



Cooper Farms' Wind VW

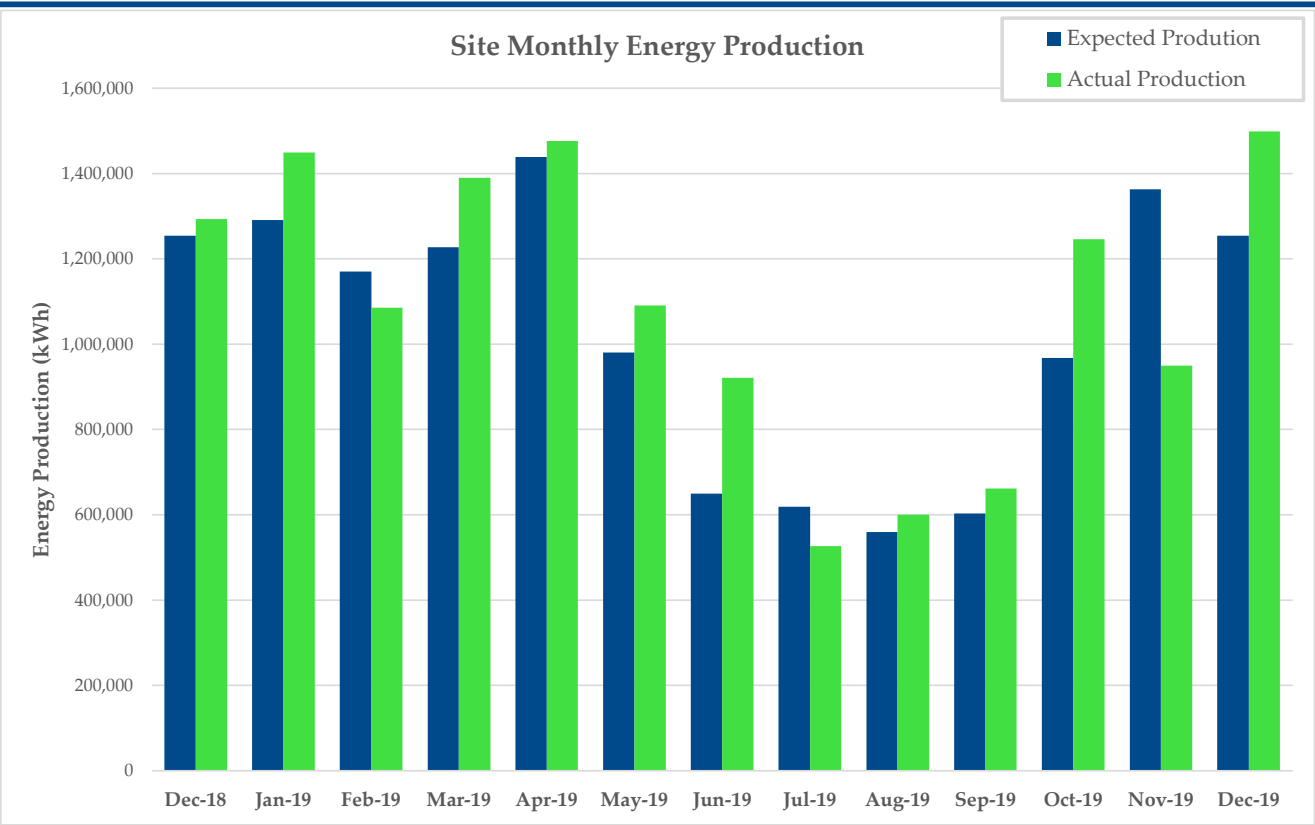
Van Wert, OH

A. Site Energy Production Summary

	Energy Production (kWh)				
	Site		By Turbine		
	Expected Production	Actual Production	WTG 1	WTG 2	WTG 3
Dec-18	1,254,397	1,293,550	427,830	426,560	439,160
Jan-19	1,290,968	1,449,160	491,430	475,470	482,260
Feb-19	1,170,349	1,085,536	358,334	356,884	370,318
Mar-19	1,227,217	1,390,286	471,222	450,690	468,374
Apr-19	1,438,497	1,476,210	495,410	493,970	486,830
May-19	980,450	1,090,450	368,640	351,610	370,200
Jun-19	649,158	921,230	304,100	301,760	315,370
Jul-19	618,687	526,810	179,780	167,330	179,700
Aug-19	559,508	600,600	200,850	197,710	202,040
Sep-19	603,085	661,430	222,160	210,200	229,070
Oct-19	967,926	1,245,578	439,840	409,100	396,638
Nov-19	1,362,692	949,912	322,750	306,104	321,058
Dec-19	1,254,397	1,498,820	512,000	495,240	491,580
Production 2019 (ytd) (kWh)	12,122,935	12,896,022	4,366,516	4,216,068	4,313,438
Total Production (kWh)*	12,122,935	12,896,022	4,366,516	4,216,068	4,313,438
Capacity Factor*	32.71%		*Value calculated over the last 12 months		

B. Site Energy Production Graph

December-2019



Monthly Report

December-2019



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
February-2020	Goldwind 7.5 Year Maintenance	~8	WTG 1
February-2020	Goldwind 7.5 Year Maintenance	~8	WTG 2
February-2020	Goldwind 7.5 Year Maintenance	~8	WTG 3

E. Actual Maintenance Events

Date	Event	Planned/Unplanned	Duration (hrs)	Turbine
12/4-5/2019	Convertor Step Up Circuit Error	Unplanned	27.74	WTG 3

F. Turbine Availability & Downtime

Availability	This Month	Year To Date
WTG 1	100.00%	98.81%
WTG 2	100.00%	98.98%
WTG 3	96.27%	99.69%
Avg	98.76%	99.16%

Downtime (hr)	This Month	Year To Date
WTG 1	3.26	467.48
WTG 2	1.82	480.26
WTG 3	38.57	426.38
Total	43.65	1374.12

G. Wind Speed & Capacity Factor

Wind Speed (mph)	This Month	2019 Annual
WTG 1	14.48	13.79
WTG 2	14.37	12.63
WTG 3	14.63	13.06
Estimated	14.23	13.39

Capacity Factor (%)	This Month	2019 Annual
WTG 1	45.88%	33.23%
WTG 2	44.38%	32.09%
WTG 3	44.05%	32.83%
Low Estimate	37.80%	28.72%

H. Report Notes and Comments