



China and US Cooperate on Building Efficiency

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Chu Announces Joint U.S.-China Building Efficiency MOU

BEIJING, CHINA - After touring the "America House," a U.S. designed demonstration of cutting edge "zero energy" building technology, U.S. Energy Secretary Steven Chu today announced a new agreement between the U.S. Department of Energy (DOE) and the Chinese Ministry of Urban-Rural Development (MOHURD) to foster collaboration and partnership in the development of improved, more efficient building designs as well as sustainable communities that rely on greater use of renewable energy.

"Making buildings more efficient represents one of the greatest, and most immediate opportunities we have to create jobs, save money, save energy and reduce carbon pollution," said Secretary Chu. "Our goal should be buildings that are 80 percent more efficient. Doing so will save families money and create millions of jobs in both countries."

Under the agreement, the United States and China will exchange experts and technicians to learn from each other's experiences with efficient building technologies, including: high-performance HVAC, insulation, lighting, cold storage, geothermal heat pumps, building-integrated photovoltaics and solar thermal systems.

The United States and China will jointly conduct analyses of lessons learned from international experience with energy-efficient buildings and communities. They will examine options for policy incentives or regulatory reform to encourage energy-efficient development in China.



The two nations will also explore the feasibility of a joint project in China to demonstrate green buildings, building energy savings and renewable energy technologies. The U.S. Government will provide support for MOHURD's "eco-cities" initiative, which aims to build integrated green cities that are sustainably designed, use renewable power and have efficient and modern transportation systems. The two nations will collaborate on the development of standards and guidelines for eco-cities.

In the United States, 75 percent of all electricity generated at power plants is used to operate buildings. China is expected to build the equivalent of the entire U.S. building stock in the next 15 years. Nearly half the new floor space built in the world every year is built in China.

Buildings use around 40 percent of energy globally and account for nearly half of greenhouse gas emissions. But at least 30 percent of emissions from the building sector could be eliminated at no net cost by simply upgrading old buildings and using modern equipment in new buildings.

With this announcement, the U.S. and China recognize that improving energy efficiency in buildings will benefit both nations, and that by working together they can accelerate the adoption of new clean energy technologies.

The memorandum of understanding (MOU) on energy-efficient buildings and communities was signed yesterday on behalf of the United States by David B. Sandalow, Assistant Secretary of Policy and International Affairs at the Department of Energy, and on behalf of China by Qiu Baoxing, Vice Minister of MOHURD.

A fact sheet on America House follows below:

AMERICA HOUSE

In 2003, China's Ministry of Construction authorized the construction of ten demonstration homes (the "Future House Community") that integrate renewable energy, energy conservation technologies, environmental compatibility, and pollution reduction in their design. Each of the homes was built by a different country, and includes homes from: Britain, China, Germany, Italy, Japan, Norway, South Korea, Spain, Sweden, and the United States. The community is expected to be open spring 2008 through 2014.

The America House got its start as a DOE/National Renewable Energy Laboratory-sponsored Solar Decathlon project. The winning team from Florida International University originally constructed an 800 square foot mobile home, powered exclusively by solar energy that was showcased on the national mall in 2005.

America House is a zero-energy building that will send power back to the grid once regulatory approval is granted. The House is constantly monitored from the campus of Florida International University.

The interior of the house is 3,200 square feet, excluding the garage, and includes the following:

- * Flooring made of bamboo, cork and recycled tile and/or carpeting
- * Structurally Insulated Panels (SIPs) made from foam are used inside the walls and ceiling that will cut energy consumption for heating and cooling by up to 50%
- * Solar panels on the back roof
- * Geothermal heat pumps to reduce heating and cooling
- * Wastewater recycling system

The industrial sponsors for America House include companies such as Whirlpool, Climate Master, and **Bio-Microbics**.

The first phase of the Future House Community includes the ten residential homes on 16.5 acres with 32,808 square feet of construction. The second phase will expand the project to ten cities and 30 green community projects over six years with 300,000 houses or buildings in which 1 million people will reside.

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