

ChinaFAQs

The Network for Climate and Energy Information

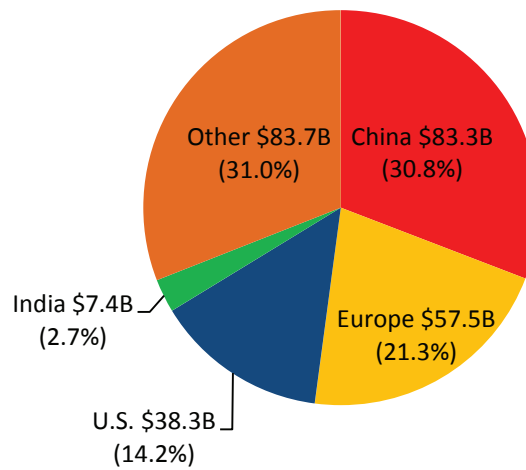


Renewable Energy In China: A Graphical Overview of 2014

Key Points

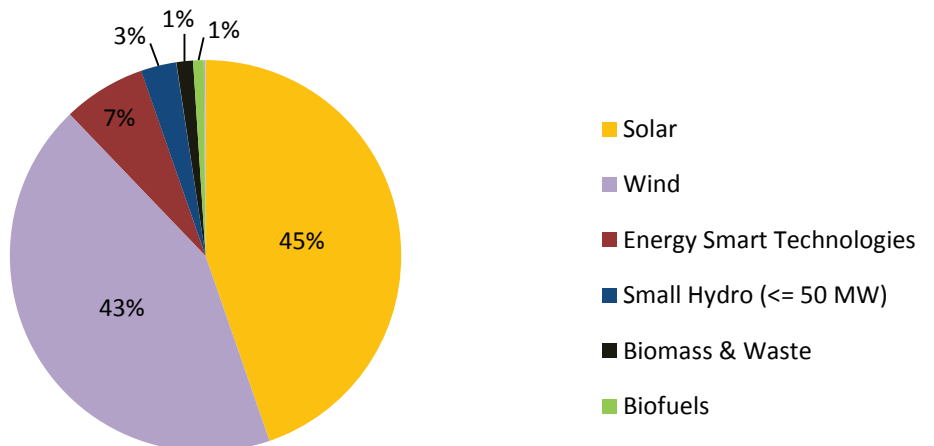
- As of 2014, China got 11.2% of its total primary energy from non-fossil sources.¹ Official targets aim to increase the share of primary energy from non-fossil sources to at least 11.4% by the end of 2015 and 15% in 2020.² China's contribution to the anticipated international climate agreement includes a target to increase the non-fossil share to around 20% by 2030.³
- Wind Power: China ranks first in the world in installed wind power capacity, with about 110 GW by the end of 2014.⁴ China is also the world's fastest-growing installer of wind power, and it aims to have 200 GW installed by 2020.⁵
- Solar Power: China had nearly 33 GW of solar power capacity installed by the end of 2014,⁶ and is attempting to dramatically scale up, planning to install an additional 17.8 GW of solar projects in 2015 and a total of 100 GW by 2020.⁷
- Investment: China was the number one investor in renewable energy in 2014, accounting for nearly a third of global investment.

Global Investment in Renewable Energy in 2014 (Billion USD)



