

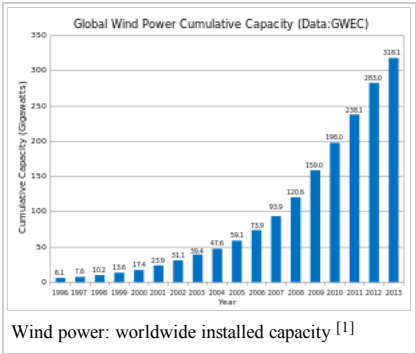
Wind power by country

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Global wind power installations increased by 35,467 in 2013, bringing total installed capacity up to 318,137 MW. During 2010-2011 more than half of all new wind power was added outside of the traditional markets of Europe and North America, mainly driven by the continuing boom in China which accounted for nearly half of all of the installations at 18,000 MW in 2011. China now has 91,424 MW of wind power installed.^{[2][3]}

Several countries have achieved relatively high levels of wind power penetration, such as 21% of stationary electricity production in Denmark,^[4] 18% in Portugal,^[4] 16% in Spain,^[4] 14% in Ireland^[5] and 9% in Germany in 2010.^{[4][6]}

As of 2011, 83 countries around the world are using wind power on a commercial basis.^[6]



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Overview

As of 2011, the Roscoe Wind Farm (781 MW) in the United States is the world's largest wind farm.^[7] As of September 2010, the Thanet Wind Farm in United Kingdom is the largest offshore wind farm in the world at 300 MW, followed by Horns Rev II (209 MW) in Denmark. The United Kingdom is the world's leading generator of offshore wind power, followed by Denmark.^[8]

There are many large wind farms under or recently constructed and these include BARD Offshore 1 (400 MW), Clyde Wind Farm (548 MW), Greater Gabbard wind farm (500 MW), Lincs Wind Farm (270 MW), London Array (630 MW), Lower Snake River Wind Project (343 MW), Macarthur Wind Farm (420 MW), Shepherds Flat Wind Farm (845 MW), Sheringham Shoal (317 MW), and the Walney Wind Farm (367 MW).

Opinion on increase in number of wind farms, 2010 Harris Poll ^[9]						
	U.S.	Great Britain	France	Italy	Spain	Germany
	%	%	%	%	%	%
Strongly oppose	3	6	6	2	2	4
Oppose more than favour	9	12	16	11	9	14
Favour more than oppose	37	44	44	38	37	42
Strongly favour	50	38	33	49	53	40

Installed windpower capacity

This table provides end-of-year installed wind power capacity (in megawatts) for the countries of the world. The data is sourced from Global Wind Energy Council.^[10]

Installed windpower capacity (MW) ^{[11][12][13][14][15][16][17][18][19][20] [21] [22] [23]}											
#	Nation	2006	2007	2008	2009	2010	2011	2012	2013	last yr % growth	5 yr avg % growth
-	 European Union	48,122	56,614	65,255	74,919	84,278	93,957	106,454	117,289	10.2	12.5
1	 China	2,599	5,912	12,210	25,104	44,733	62,733	75,564	91,424	21.0	53.1
2	 United States	11,603	16,819	25,170	35,159	40,200	46,919	60,007	61,091	1.8	20.1
3	 Germany	20,622	22,247	23,903	25,777	27,214	29,060	31,332	34,250	9.3	7.5
4	 Spain	11,630	15,145	16,740	19,149	20,676	21,674	22,796	22,959	0.7	6.6
5	 India	6,270	7,850	9,587	10,925	13,064	16,084	18,421	20,150	9.4	16.1
6	 United Kingdom	1,963	2,389	3,288	4,070	5,203	6,540	8,445	10,531	24.7	26.2
7	 Italy	2,123	2,726	3,537	4,850	5,797	6,747	8,144	8,552	5.0	19.8
8	 France	1,589	2,477	3,426	4,410	5,660	6,800	7,196	8,254	14.7	19.5
9	 Canada	1,460	1,846	2,369	3,319	4,008	5,265	6,200	7,803	25.9	27.2
10	 Denmark	3,140	3,129	3,164	3,465	3,752	3,871	4,162	4,772	14.7	8.6
11	 Portugal	1,716	2,130	2,862	3,535	3,702	4,083	4,525	4,724	4.4	10.8
12	 Sweden	571	831	1,067	1,560	2,163	2,970	3,745	4,470	19.4	33.5

