



Renewable power generation 2015: The latest World-Market Status

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The World-Market Status special report – After two years of reductions, the 2014 investments in renewables were increasing to the value of 310 billion USD – nearly reaching an all-time high. The renewable energy markets are shifting significantly towards the emerging markets, and hydropower continues as the largest renewable technology with nearly three times the cumulated capacity of the second player, the wind sector.

This special Renewable Energy Focus power generation report concludes the latest Renewable Electricity Market, Installed Power and Annual Electricity Generation (REMIPEG) report, carried out in the first half year of 2015. The report presents the recent overview for the status of the renewable energy market until the end of 2014. On the one hand, the data is based on available public information of various organisations in the different renewable energy markets

and on the other hand, on expert information from the consultancy business in this market segment.

Global investment trends

Over the past decade, the demand for renewable energy worldwide has increased as a result of various factors. First, strict environmental policies have limited CO₂ emissions from conventional

Renewable Energy Type	Cumulated installed capacity 2014	New installed capacity 2014	Growth of cumulated installed capacity	Growth rate of newly installed capacity (2013-2014)	Estimated electricity generation 2014
	[GW]	[GW]	[%]	[%]	[TWh/y]
Hydropower	1,058.3	39.0	5	-2	3,814.8
Wind power	368.5	50.2	17	42	705.7
Solar PV	168.1	39.4	25	9	223.5
Solar CSP	4.5	0.7	19	-37	8.3
Biomass	93.0	4.4	5	16	263-651
Geothermal	12.6	0.6	5	22	73.7
World Total	1,705.0	134.4	13	8	5089-5477

Figure 1
Summary of the global renewable energy market in 2014.



Hydropower continues as the largest renewable technology (Image courtesy of Shutterstock).

power plants, encouraging the construction of renewable energy plants.

This is also supported by the major international financing institutions, influencing technology deployment for renewable electricity generation in developing and emerging countries. Simultaneously, the momentarily decreasing price trend of fossil fuels is putting this development under pressure. The future installation of renewable energy projects will depend on the development of these trends.

Additionally, some further factors have led to a political influence on the developments of some of the established markets. Partly due to more difficult financial situations (relevant for Spain, Italy and Greece) or due to a quite high level of renewable resources achieved in the grid (especially in Germany), the amount of new installations in renewables are being limited by different political measures.

On the other hand, there are a number of several growing markets that support renewables significantly, such as China, South Africa and Chile. Furthermore, the prolongation of the PTC in the US has reaffirmed this major market, which has a significant impact on the global installation numbers. Also the very stable hydropower market contributes to the positive development of the renewable energy segment. For this technology, the amount of new installations has been strongly linked to the developments in China.

Political trends

For future developments, the effects of the decrease of fossil fuel prices will be important. The expectations so far show some diversity if such a decrease will reduce the growth of renewable sources. In the past, increases in fossil fuel prices have been a strong driver for development of renewable sources to reduce dependence from imports. Such decrease in fuel prices could slow down the development of renewables.

On the other hand, the political need to avoid climate change has become stronger than ever, which will further increase the need to support de-carbonisation of industry, and hence the support of further growth of renewable energies. Despite these uncertainties, the overall perspective for further growth of renewable energies is stable.

Sector activity

After two years of reductions, investments in renewables were increasing again in 2014 to a value of 310 billion USD, nearly reaching an all-time high. The trend for fast growth in Asia Pacific is maintaining, while Europe is stabilising on a comparatively low level. The renewable energy markets are shifting significantly towards the emerging markets and this trend will likely maintain.

According to the REMIPEG database, the cumulated installations in North America and Europe went further down from 46%

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