Source: see endnote 8

Breakdown of China's Clean Energy Investment in 2014 by Sector



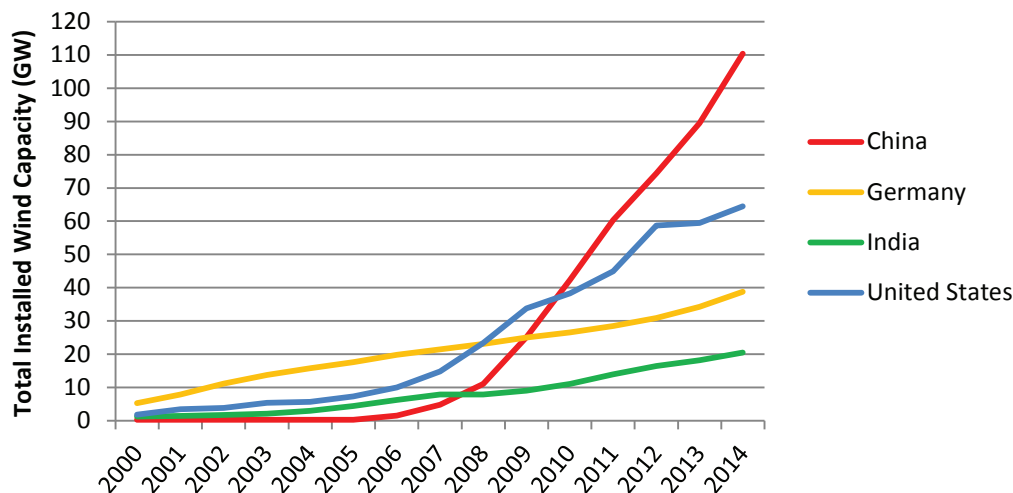
Source: see endnotes 9, 10, 11

Contact

GEOFFREY HENDERSON
ChinaFAQs Project Specialist,
Climate Program

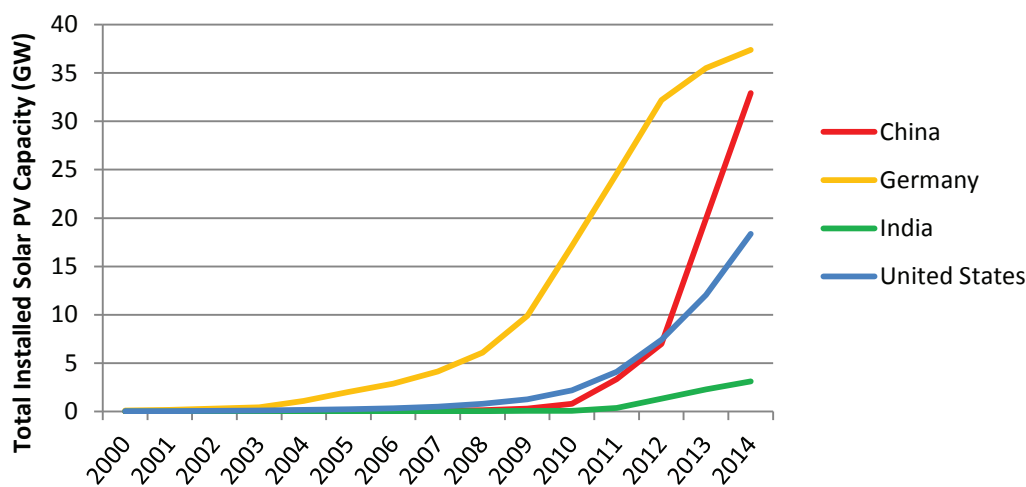
World Resources Institute
Ghenderson@wri.org
(202) 729-7845

Total Installed Wind Capacity



Source: see endnote 12

Total Installed Solar PV Capacity



Source: see endnote 12

This fact sheet is a product of ChinaFAQs, a joint project of the World Resources Institute and experts from leading American universities, think tanks and government laboratories. Find out more about the ChinaFAQs Project at: <http://www.ChinaFAQs.org/>.

Notes

¹ "Enhanced Actions on Climate Change: China's Intended Nationally Determined Contributions", submitted to UNFCCC June 30, 2015 <http://www4.unfccc.int/submissions/INDC/Published%20Documents/China/1/China%27s%20INDC%20-%20on%2030%20June%202015.pdf>

² For a list of China's various energy related targets, see ChinaFAQs fact sheet: "What are China's National Climate and Energy Targets?" <http://www.chinafaqs.org/library/chinafaqs-what-are-chinas-national-climate-and-energy-targets>

³ "Enhanced Actions on Climate Change: China's Intended Nationally Determined Contributions", submitted to UNFCCC June 30, 2015 (see link in endnote 1)

⁴ According to Bloomberg New Energy Finance, China had installed about 110 GW of wind power capacity by the end of 2014 (see endnote 12). China's contribution to the international climate agreement (INDC) said China had about 96 GW of on-grid wind power capacity by 2014 (see endnote 1).