12	 Sweden	371	831	1,007	1,300	2,103	2,770	3,743	4,470	12.4	33.3
13	 Brazil	237	247	339	606	932	1,509	2,508	3,456	37.8	59.7
14	 Poland	153	276	472	725	1,107	1,616	2,497	3,390	35.8	48.5
15	 Australia ^[24]	651	824	1,306	1,712	1,991	2,176	2,584	3,239	25.3	20.2
16	 Turkey	65	207	433	801	1,329	1,799	2,312	2,959	28.0	48.6
17	 Netherlands	1,571	1,759	2,237	2,223	2,237	2,328	2,391	2,693	12.6	3.9
18	 Japan	1,309	1,528	1,880	2,056	2,304	2,501	2,614	2,661	1.8	7.3
19	 Romania	2	7	10	14.1	462	982	1,905	2,600	36.5	692.1
20	 Ireland	746	805	1,245	1,260	1,379	1,614	1,738	2,037	17.2	10.5
21	 Mexico	84	85	85	520	733	873	1,370	1,992	45.4	134.8
22	 Greece	758	873	990	1,087	1,208	1,629	1,749	1,865	6.6	14.0
23	 Austria	965	982	995	995	1,011	1,084	1,378	1,684	22.2	11.6
24	 Belgium	194	287	384	563	911	1,078	1,375	1,651	0.0	42.3
25	 Norway ^[25] ^[26] ^[27]	325	333	428	431	441	512	704	811	15.2	-
26	 New Zealand	171	322	325	497	530	623	623	623	0.0	15.4
27	 Bulgaria	36	70	120	177	500	612	674	681	0.0	84.1
28	 Taiwan	188	280	358	436	519	564	564	614	8.9	11.7
29	 South Korea	176	192	278	348	379	407	483	561	16.1	15.3
30	 Egypt	230	310	390	430	550	550	550	550	0.0	7.6
31	 Morocco	64	125	125	253	286	291	291	495	0.0	23.4
32	 Finland	86	110	143	147	197	199	288	447	0.0	12.3
33	 Chile	-	-	-	20	168	172	205	335	63.4	206.2
34	 Hungary	61	65	127	201	295	329	329	329	0.0	61.0
35	 Croatia	n/a	n/a	69.4	104	152	187.4	207.1	302	0.0	32.5
36	 Estonia	31.8	59	78	142	149	184	269	280	0.0	36.8
37	 Czech Republic	57	116	150	192	215	217	260	269	0.0	20.0
38	 Thailand	-	-	-	-	-	7	112	223	99.1	99.1
39	 Argentina	-	-	-	-	-	113	167	218	30.5	39.2
40	 Costa Rica	-	-	74	123	119	132	147	218	48.3	26.7
41	 Ethiopia	-	-	-	-	-	23	81	171	111.1	181.6
42	 Lithuania	56	50	54	91	154	-	-	-	0.0	68.9
43	 Nicaragua	-	-	-	-	-	62	102	146	43.1	53.8
44	 Pakistan	-	-	-	-	-	6	56	106	89.3	461.3
45	 Tunisia	-	-	-	-	-	54	104	92.6	-11.0	40.8
46	 Honduras	-	-	-	-	-	-	102	102	0.0	0.0
47	 Iran	47	67	82	91	91	91	91	91	0.0	2.2
48	 Ukraine	86	89	90	94	87	151	302	371	22.8	32.7
49	 Sri Lanka	-	-	-	-	-	-	63	63	0.0	0.0
50	 Uruguay	-	-	-	-	-	43	56	59	5.4	17.8
51	 Mongolia	-	-	-	-	-	-	-	50	-	-
52	 Venezuela	-	-	-	-	-	-	30	-	0.0	0.0
53	 Cape Verde	-	-	-	-	-	24	24	24	0.0	0.0
	Caribbean	-	-	-	-	-	-	191	191	0.0	0.0
	Pacific Islands	-	-	-	-	-	12	12	12	0.0	0.0
	Rest of Europe	-	-	-	-	-	3,815	4,956	5,737	15.8	22.8
	Rest of Latin America & Caribbean	-	-	-	-	-	54	54	-	0.0	0.0
	Rest of Africa & Middle East	-	-	-	-	-	-	1,165	1,255	7.7	7.7
	Rest of Asia	-	-	-	-	-	71	87	-	0.0	22.5
	World total (MW)	74,151	93,927	121,188	157,899	197,637	238,035	282,482	318,137	12.6	21.4

