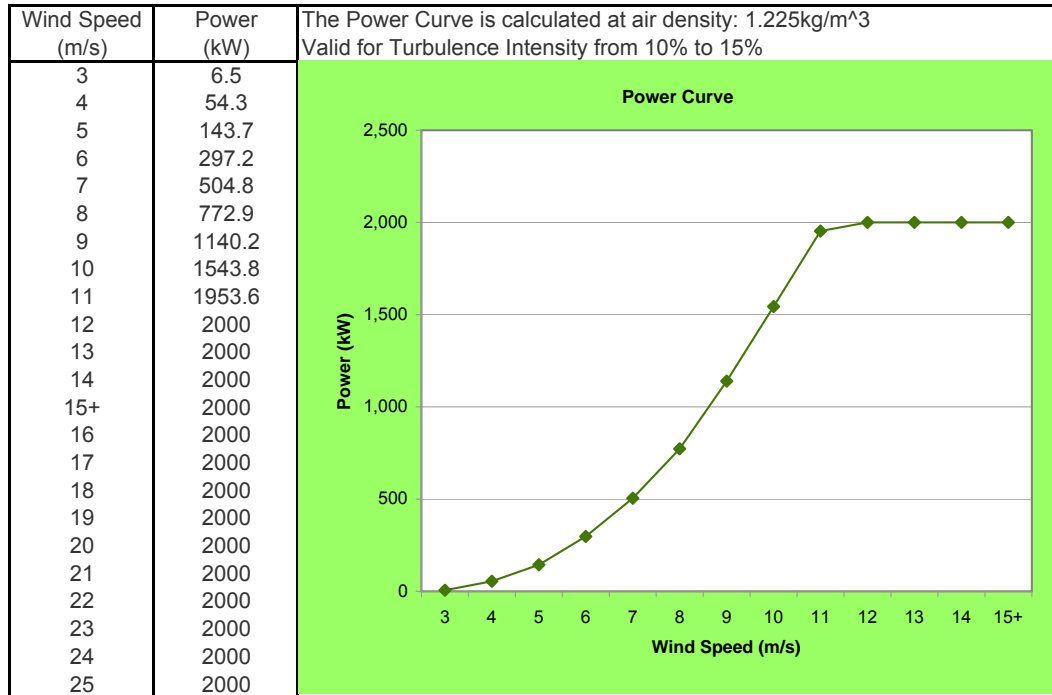




UGE Wind Turbines

Model: UGE 2000H

1. Theoretical Power and Energy Yield Calculation



2. Energy Yield

Mean Wind Speed (m/s)	Energy Yield MWh/a	Full Load Hours h/a	Capacity Factor %	Specific Energy Yield kWh/m ² /a
5.0	2796.6	1398.3	16.0	459.8
5.5	3623.6	1811.7	20.7	595.7
6.0	4481.4	2240.7	25.6	736.8
6.5	5340	2670	30.5	878
7.0	6176	3088	35.3	1015.4
7.5	6973.3	3486.6	39.8	1146.5
8.0	7721.1	3860.6	44.1	1269.5
8.5	8412.7	4206.3	48.0	1383.2
9.0	9043.5	4521.7	51.6	1486.9
9.5	9610.6	4805.3	54.9	1580.1
10.0	10112.5	5056.3	57.7	1662.7



UGE Wind Turbines

3. Power Curve According to Air Density, Calculated

Wind Speed (m/s)	Air Density (kg/m ³)												
	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.225	1.24	1.26
3	-2	-1	0	1	1	2	3	4	5	6	7	7	8
4	43	44	45	46	48	49	50	51	52	53	54	55	56
5	117	120	123	125	128	131	133	136	138	141	144	146	148
6	243	248	254	259	265	270	275	281	286	291	297	301	306
7	419	428	436	445	454	462	470	479	487	495	505	511	519
8	646	659	672	685	697	710	722	734	746	758	773	782	793
9	944	965	985	1004	1024	1043	1062	1081	1099	1118	1140	1154	1171
10	1305	1329	1354	1378	1402	1425	1448	1471	1494	1516	1544	1560	1582
11	1687	1714	1741	1768	1795	1821	1847	1872	1898	1923	1954	1972	1996
12	1967	1970	1974	1977	1980	1984	1987	1990	1993	1996	2000	2000	2000
13	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
14	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
15	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
16	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
17	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
18	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
19	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
20	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
21	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
22	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
23	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
24	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
25	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

Yaw angle = 0°, $\alpha = 0.11$