Random Samplings

Performance Data from the University of Delaware's
Wind Turbine Website

http://www.ceoe.udel.edu/lewesturbine/index.shtml

Start Date: 8/3/14

Date & Time	Output	% of Capacity
8/3 1:30 PM	Wind speed: 7 mph Wind direction: E Rotor rotational speed: 10.2 rpm Power output: 47.3 kW	2.3
8/3 9:24 PM	Wind speed: 7 mph Wind direction: SE Rotor rotational speed: 10.2 rpm Power output: 72.1 kW	3.3
8/4 2:58 PM	Wind speed: 0 mph Wind direction: NE Rotor rotational speed: 0.1 rpm Power output: 0 kW	0
8/5 12:18 AM	Wind speed: 9 mph Wind direction: SW Rotor rotational speed: 10.4 rpm Power output: 211.9 kW	10.5
8/5 4:30 AM	Wind speed: 4 mph Wind direction: W Rotor rotational speed: 10.4 rpm Power output: 8.6 kW	0.4

8/5 5:35 AM NOTE: Blades spinning, no power		Wind speed: 0 mph Wind direction: NE Rotor rotational speed: 4 rpm Power output: 0 kW	0
8/5 12:32 PM		Wind speed: 4 mph Wind direction: NE Rotor rotational speed: 10.3 rpm Power output: 17.4 kW	.8
8/5 7:16 PM		Wind speed: 0 mph Wind direction: NE Rotor rotational speed: 0.0 rpm Power output: 0 kW	0
8/5 10:52 PM		Wind speed: 11 mph Wind direction: W Rotor rotational speed: 11.9 rpm Power output: 418.6 kW	21
8/6 5:54 AM		Wind speed: 9 mph Wind direction: N Rotor rotational speed: 10.3 rpm Power output: 225.9 kW	11

8/6 11:04 AM		Wind speed: 9 mph Wind direction: N Rotor rotational speed: 10.7 rpm Power output: 266.5 kW	13.3
8/6 5:36 PM		Wind speed: 7 mph Wind direction: NW Rotor rotational speed: 10.2 rpm Power output: 113.5 kW	5.6
8/7 4:05 AM		Wind speed: 9 mph Wind direction: NW Rotor rotational speed: 10.7 rpm Power output: 259.6 kW	13
8/8 2:38 AM		Wind speed: 4 mph Wind direction: NE Rotor rotational speed: 10.3 rpm Power output: 23.4 kW	1.2
8/8 1:02 PM		Wind speed: 4 mph Wind direction: NE Rotor rotational speed: 10.8 rpm Power output: 0 kW	0

8/9 1:06 AM		Wind speed: 0 mph Wind direction: NE Rotor rotational speed: 0.0 rpm Power output: 0 kW	0
8/9 6:13 AM		Wind speed: 2 mph Wind direction: W Rotor rotational speed: 10.1 rpm Power output: 0 kW	0
8/9 12:48 PM		Wind speed: 0 mph Wind direction: W Rotor rotational speed: 0.0 rpm Power output: 0 kW	0
8/10/14 5:24 AM		Wind speed: 4 mph Wind direction: NW Rotor rotational speed: 10.3 rpm Power output: 68.3 kW	3.4
8/10/14 1:18 PM		Wind speed: 4 mph Wind direction: NW Rotor rotational speed: 0.0 rpm Power output: 0 kW	0

8/11 12:18 PM	Wind speed: 4 mph Wind direction: S Rotor rotational speed: 10.3 rpm Power output: 48.8 kW	2.4
8/11 11:51 AM	Wind speed: 11 mph Wind direction: SE Rotor rotational speed: 10.8 rpm Power output: 203.4 kW	10.1
8/12 5:42AM	**Wind speed:** 12 **mph** **Wind direction:** S **Rotor rotational speed:** 11.3 **rpm** **Power output:** 342.9 **kW**	17
8/12 1:42 PM	**Wind speed:** 22 **mph** **Wind direction:** SE **Rotor rotational speed:** 16.7 **rpm** **Power output:** 1814. **kW**	91

8/12/14 11:25 PM		**Wind speed:** 13 **mph** **Wind direction:** NW **Rotor rotational speed:** 10.5 **rpm** **Power output:** 324.4 **kW**	16.2
8/13/14 5:29 AM		**Wind speed:** 7 **mph** **Wind direction:** W **Rotor rotational speed:** 10.4 **rpm** **Power output:** 91.9 **kW**	4.6
8/13/14 12:50 PM		**Wind speed:** 13 **mph** **Wind direction:** NW **Rotor rotational speed:** 14.4 **rpm** **Power output:** 697.5 **kW**	35
8/15/14 1:30 AM		**Wind speed:** 11 **mph** **Wind direction:** NW **Rotor rotational speed:** 13.5 **rpm** **Power output:** 578.3 **kW**	29

