Year Maintenance	Planned	5.25	WTG 3
8/3/2018	Bolt Hole Cleaning	Unplanned	4.36	WTG 1
8/12/2018	Grid Fault	Unplanned	11.31	WTG 1,3
8/12/2018	Grid Fault	Unplanned	15.11	WTG 2
8/13-14/2018	Goldwind 6 Year Maintenance	Planned	9.99	WTG 3
8/30/2018	Generator Maintenance	Unplanned	8.58	WTG 1,2,3

F. Turbine Availability & Downtime

Availability (%)	This Month	Year to Date
WTG 1	99.33%	98.56%
WTG 2	100.00%	99.39%
WTG 3	99.76%	99.46%
Avg	99.70%	99.14%

Downtime (hr)	This Month	Year to Date
WTG 1	31.27	416.10
WTG 2	31.84	391.73
WTG 3	41.05	403.66
Total	104.16	1211.49

G. Wind Speed & Capacity Factor

Wind Speed (mph)	This Month	2018 Annual
WTG 1	11.80	12.89
WTG 2	9.93	12.13
WTG 3	10.52	12.63
Estimated	11.09	13.39

Capacity Factor (%)	This Month	2018 Annual
WTG 1	18.29%	27.97%
WTG 2	17.83%	29.66%
WTG 3	19.04%	30.36%
Low Estimate	14.90%	28.70%

H. Report Notes and Comments