

By the Numbers: China, the U.S., and Clean Energy Finance and Innovation

**Josh Freed**Vice President for the
Clean Energy Program[@ThirdWayEnergy](#)**Robert Walther**

Finance and innovation. Two words closely associated with America's economic might. But today China is adopting policies to slowly gain ground against the U.S. in these two areas. The U.S. still maintains a lead, but just as with manufacturing and deployment of energy technologies, without market certainty and public funding, we could bear witness to the slow decline of our traditional sources of economic strength.

China Capitalizes Clean Energy Projects

1 China's rank as the country with the most public market financing in the clean energy sector. ¹

3rd Rank of the United States in total clean energy investment in 2010, behind China and Germany. In 2008, the United States ranked first. ²

\$47.3 billion Amount of asset financing China secured in 2010 for clean energy projects.* The U.S. attracted \$21 billion in 2010. ³

Asset financing is the main source of private debt for clean energy projects and is considered by many to be a barometer of clean energy deployment.

60% of all clean energy technology IPOs in the world in 2010 were from Chinese companies. ⁴

China is Gaining More Interest and Confidence from the Financing Community

1st According to Ernst and Young, for the first time China beat the U.S. in terms of its attractiveness for renewable energy investment. ⁵

20% China's share of total global clean energy investment in 2010, while the U.S. saw **19%**. In 2004, China only had 3% of the total, while the U.S. saw 20% of the investment. ⁶

\$54.4 billion Amount of additional clean energy financing China attracted in 2010, a 39% increase over 2009 and equal to the entire amount of clean energy investment worldwide in 2004. ⁷ Similar financing in the U.S. stagnated last year at \$34.4 billion, approximately equal to 2007 levels. ⁸

China Edges Up on the U.S. Innovation Lead

1 China's expected rank as the leader in the overall number of patents filed in 2011, surpassing the United States and Japan for the first time. ⁹

2nd China's rank in estimated number of people engaged in scientific and engineering research and development. ¹⁰

83,000 Number of research articles produced by China in 2006, more than Japan, Germany, and the U.K., and second only to the U.S. This is an increase of more than 415% since 1998. ¹¹

33rd China's rank in global innovation by the Information Technology and Innovation Fund. China, however, has seen the largest increase of any nation in its innovation score over the last decade, up **19.5 points** compared to a **2.7 point** increase in America's score. ¹²

16 Number of national energy research and development centers China is creating intended specifically to drive innovation in the clean energy sector. ¹³

By the end of 2011, national Chinese R&D expenditures are targeted to rise **11%** off levels earlier in the year. ¹⁴

Eight of ten companies with the largest R&D budgets have established R&D facilities in China, India, or both. ¹⁵

600% increase in the number of college graduates in science fields in China between 1995 and 2005. ¹⁶

END NOTES

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