Date & Time	Output	% of Capacity
8/14 1:37 PM	**Wind speed:** 9 **mph** **Wind direction:** W **Rotor rotational speed:** 10.3 **rpm** **Power output:** 85.4 **kW**	4.3
8/15 3:25 AM	**Wind speed:** 4 **mph** **Wind direction:** N **Rotor rotational speed:** 10.3 **rpm** **Power output:** 109.3 **kW**	5.5
8/15 12 PM	**Wind speed:** 7 **mph** **Wind direction:** W **Rotor rotational speed:** 10.7 **rpm** **Power output:** 0 **kW**	0
8/15 7:30 PM	**Wind speed:** 0 **mph** **Wind direction:** NW **Rotor rotational speed:** 6.6 **rpm** **Power output:** 0 **kW**	0

8/16/ 3 AM		**Wind speed:** 7 **mph** **Wind direction:** S **Rotor rotational speed:** 10.3 **rpm** Power output: 177.1 kW	8.9
8/16/ 11:52 AM		**Wind speed:** 4 **mph** **Wind direction:** SE **Rotor rotational speed:** 10.3 **rpm** Power output: 65.9 kW	3.3
8/17 7:20 AM		**Wind speed:** 11 **mph** **Wind direction:** W **Rotor rotational speed:** 12.0 **rpm** **Power output:** 392.1 **kW**	20
8/17 3:35 PM		**Wind speed:** 7 **mph** **Wind direction:** NW **Rotor rotational speed:** 10.2 **rpm** **Power output:** 8.6 **kW**	0.4

8/17 11:31 PM		**Wind speed:** 4 **mph** **Wind direction:** N **Rotor rotational speed:** 10.3 **rpm** **Power output:** 6.8 **kW**	0.3
8/18 10:43 PM		**Wind speed:** 2 **mph** **Wind direction:** NE **Rotor rotational speed:** 10.1 **rpm** **Power output:** 0 **kW**	0
8/19 3:48 PM		**Wind speed:** 7 **mph** **Wind direction:** NE **Rotor rotational speed:** 0.1 **rpm** **Power output:** 0 **kW**	0
8/19 11:22 PM		**Wind speed:** 7 **mph** **Wind direction:** SE **Rotor rotational speed:** 10.3 **rpm** **Power output:** 146.0 **kW**	7.3

8/19 12:30 PM		**Wind speed:** 9 **mph** **Wind direction:** E **Rotor rotational speed:** 10.4 **rpm** **Power output:** 224.0 **kW**	11.2
8/20 12:06 AM		**Wind speed:** 7 **mph** **Wind direction:** SE **Rotor rotational speed:** 10.4 **rpm** **Power output:** 166.6 **kW**	8.3
8/20/14 Full Day Probably shut down for maintenance		**Wind speed:** N/A **mph** **Wind direction:** N/A **Rotor rotational speed:** N/A **rpm** **Power output:** N/A **kW**	0
8/20/14 5:32 PM		**Wind speed:** 0 **mph** **Wind direction:** NW **Rotor rotational speed:** 0.0 **rpm** **Power output:** 0.0 **kW**	0%

8/21/14 11:19 AM		**Wind speed:** 0 **mph** **Wind direction:** NW **Rotor rotational speed:** 0.0 **rpm** **Power output:** 0.0 **kW**	0
8/22 3:19 PM		**Wind speed:** 9 **mph** **Wind direction:** NW **Rotor rotational speed:** 0.1 **rpm** **Power output:** 0 **kW**	0
8/23/14 1 AM		**Wind speed:** 13 **mph** **Wind direction:** E **Rotor rotational speed:** 11.1 **rpm** **Power output:** 265.5 **kW**	13.2
8/23/14 6:11 AM		**Wind speed:** 13 **mph** **Wind direction:** E **Rotor rotational speed:** 12.3 **rpm** **Power output:** 434.7 **kW**	21.7

8/24/14 5:23 AM		**Wind speed:** 13 **mph** **Wind direction:** NE **Rotor rotational speed:** 12.3 **rpm** **Power output:** 452.5 **kW**	22.6
8/24/14 12:43 PM		**Wind speed:** 16 **mph** **Wind direction:** E **Rotor rotational speed:** 13.9 **rpm** Power output: 787.7 kW	39
8/25/14 1:24 AM		**Wind speed:** 13 **mph** **Wind direction:** E **Rotor rotational speed:** 11.5 **rpm** **Power output:** 342.0 **kW**	17
8/25/14 4:47 PM		**Wind speed:** 9 **mph** **Wind direction:** E **Rotor rotational speed:** 10.3 **rpm** **Power output:** 85.0 **kW**	4.3
8/25/14 11:25 PM		**Wind speed:** 2 **mph** **Wind direction:** NW **Rotor rotational speed:** 6.9 **rpm** **Power output:** 0 **kW**	0

