

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

December 2003

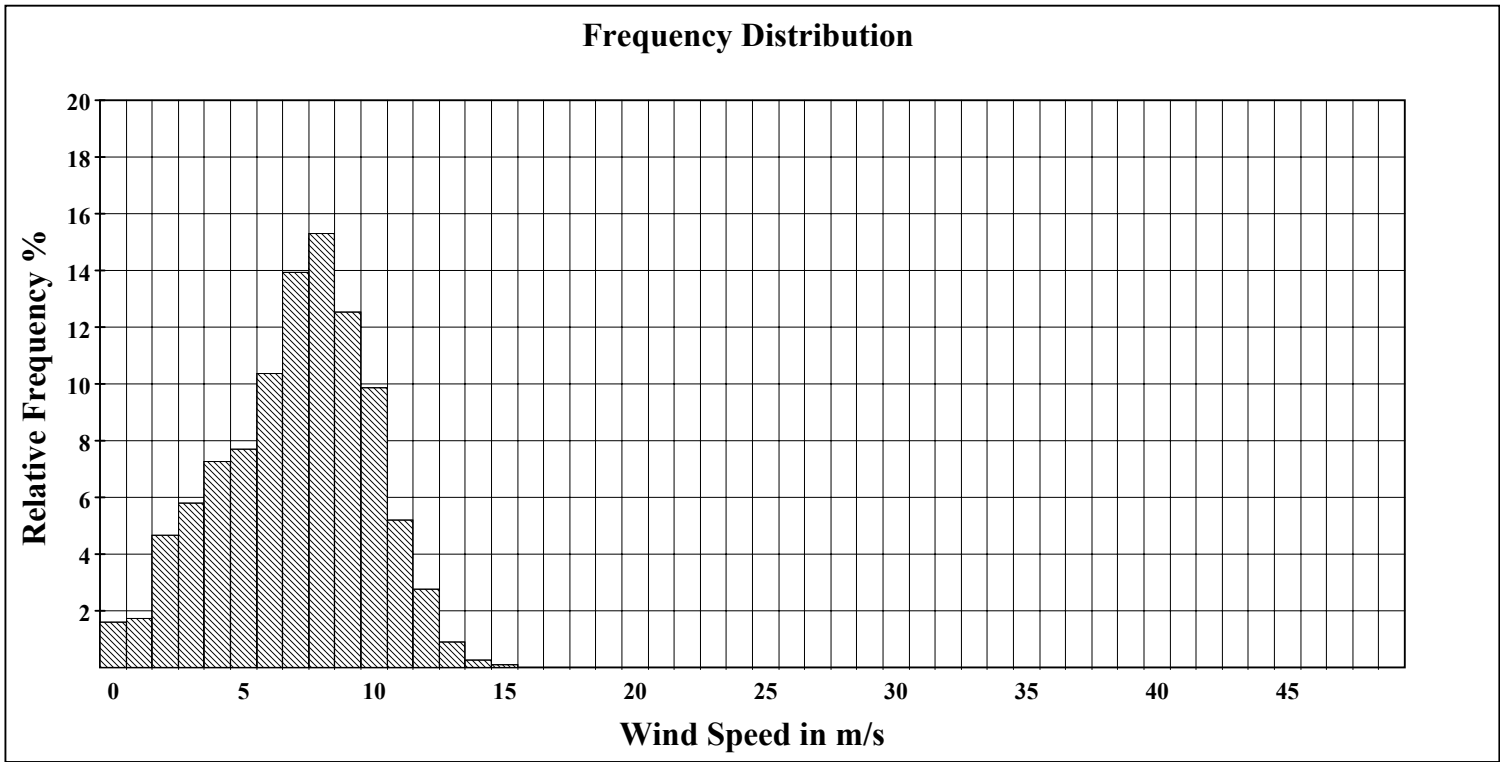
Summary Report
 SITE 1080
 WCROC

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	4417	4404	4464	4372	4464	4464	4464	4464	4464	4464		
Average Filtered Data	7	7.59	6.56	7.24	6.42	6.76	203.76	205.63	-4.41	978.03		
Average for All Data	6.93	7.49	6.56	7.1	6.42	6.76	203.76	205.63	-4.41	978.03		
Min Interval Average	0.4	0.4	0.4	0.4	0.4	0.4			-21.8	959.1		
Date of Min Interval	12/6/2003	12/6/2003	12/6/2003	12/6/2003	12/6/2003	12/6/2003			12/11/2003	12/28/2003		
Time of Min Interval	12:40:00 AM	12:40:00 AM	12:30:00 AM	12:40:00 AM	12:40:00 AM	12:30:00 AM			7:30:00 AM	5:20:00 AM		
Max Interval Average	15.4	15.9	14.7	15.4	14.8	14.6			8.9	995.4		
Date of Max Interval	12/19/2003	12/27/2003	12/19/2003	12/27/2003	12/27/2003	12/27/2003			12/27/2003	12/1/2003		
Time of Max Interval	12:20:00 AM	8:30:00 AM	12:20:00 AM	8:30:00 AM	9:30:00 AM	8:30:00 AM			2:40:00 PM	3:10:00 PM		
Average Interval SD	0.85	0.73	0.84	0.73	0.81	0.76	4.53	5.25	0.07	0.01		
Min Sample	0.4	0.4	0.4	0.4	0.4	0.4			-22.3	958.5		
Date of Min Sample	12/6/2003	12/6/2003	12/6/2003	12/6/2003	12/6/2003	12/6/2003			12/11/2003	12/28/2003		
Time of Min Sample	12:20:00 AM	12:20:00 AM	12:20:00 AM	12:30:00 AM	12:20:00 AM	12:00:00 AM			7:20:00 AM	12:40:00 AM		
Max Sample	20.2	20.6	18.7	19.9	19.1	19.5			9.3	995.6		
Date of Max Sample	12/19/2003	12/19/2003	12/27/2003	12/19/2003	12/19/2003	12/19/2003			12/27/2003	12/5/2003		
Time of Max Sample	12:10:00 AM	12:10:00 AM	9:30:00 AM	12:20:00 AM	12:20:00 AM	12:20:00 AM			3:00:00 PM	4:10:00 PM		
Average Interval TI	0.13	0.1	0.14	0.11	0.13	0.12						
Wind Speed Direction							SE	SE				

