

# Wind Resource Summary for Cimarron Site

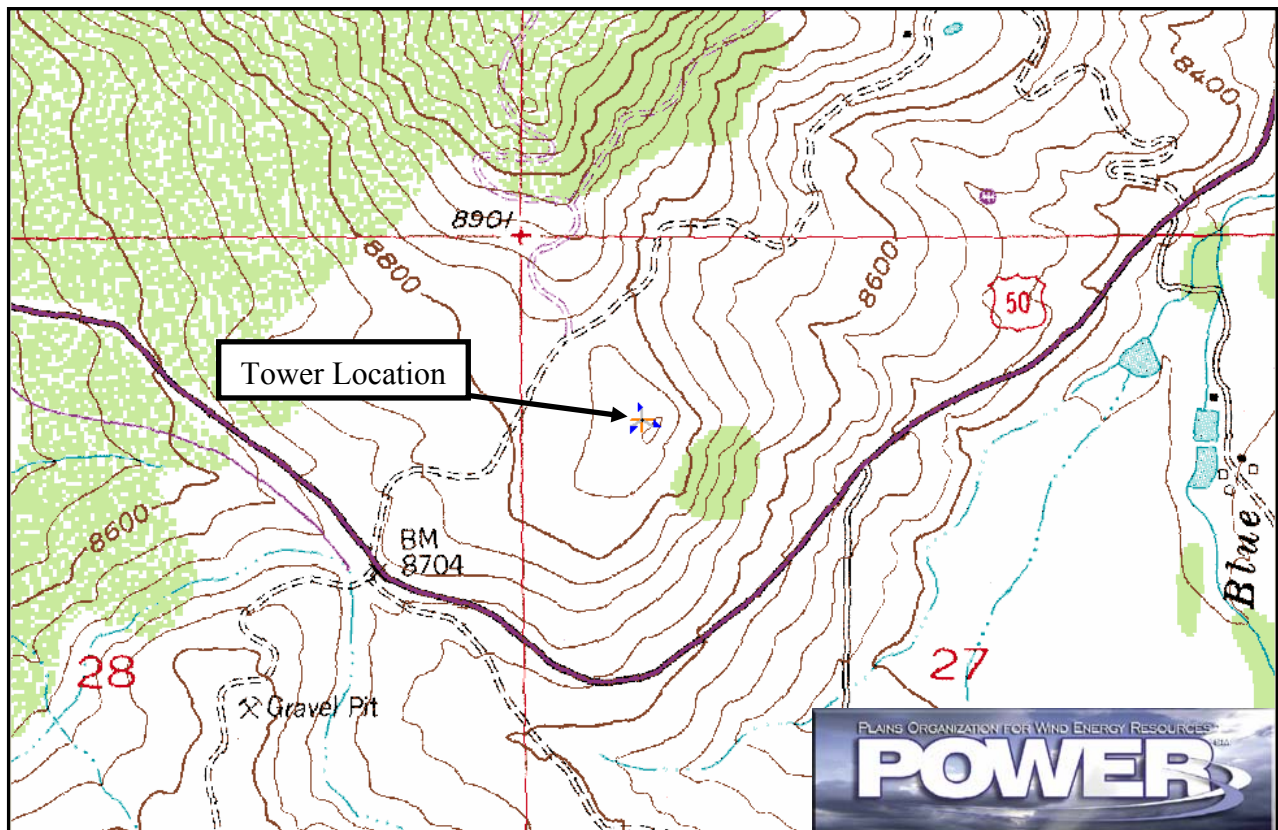
Colorado Anemometer Loan Program

Monitoring Period:<sup>a</sup> 9/9/2004 – 7/18/2005

## Site Description:

Latitude: N 38° 23' 19"	Township: 48 S
Longitude: W 107° 25' 40"	Range: 5 W
Elevation: 8857 feet	Section: 27
Tower Type: NRG Tilt-Up	Tower Height: 66 feet

The site is approximately 7.8 miles southeast of the town of Cimarron, Colorado. The site is located on elevated terrain which is an extension from a large mesa to the north. The location is near the boundary between two watersheds or mountain valleys. The tower is located in the southeast corner of pasture.



