

The World **Wind Energy** Association

2013 | Half-year Report

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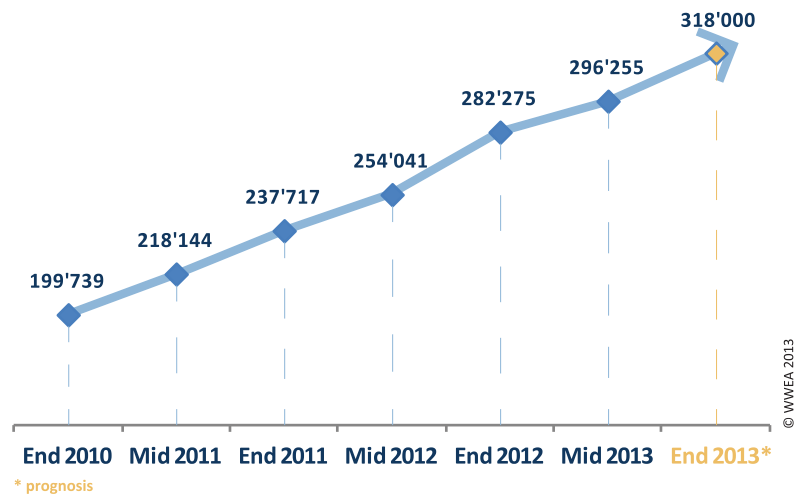
Worldwide Wind Capacity close to 300 Gigawatt

- 14 GW of new installations in the first half of 2013, after 16,5 GW in 2012
- Worldwide wind capacity has reached 296 GW, 318 GW expected for full year
- Dramatic slump in US leads to global decrease, partly compensated by new markets
- China has reached total capacity of 80 GW

The worldwide wind capacity reached 296'255 MW by the end of June 2013, out of which 13'980 MW were added in the first six months of 2013. This increase is significantly less than in the first half of 2012 and 2011, when 16,5 GW respectively 18,4 GW were added. All wind turbines installed worldwide by mid-2013 can generate around 3,5 % of the world's electricity demand.

The global wind capacity grew by 5% within six months (after 7 % in the same period in 2012 and 9 % in 2011) and by 16,6 % on an annual basis (mid-2013 compared with mid-2012). In comparison, the annual growth rate in 2012 was significantly higher (19 %).

Total Installed Capacity 2010-2013 [MW]



Top Wind Markets 2013: China, Germany, India – and United Kingdom

Still the five traditional wind countries, China, USA, Germany, Spain and India, represent together a share of 73 % of the global wind capacity. However, in terms of new capacity, USA and Spain played hardly a role, as they represent less than 1 % of the market, so that the share of the Big Five in new capacity dropped down to only 57 %. For the first time, the United Kingdom has entered the top markets by becoming the second largest market for new wind turbines.

In total, four countries installed more than 1 GW in the first half of 2013: China (5,5 GW of new capacity), the UK (1,3 GW), India (1,2 GW) and Germany (1,1 GW). In 2012, only three countries had a market volume of more than 1 GW.

The top ten wind countries show a diverse picture in the first half of 2013: Five countries performed stronger than in 2012: China, Germany, UK, Canada, Denmark. Five countries saw a decreasing market: Spain, India, Italy, France, and the USA who experienced an unprecedented, complete stop of wind turbine sales, after setting a new record of 13 GW in 2012. The US saw practically a total standstill, with only 1,6 MW of new capacity installed, compared with 2'883 MW one year ago. Portugal dropped out of the list of the top 10 markets and is now on place 11, replaced by Denmark.

Dynamic Markets to be found on all Continents

It is important to notice that for the first time, the most dynamic markets can be found on all continents: The ten largest markets for new wind turbines included next to China, UK, India, and Germany: Sweden (526 MW), Australia (475 MW), Denmark (416 MW), Romania (384 MW), and Canada (377 MW). Brazil as the 10th largest market added 281 MW, being the biggest Latin American wind country.

One African country made an important step as well and became the most dynamic wind market: Morocco showed the highest growth rate with 34,4 % market increase within only six months, followed by Romania (21,6 %), Australia (18,4 %) and the UK (16,2 %).

Europe

Europe is still the continent with the largest installed capacity, but the European markets showed a rather diverse picture in the first half of 2013: For the first time, the United Kingdom with 1,3 GW of new capacity was the biggest market, mainly thanks to major offshore wind farms which went online. With a total capacity of 9,6 GW, the UK consolidated its position as number three in Europe and number 6 worldwide.