Annual wind power generation

Annual Wind Power Generation (TW·h) and total electricity consumption (TW·h) for 10 largest countries ^{[11][28][29][30][31][32][33][34]}																		
	Nation	2006				2007				2008				2009				Wind power
		Wind power	Capacity Factor	%	Total Demand	Wind power	Capacity Factor	%	Total Demand	Wind power	Capacity Factor	%	Total Demand	Wind power	Capacity Factor	%	Total Demand	
1	 United States	26.6	26.1%	0.7%	4058.1	34.5	23.4%	0.8%	4149.9	52.0	23.5%	1.3%	4108.6	70.8		1.8%	3951.1	9
2	 China	3.7	16.2%	0.1%	2834.4	5.6 ^[35]	10.6%	0.2%	3255.9	12.8 ^[36]	12.0%	0.4%	3426.8	26.9	12.2%	0.74%	3640.3	5
3	 Spain	22.9	22.4%	8.5%	268.8	27.2	20.5%	9.8%	276.8	31.4	21.7%	11.1%	282.1	36.6		13.7%	267.0	4
4	 Germany	30.7	17.0%	5.4%	569.9	38.5	19.7%	6.6%	584.9	40.4	19.3%	6.6%	611.9	37.2		6.4%	581.3	3
5	 India	7.6	13.8%	1.0%	726.7	14.7	21.0%	1.9%	774.7	14.8	17.6%	1.77%	834.3	17		2.7%	637.6	2
6	 United Kingdom	4.2	23.2%	1.2%	352.9	5.3	27.5%	1.5%	352.0	7.1	30.4%	2.0%	350.5	9.3		2.5%	325.8	1
7	 France	2.2	16.0%	0.5%	478.4	4.0	18.6%	0.8%	480.3	5.6	18.8%	1.1%	494.5	7.8	20.2%	1.6%	486	
8	 Portugal	2.9	19.3%	5.9%	49.2	4.0	21.2%	8.0%	50.1	5.7	22.7%	11.3%	50.6	7.5		15.0%	49.9	
9	 Italy	3.0	16.1%	0.9%	337.5	4.0 ^[37]	16.7%	1.2%	339.9	4.9	15.7%	1.4%	339.5	6.2		2.1%	296.3	
10	 Denmark	6.1	22.2%	16.8%	36.4	7.2	26.3%	19.7%	36.4	7.0	24.9%	19.1%	36.2	6.8		19.3%	32.4	7.4
	World total (TWh)	126.547	19.2%	0.8%	16,388.5	163.683	21.1%	1.0%	17,110.5	211.812	24.5%	1.2%	17,420.0	262.563^[11]	21.5%	1.5%	17,313.6	34

Installed windpower capacity (MW) 2004-2013

This table provides end-of-year installed wind power capacity (in megawatts) for the countries of the world for the years 2004 through 2013. The data source for the 2004 through 2013 figures is the World Wind Energy Association.^[39]

Rank	Nation	2004	2005 ^[12]	2006 ^[12]	2007 ^[12]	2008 ^[12]	2009 ^[11]	2010 ^[13]	2011 ^[40]	2012 ^[41]	2013 ^[42]
-	World	47,693	59,024.1	74,122.8	93,930.4	120,902.9	159,213.3	196,630	238,035	282,482	318,530
1	 China	764	1,266	2,599	5,912	12,210	25,777	44,733	62,364	75,324	91,324
2	 United States	6,725	9,149	11,603	16,818	25,170	35,159	40,180	46,919	59,882	61,108
3	 Germany	16,628	18,427	20,622	22,247	23,902	25,777	27,215	29,075	31,038	34,660
4	 Spain	8,263	10,027	11,630	15,145	16,740	19,149	20,676	21,673	22,796	22,959
5	 India	3,000	4,430	6,270	7,850	9,587	10,925	13,065	15,880	18,321	20,150
6	 United Kingdom	888	1,353	1,962	2,389	3,287	4,092	5,204	6,018	8,445	10,531
7	 Italy	1,265	1,718	2,123	2,726	3,736	4,850	5,797	6,737	8,144	8,551
8	 France	386	757	1,567	2,455	3,404	4,521	5,660	6,640	7,473	8,254
9	 Canada	444	683	1,460	1,846	2,369	3,319	4,008	5,265	6,201	7,698
10	 Denmark	3,124	3,128	3,136	3,125	3,160.0	3,497	3,734	3,927	4,162	4,772
11	 Portugal	522	1,022	1,716	2,130	2,862	3,535	3,702	4,083	4,525	4,724
12	 Sweden	452	509.1	571.2	831.0	1066	1,579	2,052	2,798	3,745	4,470
13	 Brazil	23.8	28.6	236.9	247.1	338.5	606	920	1,429	2,507	3,399
14	 Poland	58.2	73	153	276	544	725	1,107	1,616.4	2,497	3,390
15	 Australia	379	579	817.3	817.3	1,494.0	1,877	1,880	2,005	2,584	3,049
16	 Turkey	20.6	20.1	64.6	206.8	333.4	796.5	1,274	1,799	2,312	2,959
17	 Netherlands	1,078	1,224	1,559	1,747	2,225.0	2,229	2,237	2,328	2,391	2,693
18	 Japan	896.2	1,040	1,309	1,528	1,880.0	2,056	2,304	2,501	2,614	2,661
19	 Romania	0	0.9	2.8	7.8	7.0	14.0	591	826	1,905	2,599
20	 Ireland	338.9	495.2	746	805	1,244.7	1,260	1,428	1,614	1,738	2,037
21	 Mexico	2.2	2.2	84	85.0	85.0	402	521	929	1,348	1,992
22	 Greece	473	573.3	757.6	873.3	989.7	1,109	1,208	1,626.5	1,749	1,865
23	 Austria	606	819	964.5	981.5	994.9	995	1,011	1,084	1,378	1,684
24	 Belgium	95	167.4	194.3	286.9	383.6	555	886	1,078	1,375	1,651
25	 Norway	270	268	325	333.0	428.0	431	434	520.0	703.0	768
26	 Bulgaria	10	14	36	57	120	177	375	503.0	684.0	681
27	 New Zealand	168.1	168.2	171	321.8	325.3	497	506	622.8	622.8	623
28	 Taiwan	13	103.7	187.7	279.9	358.2	436	519	563.8	563.8	614