

# The World **Wind Energy** Association

## 2012 | Half-year Report



**WWEA**

World Wind Energy Association

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## General Situation

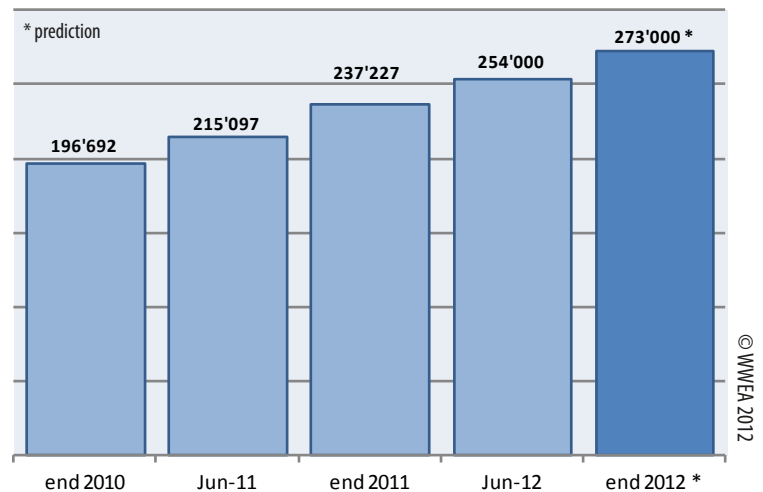
### World Wind Capacity has crossed 250 Gigawatt

- **16,5 GW of new installations in the first half of 2012, after 18,4 GW in 2011**
- **Worldwide wind capacity has reached 254 GW, 273 GW expected for full year**
- **Slowdown in China leads to global decrease, additional uncertainties in several key markets**

The worldwide wind capacity reached 254'000 MW by the end of June 2012, out of which 16'546 MW were added in the first six months of 2012. This increase represents 10 % less than in the first half of 2011, when 18'405 MW were added.

The global wind capacity grew by 7% within six months (2% less than the same period in 2011) and by 16,4 % on an annual basis (mid-2012 compared with mid-2011). In comparison, the annual growth rate in 2011 was 20,3 %.

Total Installed Capacity 2010-2012 [MW]



### Top Wind Markets: China, USA, Germany, Spain, and India continue to lead

Still the five leading countries, China, USA, Germany, Spain and India, represent together a total share of 74 % of the global wind capacity.

The top ten markets show a diverse picture in the first half of 2012: While five countries performed stronger than in 2011 (USA, Germany, Italy, France, UK), India had a stable market size and four countries saw a decreasing market (China, Spain, Canada, Portugal).

### China and India

Again in 2012, China represents by far the largest wind market, adding 5,4 GW in 6 months, however, significantly less than in the previous year, when it added 8 GW. China accounted for 32 % of the world market for new wind turbines, significantly less than the 43 % in the full year 2011. By June 2012, China had an overall installed capacity of around 67,7 GW. Without doubt China will continue in the foreseeable future its number one position, but at a lower speed.

India added 1'471 MW, a similar amount like in the first of 2011. The prospects of the Indian market are blurring due to outstanding payments for wind generators in some parts of the country and the recent decisions to abolish important support schemes.