Site Information:
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Sensor on channel 1:
 NRG #40 Anem. m/s
 Height: 50 m
 Serial #: SN:

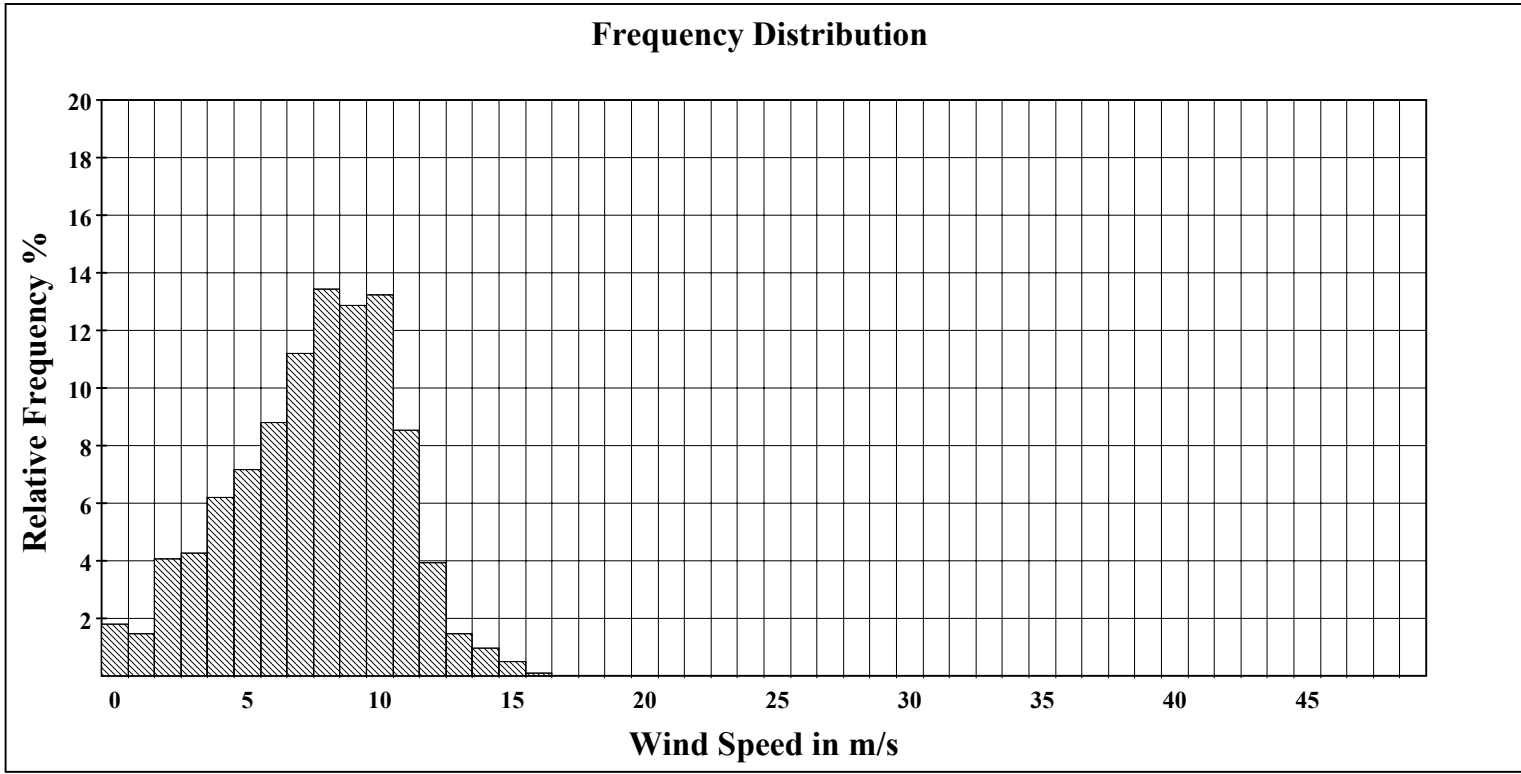
December 2003
Frequency Distribution, 50 m, Ch 1
 SITE 1080
 WCROC



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:

