

Renewable Energy

State of the Industry in Today's Markets

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Installed Capacities

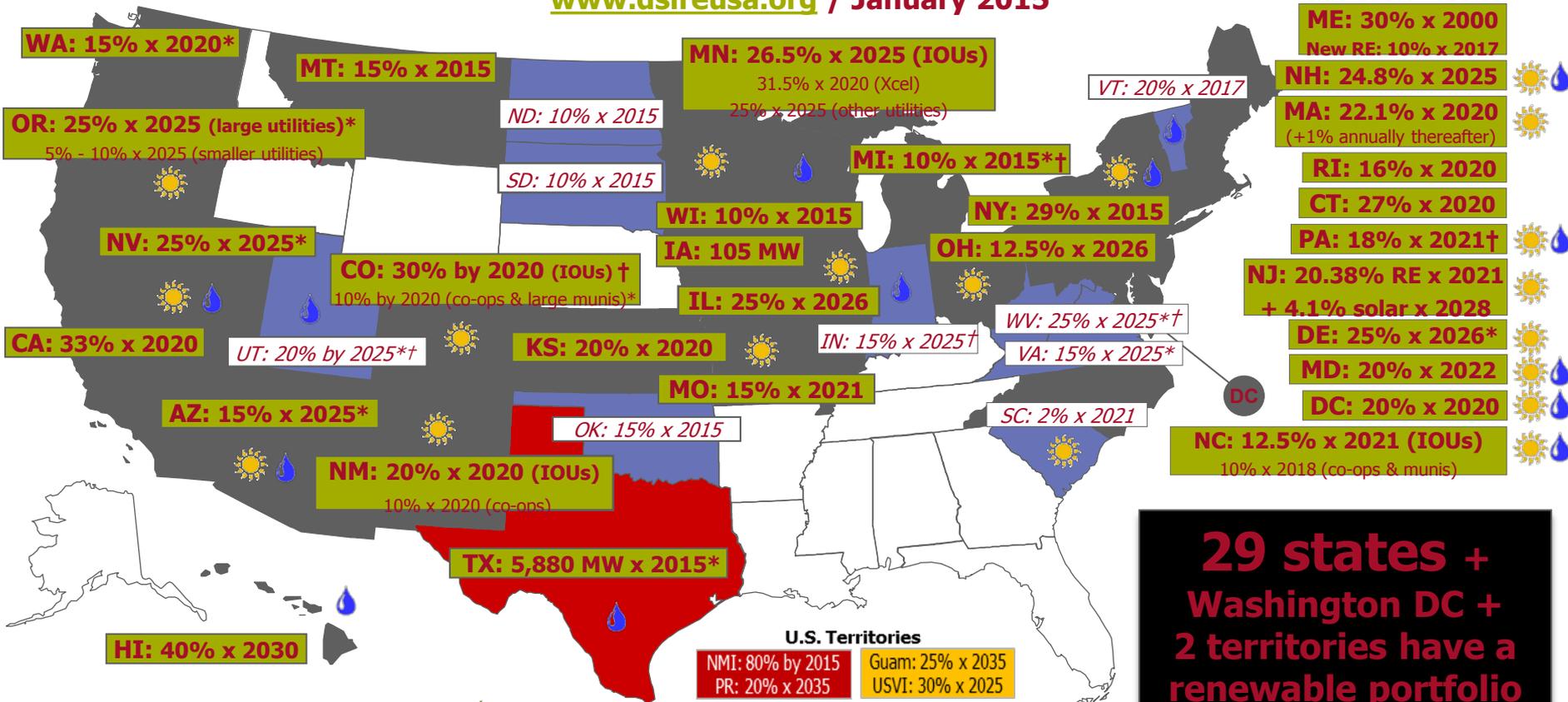
- USA
 - Wind
 - Solar
 - Other

Status of Incentives

- USA
 - Tax incentives
 - Special grants
 - State-based drivers

Renewable Portfolio Standard Policies

www.dsireusa.org / January 2015



- Renewable portfolio standard
- Renewable portfolio goal
- Solar water heating eligible
- Minimum solar or customer-sited requirement
- Extra credit for solar or customer-sited renewables
- Includes non-renewable alternative resources

29 states + Washington DC + 2 territories have a renewable portfolio standard
(9 states and 2 territories have renewable portfolio goals)

