

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

March 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 | 4461 | 4461 | 4461 | 4461 | 4461 | 4461 | 4461 | 4461 | 4461 | 4461 | | |
| Average Filtered Data | 7.5 | 7.84 | 7.05 | 7.49 | 6.86 | 7.02 | 295.89 | 298.94 | 2.21 | 979.1 | | |
| Average for All Data | 7.5 | 7.84 | 7.05 | 7.49 | 6.86 | 7.02 | 295.89 | 298.94 | 2.21 | 979.1 | | |
| Min Interval Average | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | | | -15.9 | 963.1 | | |
| Date of Min Interval | 3/2/2004 | 3/2/2004 | 3/2/2004 | 3/2/2004 | 3/2/2004 | 3/2/2004 | | | 3/11/2004 | 3/27/2004 | | |
| Time of Min Interval | 7:50:00 PM | 7:50:00 PM | 7:50:00 PM | 7:50:00 PM | 7:50:00 PM | 7:20:00 PM | | | 4:50:00 AM | 7:50:00 PM | | |
| Max Interval Average | 18.4 | 18.8 | 17.5 | 18.1 | 17 | 17.5 | | | 20.5 | 1002.3 | | |
| Date of Max Interval | 3/11/2004 | 3/11/2004 | 3/11/2004 | 3/11/2004 | 3/20/2004 | 3/20/2004 | | | 3/24/2004 | 3/21/2004 | | |
| Time of Max Interval | 4:50:00 AM | 4:50:00 AM | 4:50:00 AM | 4:50:00 AM | 9:30:00 AM | 9:30:00 AM | | | 3:30:00 PM | 2:20:00 AM | | |
| Average Interval SD | 0.91 | 0.87 | 0.91 | 0.88 | 0.9 | 0.89 | 6.11 | 6.19 | 0.04 | 0.01 | | |
| Min Sample | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | | | -15.9 | 963.5 | | |
| Date of Min Sample | 3/2/2004 | 3/2/2004 | 3/2/2004 | 3/2/2004 | 3/2/2004 | 3/1/2004 | | | 3/11/2004 | 3/27/2004 | | |
| Time of Min Sample | 7:10:00 PM | 7:40:00 PM | 6:40:00 PM | 7:40:00 PM | 7:40:00 PM | 10:30:00 AM | | | 4:40:00 AM | 7:00:00 PM | | |
| Max Sample | 25.2 | 24.8 | 24 | 24.8 | 24.4 | 24.4 | | | 20.8 | 1003.2 | | |
| Date of Max Sample | 3/10/2004 | 3/10/2004 | 3/10/2004 | 3/10/2004 | 3/10/2004 | 3/10/2004 | | | 3/24/2004 | 3/21/2004 | | |
| Time of Max Sample | 8:40:00 PM | 8:30:00 PM | 8:30:00 PM | 8:30:00 PM | 8:30:00 PM | 8:30:00 PM | | | 3:30:00 PM | 9:00:00 AM | | |
| Average Interval TI | 0.14 | 0.12 | 0.14 | 0.13 | 0.14 | 0.14 | | | | | | |
| Wind Speed Direction | | | | | | | NW | NW | | | | |

Site Information:

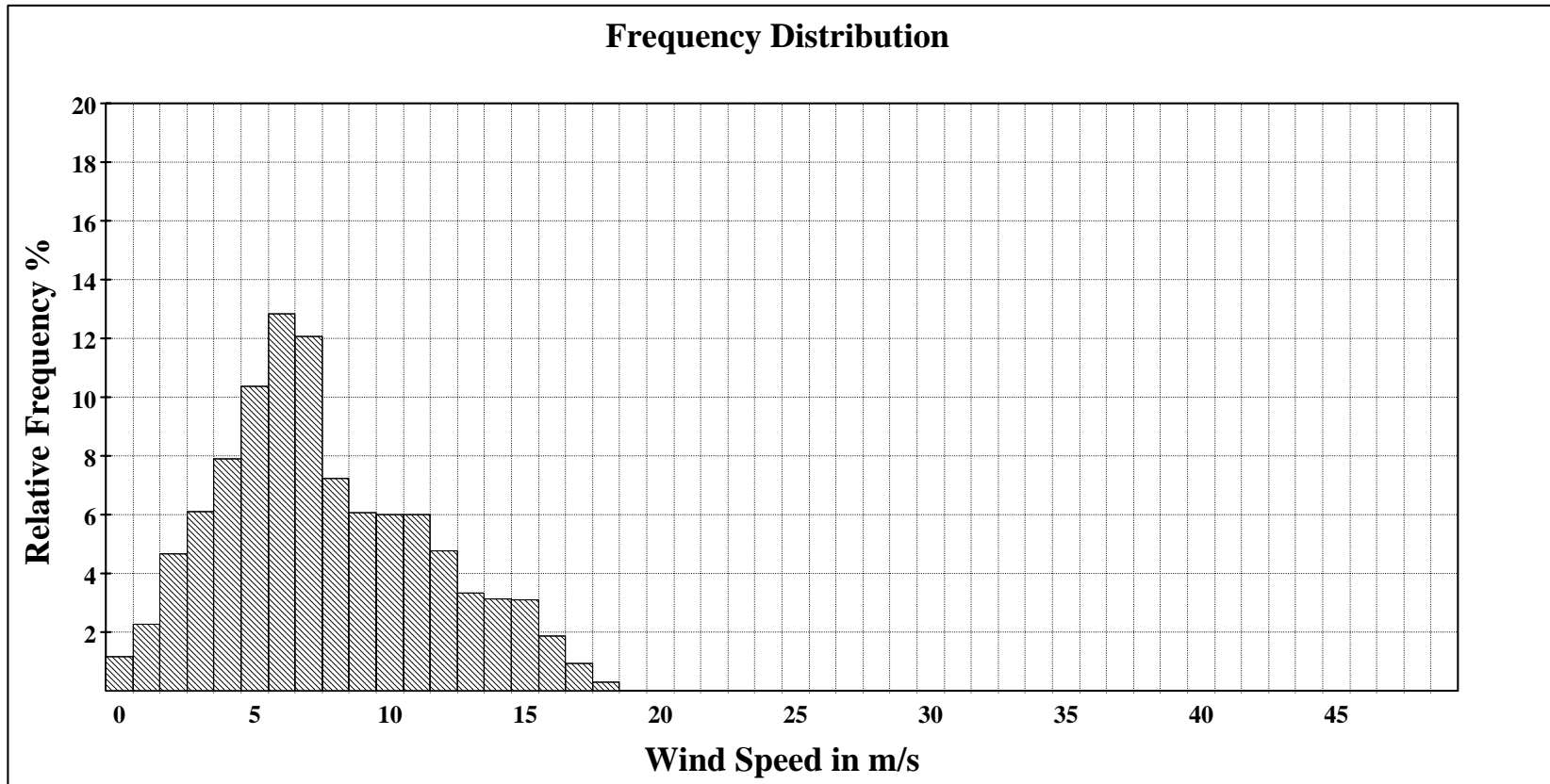
Project: Wind Hybrid Project
 Location: Morris, MN
 Elevation: 350 m