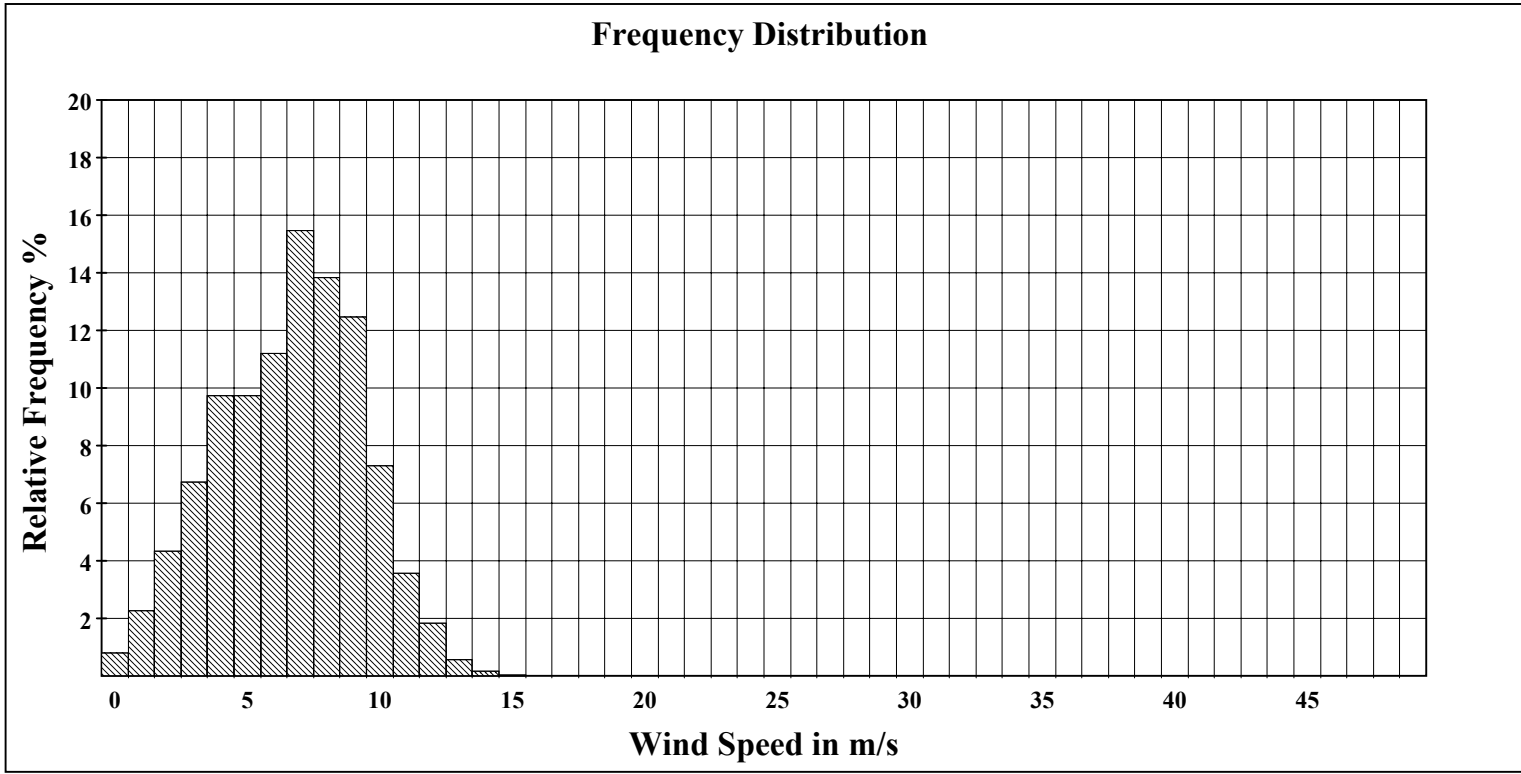
December 2003
Frequency Distribution, 50m, Ch 2
 SITE 1080
 WCROC



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:

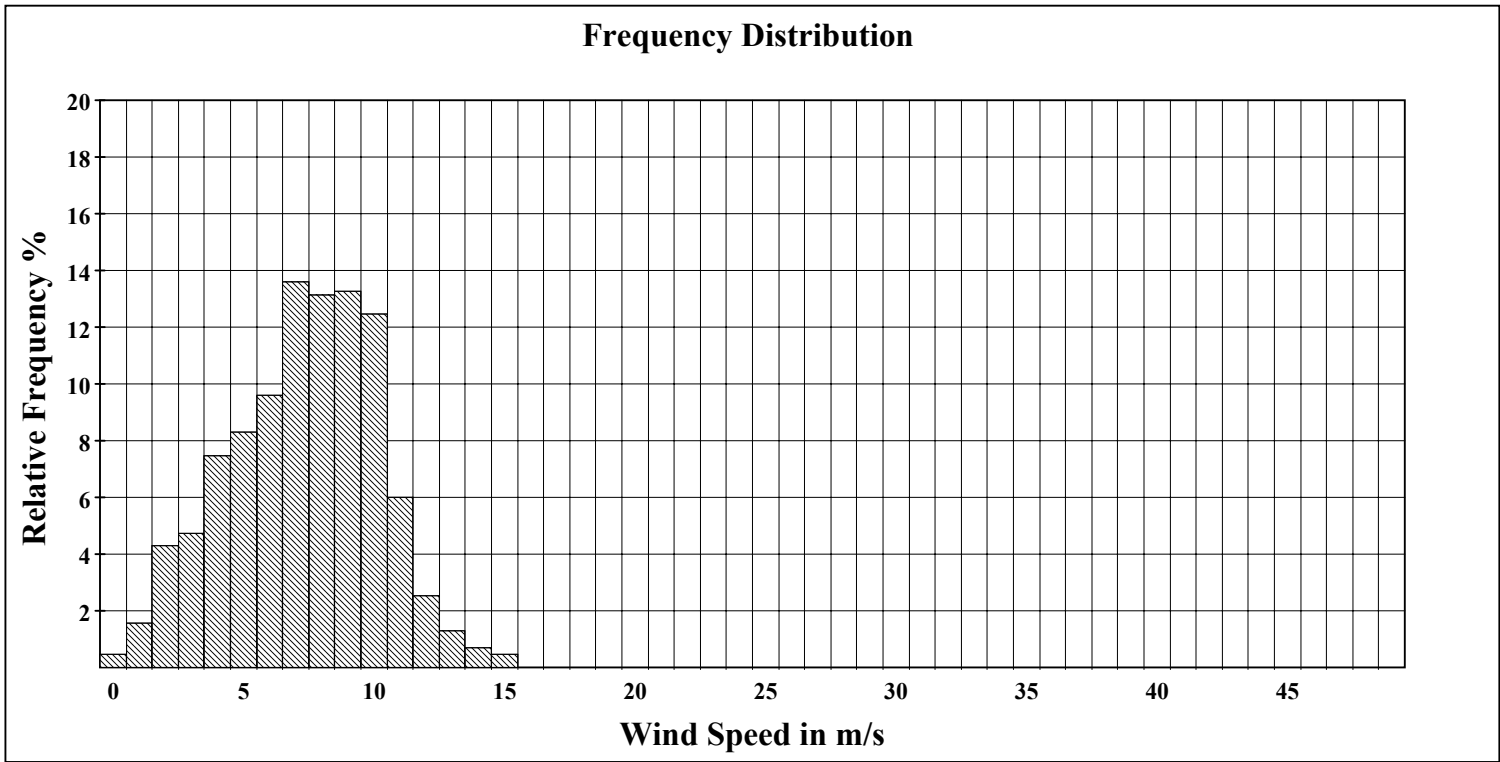
December 2003
Frequency Distribution, 40m, Ch 3
 SITE 1080
 WCROC