GLOBAL INSTALLED WIND POWER CAPACITY (MW) – REGIONAL DISTRIBUTION

	End 2013	New 2014	Total (End 2014)
AFRICA & MIDDLE EAST			
Morocco	487	300	787
South Africa	10	560	570
Egypt	550	60	610
Tunisia	255	-	255
Ethiopia	171	-	171
Cape Verde	24	-	24
Other ¹	115	14	129
Total	1,612	934	2,545
ASIA			
PR China*	91,412	23,351	114,763
India	20,150	2,315	22,465
Japan	2,669	130	2,799
Taiwan	614	18	633
South Korea	561	47	609
Thailand	223	-	223
Pakistan	106	150	256
Philippines	66	150	216
Other ²	167	-	167
Total	115,968	26,161	142,119
EUROPE			
Germany	34,250	5,279	39,165
Spain	22,959	28	22,987
UK	10,711	1,736	12,440
France	8,243	1,042	9,285
Italy	8,558	108	8,663
Sweden	4,382	1,050	5,425
Portugal*	4,730	184	4,914
Denmark	4,807	67	4,845
Poland	3,390	444	3,834
Turkey	2,958	804	3,763
Romania	2,600	354	2,954
Netherlands	2,671	141	2,805
Ireland	2,049	222	2,272
Austria	1,684	411	2,095
Greece	1,866	114	1,980
Rest of Europe ³	5,715	835	6,543
Total Europe	121,573	12,820	133,969
LATIN AMERICA & CARIBBEAN	117,384	11,791	128,752
Brazil**	3,466	2,472	5,939
Chile	331	506	836
Uruguay	59	405	464
Argentina	218	53	271
Costa Rica	148	50	198
Nicaragua	146	40	186
Honduras	102	50	152
Peru	2	146	148
Caribbean ⁵	250	-	250
Others ⁶	55	28	83
Total	4,777	3,749	8,526
NORTH AMERICA			
USA	61,110	4,854	65,879
Canada	7,823	1,871	9,694
Mexico	1,859	522	2,381
Total	70,792	7,247	77,953
PACIFIC REGION			
Australia	3,239	567	3,806
New Zealand	623	-	623
Pacific Islands	12	-	12
Total	3,874	567	4,441
World total	318,596	51,477	369,553

Source: CWEC

¹ Algeria, Iran, Israel, Jordan, Kenya, Libya, Nigeria

² Bangladesh, Mongolia, Sri Lanka, Vietnam

³ Bulgaria, Cyprus, Czech Republic, Estonia, Finland, Faroe Islands, FYROM, Hungary, Iceland, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Norway, Romania, Russia, Switzerland, Slovakia, Slovenia, Ukraine

⁴ Austria, Belgium, Bulgaria, Cyprus, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, UK

⁵ Caribbean: Aruba, Bonaire, Curacao, Cuba, Dominica, Guadalupe, Jamaica, Martinica, Granada, St. Kitts and Nevis

