

Wind for Industry® Fleet Report - Regional

December-2018



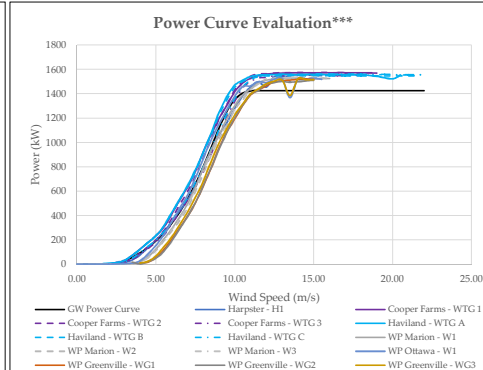
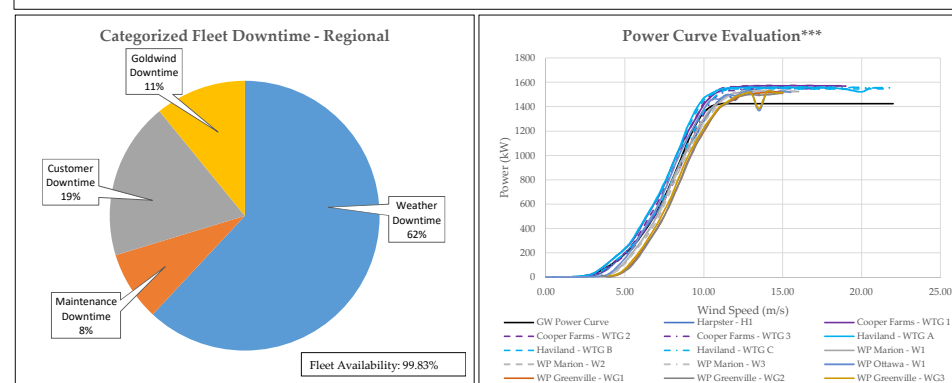
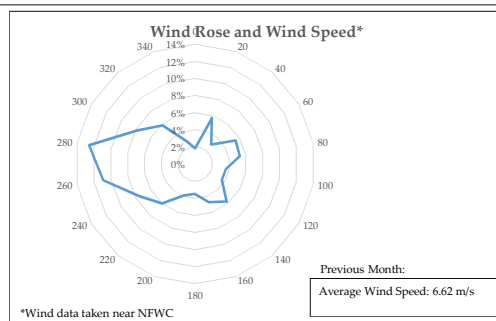
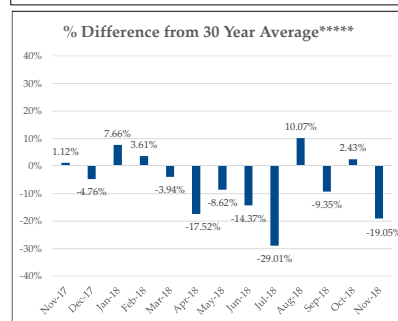
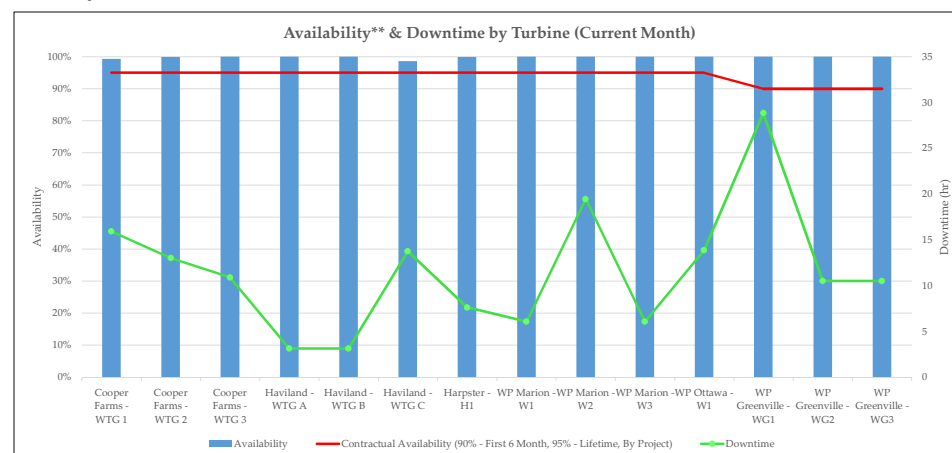
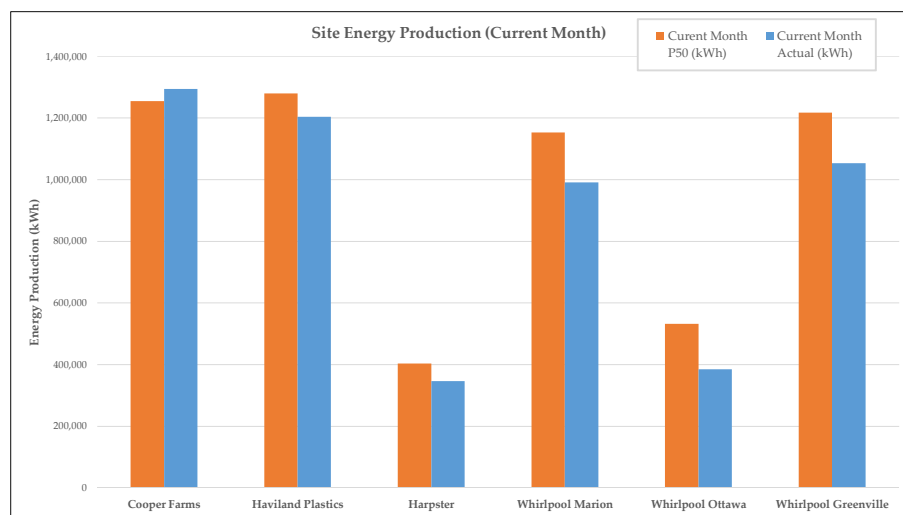
Fleet Energy Production Summary & Month Characterization

