

**Site Description**

Measurement period	10/28/2005	10/4/2006
Coordinates	43° 25.19 N	72° 16.02 W
Elevation	2040 feet	

**Table 2.1: Wind Characteristics (10-minute averages)**

	Winter	Summer	Annual
30m anemometer			
Average wind speed (mph)	11.8	8.82	10.6
Peak wind speed (mph)	66.6	55.50	66.6
Wind turbulence	0.18	0.19	0.19

**Table 2.2: Estimated Potential Turbine Performance\***

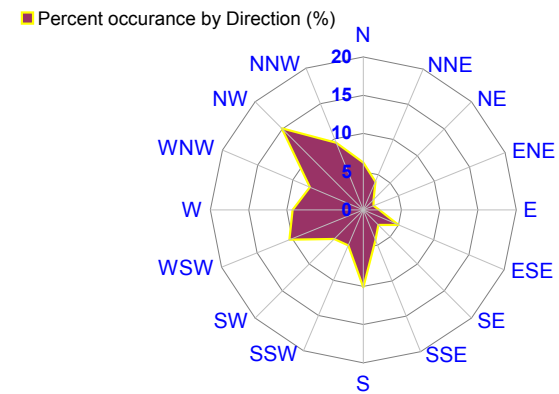
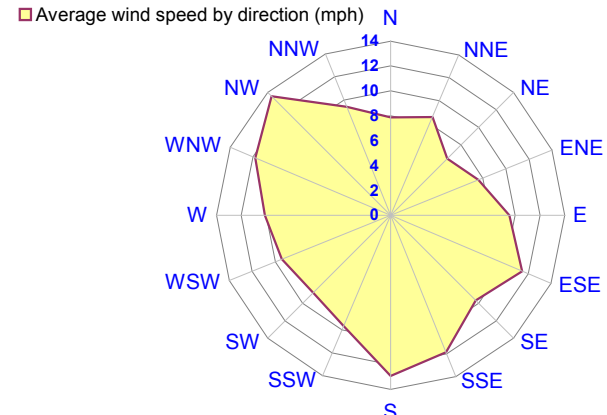
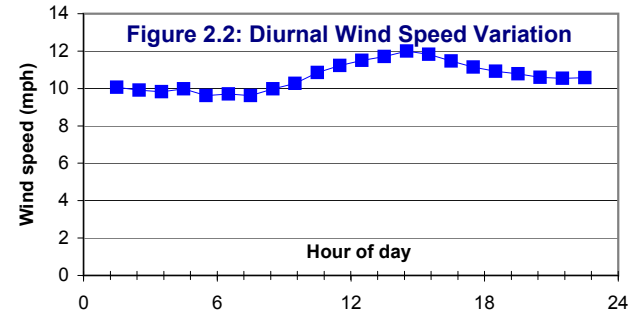
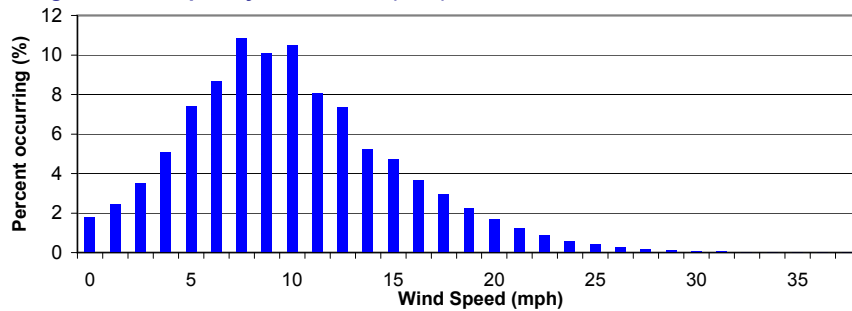
	3.7 kW	10 kW
Cumulative annual energy (kWh)	2839	9499
Average monthly energy (kWh)	236.6	791.6
Average daily energy (kWh)	7.8	26.0
Capacity Factor (%)	18.0	10.8

\*Based on wind statistics for anticipated long-term values and standard power curves in optimal conditions