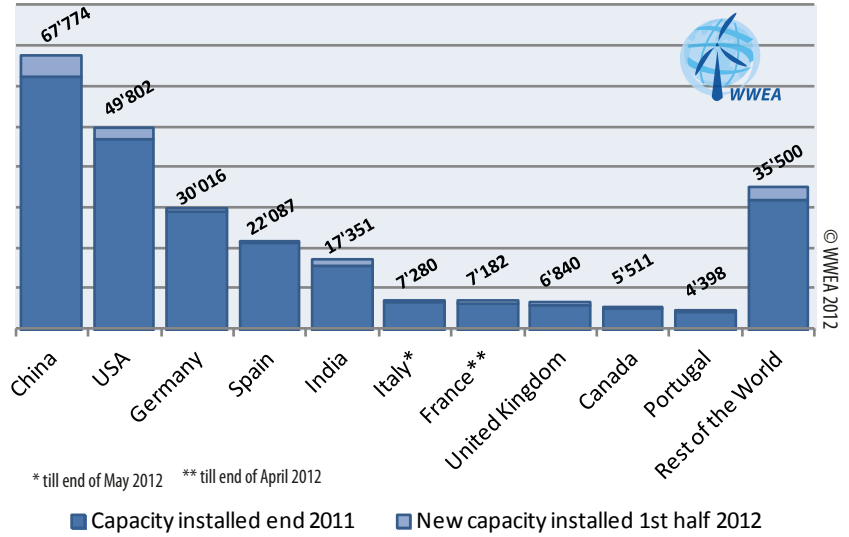
## General Situation

### Europe

Most of the European markets showed stronger growth in the first half of 2012 than in same period of the previous year: The top markets in Europe continue to be Germany with a new capacity of 941 MW and a total of 30'016 MW, Spain (414 MW, 22'087 MW in total), Italy (490 MW, 7'280 MW total), France (650MW, 7'182MW total), the United Kingdom (822 MW, 6'480 MW) and Portugal (19 MW, 4'398 MW). All these markets, beside from Spain and Portugal, showed an increase in their new installed capacity compared to the first half of 2011.

Again, the "emerging" markets in Eastern Europe are amongst the most dynamic markets, e.g. Romania with 33 % growth (274 MW added), Poland with 32 % (527 MW added by April 2012), Ukraine with 64 % (37 MW added) and Latvia with 64 % (20 MW added).

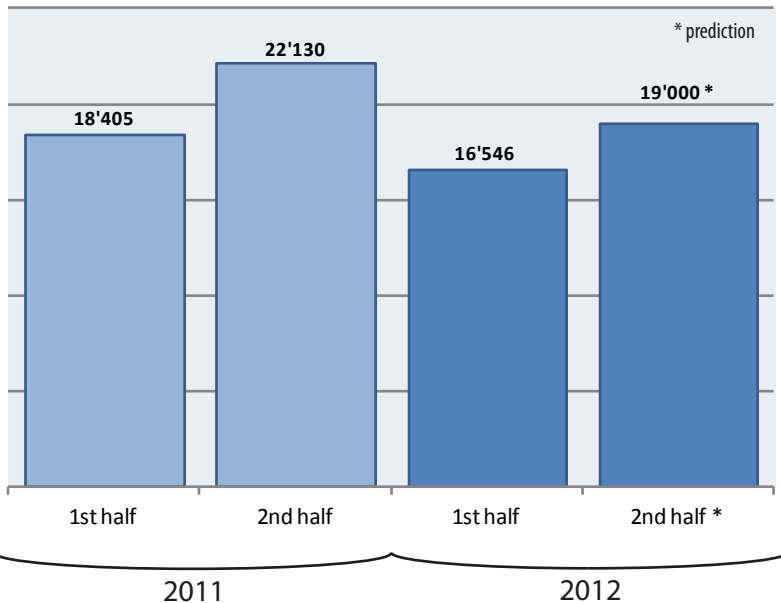
### Total Installed Capacity 2011-2012 [MW]



### USA and Canada

The US market added 2'883 MW between January and June 2012, about 28 % more than in the same period in 2011. Major uncertainties arise from the unclear situation about the future of the Production Tax Credit. Several companies have already fired people, and the near future of the US wind market may not be very bright in case that there is no support scheme in place. Canada installed 246 MW during the first half of 2012, less than in the previous period of 2011.

### New Installed Capacity 2011-2012 [MW]



### Latin America

The two biggest Latin American markets, Brazil and Mexico, had modest growth rates but still above the global average: Brazil increased its installed capacity from 1425 MW to 1543 MW, Mexico from 929 MW to 1002 MW. Both countries are expected to continue as the lead markets in the region in the next years.

### Australia

Very encouraging developments happened in Australia whose wind market installed additional 384 MW, equaling a 17% growth in comparison with end of 2011.



