

**Site Information:**

Project: Wind Hybrid Project  
 Location: Morris, MN  
 Elevation: 350 m

**Sensor Information:**

1 NRG #40 Anem. m/s  
 2 NRG #40 Anem. m/s  
 3 NRG #40 Anem. m/s  
 4 NRG #40 Anem. m/s  
 5 NRG #40 Anem. m/s  
 6 NRG #40 Anem. m/s  
 7 #200P Wind Vane  
 8 #200P Wind Vane  
 9 NRG #110S Temp C  
 10 BP-20 Barom. mb  
 11 No SCM Installed  
 12 No SCM Installed

**June 2004****Summary Report**

SITE 1080  
 WCROC

Channel	1	2	3	4	5	6	7	8	9	10		
Height	50 m	50 m	40 m	40 m	30 m	30 m	50 m	40 m	2 m	2 m	-----	-----
Units	m/s	m/s	m/s	m/s	m/s	m/s	deg	deg	C	mb	-----	-----
Intervals with Valid Data	4320	4320	4320	4320	4320	4320	4320	4320	4320	4320		
Average Filtered Data	5.65	5.7	5.23	5.47	4.98	5.03	302.02	301.87	19.03	978.68		
Average for All Data	5.65	5.7	5.23	5.47	4.98	5.03	302.02	301.87	19.03	978.68		
Min Interval Average	0.4	0.4	0.4	0.4	0.4	0.4			8	956		
Date of Min Interval	6/3/2004	6/3/2004	6/3/2004	6/3/2004	6/3/2004	6/3/2004			6/19/2004	6/1/2004		
Time of Min Interval	12:50:00 PM	12:50:00 PM	4:40:00 AM	12:50:00 PM	12:40:00 AM	12:40:00 AM			4:30:00 AM	2:00:00 AM		
Max Interval Average	17.8	18.1	16.8	17.4	16.1	16.6			33.3	994.5		
Date of Max Interval	6/23/2004	6/23/2004	6/23/2004	6/23/2004	6/23/2004	6/23/2004			6/30/2004	6/19/2004		
Time of Max Interval	1:00:00 PM	1:00:00 PM	1:00:00 PM	1:00:00 PM	1:00:00 PM	1:00:00 PM			4:00:00 PM	7:20:00 AM		
Average Interval SD	0.79	0.77	0.79	0.78	0.79	0.8	8.79	9.26	0.06	0.01		
Min Sample	0.4	0.4	0.4	0.4	0.4	0.4			7.5	955.2		
Date of Min Sample	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/1/2004	6/1/2004			6/19/2004	6/1/2004		
Time of Min Sample	11:00:00 AM	11:00:00 AM	11:00:00 AM	11:00:00 AM	9:50:00 PM	9:00:00 PM			4:30:00 AM	1:50:00 AM		
Max Sample	25.6	26	24	25.6	23.7	24.8			33.7	994.7		
Date of Max Sample	6/23/2004	6/23/2004	6/23/2004	6/23/2004	6/23/2004	6/23/2004			6/30/2004	6/19/2004		
Time of Max Sample	1:00:00 PM	1:00:00 PM	1:00:00 PM	1:00:00 PM	1:00:00 PM	1:00:00 PM			4:00:00 PM	6:20:00 AM		
Average Interval TI	0.16	0.16	0.18	0.16	0.18	0.19						
Wind Speed Direction							NW	NNW				

**Site Information:**

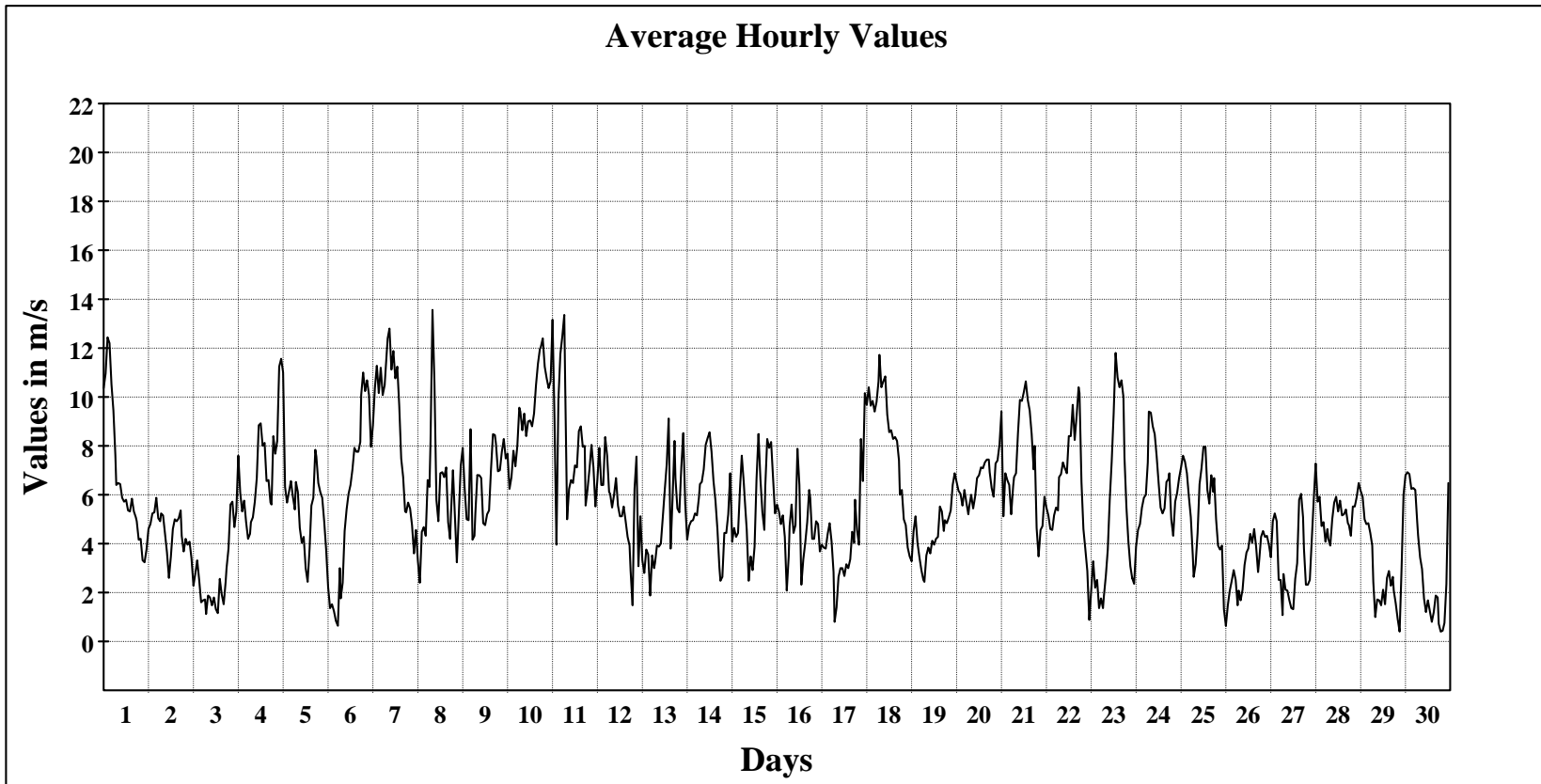
Project: Wind Hybrid Project  
Location: Morris, MN  
Elevation: 350 m

