

ChinaFAQs

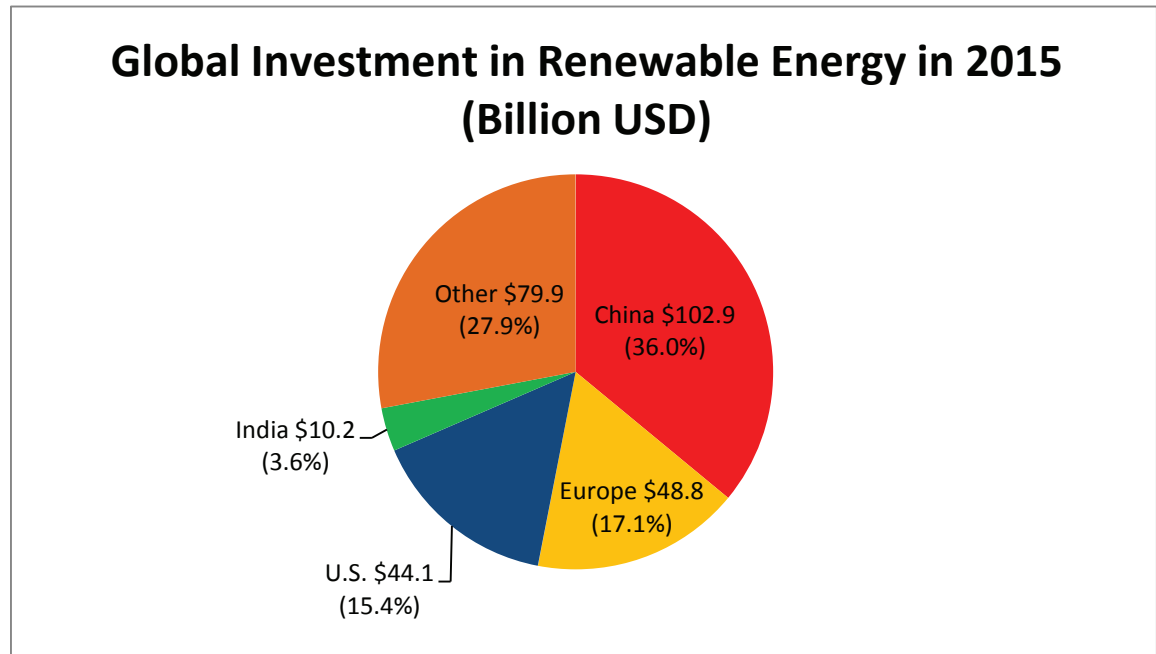
The Network for Climate and Energy Information



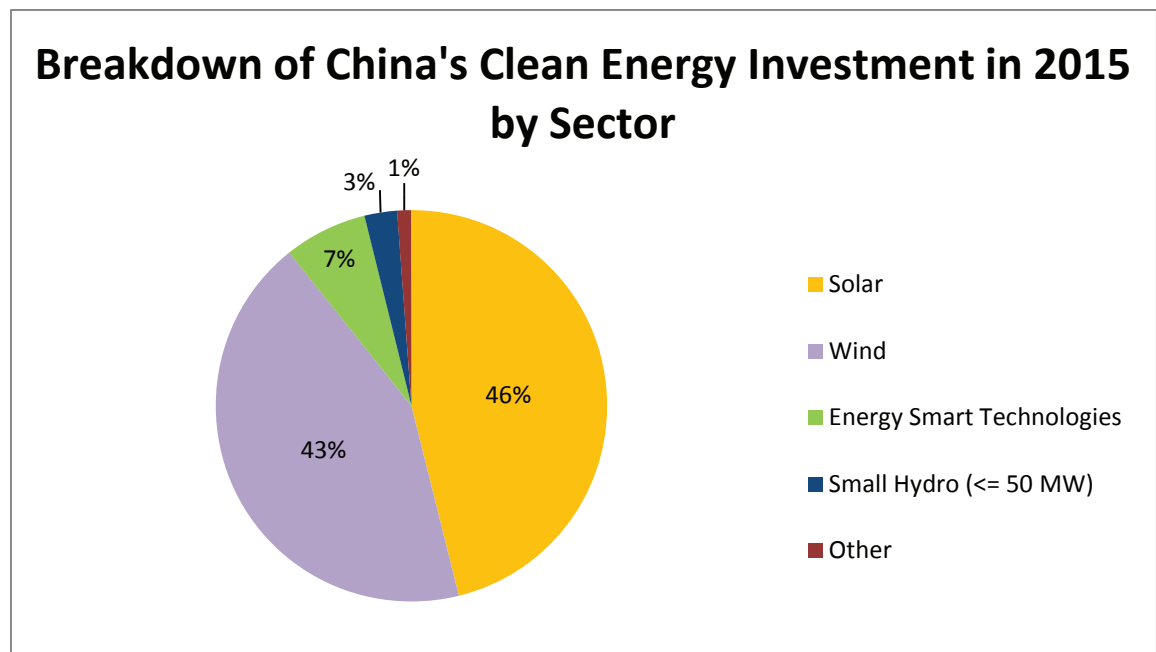
Renewable Energy In China: A Graphical Overview of 2015