## Worldwide prospects for end of the year 2012 and 2013:

In the second half of 2012, an additional capacity of 19'000 MW is expected to be erected worldwide, which would bring new annual installations to 35'546 MW, significantly less than the 40'535 MW of the year 2011. The total installed wind capacity is expected to reach 273'000 MW by the end of this year 2012.

**Prof. He Dexin, WWEA President:** "Wind technology has become a pillar of the electricity supply scheme of many countries – just recently, Denmark announced a world record wind power share of 28 % in the country's electricity supply. This success of wind power has become possible because of wise supportive policies by governments on the one hand and because of innovation and cost reduction by the wind industry on the other hand. Today, wind power can compete with any other source of energy, without causing environmental problems. WWEA calls on all governments not to reduce but to strengthen their efforts so that more investment in wind power can be done."

**Stefan Gsänger, WWEA Secretary General:** "The wind industry, without doubt, is currently in a difficult situation. Political uncertainties in some of the key markets, namely in the USA, Spain and India, are major matters of concern. At the same time, China has reached its maximum speed of installing new wind farms, although the Chinese market still continues to be much bigger than any other country. However, this leads to strong pressure on Chinese manufacturers and will further increase pressure on wind turbine prices worldwide. More countries should now make use of the low cost of wind power and implement the technology as fast as possible."

Position	Country	Total Capacity by June 2012	Added Capacity first half 2012	Total Capacity end 2011	Added Capacity first half 2011	Total Capacity end 2010
		[MW]	[MW]	[MW]	[MW]	[MW]
1	China	67'774	5'410	62'364	8'000	44'733
2	USA	49'802	2'883	46'919	2'252	40'180
3	Germany	30'016	941	29'075	766	27'215
4	Spain	22'087	414	21'673	480	20'676
5	India	17'351	1'471	15'880	1'480	13'065
6	Italy*	7'280	490	6'787	460	5'797
7	France**	7'182	650	6'640	400	5'660
8	United Kingdom	6'840	822	6'018	504	5'203
9	Canada	5'511	246	5'265	603	4'008
10	Portugal	4'398	19	4'379	260	3'702
	<b>Rest of the World</b>	35'500	3'200	32'227	3'200	29'500
	<b>Total</b>	254'000	16'546	237'227	18'405	199'739

\* till end of May 2012 \*\* till end of April 2012



## More information about a specific country?

The 4th edition of the international standard yearbook, Wind Energy International 2011/2012 includes 76 country reports describing the wind energy situation in almost 100 countries on all continents as well as 32 special reports.

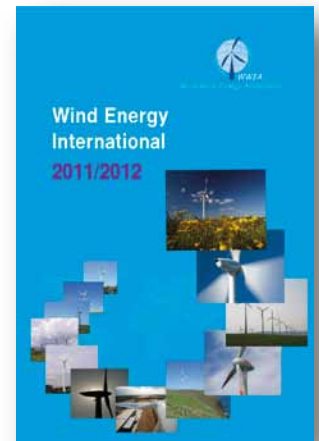
Wind Energy International 2011/2012 is a culmination of reports from experts around the world. It includes updated and complete information on the worldwide status of wind energy. In addition, it also incorporates special reports detailing policies, industrial trends, financing, grid integration, offshore, small scale wind systems, community power, education, training & capacity building.

With the accelerating switch of the worldwide energy system towards more renewable energy, in particular wind power, Wind Energy International 2011/2012 will be even more critical for policy-makers, business people, and parties involved in the energy sector. Best practices from around the

world have been carefully analysed and presented in the yearbook. These include successful feed-in tariff, community power, financing developments that support the widespread diffusion of wind energy. Paul Gipe, author, advocate, and renewable energy industry analyst, book review:

"If you want to know the status of wind energy development worldwide and you only can afford one book, this is the one"

To order Wind Energy International 2011/2012, please order online on the **WWEA bookshop**.



