Foreword

The world faces no greater challenge in the 21st century than arresting the rapidly increasing accumulation of greenhouse gases in the atmosphere that cause climate change. The two largest producers of these gases are the United States and China. Their cooperation is essential if there is to be a solution to the daunting climate change challenge. If the United States and China can become active catalysts in bringing about a strategic transformation to a low-carbon, sustainable global economy, the world will take a giant step forward in combating climate change. The United States and China will also edge closer to energy security, protecting their environments and assuring greater prosperity for their citizens. Equally important, they will also succeed in building a far more stable and cooperative foundation for U.S.-China relations as a whole.

In mid-2007, the Asia Society assembled a group of leading experts from the worlds of science, business, academia, politics, and civil society with representatives from the Council on Foreign Relations, the Environmental Defense Fund, The Brookings Institution, the National Committee on U.S.-China Relations, and Pew Center on Global Climate Change, to explore how the United States and China could cooperate more closely on energy and climate change. The result was the establishment of the Initiative for U.S.-China Cooperation on Energy and Climate, generously supported by Asia Society Board Member Jon Anda. The Initiative evolved into a partnership between the Asia Society's Center on U.S.-China Relations, under the leadership of Arthur Ross Director Orville Schell, and Pew Center on Global Climate Change, under the leadership of Eileen Clausen. The Initiative has also been fortunate to gain the sponsorship and assistance of the Chinese People's Institute for Foreign Affairs in Beijing.

The goals are two-fold:

- 1. To draft a "Roadmap" for leaders of the two countries to scale up sharply U.S.-China cooperative projects on energy and climate change.
- 2. To catalyze a major new collaboration in this key area of common interest to put Sino-U.S. bilateral relations on a more stable basis.

This Report explicates both a rationale and an outline for beginning a more comprehensive program of U.S.-China collaboration on energy and climate change that builds on decades of U.S.-China cooperation on energy and environment. It calls for initial engagement at a presidential summit, but also outlines some of the critical project areas that should be jointly explored through practical collaboration by officials at other levels of government as well as by the private sector. Each of our recommended areas of common endeavor—which include coal, energy efficiency, "smart" grids, and renewable energy—should be elaborated through the early appointment of Task Forces assigned to develop a detailed plan of collaboration and implementation in each area.

Drafts of this Report were reviewed in both the United States and China by a broad array of specialists, all of whom share the goal of developing a collaborative plan that would be viewed by Chinese leaders and the new U.S. presidential administration as workable and helpful in accomplishing the above goals.

> Richard C. Holbrooke Chairman, Asia Society

Executive Summary

A new comprehensive program for cooperation between the United States and China that focuses on reducing greenhouse gas emissions, and thus mitigating the potentially catastrophic effects of climate change, is both necessary and possible. Indeed, as this Report suggests, if human beings hope to avoid the worst consequences of global climate change, the United States and China—respectively the world's largest developed and developing nations, the two largest energy consumers, and the two largest producers of greenhouse gases—have no alternative but to become far more active partners in developing low-carbon economies.

To prevail in such a common effort, both countries will need not only bold leadership and a new set of national policies, but also a path-breaking cooperative agenda that can be sustained over the long run. The advent of a new U.S. presidential administration in Washington, D.C., coupled with a central leadership in Beijing that is increasingly aware of the destructive impact and long-term dangers of climate change, presents an unparalleled opportunity for this new strategic partnership.

While the current global economic crisis could make joint action between the United States and China more difficult, it could also provide an unexpected impetus. If wisely allocated, funds invested by both governments in economic recovery can help address climate change while also advancing the "green technologies" and industries that will lead to a new wave of economic growth.

Stronger bilateral collaboration on energy and climate change has at the same time the real prospect of helping to build a new, more stable, and constructive foundation under Sino-American relations, the most important bilateral relationship in the 21st century world.

This Report—which was produced in partnership between Asia Society's Center on U.S.-China Relations and Pew Center on Global Climate Change, in collaboration with The Brookings Institution, Council on Foreign Relations, National Committee on U.S.-China Relations, and Environmental Defense Fund—presents both a vision and a concrete Roadmap for such Sino-U.S. collaboration. With input from scores of experts and other stakeholders from the worlds of science, business, civil society, policy, and politics in both China and the United States, the Report, or "Roadmap," explores the climate and energy challenges facing both nations and recommends a concrete program for sustained, high-level, bilateral engagement and on-the-ground action. The Report and its recommendations are based on the following understandings:

- That because there is overwhelming scientific consensus that human-induced climate change is well underway and poses grave economic and environmental risks to the world, the United States and China need to immediately begin acting in concert, without awaiting new domestic legislation or multilateral agreements, to jointly seek remedies for their emissions of greenhouse gases.
- That because climate change is largely a consequence of soaring global use of fossil fuels, addressing the problem will require a fundamental transformation of energy systems in both countries, as well as worldwide, through the development and deployment of new technologies and the widespread introduction of new energy sources capable of enhancing the diversity, reliability, independence, and "greenness" of national energy supplies.

- That even during a time of global economic upheaval, a strong bilateral effort to address the twin challenges of climate change and energy security can succeed while also contributing to economic recovery and laying the foundation for a prosperous, new, low-carbon economy in each country.
- That a meaningful U.S.-China partnership on climate change issues can be forged on the basis of equity, taking into account the respective stages of development, capacities, and responsibilities of each country.
- That while enhanced U.S.-China cooperation must begin with collaboration between the two national governments, success will ultimately hinge on each nation's ability to catalyze action and investment in the marketplace.
- That if fashioned carefully, closer collaboration on energy and climate can address the problem of climate change and enhance the economic prospects of both nations while conferring on neither an unfair competitive advantage.
- That by demonstrating global leadership and making significant new progress toward closer bilateral cooperation, the world's two largest economies will help achieve stronger multilateral agreement and action under the United Nations (UN) Framework Convention on Climate Change.

The Report recommends that, as a first step in forging this new partnership, the leaders of the two countries should convene a leaders summit as soon as practically possible following the inauguration of Barack Obama to launch a "U.S.-China Partnership on Energy and Climate Change." This presidential summit should outline a major plan of joint-action and empower relevant officials in each country to take the necessary actions to ensure its implementation.

The Report recommends that the partnership be directed by two parallel groups. A U.S.-China high-level council would be established to draw up overall plans for the collaboration. The Commission would include high-ranking environment, energy, and finance officials from both countries. It would meet regularly to establish and review the strategic direction of the new partnership as well as to discuss other issues of common concern, including those relating to ongoing multilateral negotiations.

In addition, each of the highlighted concrete priority areas proposed below would be guided by a second tier of bilateral task forces. These would be composed of senior government officials and independent experts in science, technology, business, finance, civil society, and policy from each country. Their responsibilities would involve establishing goals, designating joint-research areas, developing collaborative programs within each of the designated areas, organizing concrete joint projects in each area of cooperation, and overseeing the implementation of these projects.

Areas where direct collaboration is expected to yield the quickest and most substantial results on reducing greenhouse gas emissions have been given highest priority. They are listed below in shortened form, but discussed in greater detail in Section IV.

Priority areas of collaboration include:

Deploying Low-Emissions Coal Technologies.

The likelihood that both the United States and China will continue to rely heavily on coal for many years to come necessitates immediate and large-scale investments in