Key Points

- As of 2015, China got 12% of its total primary energy from non-fossil sources. China's 13th Five Year Plan aims to increase the share of primary energy from non-fossil sources to 15% in 2020.¹ As part of its nationally determined contribution (NDC) to the Paris Agreement, China committed to increase the non-fossil share to around 20% by 2030.²
- Wind Power: China ranks first in the world in installed wind power capacity, with 139 GW by the end of 2015.³
- Solar Power: China has surpassed Germany to become the world leader in installed solar power, with 50 GW of solar capacity installed by the end of 2015.⁴
- China is the world's leading installer of solar and wind power, with world records for capacity installation in 2015 and targets for 100 GW of solar and 200 GW of wind installed by 2020.⁵
- Investment: For the fourth straight year, China was the number one investor in renewable energy in 2015 with \$102.9 billion, accounting for over a third of global investment.



Source: see endnote 6



Source: see endnotes 7, 8, 9

GEOFFREY HENDERSON
ChinaFAQs Project Specialist,
Climate Program
World Resources Institute

Contact

PAUL JOFFE
Senior Foreign Policy Counsel,
Climate Program
World Resources Institute
PJoffe@wri.org
(202) 729-7667

Notes continued

⁴ cont. capacity at the end of 2015. See: NBS, “Statistical Communiqué of the People’s Republic of China” (see endnote 3).

⁵ China’s NDC includes a target to reach 100 GW of installed solar capacity, and 200 GW of wind capacity, by 2020 (see endnote 2). However, an official of China’s National Energy Administration has said that for China to meet its target to raise the non-fossil share of energy to 15% by 2020, China will need to install 150 GW of solar power capacity and 250 GW of wind power capacity by that date. <http://af.reuters.com/article/energyOilNews/idAFL3N0YA3OT20150519>

⁶ 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, 2016. Global Trends in Renewable Energy Investment 2016 <http://fs-unesp-centre.org/publications/global-trends-renewable-energy-investment-2016>. Total global investment in renewable energy in 2015 was a record \$285.9 billion, a 5% increase from 2014. Total “financial investment” includes \$209.4 billion in 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 \$76.5 billion 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 1 MW and 50 MW; 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 1 MW 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.).

⁷ 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. This graphic is based on the broader BNEF data. According to this data, global clean energy investment was \$328.9 billion in 2015, China’s investment totaled \$110.5 billion, Europe invested \$58.5 billion, the U.S. \$56 billion, and India \$10.9 billion. See: Bloomberg New Energy Finance. “Clean energy defies fossil fuel price crash to attract record \$329 billion global investment in 2015.” Jan 14, 2016. <http://about.bnef.com/press-releases/clean-energy-defies-fossil-fuel-price-crash-to-attract-record-329bn-global-investment-in-2015/>

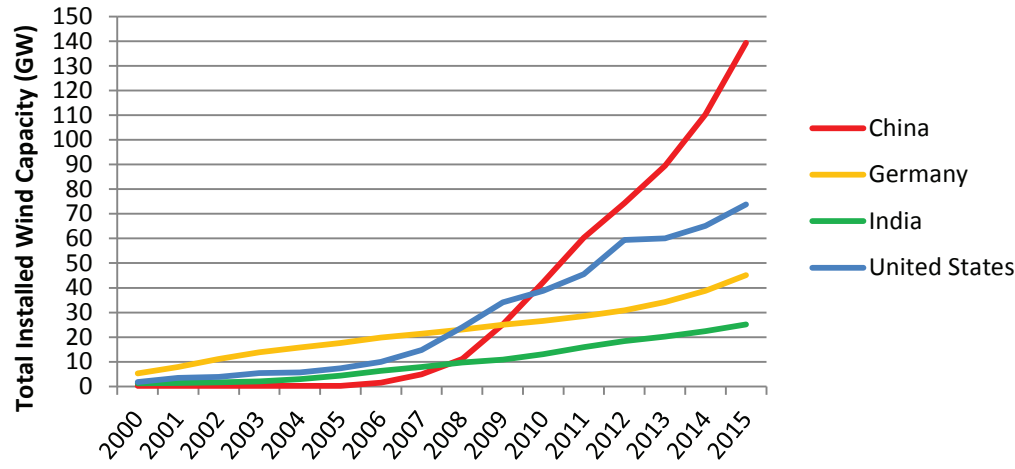
⁸ Data compiled for ChinaFAQs using Bloomberg New Energy Finance data accessed on May 20, 2016. Bloomberg New Energy Finance data is available through a subscription to their desktop database, which can be accessed at: www.bnef.com