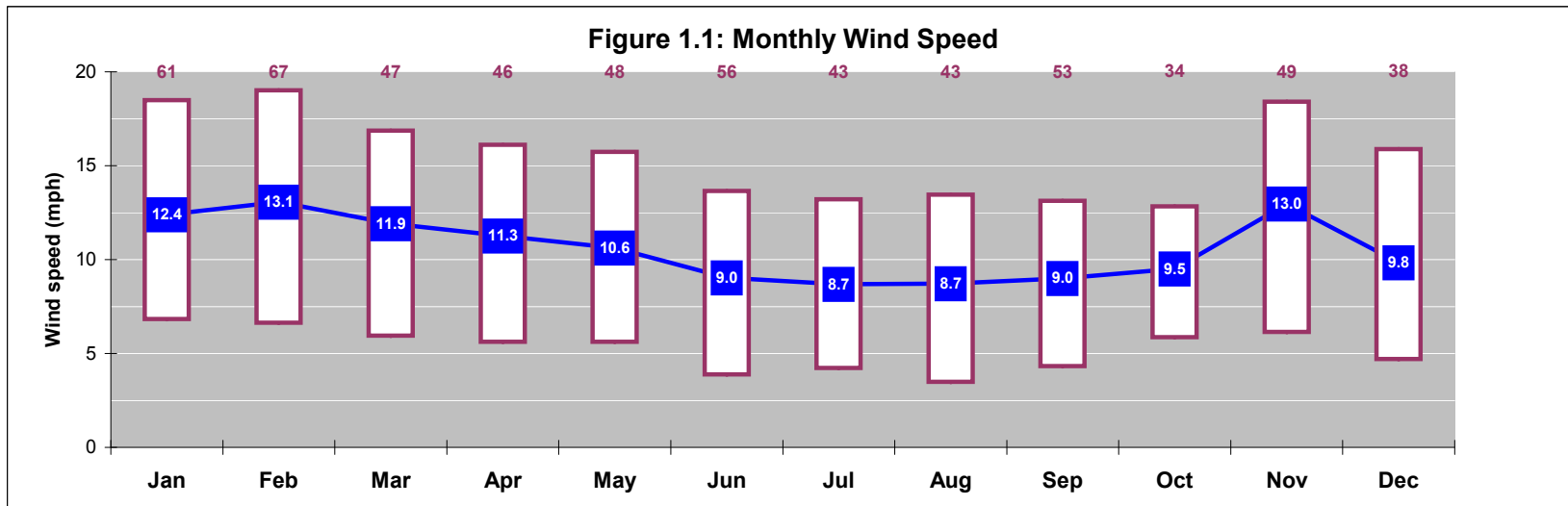
**Table 2.3: Air Temperature and Air Density**

	Winter	Summer	Annual
Average Temperature	22.2	64.2	44.8
Maximum Temperature	50.8	98.4	88.5
Minimum Temperature	-6.9	-22.6	-43.7
Air Density (kg / m <sup>3</sup> )	1.297	1.141	1.170

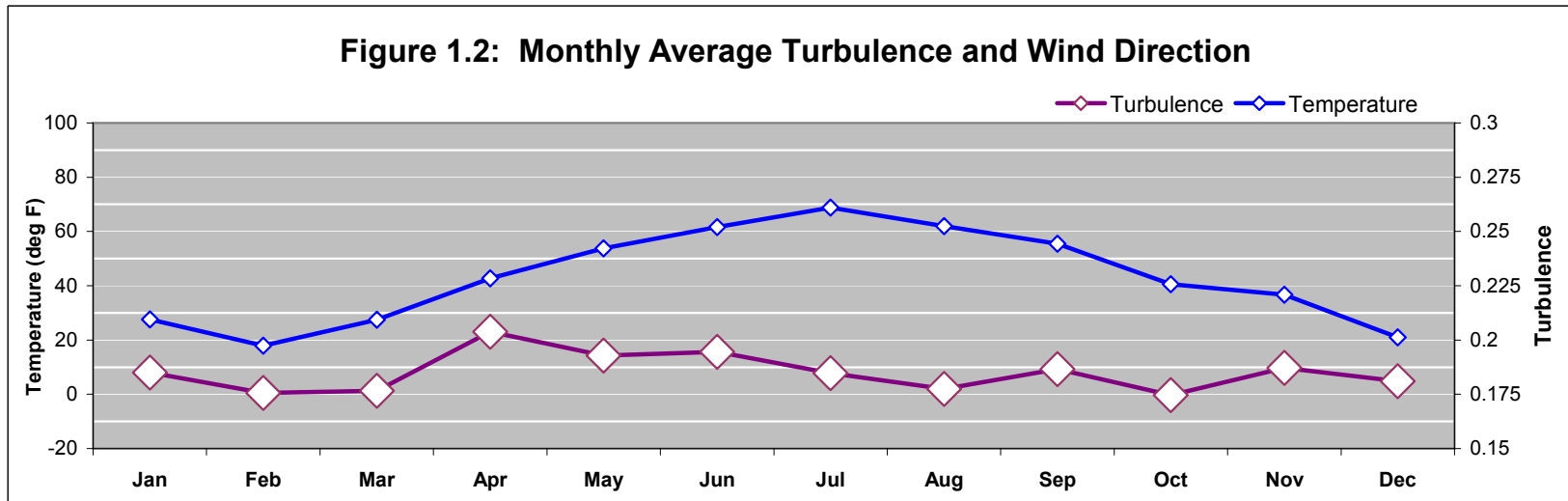
**Figure 2.1: Frequency distribution (30m)**