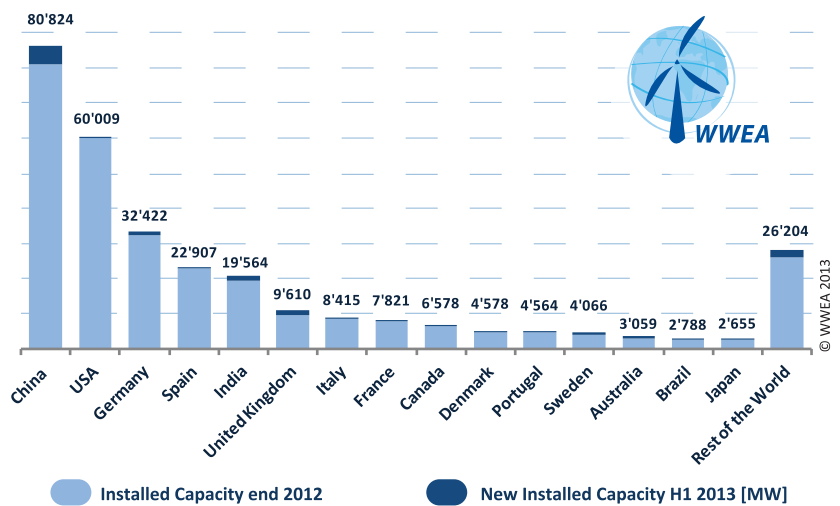
Germany is still the unchallenged number one wind market in Europe, with a new capacity of 1,1 GW and a total of 32,4 GW. Sweden (526 MW new), Denmark (416 MW new) and Romania (384 MW new) belong to the five biggest European markets as well, while Spain, still number two in total capacity, has become one of the smaller European market with 122 MW of sold wind turbines.

Asia: Dominated by China and India

Again in 2013, China has been by far the largest single wind market, adding 5,5 GW in six months, slightly more than in the previous year, when 5,4 GW were erected. China accounted for 39 % of the world market for new wind turbines, more than the 29 % in the full year 2012. By June 2013, China had an overall installed capacity of 80,8 GW. India added 1,2 GW, less than in the first half of 2012, when it installed 1,5 GW. The prospects of the Indian market are still unclear due to policy uncertainties.

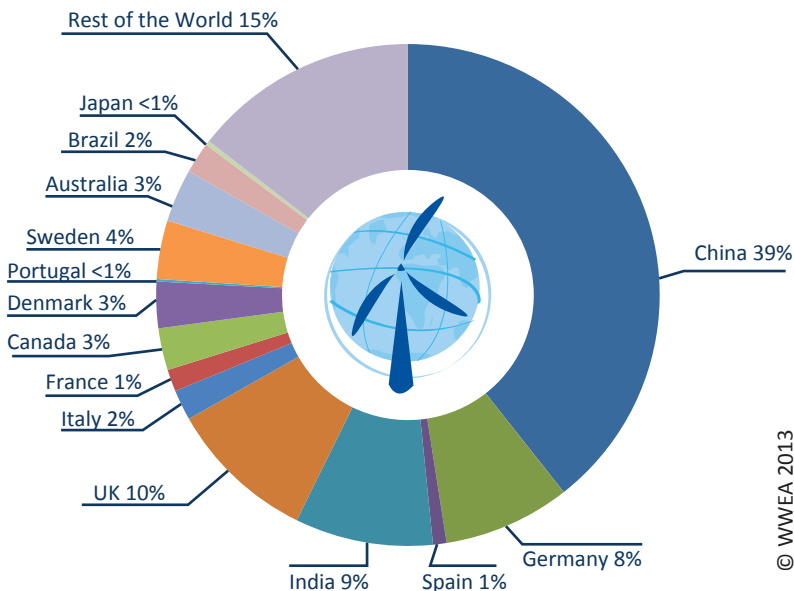
The Japanese and the Korean wind markets are still growing at very modest rates, with both countries showing growth rates of less than 2 % in the first half of 2013. Due to this slow growth, Japan fell in the overall ranking from position 13 to 15. Mongolia added its first major wind farm of 50 MW.

Total Installed Capacity 2013 [MW]



New Installed Capacity H1 2013

New Installed Capacity H1 2013: 13'980 MW



North America

The US market saw a dramatic slump in the first half of 2013, adding only 1,6 MW between January and June 2013, after 2'883 MW a year ago. The uncertainties from the unclear situation about the future of the Production Tax Credit have led to this abnormal situation: In 2012, most investors tried to connect their wind farms to the grid in order to avoid the anticipated expiry of the production tax credit. Due to this pressure, many wind farms went online which otherwise would have been inaugurated in 2013, hence there are only few new projects left in 2013. It can be expected, however, that the market will again take up in the second half of 2013 and in particular in the year 2014.



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Canada installed 377 MW during the first half of 2013, 50 % more than in the previous period of 2012, in spite of major uncertainties in its largest province Ontario.