⁹ The category labeled “Other” in the graphic includes \$685.21 in Biomass and Waste, \$547.77 in Biofuels, \$47.54 in Low Carbon Services and Support, and \$14.22 in Geothermal.

ChinaFAQs

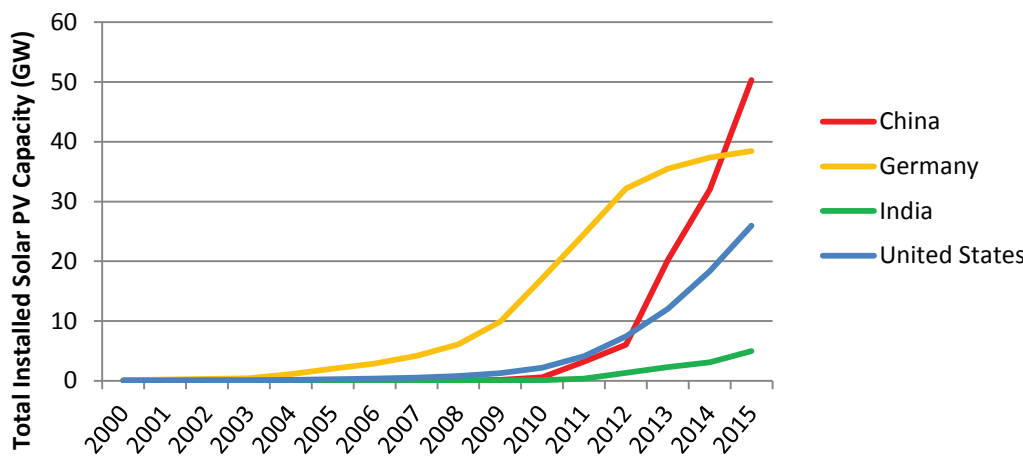
World Resources Institute
10 G St NE
Washington, DC 20002
202-729-7600
www.ChinaFAQs.org

Total Installed Wind Capacity



Source: see endnote 8

Total Installed Solar PV Capacity



Source: see endnote 8

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 Xinhua News Agency, People’s Republic of China National Economic and Social Development Five-Year Plan, March 17, 2016 (in Chinese) http://news.xinhuanet.com/politics/2016h/2016-03/17/c_1118366322.htm

² “Enhanced Actions on Climate Change: China’s Intended Nationally Determined Contributions”, submitted to UNFCCC June 30, 2015 (English translation starts on page 17) <http://www4.unfccc.int/submissions/INDC/Published%20Documents/China/1/China%27s%20INDC%20-%20on%2030%20June%202015.pdf>

³ According to Bloomberg New Energy Finance, China had installed 139 GW of wind power capacity by the end of 2015 (see endnote 8). China’s official statistics for 2015 indicated that China had installed 129 GW of grid-connected wind capacity by the end of the year. See: National Bureau of Statistics of China (NBS), “Statistical Communiqué of the People’s Republic of China on the 2015 National Economic and Social Development”, February 29, 2016. While China is the world leader in installed wind capacity, recent data from the Global Wind Energy Council and the US Energy Information Administration show that the United States produced marginally more electricity from wind than China did in 2015. <http://cleantechica.com/2016/03/01/us-continues-lead-world-wind-energy-production-china-blows-past-eu/>. For an explanation of the challenges China faces in integrating renewable energy into the grid, and the steps China is taking to address them, see: Ranping Song and Miao Hong, “China’s 1-2-3 Punch to Tackle Wasted Renewable Energy”, *ChinaFAQs*, April 28, 2016. <http://www.chinafaqs.org/blog-posts/chinas-1-2-3-punch-tackle-wasted-renewable-energy>

⁴ The 50 GW figure is from Bloomberg New Energy Finance data (see endnote 8). According to official statistics, China had 43 GW of grid-connected solar power