CLEAN ENERGY DEPLOYMENT

China Leads in Deploying and Benefiting from Clean Energy Technologies

China isn't just the best at making clean energy technologies, it is also the best at using them. As a result, China will be less reliant on fossil fuels. This means greater energy independence for China, while the U.S. remains reliant not only on overseas oil, but also on Chinese imports.

China is expected to have **1,242 GW** total electric capacity installed by 2020.[1] This is a 38% increase over its 2010 installed energy capacity.[2]

150 GW the additional wind, solar, and biomass energy capacity China is expected to install between 2010 and 2020 based on its recently released 12th Five-Year Economic Plan.[3] The U.S. is projected to install only **19 GW** between 2009 and 2020, or **87%** less than China.[4]

Consistent with China's plan to deploy **7.6 times** the amount of clean energy in 2020 as it had in 2009, renewable energy sources are expected to provide approximately 15% of China's electricity generation.[5] Current U.S. projections show that renewables are on track to constitute 13% of our 2020 electric generation.[6]

China Implements National Policies to Encourage Its Energy Markets

While the demand is rising for clean energy technology, China has decided to speed up its developing market by strategic policy initiatives aimed at spurring greater investment into energy technologies. While the U.S. continues to limp along without a national energy policy, China is striving to create a domestic market for clean energy knowing that will lead to its companies having greater strength in the international markets.

China mandated a **40%-45%** reduction in carbon intensity by 2020 under a national consumption cap implemented as part of its 12th Five-Year Plan.[7]

China has a five year energy intensity reduction goal of **16%**.[8]

China's implicit price on pollution is **$14.20**, based on policies encouraging the deployment of clean energy and discouraging the continued deployment of conventional fuels.[9] China is expected to implement a pilot program that puts an explicit price on carbon between 2011 and 2015.[10] The United States' implicit price on pollution is **$5.10**, based on similar criteria.[11]

China has declared a **42.2 miles per gallon** nationwide fuel economy standard for vehicles by 2015.[12] The U.S. currently requires that a **34.1 mpg** standard be met by 2016.[13]

China shut down inefficient plants totaling **72 GW** total capacity, resulting in a more competitive Chinese energy fleet.[14]

China requires that **15%** of electricity production be from renewable energy by 2020.[15]

China Provides Its Energy Industries with Startup and Operating Capital

The total Chinese public and private capital investment in clean energy was **$114.1 billion** in 2009, while total United States public and private capital investment in clean energy, excluding temporary Recovery Act funding, was **$21.1 billion.**[16]

The China Development Bank provided **$35 billion** in financing to private firms for clean energy in 2010, while the United States' Federal Financing Bank provided only **$2 billion**.[17]

$54.4 billion Chinese private investment in clean energy in 2010, compared with $34 billion of private investment in the U.S.[18]

China's Energy Successes from Its Investments

1 out of every 2 wind turbines installed in 2010 were installed in China.[19] China installed three times as much wind power capacity during 2010 as the United States (18.9 GW vs. 5.1 GW).[20]

China's total installed wind capacity in 2010 was **44.7GW**.[21] It surpassed the U.S., which had 40.2 GW of installed wind capacity, making China the largest wind market in the world.[22]

In 2009, **43%** of global nuclear projects were under construction or being developed in China.[23] **25** new plants are under construction in China, leading to an expected tenfold increase in capacity of 80 GW by 2020.[24] There are **4** new plants now expected to be constructed in the U.S. by 2020.[25]

China's stated goal for total installed solar capacity is **50 GW** by 2020.[26] The U.S. has no stated national goal for installed capacity by 2020.

The operating distance of high-speed rail (greater than 200 km/hr) in China at the end of 2010 was **8,358 km** (5,193 miles). The country is planning to add an additional 16,000 kilometers (about 10,000 miles) by 2015.[27] The U.S. only had **1,270 km** (789 miles) of what is technically high-speed rail at the end of 2010.[28]

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