

Jackson Wyoming, U.S.A
U.S.-China Clean Energy Initiative
Jackson Hole Center for Global Affairs
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Interim Report

Executive Summary

China's challenges in developing and applying clean and efficient sources and uses of energy are also our own. A single province – Shanxi, with a population of 30 million – is responsible for 1/5 of the world's total emissions of coalmine methane, a greenhouse gas with 27 times the heat-trapping capacity of carbon dioxide. Shanxi is not only China's largest coal-producing province, but also the world's leading exporter of coke, used in the making of steel. Locally and regionally, the environmental consequences of these mining and manufacturing operations include severe acid rain depositions and the depletion and pollution of surface and ground water supplies.

Chongqing, a major industrial city in China's heartland with a population roughly equal to that of Shanxi, struggles with similar energy and environmental problems, but has the advantage of proximity to abundant sources of natural gas. Chongqing is building an entire auto industry around the development of a fleet of compressed natural gas (CNG) vehicles capable of utilizing this clean-burning and cost-effective energy source.

These were some of the conclusions that emerged from a three-day meeting of representatives from U.S. government, research laboratories, universities, non-profit organizations, and businesses as well as Chinese central and provincial government officials held in Jackson Hole, Wyoming in November 2003. The meeting was organized by the Jackson Hole Center for Global Affairs (JHCGA), as part of JHCGA's U.S.-China Clean Energy Initiative. It was co-chaired by Hon. John F. Turner, Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, and Mr. Shi Dinghuan, Secretary-General of the PRC's Ministry of Science and Technology (MOST). As a native of Jackson Hole, Mr. Turner welcomed Mr. Shi and the other members of the PRC delegation to his home town.

In addressing these challenges, participants agreed on the following principles: 1) unprecedented nature of energy/environmental challenges China faces, as a nation of 1.3 billion people, in embracing a future of rapid industrialization; 2) diversity of approaches needed to respond effectively to these challenges; 3) need for sustainable U.S.-China cooperation in addressing issues of sustainable energy – requiring, in turn, approach based on mutual benefits; and 4) importance of market-based approaches and private-sector involvement (corporate and non-profit).

Participants also agreed in their positive assessment of the actual and prospective role of a range of technologies in addressing these challenges. Some of these technologies, including CNG (as in Chongqing's case) or renewable energy (essential for the development and stability of remote regions in China), demand more immediate

investments and promise more immediate returns. Others, such as carbon sequestration and fuel cells for transportation and other uses, offer longer-term benefits, but warrant investment in research, development, and commercial demonstration now.

These conclusions also point the way toward some obvious opportunities for strengthened U.S.-China cooperation in selected areas of clean energy development and utilization in China. *Coalbed methane development opportunities in Shanxi province* provide a possible focus for strengthened U.S. private sector involvement in the China Coalbed Methane Clearinghouse, an established U.S.-China government-to-government framework. *Chongqing's experience in CNG vehicle development* provides a possible basis for Cummins Westport to cooperate with the U.S. Environmental Protection Agency (EPA) in organizing a demonstration project with other cities in China, in accordance with EPA's clean fuels and vehicles project. *Mining safety, waste minimization, and waste utilization in Shanxi province* provide another possible area in which U.S. private sector organizations, including U.S. members of the Rio Tinto global mining conglomerate, could collaborate with the U.S. government (e.g., Department of Labor) and the World Bank in the demonstration of "best practices."

Both the U.S. Department of Energy (DOE) and the PRC's MOST also endorsed a suggestion that the U.S.-China Clean Energy Initiative help organize a U.S.-China caucus to *promote private sector investment in clean energy projects in China*. DOE suggested that such an effort be undertaken within the framework of the recent commitment of the Asia-Pacific Economic Cooperation (APEC) group to work with the private sector in attracting investments in clean energy infrastructure development in the region. MOST recommended the establishment through such a caucus of a U.S.-China clean energy investment clearinghouse, through which funding sources could be matched with investment opportunities relating to clean energy projects in China.

Shi Dinghuan and other Chinese participants suggested that the next meeting of the U.S.-China Clean Energy Initiative be held in China, in either Shanxi province or Chongqing. This "interim report" is intended as a point of reference for use in measuring progress and defining next steps at that next meeting.

For further information about the U.S.-China Clean Energy Initiative or a copy of the full interim project report, please contact Ms. Olivia Meigs, Director of Communications, Jackson Hole Center for Global Affairs, at 307-733-3404 or olivia.meigs@jhcga.org.