Sensor on channel 1:

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

March 2004

Frequency Distribution, 50 m, Ch 1
 SITE 1080
 WCROC



Site Information:

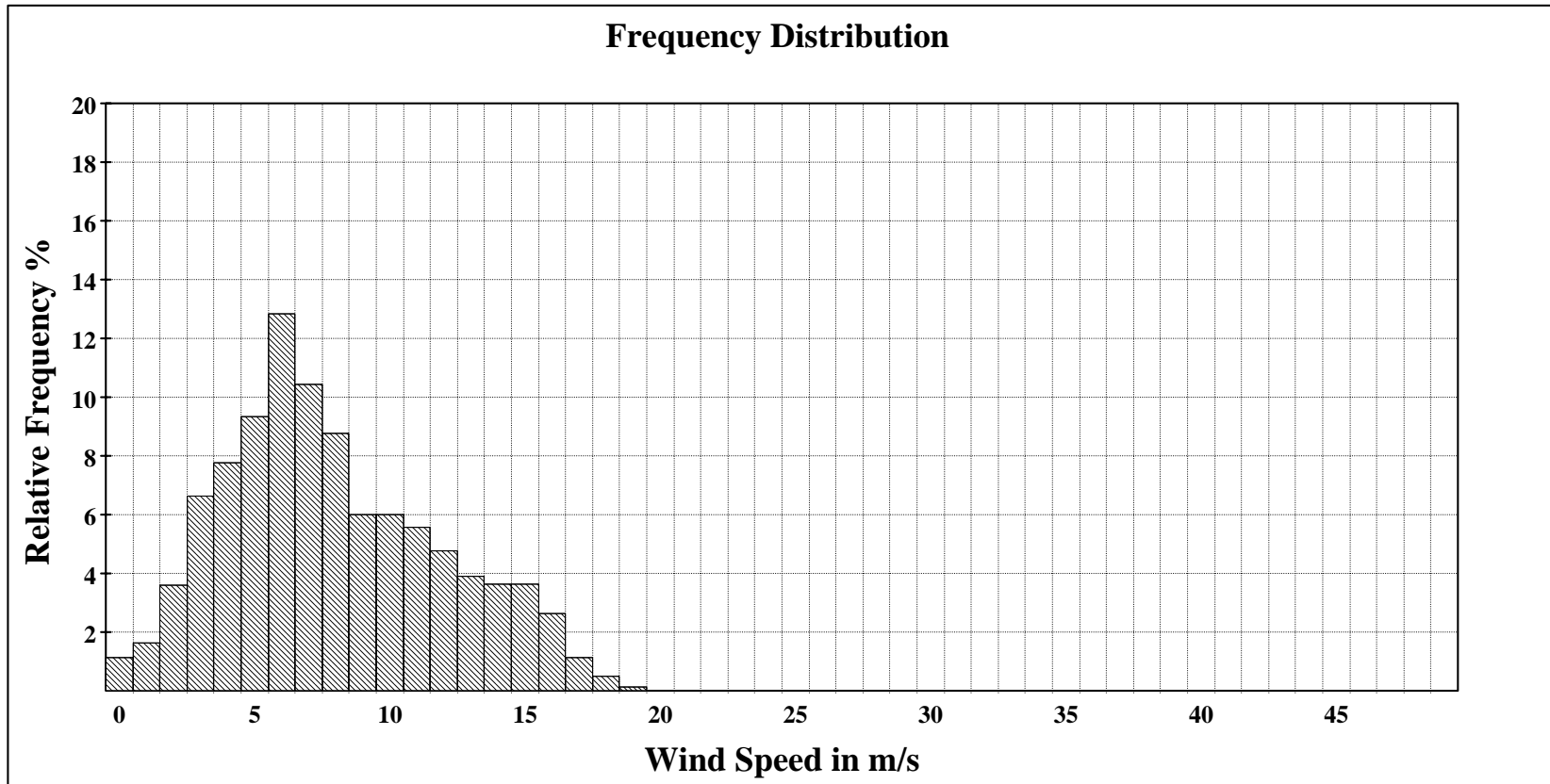
Project: Wind Hybrid Project
 Location: Morris, MN
 Elevation: 350 m

Sensor on channel 2:

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

March 2004

Frequency Distribution, 50m, Ch 2
 SITE 1080
 WCROC



Site Information:

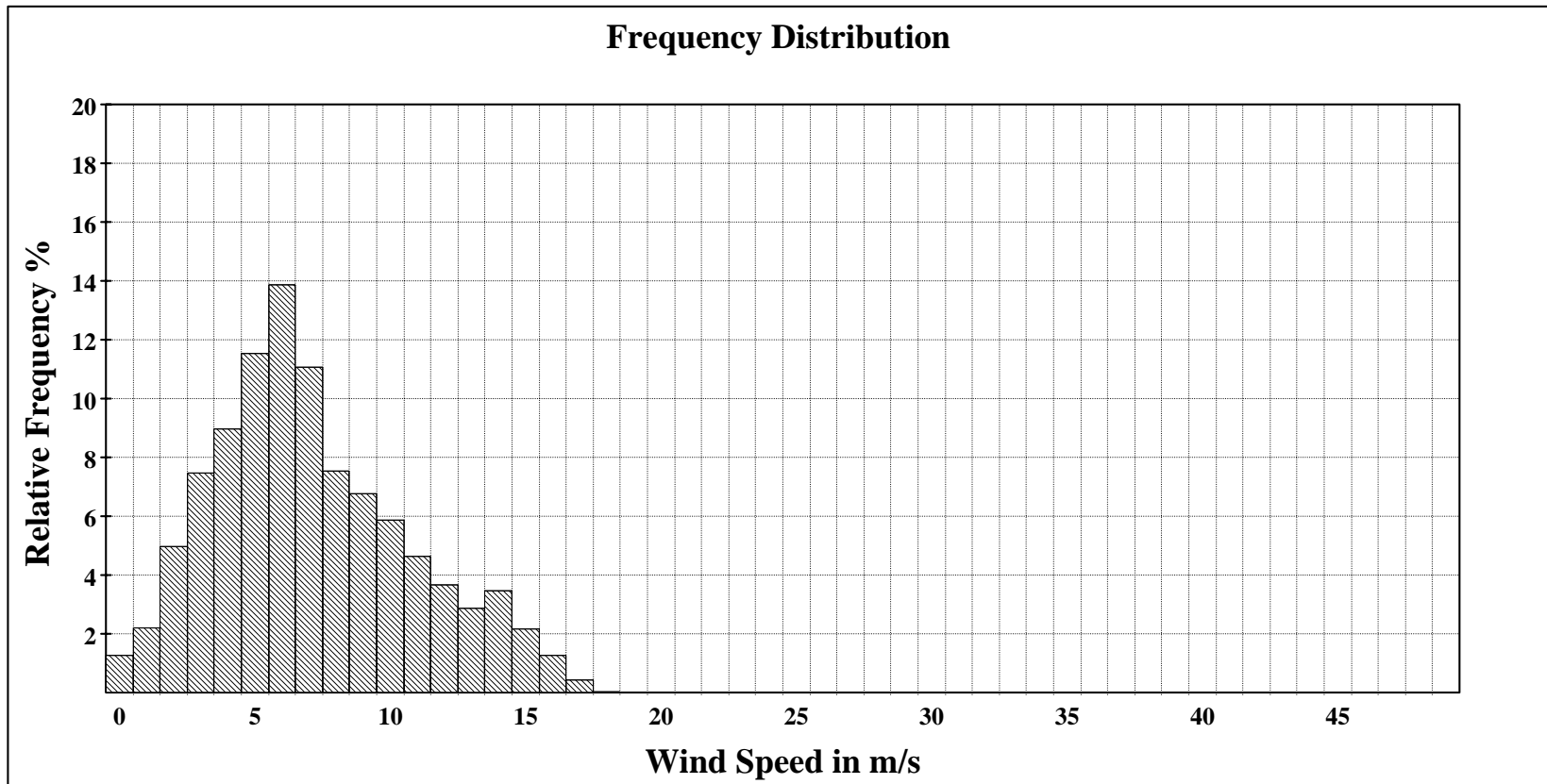
Project: Wind Hybrid Project
Location: Morris, MN
Elevation: 350 m

Sensor on channel 3:

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

March 2004

Frequency Distribution, 40m, Ch 3
SITE 1080
WCROC



Site Information:

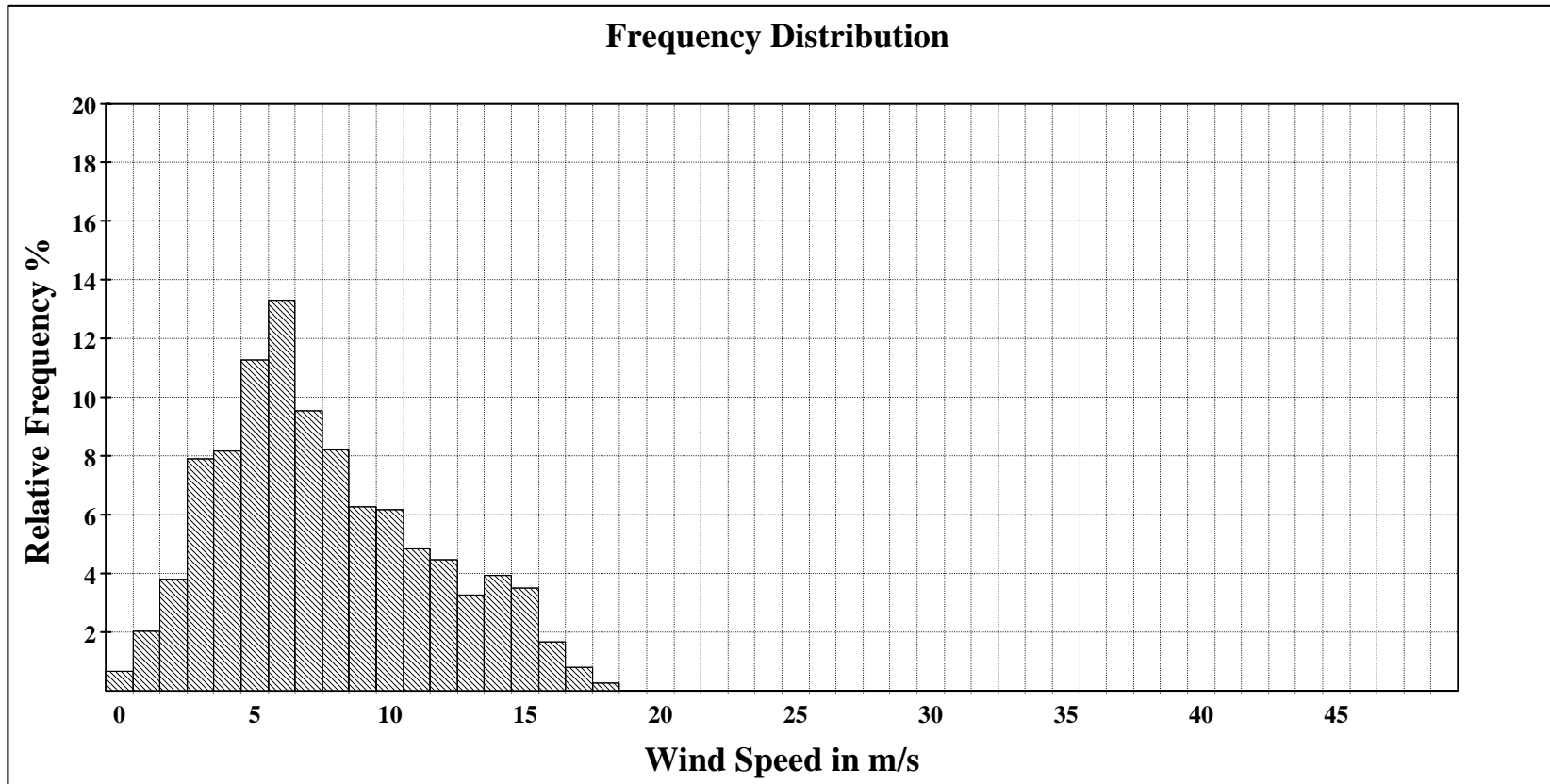
Project: Wind Hybrid Project
 Location: Morris, MN
 Elevation: 350 m