**Sensor on channel 1:**

NRG #40 Anem. m/s  
Height: 50 m  
Serial #: SN:

**June 2004**

**Hourly Averages Graph, 50m, Ch 1**  
SITE 1080  
WCROC



**Average Value: 5.7**

**Site Information:**

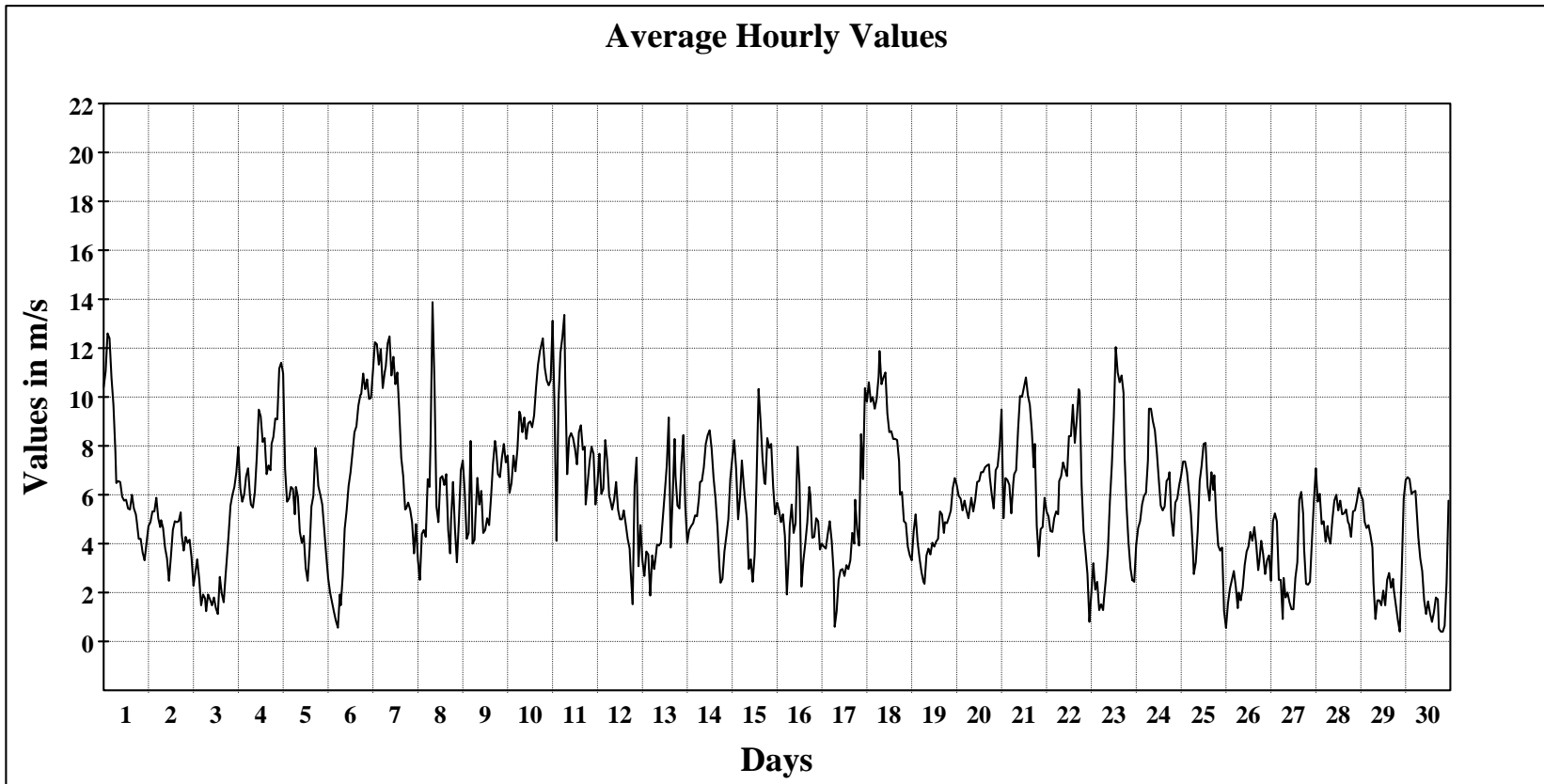
Project: Wind Hybrid Project  
 Location: Morris, MN  
 Elevation: 350 m

**Sensor on channel 2:**

NRG #40 Anem. m/s  
 Height: 50 m  
 Serial #: SN:

