

ChinaFAQs

The Network for Climate and Energy Information



U.S. – China Collaboration on Energy & Climate

Key Points

- Collaboration between the United States and China, the world's two largest emitters of greenhouse gases, will be key to scaling up the technologies needed to curb climate change and reduce costs.
- The two nations have collaborated for over 20 years on energy and climate issues, and recently agreed to a new, wide-ranging set of cooperative efforts.
- Collaboration can deliver tangible benefits to both nations and the world at-large, including new markets for U.S. technologies, better monitoring of China's emissions, and lower global costs of controlling emissions.

As the world's two largest emitters of greenhouse gases, the United States and China are a big part of the climate change problem. But climate experts say the two powers can also be a big part of the solution – by working together to scale up the technologies needed to address climate change, and drive down their costs.

“If we succeed in working cooperatively with China to reduce CO₂ emissions, the world stands a far greater chance of reducing the threat of global climate change,” says Mark D. Levine, a senior scientist at the U.S. Department of Energy's Lawrence Berkeley National Laboratory who has been involved in U.S.-China energy partnerships for decades. “If we do not, it's difficult to see how China will do it all alone.”ⁱ

The U.S. and China have been collaborating on energy and climate issues for more than 20 years. China, for instance, has gained key technical assistance from the U.S. that has helped it develop energy saving standards for buildings, household appliances and autos.ⁱⁱ At the same time, U.S. government officials, business executives and academics have gained extensive insight into China's complex energy system and its approach to policy-making, and have built working relationships with key decision-makers. Both nations are also gaining practical, hands-on experience deploying new technologies – from carbon sequestration to advanced wind turbines – due to China's rapid economic growth. The lessons learned, experts predict, will help drive down the

costs of these technologies worldwide.ⁱⁱⁱ

Over the last few years, the two governments have expanded opportunities for collaboration through a range of agreements and multilateral and bilateral organizations. In 2008, for instance, the two nations signed The Ten-Year Framework Agreement on Energy and Environment.^{iv} Developed within the Strategic Economic Dialog process, it identifies six areas of cooperation, including clean electricity, clean transport and energy efficiency. In December 2008, U.S. and Chinese companies and universities formed seven “EcoPartnerships” under the framework, including partnerships between auto, wind, and energy firms. It also established a plan for U.S. experts to help train Chinese officials in conducting energy audits.^v

In 2009, the Obama Administration built on the Bush-era framework in announcing a wide-ranging package of cooperative efforts with China.^{vi} They include the:

- **U.S.-China Clean Energy Research Center**, which will have a headquarters in each country and facilitate joint research and technology development by teams of scientists and engineers. It will be supported by public and private funding of at least \$150 million over five years, split evenly between the two countries. Initial research priorities include building energy efficiency, clean coal including carbon capture and storage, and clean vehicles.

- **U.S.-China Electric Vehicles Initiative**, which builds on the first US-China Electric Vehicle Forum in 2009. The initiative will include joint standards development, demonstration projects in more than a dozen cities, technical roadmapping and public education projects.
- **U.S.-China Energy Efficiency Action Plan.** U.S. and China will work with the private sector to develop energy efficient building codes and rating systems, benchmark industrial energy efficiency, train building inspectors and energy efficiency auditors for industrial facilities, harmonize test procedures and performance metrics for energy
- **U.S.-China Renewable Energy Partnership**, will develop roadmaps for widespread renewable energy deployment in both countries. The Partnership will also facilitate state-to-state and region-to-region partnerships to share experience and best practices, and a new Advanced Grid Working Group will develop strategies for grid modernization. A new U.S.-China Renewable Energy Forum will be held annually.
- **21st Century Coal program**, which will promote cleaner uses of coal, including large-scale carbon capture and storage (CCS) demonstration projects. Under the program, a number of U.S. companies, including Peabody Energy, General Electric and AES, are working with Chinese companies on developing integrated gasification combined cycle (IGCC) power plants, methane capture and other technologies.
- **Shale Gas Initiative.** The U.S. and China will use experience gained in the United States to assess China's shale gas potential and promote environmentally-sustainable development of shale gas resources.

- **U.S.-China Energy Cooperation Program.** More than 22 companies are founding members of the program, which will include collaborative projects in a wide range of climate and energy areas.

In addition, the U.S. Environmental Protection Agency is working with China's National Development and Reform Commission to improve China's ability to routinely monitor and report its greenhouse gas emissions – a key element of the new Copenhagen Accord.

Such efforts reflect the fact that “cooperation on clean energy and climate change is now seen in both Washington and Beijing as a major issue in U.S.-China relations,” notes Kenneth Lieberthal, a China expert at the Brookings Institution in Washington, D.C. “In addition, the world has awakened to the potential for U.S.-China cooperation on clean energy and climate change.”^{vii} There are still many thorny issues to be worked out, he adds, ranging from funding and trade rules to protecting intellectual property. But if the U.S. and China can continue cooperating, he believes “it will increase hope in the rest of the world that the major players are becoming serious about rising to the challenge of climate change” -- and encourage other nations to forge alliances as well.^{viii}

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

ⁱ Testimony by Mark D. Levine, Staff Senior Scientist and China Energy Group Leader, Lawrence Berkeley National Laboratory, before the U.S.-China Economic and Security Review Commission, August 13, 2008. Page 10.

ⁱⁱ Testimony by Mark D. Levine, Staff Senior Scientist and China Energy Group Leader, Lawrence Berkeley National Laboratory, before the U.S.-China Economic and Security Review Commission, August 13, 2008. Pages 2-3.

ⁱⁱⁱ Lieberthal, Kenneth G. U.S.-China Clean Energy Cooperation: The Road Ahead. Brookings Policy Brief 09-05. John L. Thornton China Center at Brookings, Washington D.C., September 2009. Pages 16-17.

^{iv} U.S. Treasury Department. June 18, 2008. Joint U.S.-China Fact Sheet: U.S.-China Ten Year Energy and Environment Cooperation Framework. <http://www.ustreas.gov/press/releases/reports/uschinased10yrfactsheet.pdf>.

^v U.S. Treasury Department. December 4, 2008. U.S. – China Joint Fact Sheet: Ten Year Energy and Environment Cooperation (HP-1311). <http://www.ustreas.gov/press/releases/hp1311.htm>.

^{vi} See: The White House: Office of the Press Secretary: U.S.-China Joint Statement, November 17, 2009, Beijing, China; and U.S. Department of Energy. November 17, 2009: U.S.-China Clean Energy Announcements. <http://www.energy.gov/news2009/8292.htm>.

^{vii} Lieberthal, Kenneth G. U.S.-China Clean Energy Cooperation: The Road Ahead. Brookings Policy Brief 09-05. John L. Thornton China Center at Brookings, Washington D.C., September 2009. Page 6.

^{viii} Lieberthal, Kenneth G. U.S.-China Clean Energy Cooperation: The Road Ahead. Brookings Policy Brief 09-05. John L. Thornton China Center at Brookings, Washington D.C., September 2009. Page 19.

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