## Cabot Plains Residence



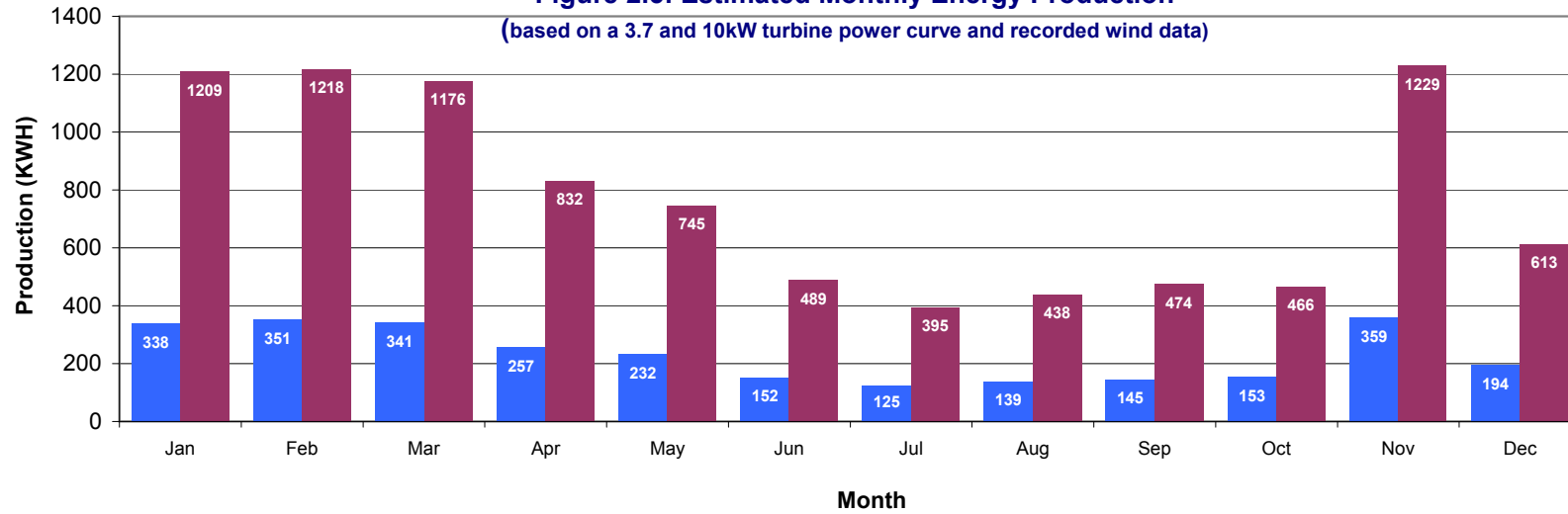
Box plot of measured wind speeds. The white boxes represent the range of daily average wind speeds recorded in the month with the monthly average shown as the blue line with accompanying value. The purple values at the top of the graph are the highest recorded gusts during each month.



Turbulence is defined as the standard deviation of the wind speed divided by the average wind speed

**Figure 2.5: Estimated Monthly Energy Production**

(based on a 3.7 and 10kW turbine power curve and recorded wind data)



**Figure 2.6: Estimated Cumulative Energy Production**

(based on a 3.7 and 10kW turbine power curve and recorded wind data)

