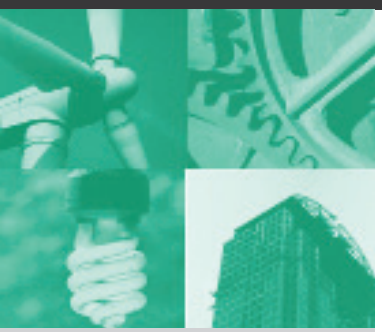

Key Points

- China is doing a lot to address climate and clean energy issues
- China has powerful reasons based on self-interest to act on climate change. Therefore current policies are likely to be continued and strengthened
- China's coal use is expected to peak in 2020 given current policies and market trends
- China and U.S. action can address a large part of the global climate problem and encourage others to act.
- For leaders in clean energy markets, there are big new opportunities for jobs and economic growth from competition, cooperation and expanding markets.

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ChinaFAQs — Short Take

Is China acting on climate change and clean energy?

- China is doing a lot to address climate and clean energy issues.
  - Big investments in renewable energy
    - China is now the **number one in the world in installed wind capacity** with 89 GW. The US has 60 GW.
    - China is also trying to dramatically increase **solar PV** deployment. It installed 12 GW of solar PV in 2013, the most any country has ever installed in a single year.
      - Numbers show China now has 19 GW of solar PV installed while the US has 12 GW.
    - In 2013 China invested $54.2 billion in renewable energy projects, while the US invested $36.7 billion.
  - Carbon markets
    - China is **starting pilot carbon markets** in 5 cities and 2 provinces.
  - Targets in 12th Five Year Plan (FYP)
    - Target to cut carbon intensity of the economy by 17% from 2010 levels by 2015
    - Target to cut energy intensity of the economy by 16% from 2010 levels by 2015
    - Target to increase the non-fossil fuel energy in the overall energy mix to 11.4% by 2015, from less than 8% in 2010.
    - Government **officials are now evaluated in part by how they meet their environmental targets**, creating incentives within the government to meet the targets.
  - The targets are credible.
    - In the **11FYP China successfully reduced energy intensity by 19.1%** (target was 20%).
      - To do this, China mandated efficiency measures and closed down old inefficient thermal power sources.

Will China continue to take stronger action on climate and clean energy?

- China has **powerful reasons based on self-interest** to act on climate change. Therefore current policies are likely to be continued and strengthened.
  - **Local environmental quality** issues
    - China will be investing $275 billion over the next five years improving air quality.
    - China recently banned new coal-fired power plants around Beijing, Shanghai and Guangzhou.
    - The government has to address the air pollution issue because it is such a visible public problem.
    - As part of the effort to combat air pollution, China is also investing heavily in renewable energy and more efficient technologies, thus **reducing carbon emissions in the process.**
  - China is **very vulnerable to climate change.**
    - 1/3 of Chinese coastline is "highly vulnerable" or "very highly vulnerable" to sea level rise, with more than 90% of the coast at least "moderately vulnerable."
      - Coastal zones host 42% of the population and produce 51% of the GDP.
    - By 2030 overall crop productivity in China could decrease by 5%-10% with no action.
    - By second half of 21st century, climate change could cause yield reductions in rice, maize and wheat up to 37%.
- According to Lawrence Berkeley National Laboratory, **China's coal use is expected to peak in 2020** given current policies and market trends.
  - Growth in coal demand is showing signs of slowing.
- The government is currently talking openly about rebalancing, which would involve orienting the country more towards consumption and services, away from high energy intensity industry, thus further helping reduce emissions.

What are the implications of China's action for the U.S.?

- China and U.S. action can address a large part of the global climate problem and **encourage others to act**.
  - The U.S. and China's combined carbon emissions account for over 40% of the world's total.
- With the U.S., China, and other countries such as Germany and India, as leaders in clean energy markets, there are **big new opportunities for jobs and economic growth** from competition, cooperation and expanding markets.
  - To make this a reality, countries have implemented policies supporting clean energy, but these efforts need to be strengthened.

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/.

For more information:

On China's progress with renewable energy see ChinaFAQs fact sheet: "Renewable Energy in China – An Overview" http://www.chinafaqs.org/library/chinafaqs-renewable-energy-china-overview-0

On China's energy and climate targets see ChinaFAQs Issue Brief: "ChinaFAQs: What are China's National Climate and Energy Targets?" http://www.chinafaqs.org/library/chinafaqs-what-are-chinas-national-climate-and-energy-targets

On some of the successes of China's 11th Five Year Plan see ChinaFAQs fact sheet: "China's Energy Conservation Accomplishments of the 11th Five Year Plan" http://www.chinafaqs.org/library/chinafaqs/chinas-energy-conservation-accomplishments-11th-five-year-plan

On China's self-interests to act on climate change see ChinaFAQs blog: "New Issue Brief Explores China's Motivation to Act on Clean Energy and Climate Change" http://www.chinafaqs.org/blog-posts/new-issue-brief-explores-chinas-motivation-act-clean-energy-and-climate-change

On China's recent $275 billion planned investment in cleaning up air pollution and the regional ban on new coal-fired power plants see: http://www.chinafaqs.org/blog-posts/china-can-turn-its-challenges-clear-opportunities-greener-growth

On projections of sea level rise in China see: Jie Yin, Zhane yin, Jun Wang, and Shiyuan Xu. "National assessment of coastal vulnerability to sea-level rise for the Chinese Coast." Journal of Coastal Conservation. March 2012, vol. 16, Issue 1. Page 123-133. Online at: http://link.springer.com/content/pdf/10.1007/s11852-012-0180-9.pdf

On impacts of climate change on agriculture in China see: Lin Erda, Xu Yinlong, Wu Shaohong, Ju Hui, and Ma Shiming. "China's National Assessment Report on Climate Change (II): Climate change impacts and adaptation." Advances in Climate Change Research. 2007, vol. 3. Pages 6-11. Online at: http://www.climatechange.cn/EN/abstract/abstract8397.shtml

On Lawrence Berkeley National Laboratory's projections of China's future coal use see: David Fridley, Nina Zheng, Nan Zhou, Jing Ke, Ali Hasanbeigi, Bill Morrow, and Lynn Price. "China Energy and Emissions Paths to 2030." Lawrence Berkeley National Laboratory, China Energy group. August 2012, Page 9. Online at: http://eaei.lbl.gov/publications/china-energy-and-emissions-paths-2030

On U.S. and Chinese action inspiring global action see ChinaFAQs fact sheet: "U.S.-China Collaboration: Can They 'Inspire the World'?" http://www.chinafaqs.org/library/chinafaqs-us-china-collaboration-can-they-inspire-world

On the economic and jobs benefits of clean energy see ChinaFAQs issue brief: "Clean Tech's Rise, Part I: Will the U.S. and China Reap the Mutual Benefits?" http://www.chinafaqs.org/library/issue-brief-clean-techs-rise-part-i-will-us-and-china-reap-mutual-benefits

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