

Units: Metric

Site Conditions		Estimate	Notes/Range
Project name		Wind Farm 2MW	<a href="#">See Online Manual</a>
Project location		Italia	
Wind data source		Wind speed	<a href="#">See Weather Database</a>
Nearest location for weather data		Hyderabad	
Annual average wind speed	m/s	6,2	
Height of wind measurement	m	30,0	
Wind shear exponent	-	0,16	3.0 to 100.0 m 0.10 to 0.40
Wind speed at 10 m	m/s	5,2	60.0 to 103.0 kPa -20 to 30 °C
Average atmospheric pressure	kPa	94,4	
Annual average temperature	°C	27	

System Characteristics		Estimate	Notes/Range
Grid type	-	Central-grid	<a href="#">Complete Equipment Data sheet</a>
Wind turbine rated power	kW	2000	
Number of turbines	-	1	6.0 to 100.0 m
Wind plant capacity	kW	2.000	
Hub height	m	67,0	
Wind speed at hub height	m/s	7,1	
Wind power density at hub height	W/m <sup>2</sup>	411	0% to 20% 1% to 10% 2% to 7% 2% to 6%
Array losses	%	3%	
Airfoil soiling and/or icing losses	%	2%	
Other downtime losses	%	2%	
Miscellaneous losses	%	3%	

Annual Energy Production		Estimate Per Turbine	Estimate Total	Notes/Range
Wind plant capacity	kW	2.000	2.000	
	MW	2,000	2,000	
Unadjusted energy production	MWh	5.644	5.644	0.59 to 1.02 0.98 to 1.15
Pressure adjustment coefficient	-	0,93	0,93	
Temperature adjustment coefficient	-	0,96	0,96	0.75 to 1.00 150 to 1,500 kWh/m <sup>2</sup> 20% to 40%
Gross energy production	MWh	5.039	5.039	
Losses coefficient	-	0,90	0,90	
Specific yield	kWh/m <sup>2</sup>	906	906	20% to 40%
Wind plant capacity factor	%	26%	26%	
Renewable energy delivered	MWh	4.554	<b>4.554</b>	<a href="#">Complete Cost Analysis sheet</a>
	GJ	16.394	16.394	