<b>Summary Wind Data:</b>	<b>66 ft AGL<sup>b</sup></b>
<b>Mean Wind Speed</b>	11.0 mph
<b>Maximum, 10-min Mean Wind Speed</b>	47.8 mph – 1/8/2005 9:50 p.m.
<b>Estimated Wind Power Class<sup>c</sup></b>	Class 2 (149 W/m <sup>2</sup> )

<sup>a</sup> Data recovery rate was 98%.

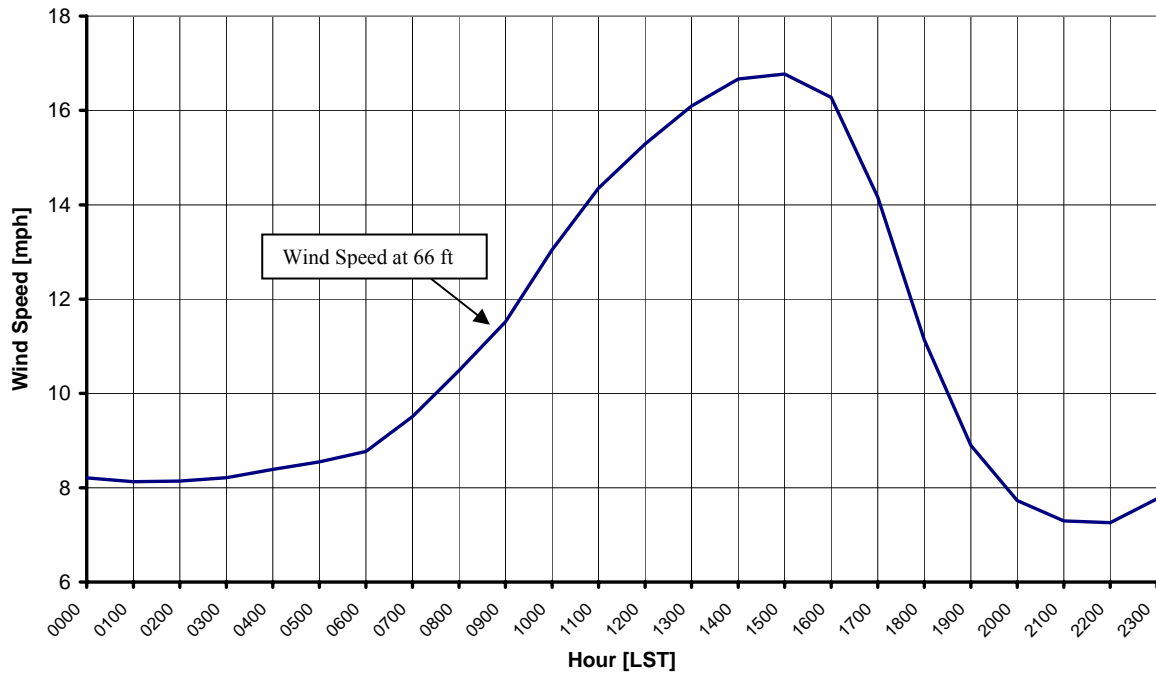
<sup>b</sup> Above ground level.

<sup>c</sup> Air temperature was not factored into calculation.

## Average Hourly Wind Speeds

66 ft AGL		
LST <sup>d</sup>	mph	m/s
0000	8.2	3.67
0100	8.1	3.63
0200	8.1	3.64
0300	8.2	3.67
0400	8.4	3.75
0500	8.6	3.82
0600	8.8	3.92
0700	9.5	4.25
0800	10.5	4.69
0900	11.5	5.15
1000	13.0	5.83
1100	14.4	6.42
1200	15.3	6.84
1300	16.1	7.19
1400	16.7	7.45
1500	16.8	7.50
1600	16.3	7.28
1700	14.2	6.33
1800	11.1	4.98
1900	8.9	3.98
2000	7.7	3.45
2100	7.3	3.26
2200	7.3	3.24
2300	7.8	3.47

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<sup>d</sup> Local standard time.