Sensor on channel 4:

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

March 2004

Frequency Distribution, 40m, Ch 4
 SITE 1080
 WCROC



Site Information:

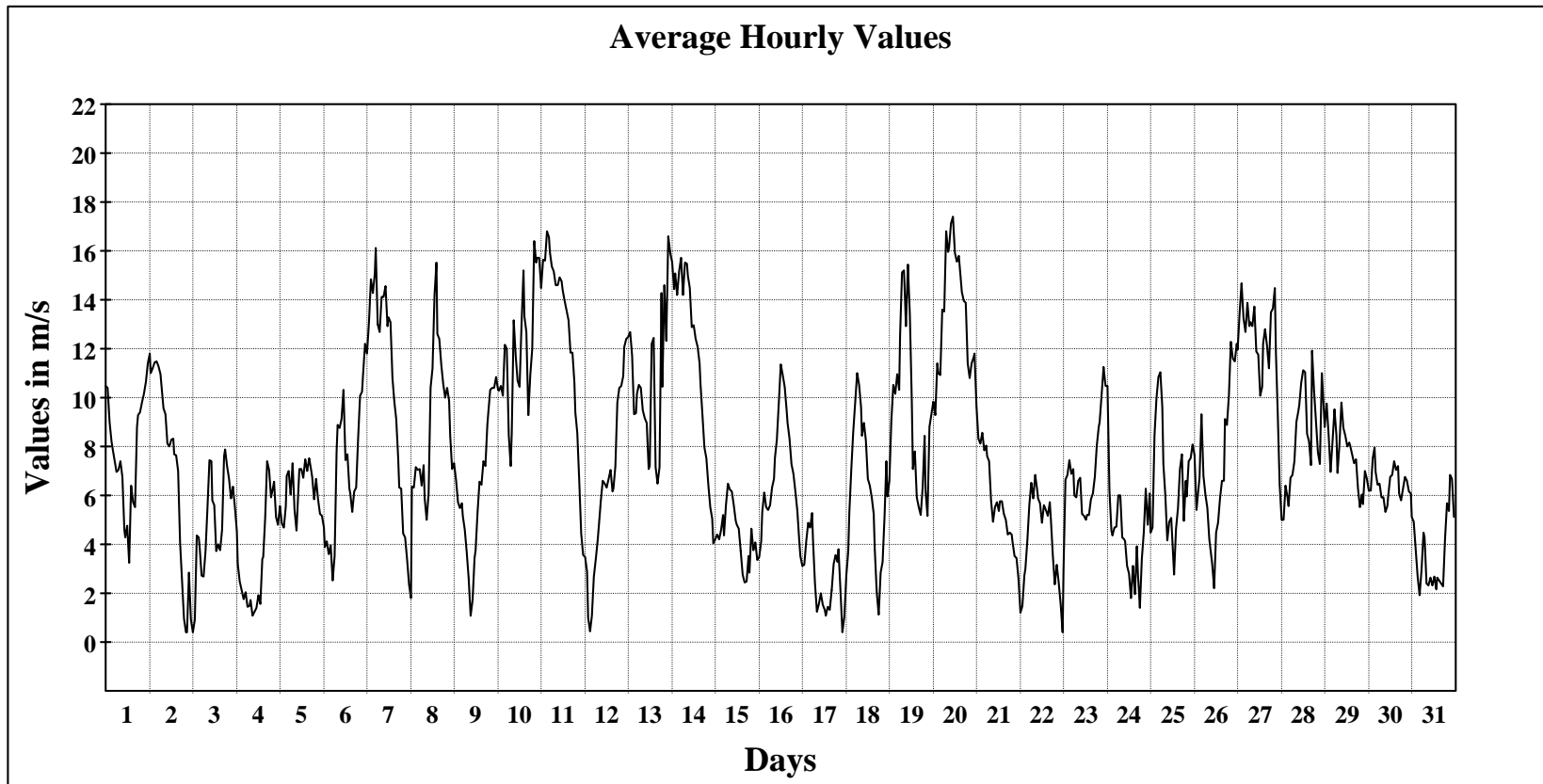
Project: Wind Hybrid Project
Location: Morris, MN
Elevation: 350 m

Sensor on channel 1:

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

March 2004

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



Average Value: 7.5

Site Information:

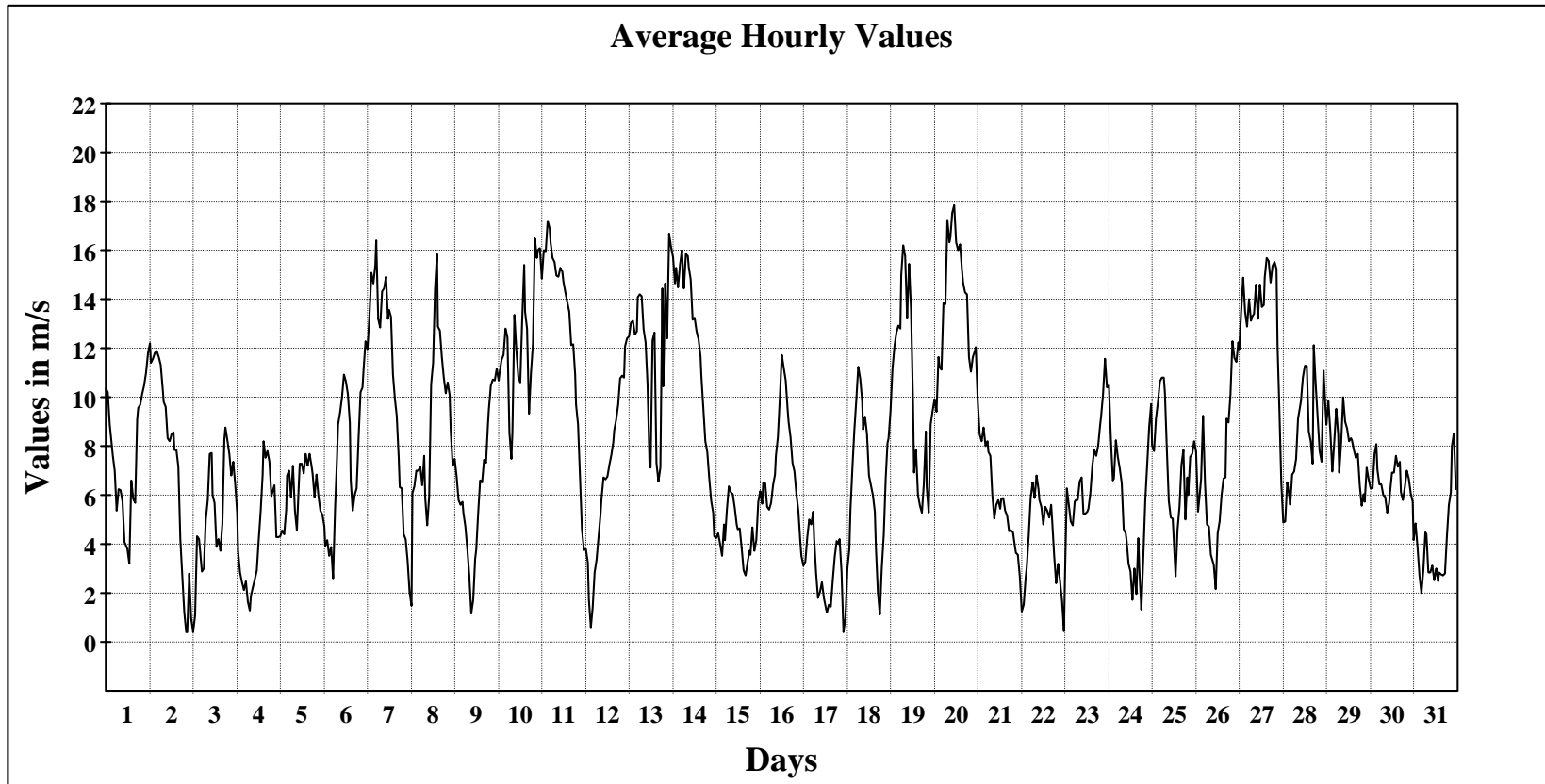
Project: Wind Hybrid Project
Location: Morris, MN
Elevation: 350 m

Sensor on channel 2:

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

March 2004

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



Average Value: 7.8

Site Information:

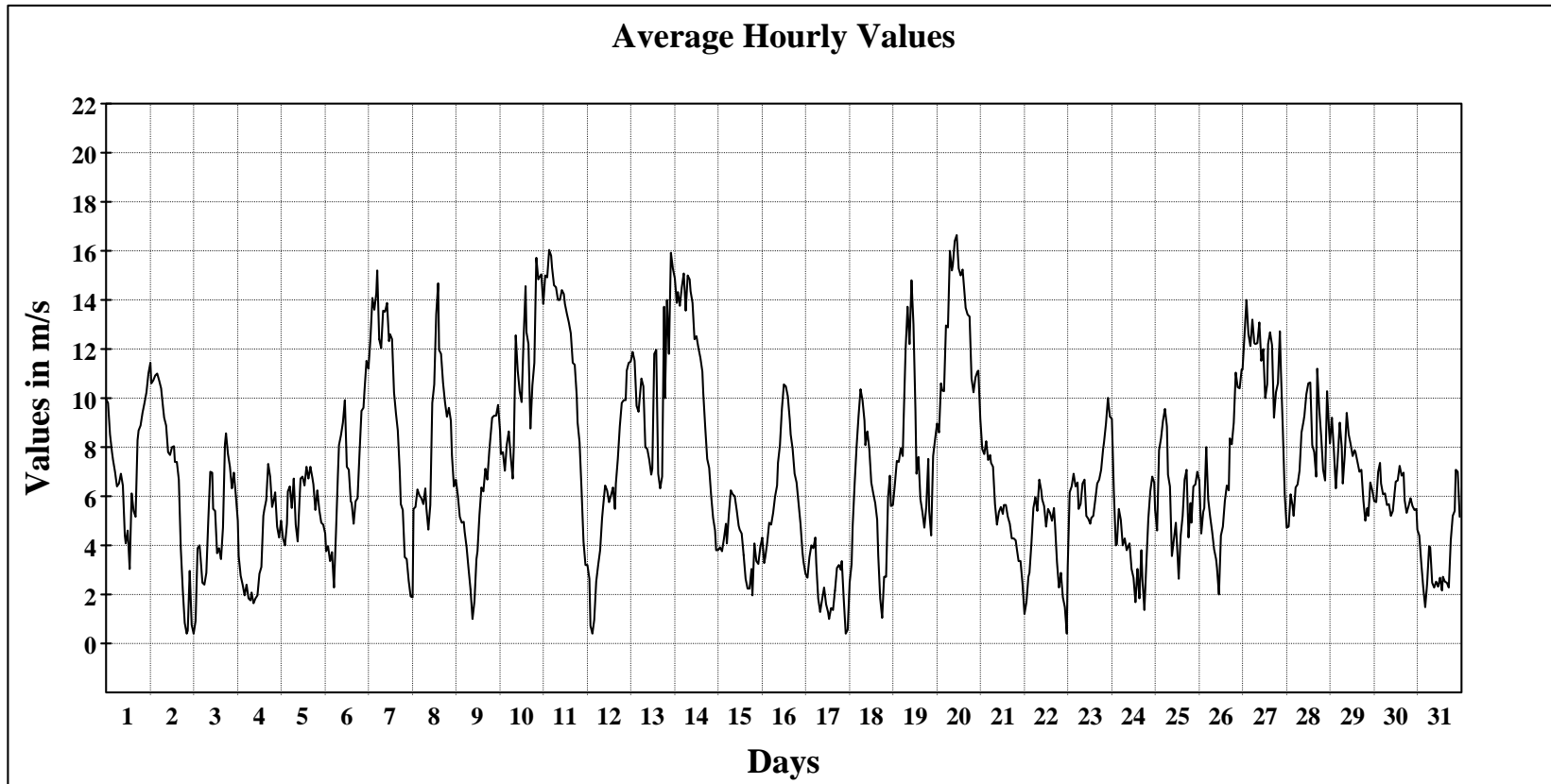
Project: Wind Hybrid Project
Location: Morris, MN
Elevation: 350 m