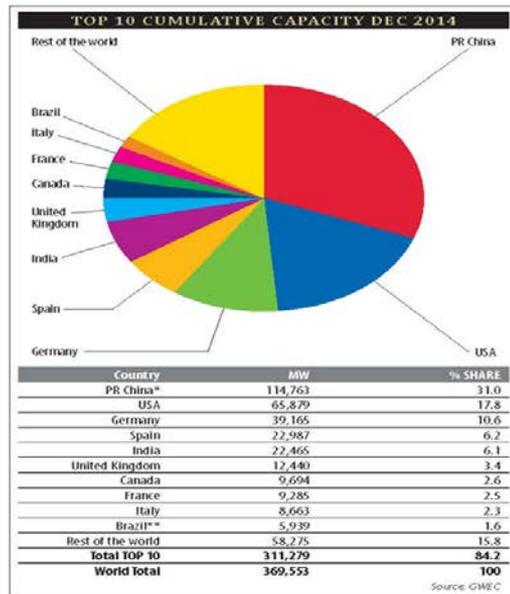
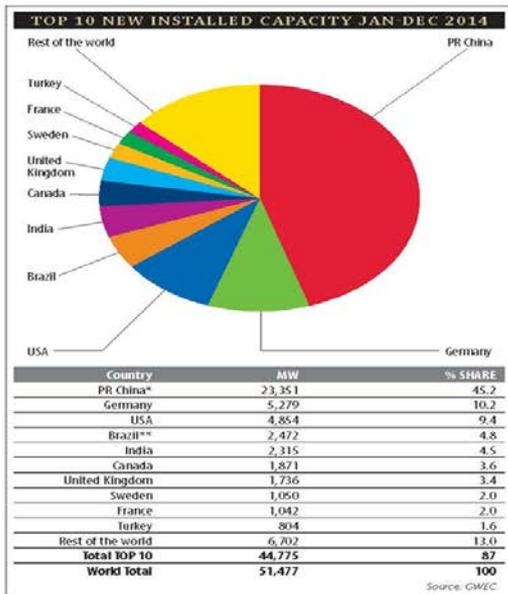
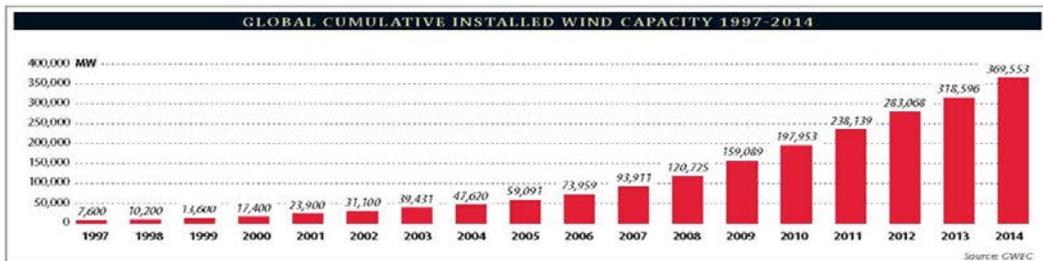
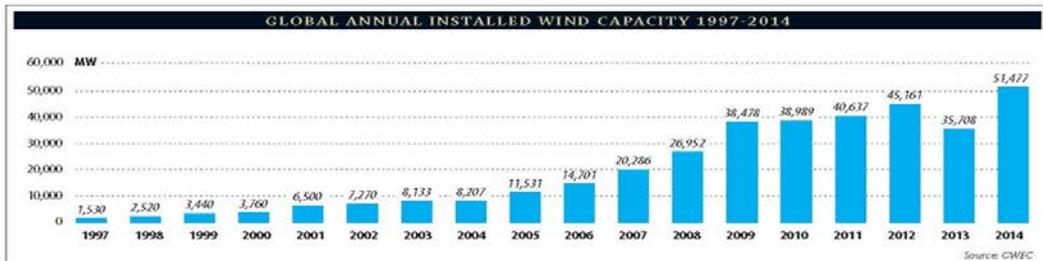
⁶ Bolivia, Colombia, Ecuador, Venezuela

Note:

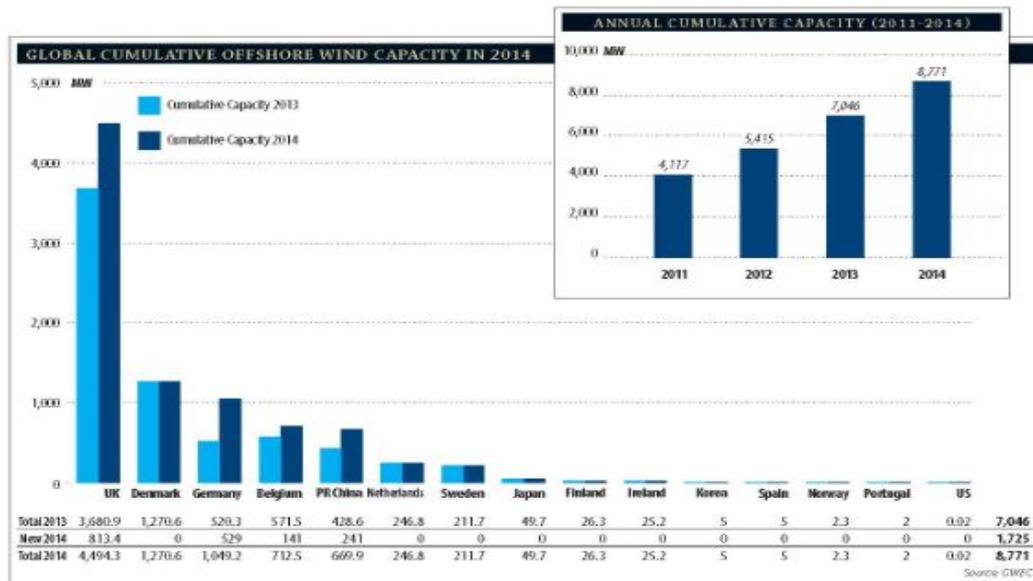
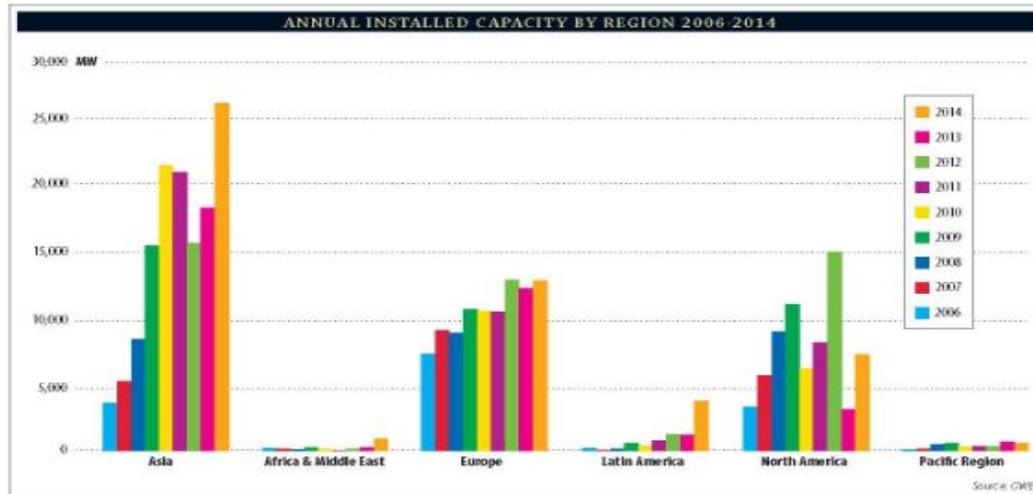
Project decommissioning of approximately 523 MW and rounding affect the final sums