**June 2004**

**Hourly Averages Graph, 50m, Ch 2**  
 SITE 1080  
 WCROC



**Average Value: 5.7**

**Site Information:**

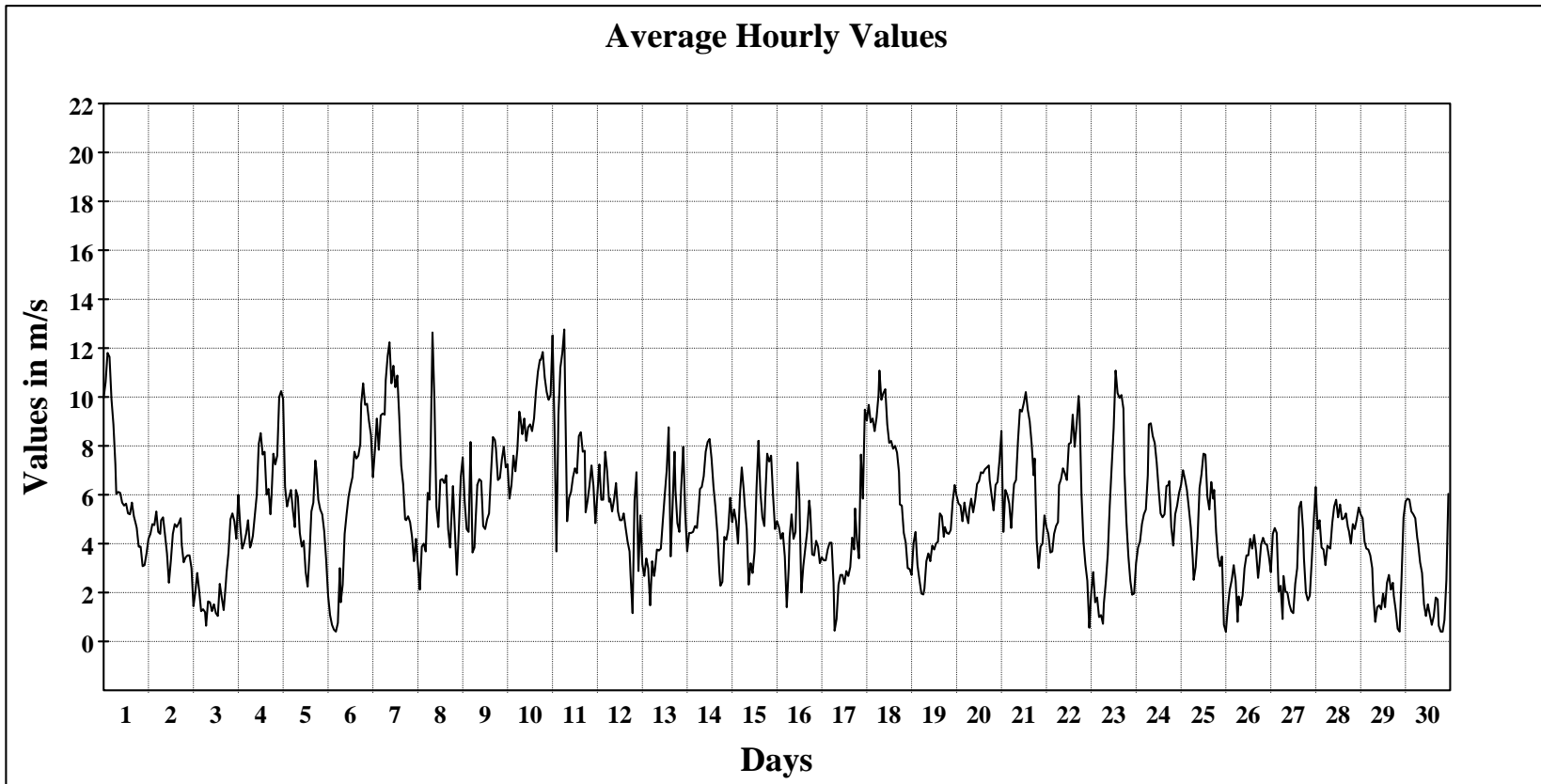
Project: Wind Hybrid Project  
 Location: Morris, MN  
 Elevation: 350 m

**Sensor on channel 3:**

NRG #40 Anem. m/s  
 Height: 40 m  
 Serial #: SN:

**June 2004**

**Hourly Averages Graph, 40m, Ch 3**  
 SITE 1080  
 WCROC



**Average Value: 5.2**

**Site Information:**

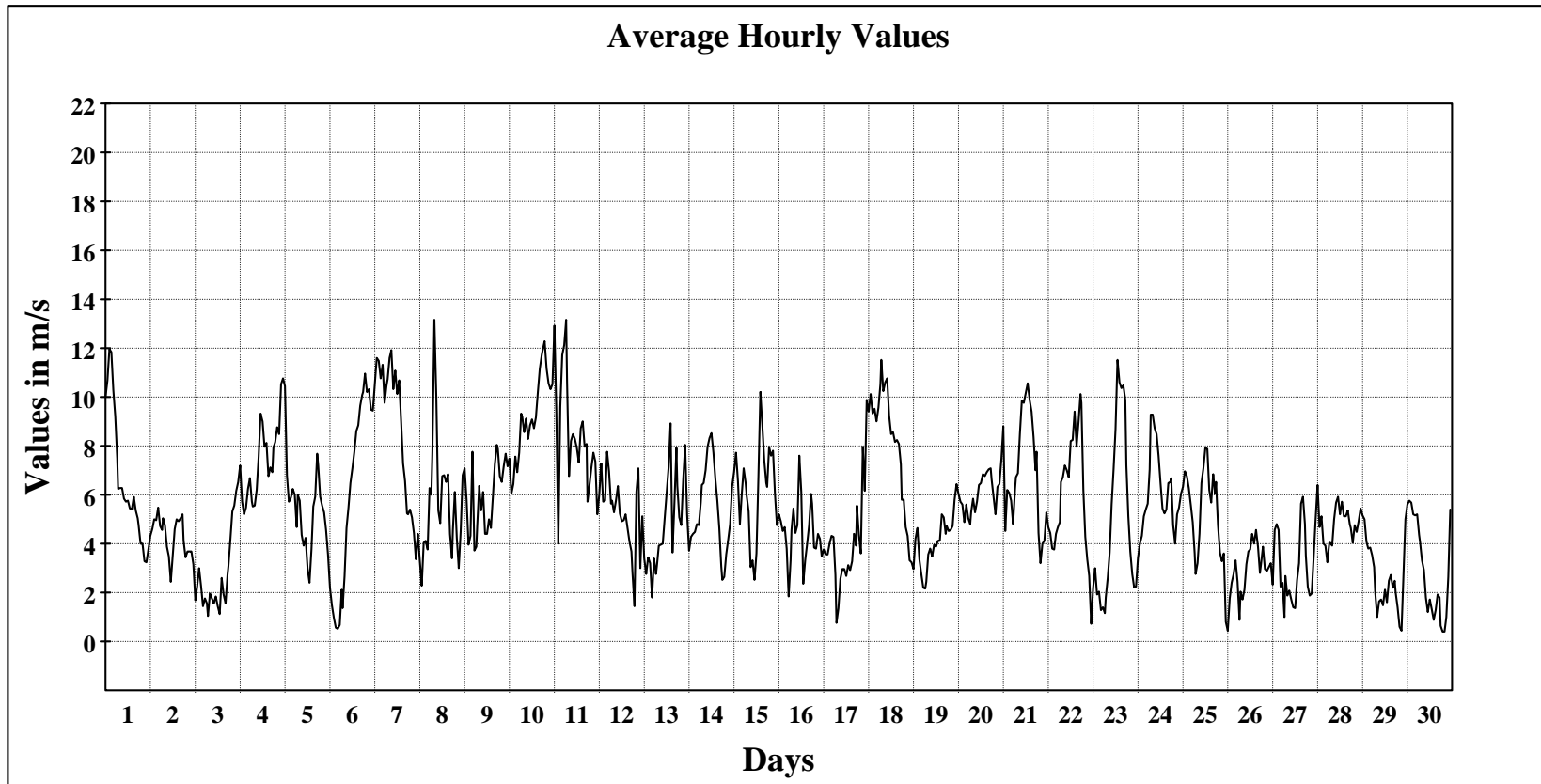
Project: Wind Hybrid Project  
Location: Morris, MN  
Elevation: 350 m