Sensor on channel 3:

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

March 2004

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



Average Value: 7.1

Site Information:

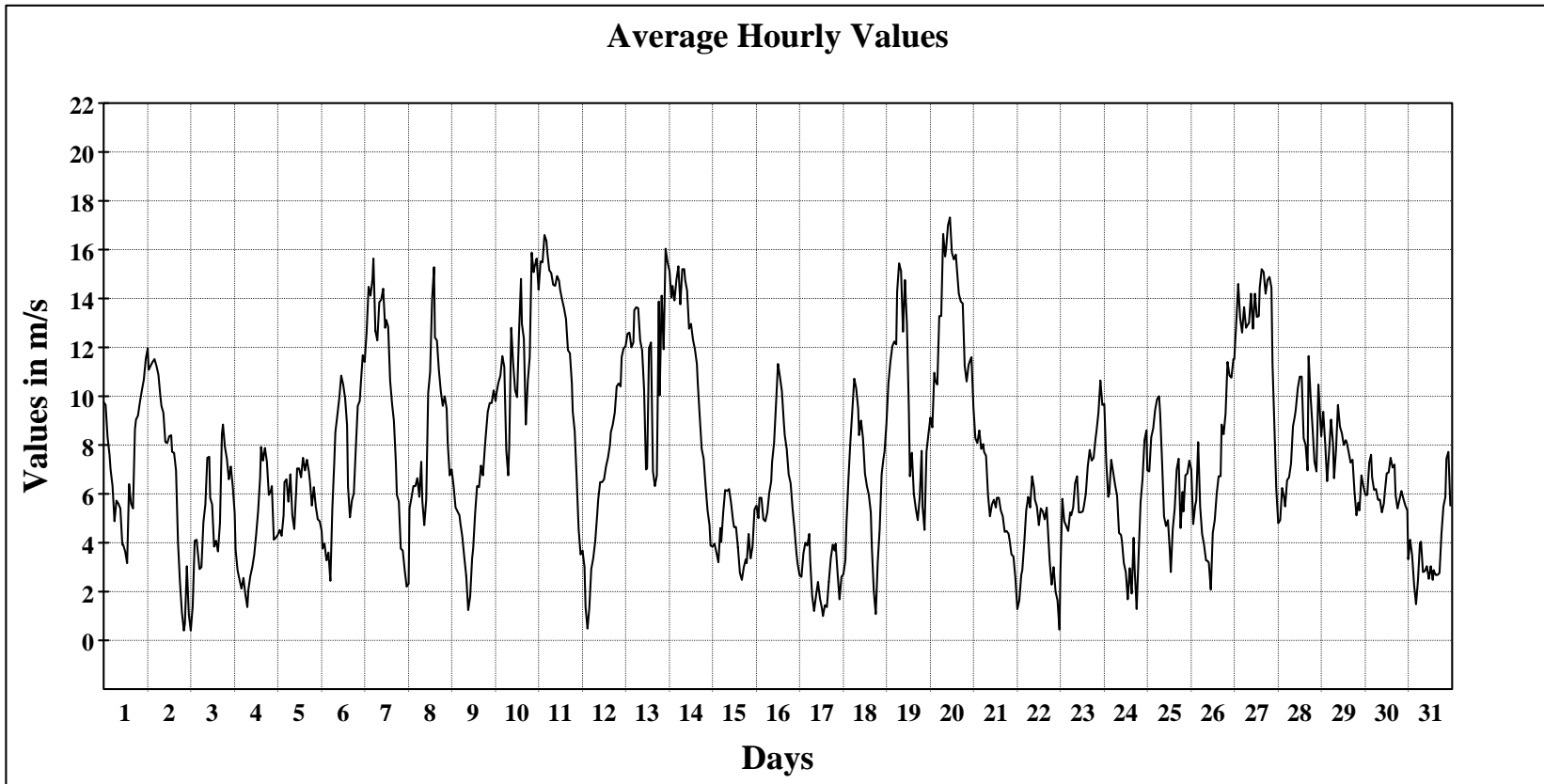
Project: Wind Hybrid Project
 Location: Morris, MN
 Elevation: 350 m

Sensor on channel 4:

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

March 2004

Hourly Averages Graph, 40m, Ch 4
 SITE 1080
 WCROC



Average Value: 7.5

Site Information:

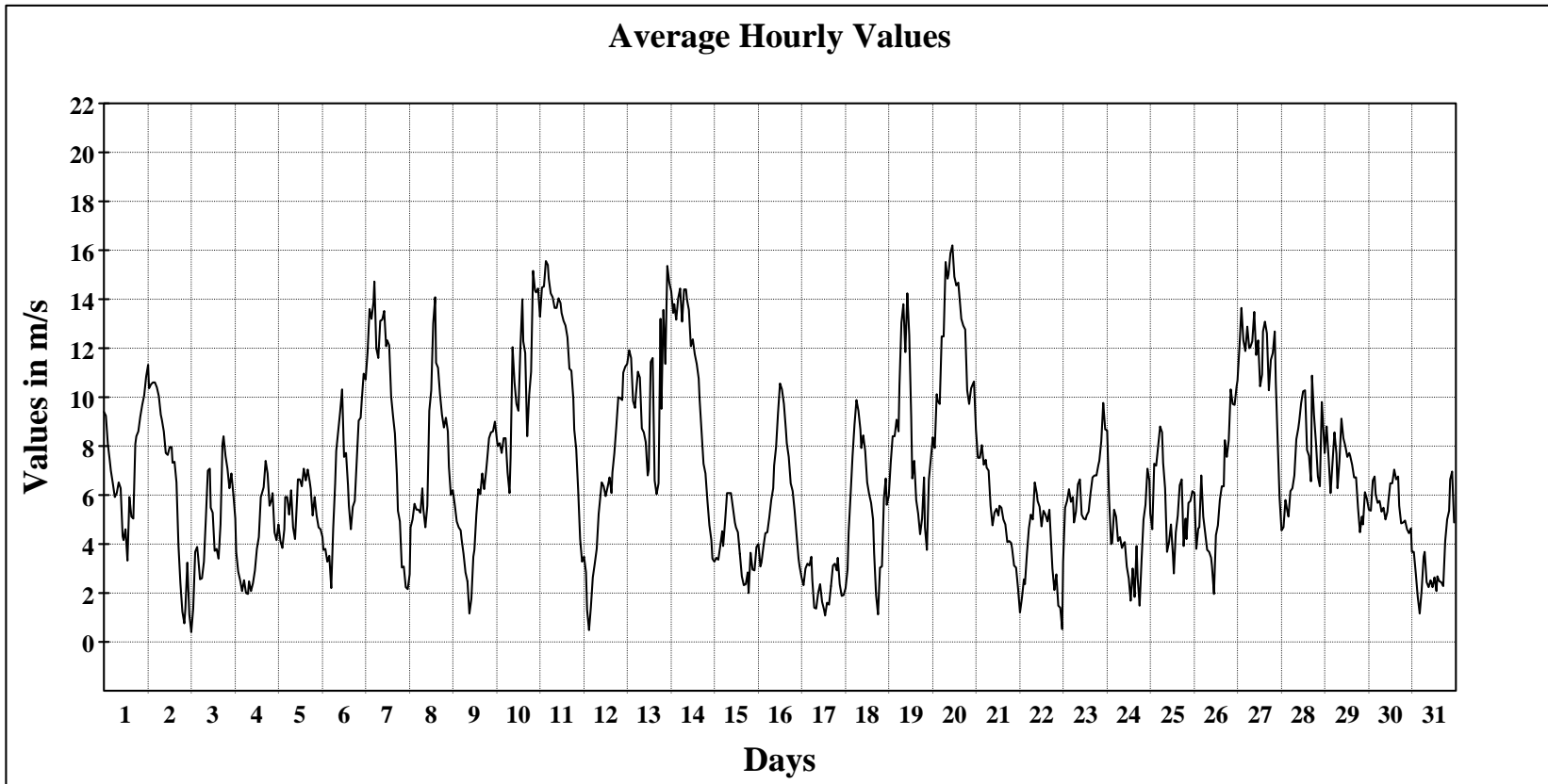
Project: Wind Hybrid Project
 Location: Morris, MN
 Elevation: 350 m

Sensor on channel 5:

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

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



Average Value: 6.9

Site Information:

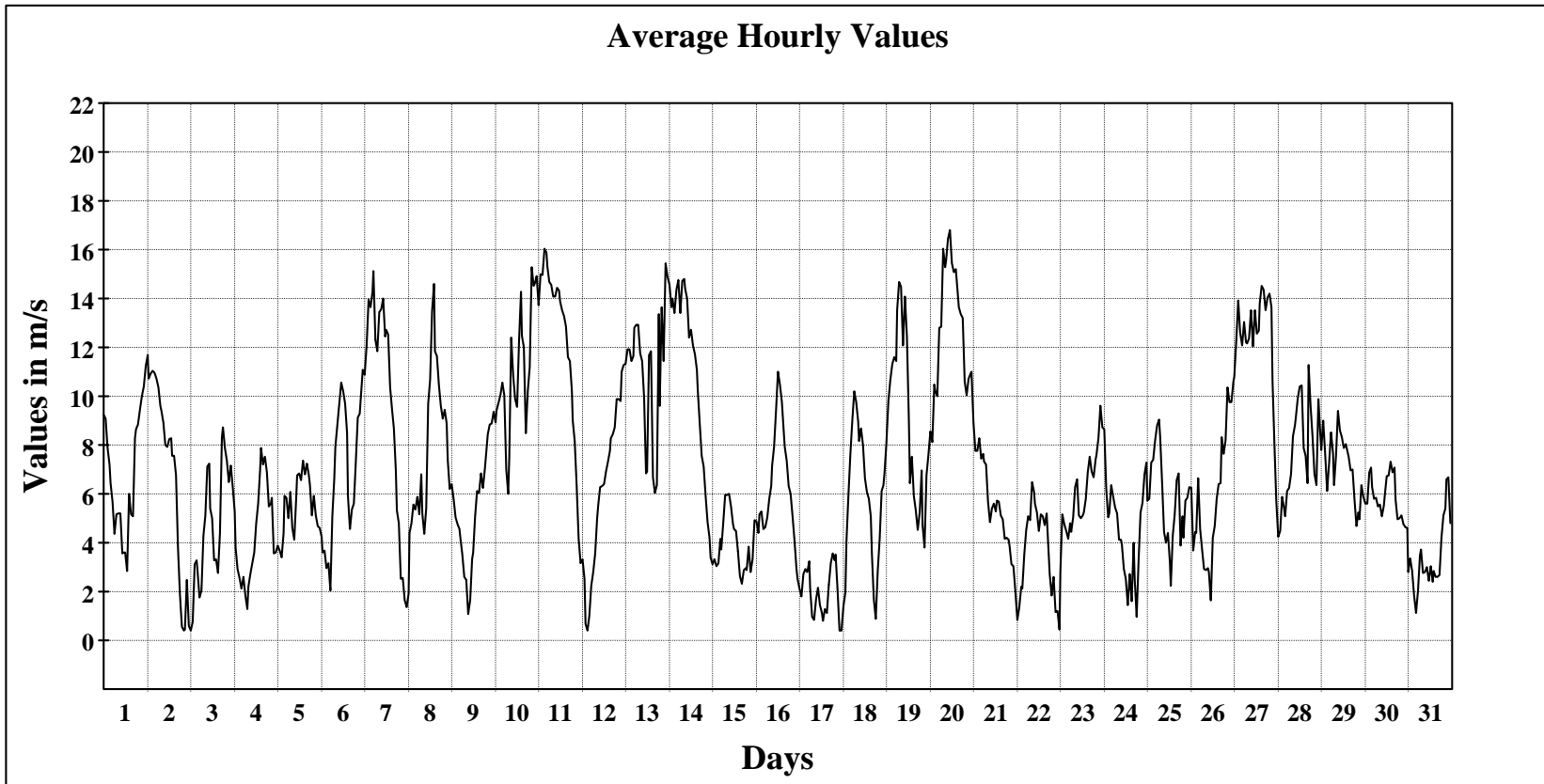
Project: Wind Hybrid Project
 Location: Morris, MN
 Elevation: 350 m