## 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 organises annually World Wind Energy Conferences like the WWEC2013 in Havana/Cuba in June 2013 and in the previous years in:

- Bonn/Germany (2012)
- Cairo/Egypt (2011)
- Istanbul/Turkey (2010)
- Jeju/South Korea (2009),
- Kingston/Canada (2008),
- Mar del Plata/Argentina (2007),
- New Delhi/India (2006),
- Melbourne/Australia (2005),
- Beijing/China (2004),
- Cape Town/South Africa (2003),
- Berlin/Germany (2002).

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.



# World Wind Energy Association

## Events

**Don't miss the most important event of 2013...**



**Organised by**  
**World Wind Energy Association WWEA**  
**Center for the Study of Renewable Energy Technologies CETER of the Higher Polytechnic Institute Jose Antonio Echeverria CUJAE**  
**in conjunction with**  
**Ministry of the Basic Industry MINBAS of Cuba**  
**Cuban Society for Renewable Energy Promotion and Environmental Respect CUBASOLAR**

We are pleased to invite you to the 12<sup>th</sup> World Wind Energy Conference & Renewable Energy Exhibition WWEC2013. The WWEC2013 will be held from the 3-5 June 2013 in Habana, Cuba, at the Convention Palace of Havana.

The conference's purpose is to provide in the Caribbean region for the first time an international wind forum for professionals from the academic sector and industry, from developing and developed countries, to share their research, ideas, and perspectives. The event offers a special opportunity to get to know the advances and prospects of wind power and renewable energy in general in the Caribbean, in Central American and in all Latin American countries. Hence the appropriate theme of WWEC2013 is:

### **OPENING THE DOORS TO THE CARIBBEAN WINDS.**

WWEC2013 will take place in Havana which is the capital of the biggest island of the Caribbean Antilles. Cuba is a place where the Caribbean culture finds ancestral manifestations and the hospitality and solidarity of its people is broadly celebrated. Cuba, through its International Renewable Energy Conference (CIER) already in its eighth edition, has a tradition of organizing events in this field and now has the honor of hosting the WWEC2013.

**For more information, please visit the WWEC2013 Website:**

[www.wwec2013.net](http://www.wwec2013.net)

**or write us an e-mail to: [wwec2013@cujae.edu.cu](mailto:wwec2013@cujae.edu.cu) or [wwec2013@wwindea.org](mailto:wwec2013@wwindea.org)**

**WWEC 2013** is organized by:



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BOOKS		Price	Members	#/copies
Small Wind World Report 2012	<b>NEW</b>	60 €	45 €	
Wind Energy International 2011/2012	<b>Bestseller</b>	98 €	68 €	
Energía Eólica Internacional 2011/2012 <b>Spanish</b> edition of our Bestseller	<b>NEW</b>	78 €	55 €	
Wind Energy Market 2012 ( <i>English</i> ) Wind turbine market overview	<b>NEW</b>	60 €	45 €	
Wind Power Status in Russia and the CIS Countries 2012 (E-Version)	<b>NEW</b>	80 €	60 €	
<b>WWEA Quarterly Bulletin (E-Version)</b>	<b>NEW</b>	Price	Students	#/copies
Annual Subscription = Individual WWEA membership		80 €	50 €	
<b>WORLD WIND ENERGY CONFERENCE PROCEEDINGS/PRESENTATIONS (CD-ROM)</b>		Price	Members	#/copies
11 <sup>th</sup> WWEC 2012, Bonn, Germany	<b>NEW in July 12</b>	200 €	120 €	
Former WWECs (Year/s:                    )		each 50 €	each 40 €	
<b>MEDIA: CD-ROMs</b>		Price	Members	#/copies
3 <sup>th</sup> World Summit on Small Wind Turbines Presentations, husum new energy 2012	<b>NEW</b>	200 €	100 €	
Wind Energy Technology and Planning Multimedia-CD ( <i>English/German</i> ), 2006		15 €	10 €	

All shipping and handling costs **included**. 7/19 % VAT included within the EU.  
**Special rebates** provided upon request for bulk orders, low-income countries, etc.

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World Wind Energy Association

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