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:

December 2003
Frequency Distribution, 40m, Ch 4
 SITE 1080
 WCROC



Site Information:

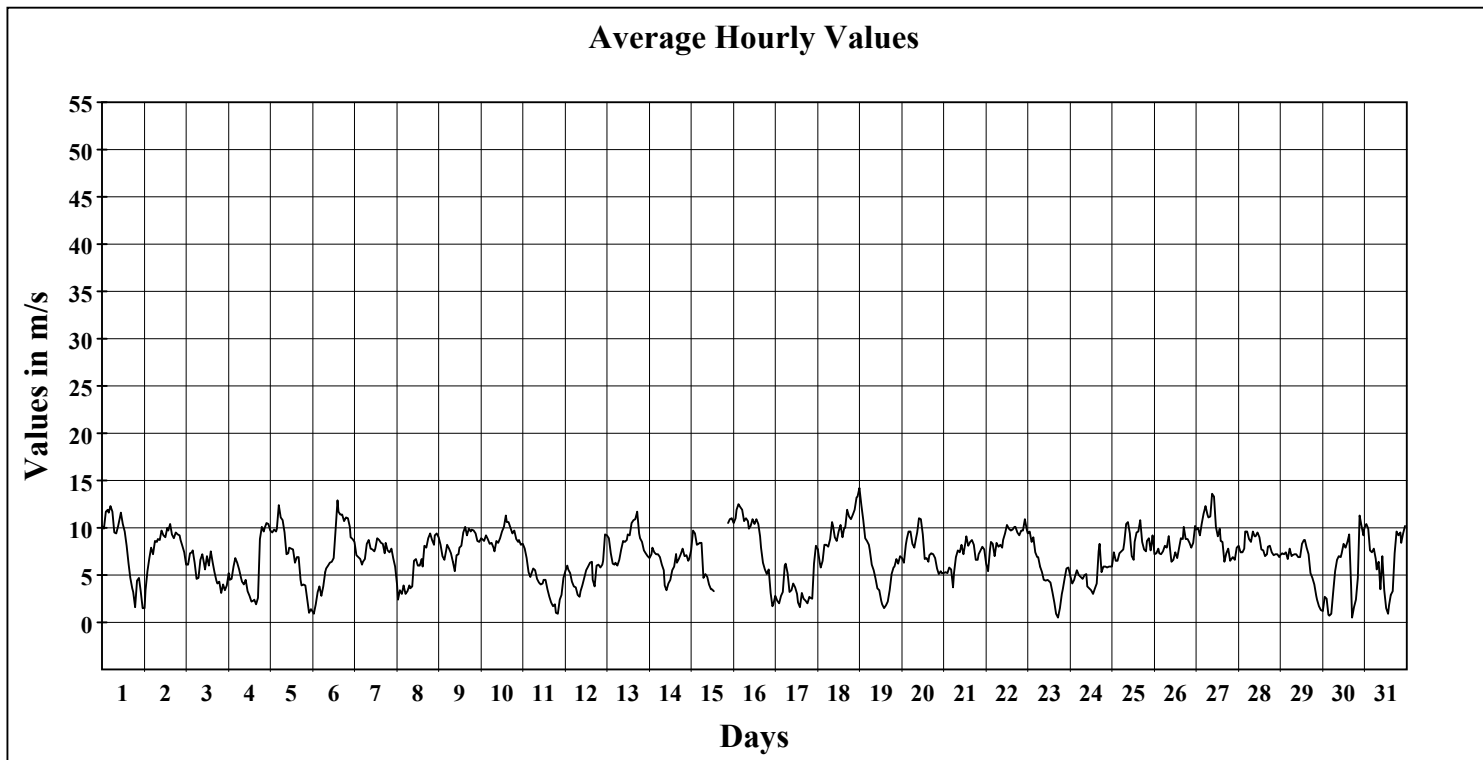
Project: Wind Hybrid Project
Location: Morris, MN
Elevation: 350 m

Sensor on channel 1:

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

December 2003

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



Average Value: 7.0

Site Information:

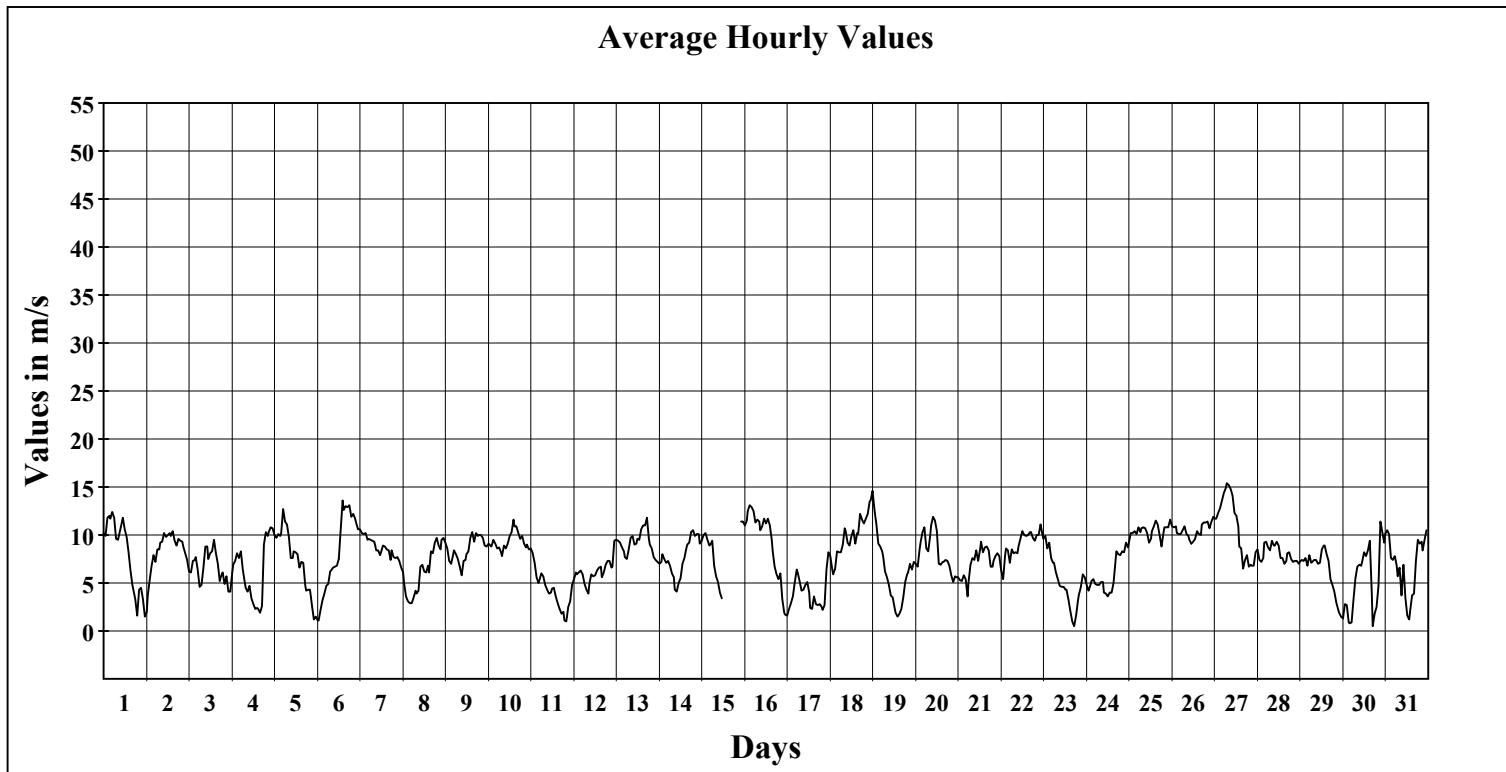
Project: Wind Hybrid Project
Location: Morris, MN
Elevation: 350 m

Sensor on channel 2:

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

December 2003

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

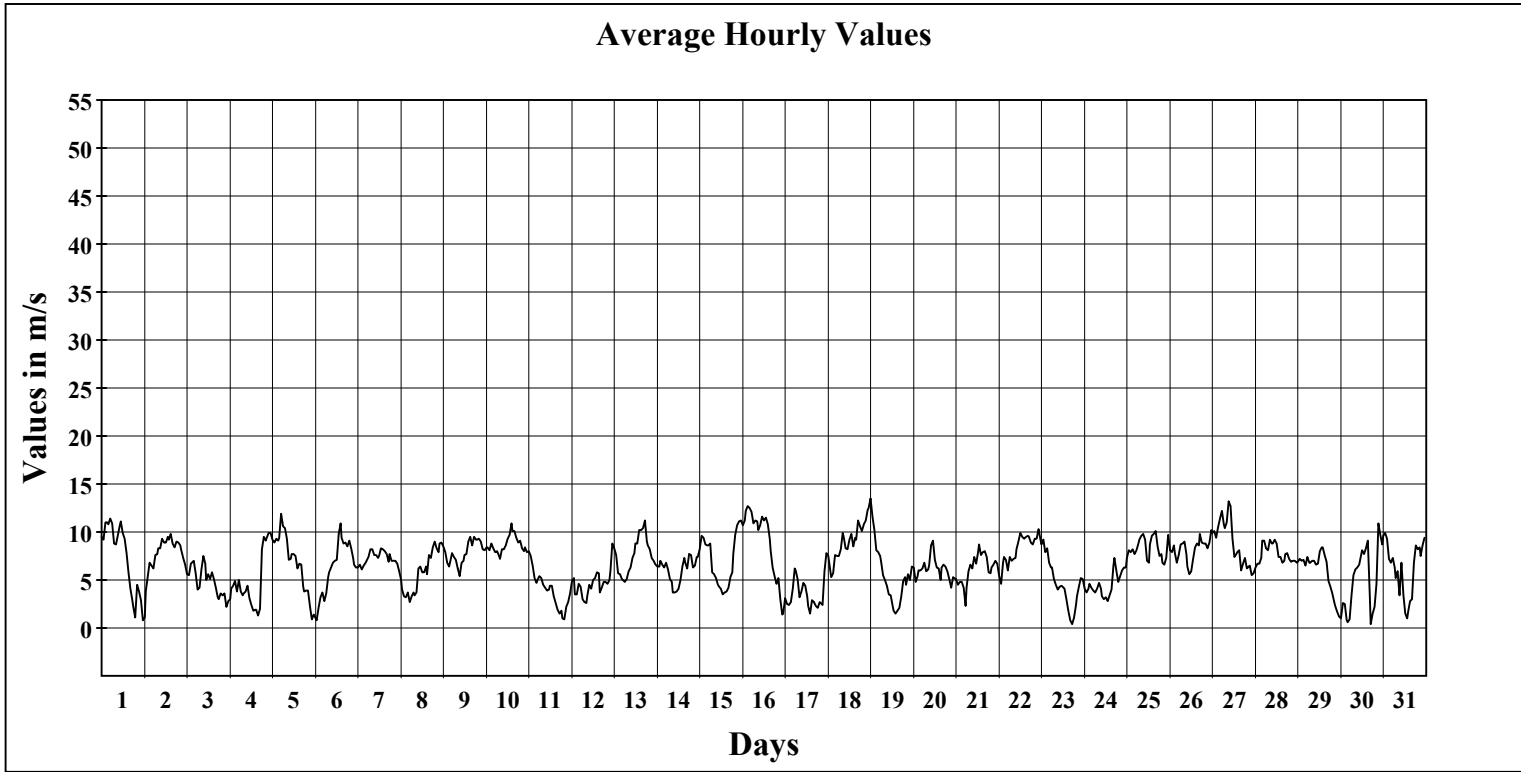


Average Value: 7.6

Site Information:
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 Location: Morris, MN
 Elevation: 350 m

Sensor on channel 3:
 NRG #40 Anem. m/s
 Height: 40 m
 Serial #: SN:

December 2003
Hourly Averages Graph, 40m, Ch 3
 SITE 1080
 WCROC

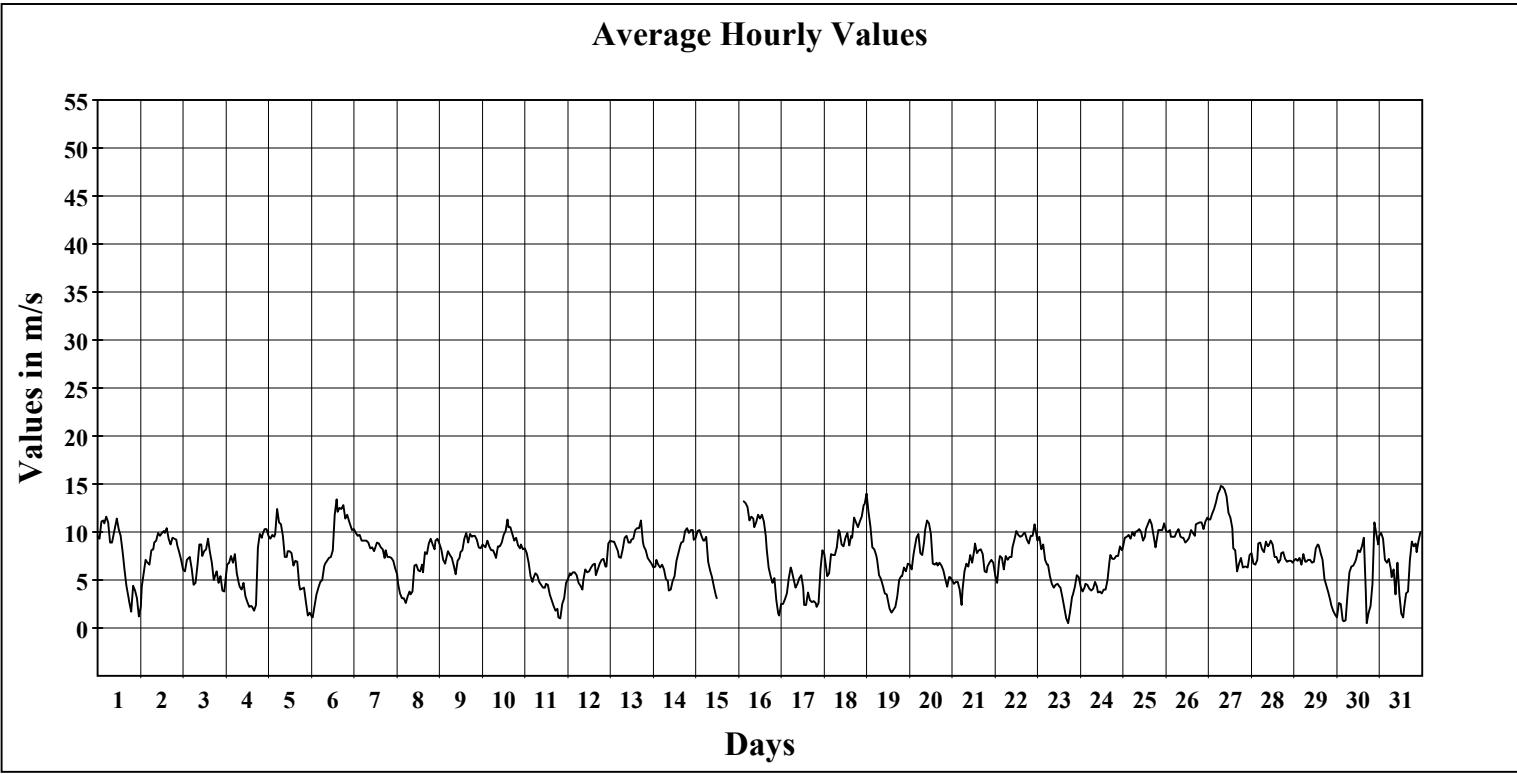


Average Value: 6.6

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:

December 2003
Hourly Averages Graph, 40m, Ch 4
 SITE 1080
 WCROC

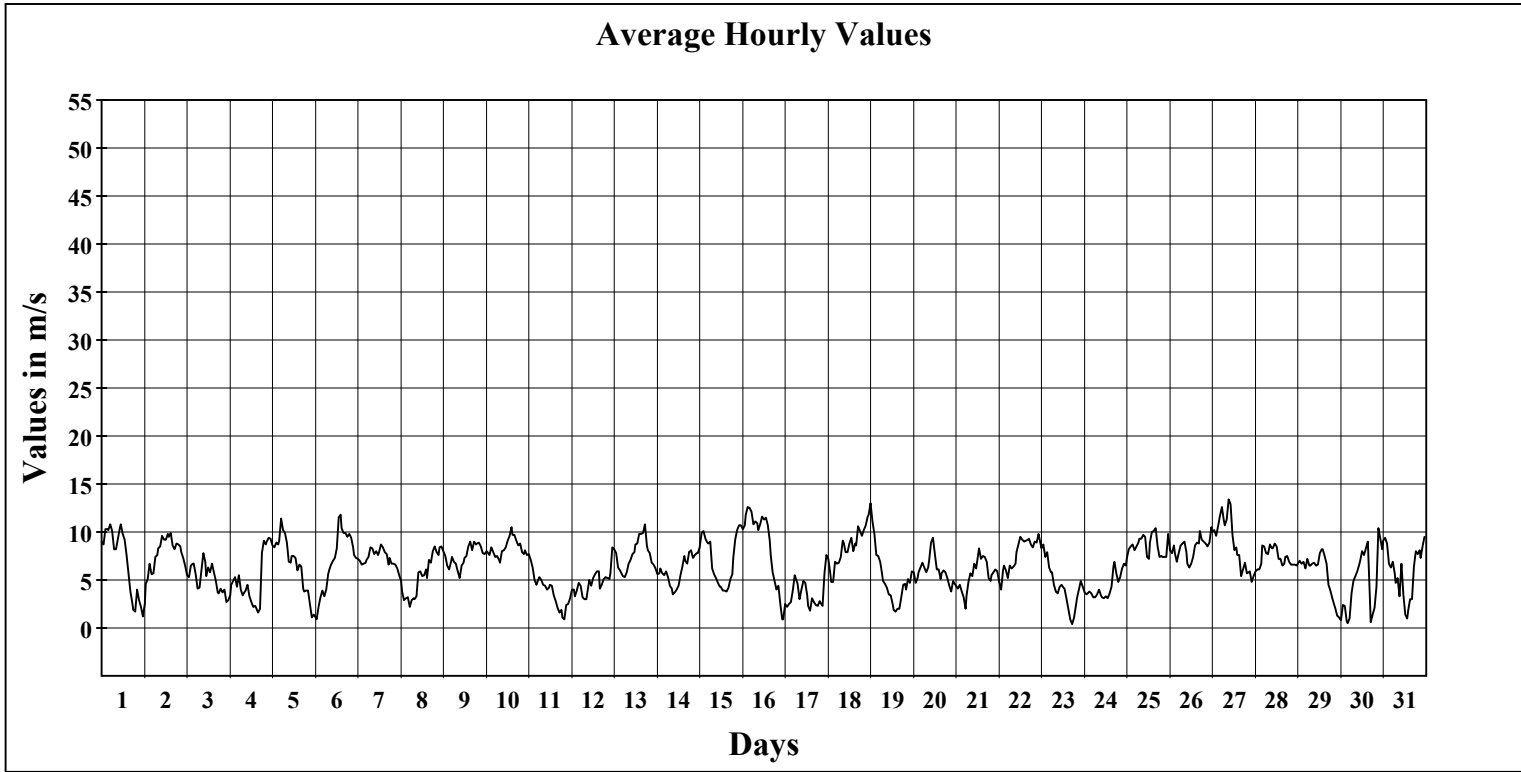


Average Value: 7.2

Site Information:
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Sensor on channel 5:
 NRG #40 Anem. m/s
 Height: 30 m
 Serial #: SN:

December 2003
Hourly Averages Graph, 30m, Ch 5
 SITE 1080
 WCROC

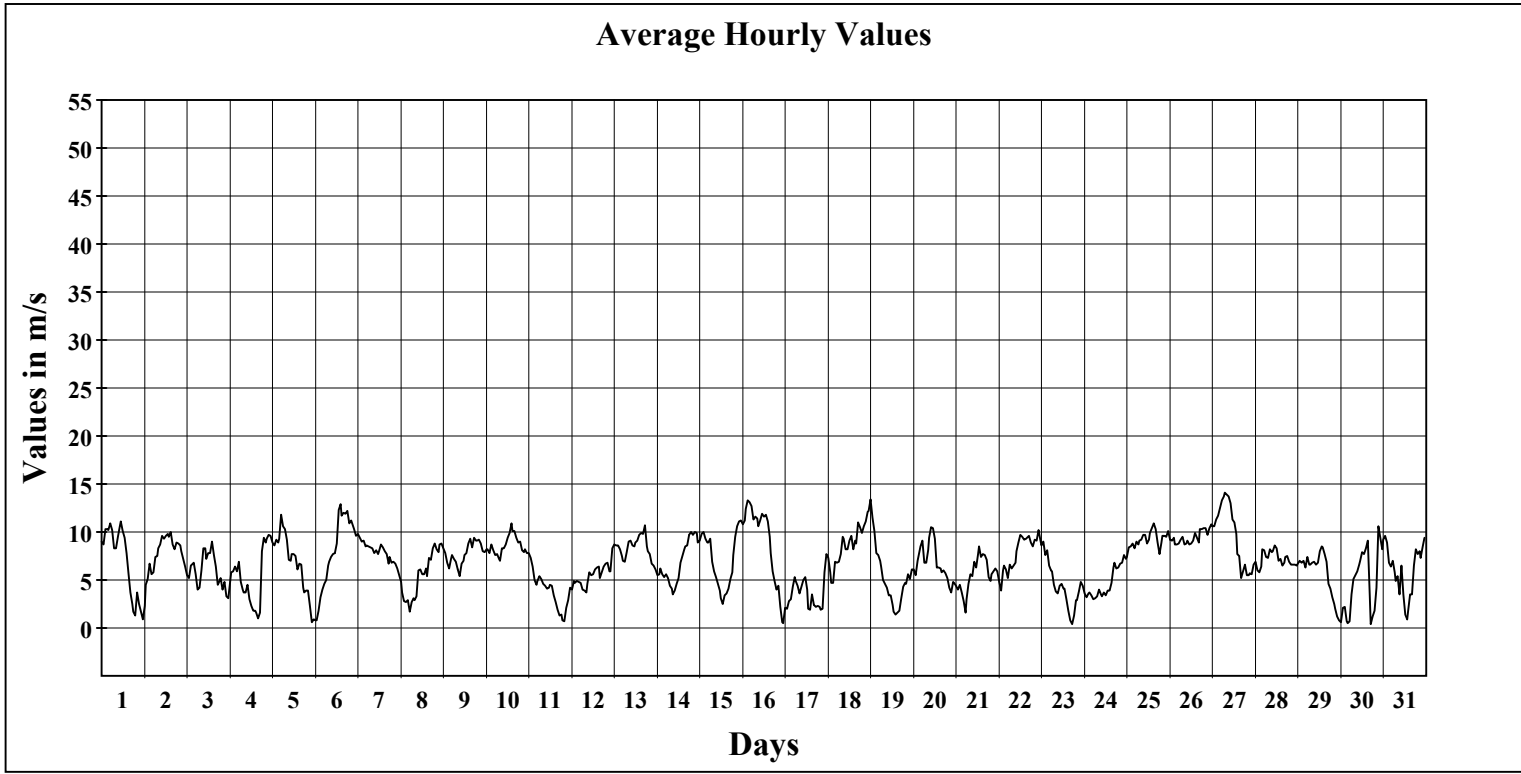


Average Value: 6.4

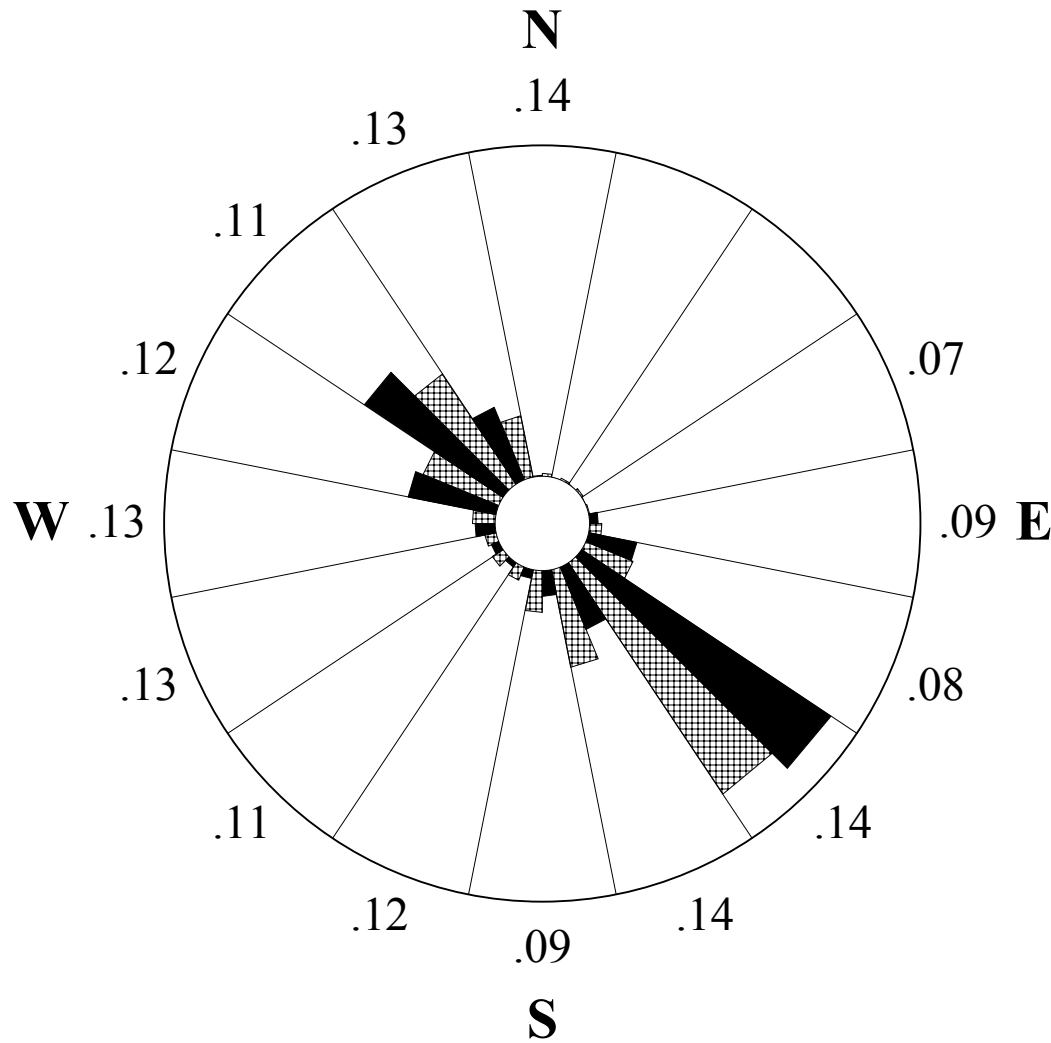
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
Sensor on channel 6:
 NRG #40 Anem. m/s
 Height: 30 m
 Serial #: SN:

December 2003
Hourly Averages Graph, 30m, Ch 6
 SITE 1080
 WCROC



Average Value: 6.8



December 2003	
Wind Rose, 40 m, Ch 3, 8 SITE 1080 WCROC	
Site Information:	
Project:	Wind Hybrid Project
Location:	Morris, MN
Elevation:	350 m
Anemometer on channel 3:	
NRG #40 Anem. m/s	
Height:	40 m
Serial #:	SN:
Vane on channel 8:	
#200P Wind Vane	
Height:	40 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