Latin America

The biggest Latin American markets, Brazil, has become 14th largest wind market worldwide, after installing 281 MW in first half of 2013 and reaching a total capacity of 2'788 MW, with a growth rate of 11,2 %. Brazil is expected to continue as the lead market in the region in the next years to come.

Oceania

Very encouraging developments happened in Australia whose wind market installed additional 475 MW, equaling an 18% growth in comparison with end of 2012, similar like in 2012. Australia also made a step ahead and is now 13th position internationally, from previous position 15. No new turbines were erected in New Zealand.

Africa

One new major wind farm of 100 MW has been installed in Morocco, increasing the country's wind capacity to 391 MW. Thanks to Morocco, the additional African wind capacity grew by almost 10 %, for the first time well above the global average.

Prof. He Dexin, WWEA President: "The year 2013 is a difficult year for the wind industry worldwide, as the companies have to struggle with a decreasing market size. This situation has already led to decrease in wind turbine prices which will make wind power even more cost competitive. Though we face some challenges currently, we are still confident to the wind power development in the future. As a result, we see bright prospects for this technology which will become even more cost-competitive."

Position	Country	Total Capacity by June 2013 [MW]	Added Capacity first half 2013 [MW]	Total Capacity end 2012 [MW]	Added Capacity first half 2012 [MW]	Total Capacity end 2011 [MW]	Added Capacity first half 2011 [MW]	Total Capacity end 2010 [MW]
1	China	80'824	5'500	75'324	5'410	62'364	8'000	44'733
2	USA	60'009	1,6	60'007	2'883	46'919	2'252	40'180
3	Germany	32'422	1'143	31'308	941	29'075	766	27'215
4	Spain	22'907	122	22'785	414	21'673	480	20'676
5	India	19'564	1'243	18'321	1'471	15'880	1'480	13'065
6	United Kingdom	9'610	1'331	8'228	822	6'018	504	5'203
7	Italy	8'415	273	8'152	320	6'877	460	5'797
8	France	7'821	198	7'623	650	6'640	400	5'660
9	Canada	6'578	377	6'201	246	5'265	603	4'008
10	Denmark	4'578	416	4'162	56	3'927	-	3'734
11	Portugal	4'564	22	4'542	19	4'379	260	3'702
12	Sweden	4'066	526	3'743	-	2'798	-	2'052
13	Australia	3'059	475	2'584	-	2'226	-	1'880
14	Brazil	2'788	281	2'507	118	1'429	-	930
15	Japan	2'655	41	2'614	-	2'501	-	2'304
	Rest of the World	26'204	2'030	24'174	3'026*	18'778	3'200*	15'805
	Total	296'255	13'980	282'275	16'376	237'717	18'405	199'739

* includes (-)

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Worldwide prospects for end of the year 2013:

In the second half of 2013, an additional capacity of 22 GW is expected to be erected worldwide, which would bring new annual installations to 35,7 GW, significantly less than the 44,6 GW of the year 2012. The total installed wind capacity is expected to reach 318 GW by the end of this year 2013, enough to provide almost 4 % of the global electricity demand.

This expected decrease in new installations is mainly due to the abnormal US situation. Hence, it can be expected that the wind markets worldwide will be able to recover from the 2013 decrease and set a new record in the year 2014.

Stefan Gsänger, WWEA Secretary General: "Wind power has already taken substantial market shares from the fossil and nuclear energy sector in several countries around the world. What we can observe now is an increasing resistance from the fossil and nuclear power sector who are more and more afraid of losing market shares. However, we are very confident that the benefits of wind power – practically zero emissions, de-centralised economic and social benefits, security of supply and more - will make it very difficult to beat this technology."

About WWEA

The World Wind Energy Association (WWEA) is a non-profit organisation which works for a world energy system fully based on the various renewable energy technologies, with wind energy as one cornerstone. WWEA acts as a communication platform for all wind energy actors worldwide, WWEA advises national governments and international organisations on favourable policies for wind energy implementation and WWEA enhances international technology transfer, a key in the accelerated dissemination of this clean technology.

Currently, WWEA has 550 members and represents the wind sector from 100 countries on all continents. Amongst the WWEA members, there are the national wind energy associations of the major wind countries – which themselves represent more than 50'000 members – as well as companies, scientific institutions and public bodies.

In 2007, WWEA was granted Special Consultative Status at the United Nations. WWEA has observer status e.g. at the UNFCCC Climate Conferences and cooperates with further international organisations. WWEA is represented at the International Steering Committee of

REN21 and is one of the first and major proponents of the creation of the International Renewable Energy Agency IRENA.

WWEA is governed by a Board which comprises WWEA President Prof. He Dexin (China), ten Vice Presidents from the five continents and the Treasurer. The Secretary General Stefan Gsänger manages the daily administration of the association at the WWEA Head Office in Bonn/Germany.

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Distributed Wind Power - Matching Generation and Demand

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