**Sensor on channel 4:**

NRG #40 Anem. m/s  
Height: 40 m  
Serial #: SN:

**June 2004****Hourly Averages Graph, 40m, Ch 4**

SITE 1080  
WCROC



Average Value: 5.5

**Site Information:**

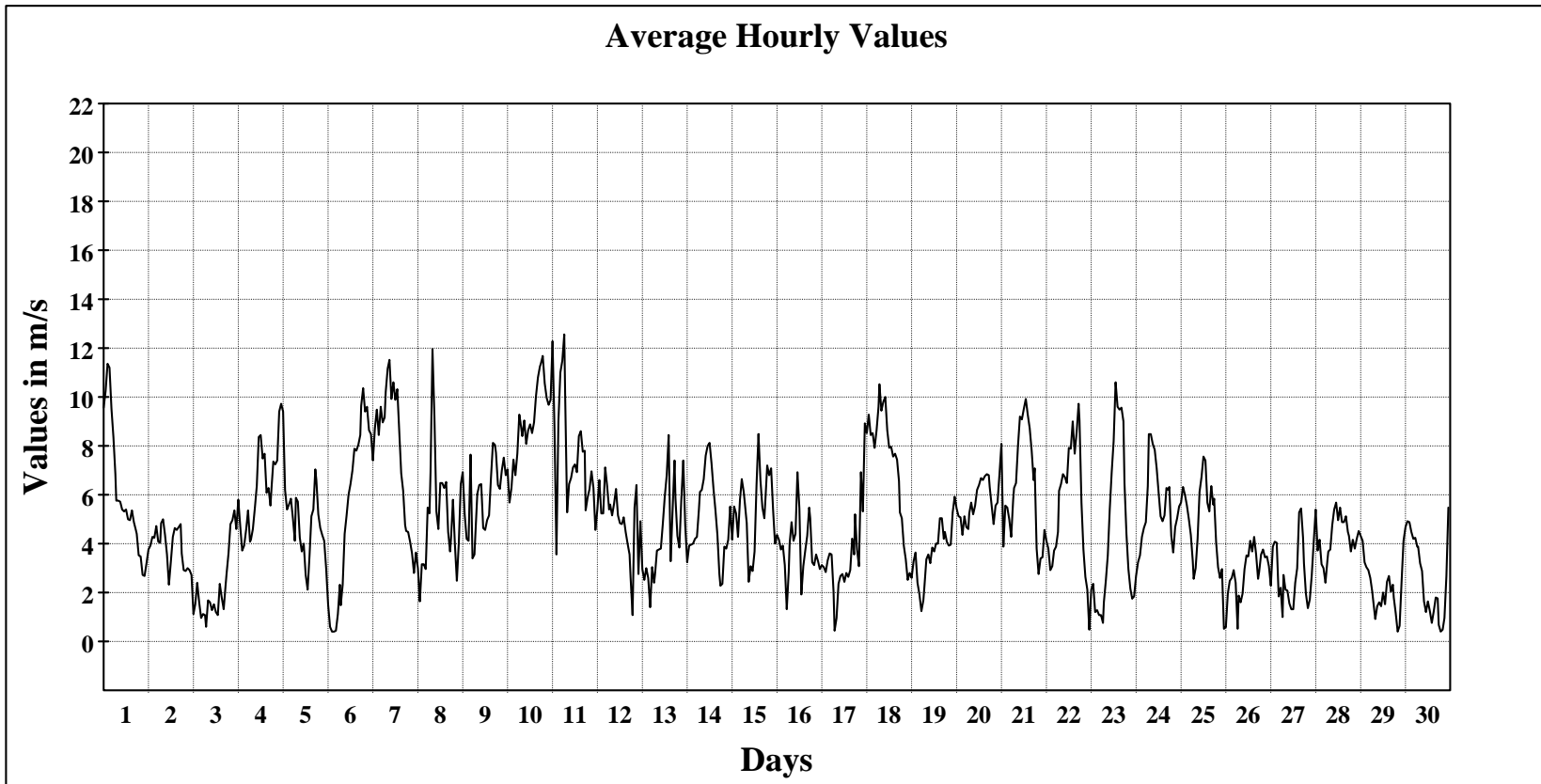
Project: Wind Hybrid Project  
 Location: Morris, MN  
 Elevation: 350 m

**Sensor on channel 5:**

NRG #40 Anem. m/s  
 Height: 30 m  
 Serial #: SN:

**June 2004**

**Hourly Averages Graph, 30m, Ch 5**  
 SITE 1080  
 WCROC



Average Value: 5.0

**Site Information:**

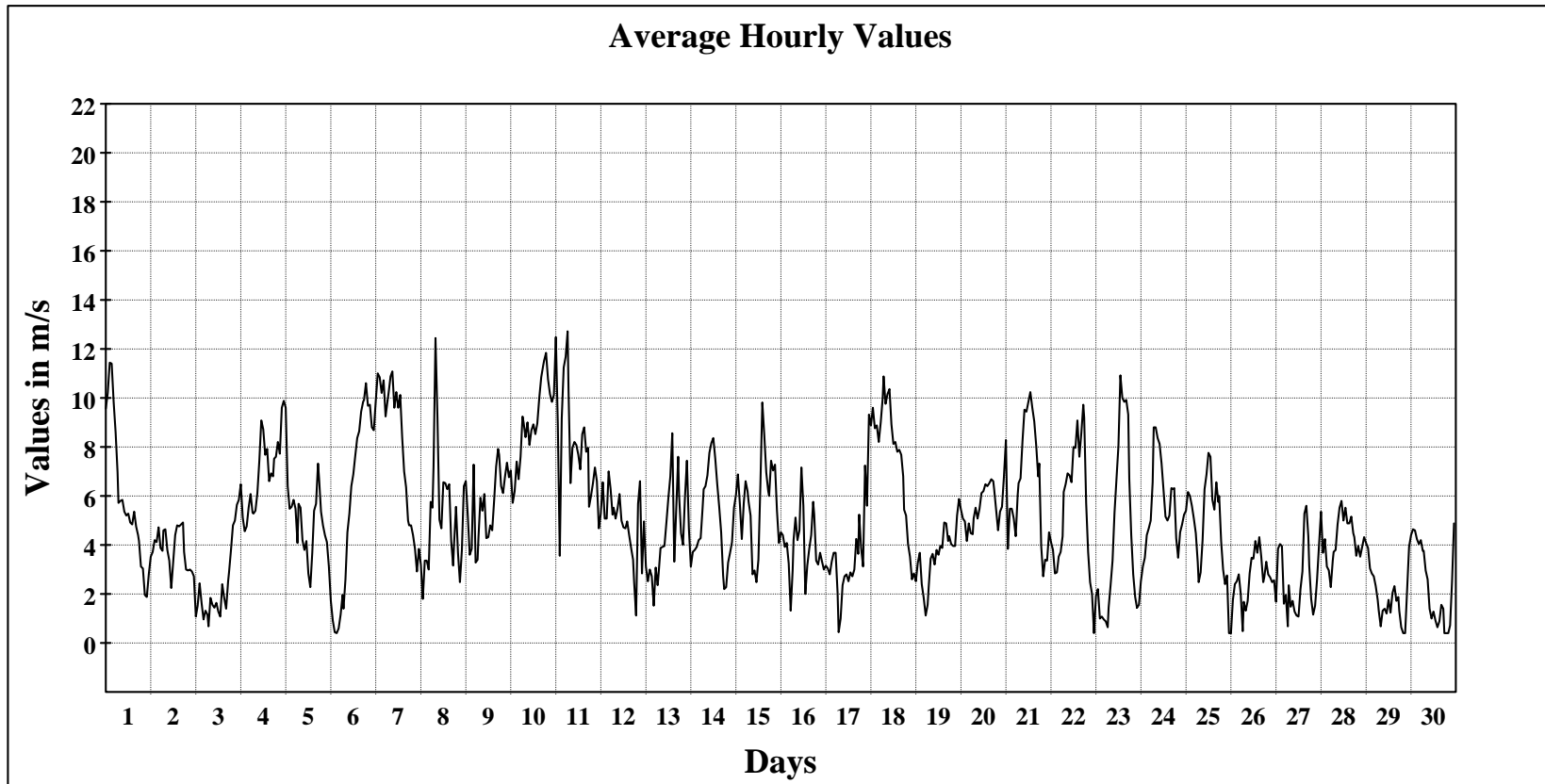
Project: Wind Hybrid Project  
Location: Morris, MN  
Elevation: 350 m

**Sensor on channel 6:**

NRG #40 Anem. m/s  
Height: 30 m  
Serial #: SN:

**June 2004**

**Hourly Averages Graph, 30m, Ch 6**  
SITE 1080  
WCROC



Average Value: 5.0

**Site Information:**

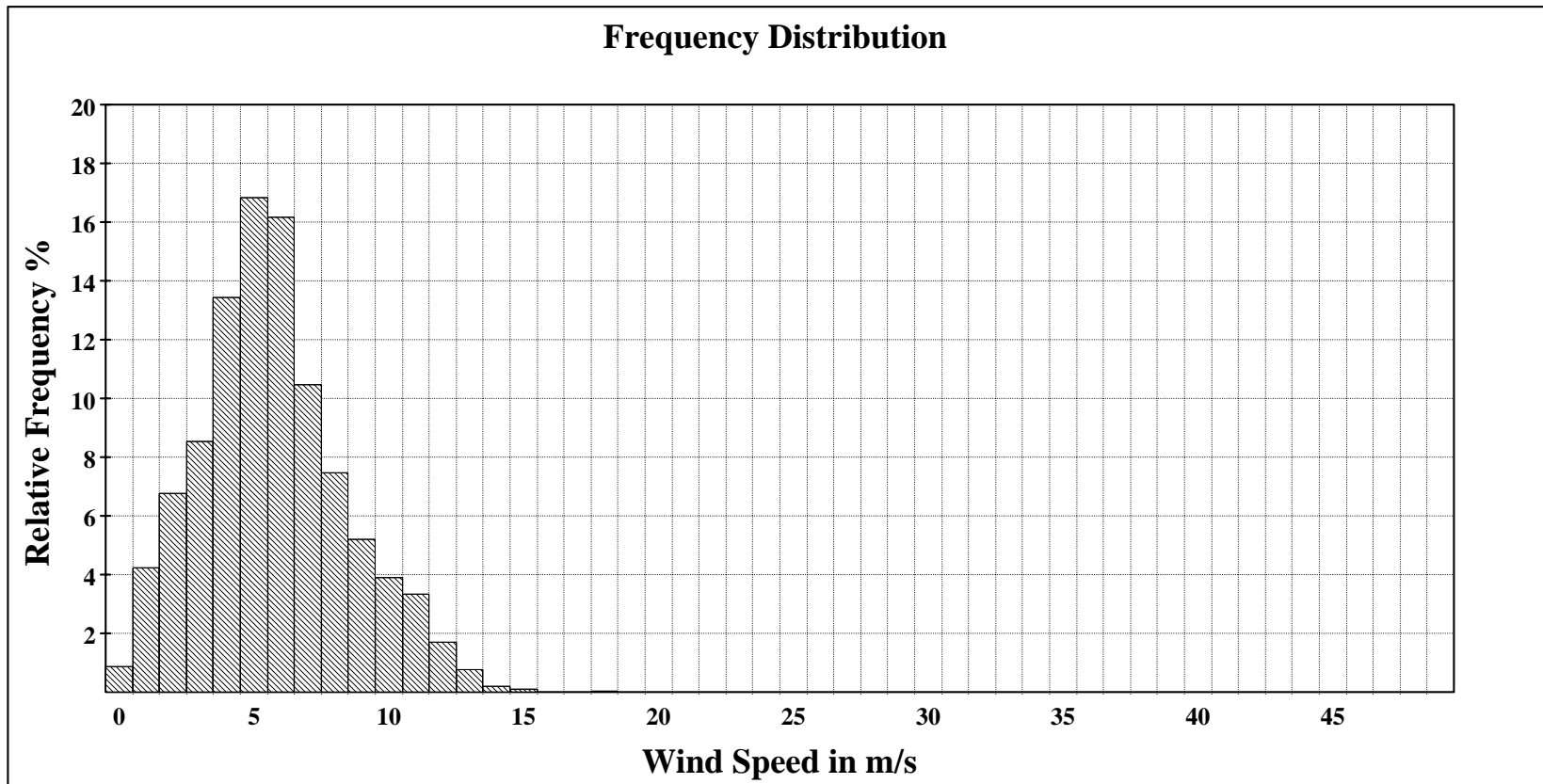
Project: Wind Hybrid Project  
Location: Morris, MN  
Elevation: 350 m