* Provisional figure

** Projects fully commissioned, grid connection pending in some cases



* Provisional figure
 ** Projects fully commissioned, grid connections pending in some cases



TOP FIVE COUNTRIES

ANNUAL INVESTMENT / NET CAPACITY ADDITIONS / PRODUCTION IN 2013

	1	2	3	4	5
Investment in renewable power and fuels	China	United States	Japan	United Kingdom	Germany
Share of GDP 2012 (USD) invested ¹	Uruguay	Mauritius	Costa Rica	South Africa	Nicaragua
 Geothermal power capacity	New Zealand	Turkey	United States	Kenya	Philippines
 Hydropower capacity	China	Turkey	Brazil	Vietnam	India
 Solar PV capacity	China	Japan	United States	Germany	United Kingdom
 CSP capacity	United States	Spain	United Arab Emirates	India	China
 Wind power capacity	China	Germany	United Kingdom	India	Canada
 Solar water heating capacity ²	China	Turkey	India	Brazil	Germany
 Biodiesel production	United States	Germany	Brazil	Argentina	France
 Fuel ethanol production	United States	Brazil	China	Canada	France

TOTAL CAPACITY OR GENERATION⁶ AS OF END-2013

	1	2	3	4	5
POWER					
Renewable power (incl. hydro)	China	United States	Brazil	Canada	Germany
Renewable power (not incl. hydro)	China	United States	Germany	Spain / Italy	India
Renewable power capacity <i>per capita</i> (not incl. hydro) ³	Denmark	Germany	Portugal	Spain / Sweden	Austria
 Biopower generation	United States	Germany	China	Brazil	India
 Geothermal power	United States	Philippines	Indonesia	Mexico	Italy
 Hydropower ⁴	China	Brazil	United States	Canada	Russia
 Hydropower generation ⁴	China	Brazil	Canada	United States	Russia
 Concentrating solar thermal power (CSP)	Spain	United States	United Arab Emirates	India	Algeria
 Solar PV	Germany	China	Italy	Japan	United States
 Solar PV capacity <i>per capita</i>	Germany	Italy	Belgium	Greece	Czech Republic
 Wind power	China	United States	Germany	Spain	India
 Wind power capacity <i>per capita</i>	Denmark	Sweden	Spain	Portugal	Ireland
HEAT					
 Solar water heating ²	China	United States	Germany	Turkey	Brazil
 Solar water heating capacity <i>per capita</i> ²	Cyprus	Austria	Israel	Barbados	Greece
 Geothermal heat ⁵	China	Turkey	Iceland	Japan	Italy



Financing Strategies

- Partnership Flip Structures
- Yield Companies
- Corporates
- Sale/Leaseback Structures