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## Wind Directional Frequency

The wind direction sensor was not functioning correctly during this period.



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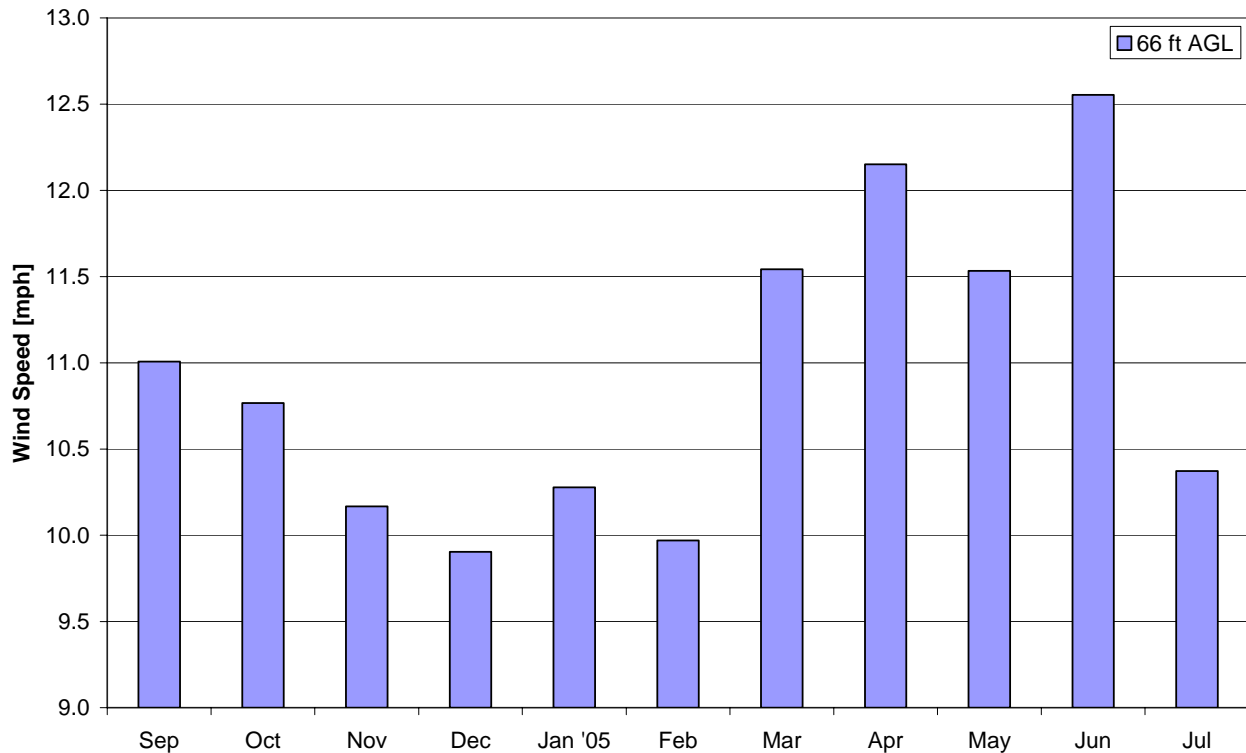
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## Monthly Wind Speed Averages

**66 ft AGL**

Month	mph	m/s
Sep	11.0	4.92
Oct	10.8	4.81
Nov	10.2	4.55
Dec	9.9	4.43
Jan '05	10.3	4.59
Feb	10.0	4.46
Mar	11.5	5.16
Apr	12.2	5.43
May	11.5	5.16
Jun	12.6	5.61
Jul	10.4	4.64

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