8/26/14 10:25 AM		**Wind speed:** 7 **mph** **Wind direction:** NE **Rotor rotational speed:** 0.5 **rpm** **Power output:** 0 **kW**	0
8/27/14 12:14 AM		**Wind speed:** 2 **mph** **Wind direction:** NW **Rotor rotational speed:** 0.0 **rpm** **Power output:** 0 **kW**	0
8/27/14 6:24 AM		**Wind speed:** 7 **mph** **Wind direction:** S **Rotor rotational speed:** 1.9 **rpm** **Power output:** 0 **kW**	0
8/27/14 12:35 PM		**Wind speed:** 7 **mph** **Wind direction:** N **Rotor rotational speed:** 3.1 **rpm** **Power output:** 0 **kW**	0
8/27/14 8:30 PM		**Wind speed:** 11 **mph** **Wind direction:** SW **Rotor rotational speed:** 10.3 **rpm** **Power output:** 254.8 **kW**	12.75

8/28/14 12:51 PM		**Wind speed:** 13 **mph** **Wind direction:** N **Rotor rotational speed:** 13.2 **rpm** **Power output:** 597.1 **kW**	30
8/29/14 1L30 AM		**Wind speed:** 22 **mph** **Wind direction:** NE **Rotor rotational speed:** 16.8 **rpm** **Power output:** 1476. **kW**	73.8
8/29/14 6 AM		**Wind speed:** 13 **mph** **Wind direction:** NE **Rotor rotational speed:** 11.4 **rpm** **Power output:** 312.3 **kW**	15.6
8/29/14 12:05		**Wind speed:** 7 **mph** **Wind direction:** NE **Rotor rotational speed:** 10.3 **rpm** **Power output:** 12.7 **kW**	6.4
8/29/14 10:54		**Wind speed:** 11 **mph** **Wind direction:** SE **Rotor rotational speed:** 10.3 **rpm** **Power output:** 226.1 **kW**	11.3

8/30/14 6:30 AM		**Wind speed:** 9 **mph** **Wind direction:** S **Rotor rotational speed:** 10.3 **rpm** **Power output:** 41.3 **kW**	20.5
8/30/14 1:50 PM		**Wind speed:** 11 **mph** **Wind direction:** S **Rotor rotational speed:** 10.2 **rpm** **Power output:** 210.5 **kW**	10.6
8/30/14 11:06 PM		**Wind speed:** 11 **mph** **Wind direction:** S **Rotor rotational speed:** 12.0 **rpm** **Power output:** 413.6 **kW**	20.6
8/31/14 12:24 PM		**Wind speed:** 11 **mph** **Wind direction:** SW **Rotor rotational speed:** 11.5 **rpm** **Power output:** 414.4 **kW**	20.7
9/1 1:14 AM		**Wind speed:** 16 **mph** **Wind direction:** SW **Rotor rotational speed:** 13.3 **rpm** **Power output:** 512.7 **kW**	25.6

9/1 6:45 AM		**Wind speed:** 7 **mph** **Wind direction:** SW **Rotor rotational speed:** 1.1 **rpm** Power output: 0 kW	0
9/1 11:45 AM		**Wind speed:** 7 **mph** **Wind direction:** W **Rotor rotational speed:** 9.0 **rpm** Power output: 0 kW	0
9/2 5:15 AM		**Wind speed:** 13 **mph** **Wind direction:** W **Rotor rotational speed:** 13.8 **rpm** **Power output:** 572.7 **kW**	26.3
9/2 11:57 AM		**Wind speed:** 9 **mph** **Wind direction:** W **Rotor rotational speed:** 10.2 **rpm** Power output: 147.9 kW	7.5
9/3 2:40 AM Frontal system passing through		**Wind speed:** 27 **mph** **Wind direction:** SW **Rotor rotational speed:** 16.6 **rpm** **Power output:** 2056. **kW**	103

9/3 3:00 PM		**Wind speed:** 2 **mph** **Wind direction:** NE **Rotor rotational speed:** 5.9 **rpm** **Power output:** 0 **kW**	0
9/3 11:59 PM		**Wind speed:** 11 **mph** **Wind direction:** SW **Rotor rotational speed:** 10.3 **rpm** **Power output:** 149.2 **kW**	7.5
9/4 11:09 AM		**Wind speed:** 9 **mph** **Wind direction:** E **Rotor rotational speed:** 10.3 **rpm** **Power output:** 56.8 **kW**	2.8
9/4 11:55 PM		**Wind speed:** 11 **mph** **Wind direction:** S **Rotor rotational speed:** 11.3 **rpm** **Power output:** 328.0 **kW**	16.4
9/5 11:25 AM		**Wind speed:** 4 **mph** **Wind direction:** E **Rotor rotational speed:** 7.7 **rpm** **Power output:** 0 **kW**	0

9/5 3:20 PM		**Wind speed:** 16 **mph** **Wind direction:** SW **Rotor rotational speed:** 15.0 **rpm** **Power output:** 748.1 **kW**	37.4