**Sensor on channel 1:**

NRG #40 Anem. m/s  
Height: 50 m  
Serial #: SN:

**June 2004**

**Frequency Distribution, 50 m, Ch 1**  
SITE 1080  
WCROC





**Site Information:**

Project: Wind Hybrid Project  
 Location: Morris, MN  
 Elevation: 350 m

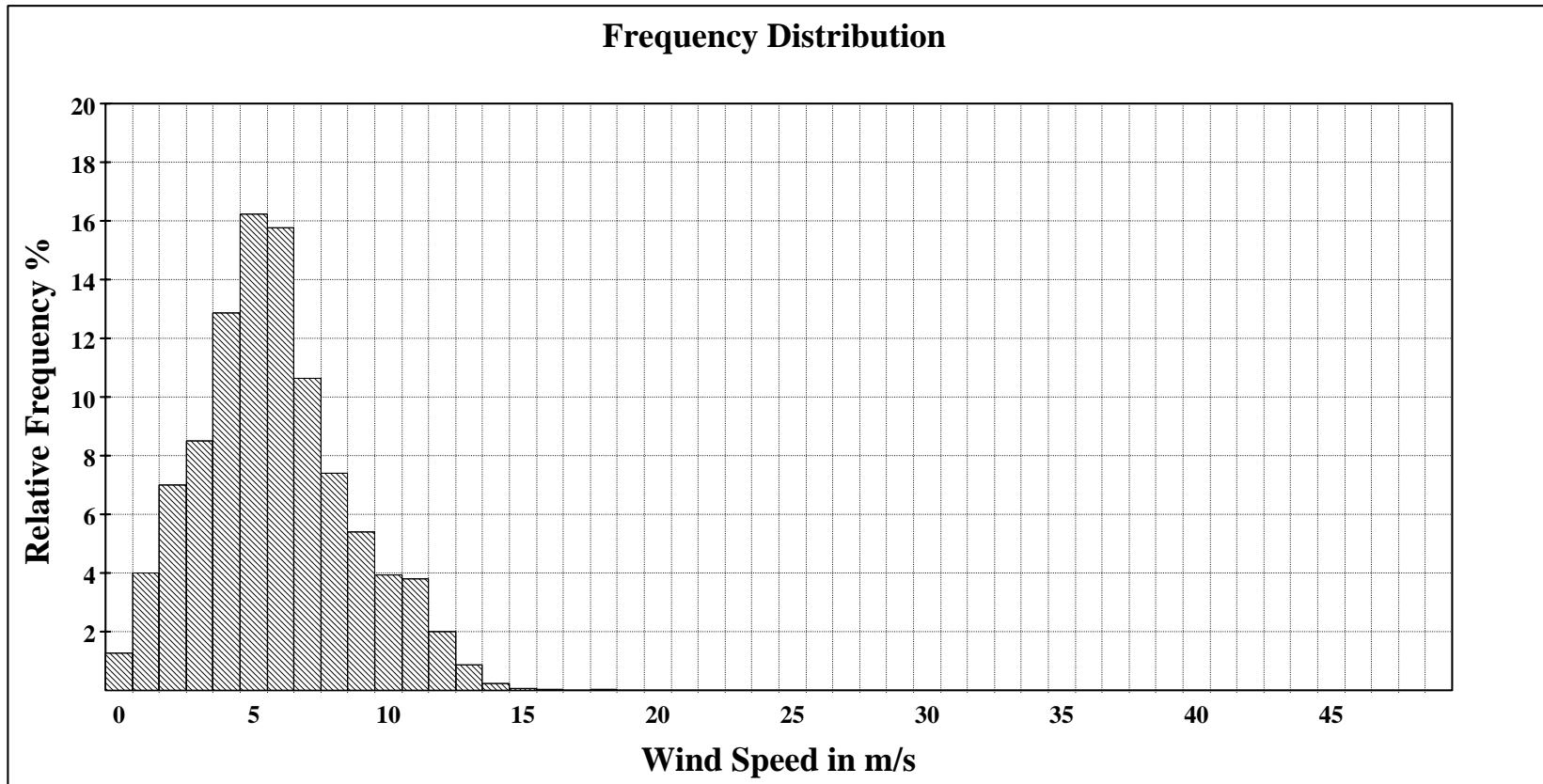
**Sensor on channel 2:**

NRG #40 Anem. m/s  
 Height: 50 m  
 Serial #: SN:

**June 2004**

**Frequency Distribution, 50m, Ch 2**

SITE 1080  
 WCROC



**Site Information:**

Project: Wind Hybrid Project  
 Location: Morris, MN  
 Elevation: 350 m

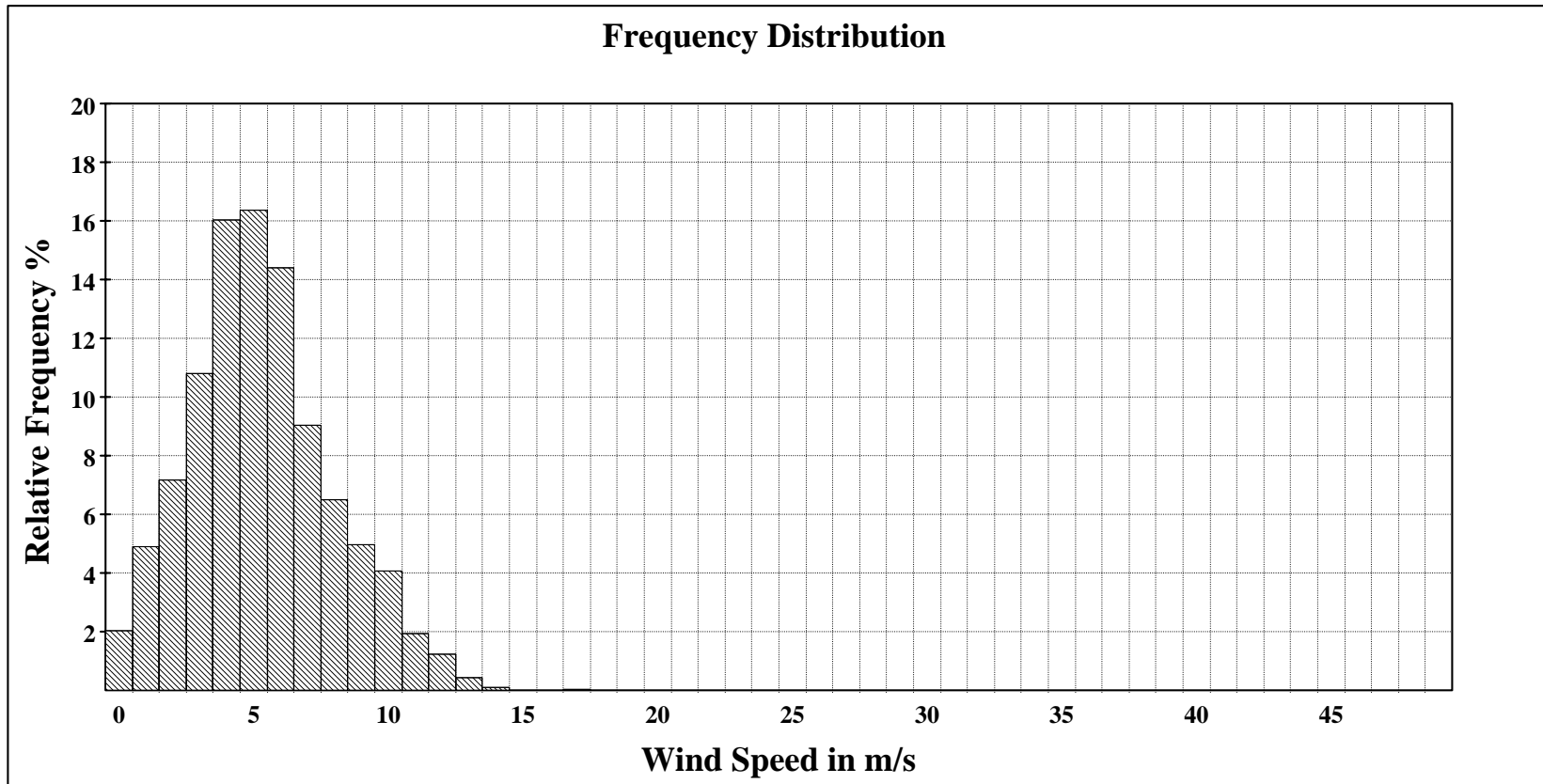
**Sensor on channel 3:**

NRG #40 Anem. m/s  
 Height: 40 m  
 Serial #: SN:

**June 2004**

**Frequency Distribution, 40m, Ch 3**

SITE 1080  
 WCROC



**Site Information:**

Project: Wind Hybrid Project  
 Location: Morris, MN  
 Elevation: 350 m

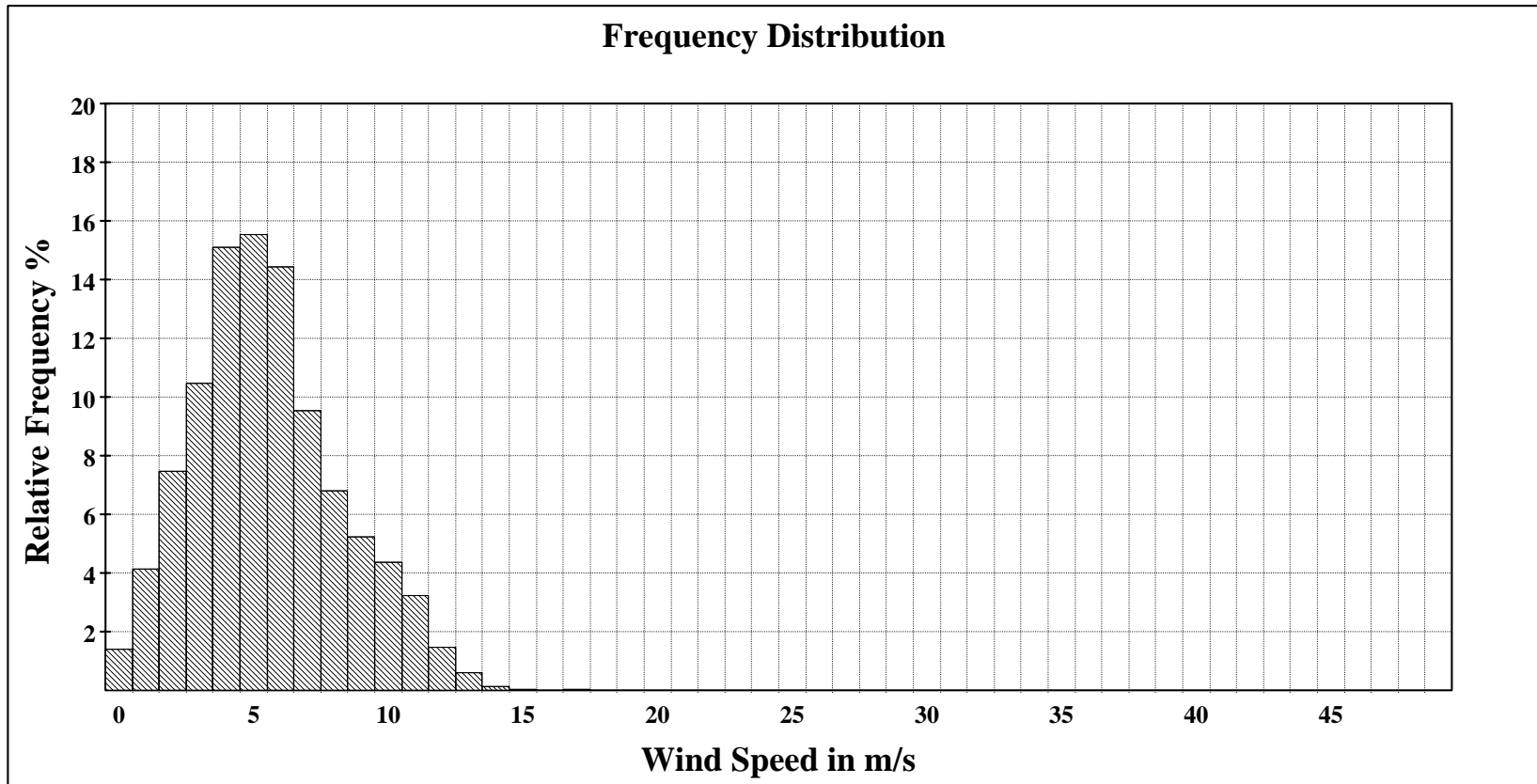
**Sensor on channel 4:**

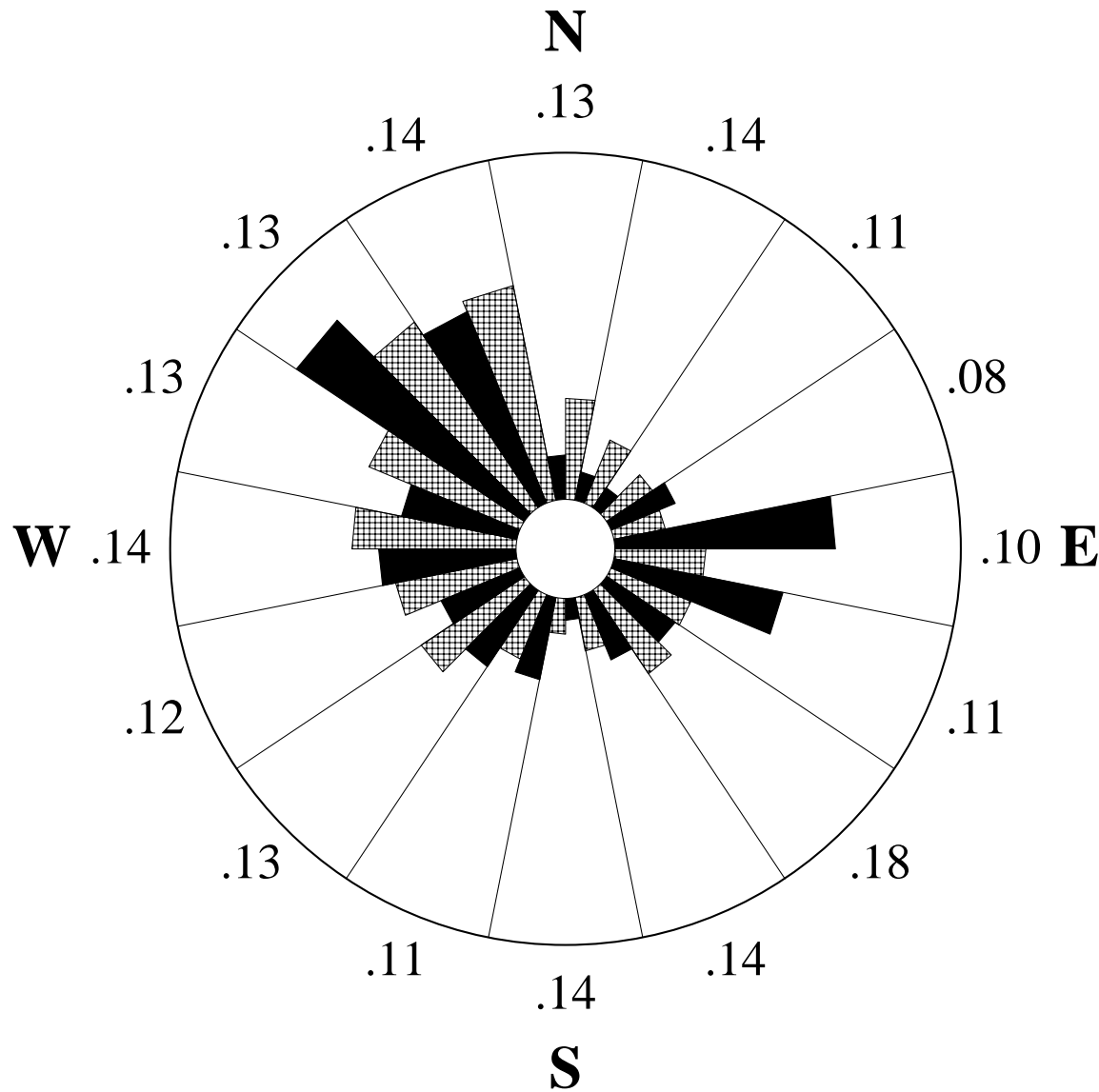
NRG #40 Anem. m/s  
 Height: 40 m  
 Serial #: SN:



**June 2004**

**Frequency Distribution, 40m, Ch 4**

SITE 1080  
 WCROC





<p><b>June 2004</b></p> <p><b>Wind Rose, 50m, Ch 1, 7</b></p> <p>SITE 1080</p> <p>WCROC</p>	
<p><b>Site Information:</b></p> <p>Project: Wind Hybrid Project</p> <p>Location: Morris, MN</p> <p>Elevation: 350 m</p>	
<p><b>Anemometer on channel 1:</b></p> <p>NRG #40 Anem. m/s</p> <p>Height: 50 m</p> <p>Serial #: SN:</p>	
<p><b>Vane on channel 7:</b></p> <p>#200P Wind Vane</p> <p>Height: 50 m</p> <p>Serial #: SN:</p>	
<p>Outer Numbers are Average TIs for speeds greater than 4.5 m/s</p> <p>Inner Circle = 0%</p> <p>Outer Circle = 20%</p>	
	Percent of Total Wind Energy
	Percent of Total Time