⁵ China's INDC includes a target to reach 200 GW of installed wind power capacity by 2020 (see endnote 1); For a more detailed analysis of China's wind industry and the challenges it faces, including integrating wind projects with the electric grid, see: Lewis, Joanna. "Building Our Clean Energy Industries: Learning from China's experience in wind power" Online at: <http://www.chinafaqs.org/blog-posts/building-our-clean-energy-industries-learning-chinas-experience-wind-power>

⁶ The nearly 33 GW figure is from Bloomberg New Energy Finance data (see endnote 12). According to China's National Energy Administration, China had about 28 GW of grid-connected solar power capacity in 2014. See: <http://af.reuters.com/article/commoditiesNews/idAFL4N0VQ1XS20150216>

Notes continued

⁷ Bloomberg, "China Boosts Solar Target for 2015 as It Fights Pollution". March 18, 2015 <http://www.bloomberg.com/news/articles/2015-03-18/china-increases-solar-target-for-2015-as-it-fights-air-pollution>; China's INDC includes a target to reach 100 GW of installed solar power capacity by 2020 (see endnote 1).

⁸ The percentages in the figure are rounded to the nearest tenth of a percent. Investment data are from Bloomberg New Energy Finance and are presented in Frankfurt School-UNEP Centre/BNEF. 2015. Global Trends in Renewable Energy Investment 2015 http://apps.unep.org/publications/pmtdocuments/-Global_trends_in_renewable_energy_investment_2015-201515028nefvisual8-mediumres.pdf.

Total global investment in renewable energy in 2014 was \$270.2 billion, a 17% increase from 2013. Total "financial investment" includes \$185bn from venture capital, government R&D, corporate RD&D, private equity expansion capital, public markets, asset finance, and small distributed capacity. Total global investment includes total "financial investment" as well as an additional \$85.2 in government R&D, corporate RD&D, and small projects. The data includes all biomass and waste-to-energy, geothermal, and wind generation projects of more than 1 MW; all hydropower projects of between 1MW and 50MW; all wave and tidal energy projects; all biofuel projects with a capacity of one million liters or more per year; and all solar projects, with those less than 1MW estimated separately and referred to as small-scale projects, or small distributed capacity. Where data on the value of transactions was unavailable, the value was estimated based on comparable transactions. These investment figures do not include energy-smart technologies (smart grid, electric vehicles, power storage etc.).

⁹ Bloomberg New Energy Finance has published data on clean energy investment which include a broader range of low-carbon technologies than UNEP includes in its calculations of renewable energy investment. According to this data, global clean energy investment was \$310 billion in 2014, China's investment totaled \$89.5 billion, Europe invested \$66 billion, and the U.S. invested \$51.8 billion. See: Bloomberg New Energy Finance. "Clean Energy Investment Jumps 16% On China's Support For Solar". Jan. 9, 2015. <http://about.bnef.com/bnef-news/clean-energy-investment-jumps-16-on-china-support-for-solar/>

¹⁰ Data compiled for ChinaFAQs using Bloomberg New Energy Finance data accessed on June 16, 2015. The Bloomberg New Energy Finance data is available through a subscription to their desktop database, which can be accessed at: www.bnef.com

¹¹ In addition to the categories shown in the figure, BNEF investment data for China in 2014 includes \$121.44 million in Carbon Capture & Storage, Low Carbon Services & Support, and Geothermal. However, these technologies together received investment totaling roughly 0.1% of China's investment in 2014, and are therefore not represented in the figure.

¹² Data compiled for ChinaFAQs using Bloomberg New Energy Finance data accessed on June 8, 2015.

ChinaFAQs

World Resources Institute
10 G St NE
Washington, DC 20002
202-729-7600
www.ChinaFAQs.org