Sensor on channel 6:

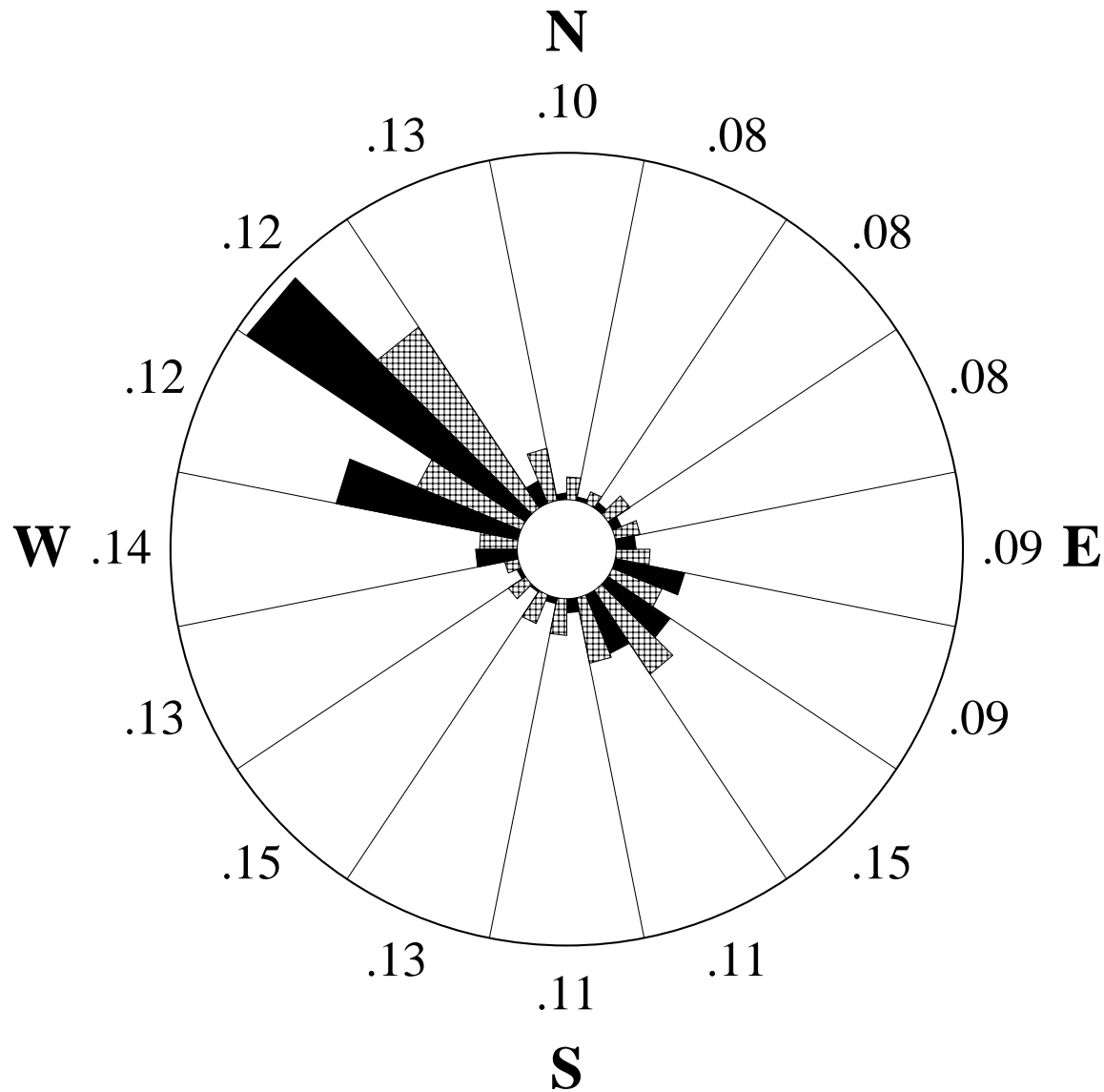
NRG #40 Anem. m/s
 Height: 30 m
 Serial #: SN:



March 2004

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



Average Value: 7.0



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