	Size (MW)	Energy Production				Rolling 12 Month CF
		Current Month P50 (kWh)	Current Month Actual (kWh)	Rolling 12 Month P50 (kWh)	Rolling 12 Month Actual (kWh)	
Cooper Farms	4.5	1,254,397	1,293,550	12,122,935	12,004,174	30.45%
Haviland Plastics	4.5	1,278,858	1,203,370	12,384,999	13,080,810	33.18%
Harpster	1.5	403,000	345,923	3,890,000	3,267,422	24.87%
Whirlpool Marion	4.5	1,153,000	990,824	11,166,000	9,190,625	23.31%
Whirlpool Ottawa	1.5	532,000	384,067	4,266,000	3,370,964	25.65%
Whirlpool Greenville	4.5	1,217,000	1,053,069	12,036,000	-	-
Fleet - Regional	21.0	5,838,255	5,270,803	55,865,934	40,913,995	
Fleet - Regional Rolling 12 month Capacity Factor:						27.49%

Fleet Performance & Metrics

Safety Summary			
		This Month	Fleet Cumulative
Recordable Incident(s):		0	0
Near Miss(es):		0	0

Planned Maintenance			
Date	Project - Event	Duration (hrs)	Wind Turbine
January-2019	WP Marion - Goldwind 1 Year Maintenance	~15	W1,W2,W3
January-2019	Cooper - Goldwind 6.5 Year Maintenance	~8	WTG1, WTG2, WTG3
January-2019	Haviland Plastics - Goldwind 6.5 Year Maintenance	~8	WTGA, WTGB, WTGC
January-2019	WP Ottawa - Goldwind 1 Year Maintenance	~15	W1
April-2019	Harpster - Goldwind 3 Year Maintenance	~15	H1
April-2019	WP Greenville - Goldwind 6 Month Maintenance	~8	WG1, WG2, WG3



* Rolling month characterization is always one month behind because the data used in this analysis is always one month behind. Changes to rolling month characterization reflect updated analysis methodology and additional data availability.

** Availability in this report refers to Goldwind's contractual availability (as defined per the applicable contract per project).
 *** Power Curve validation completed using LIDAR equivalent wind speeds (conversion introduces about 3% error) and 95 % of GW