

## **China-US Energy Efficient Buildings Working Group Report Meeting August 27, 2001**

### **Achievements Since the June 1999 Steering Committee Meeting**

- Held US-China Building Industry Workshop and Design Charette for Agenda 21 project held in Pittsburgh in December 1999
- Continued collaboration on Agenda 21 demonstration Energy-Efficient Office Building with MOST; four design workshops were held between December 1999 and April 2001. The design essentially complete and groundbreaking expected September 2001
- Considerable progress has been made through collaborative efforts on building energy standards.
- In the Hot-Summer Cold-Winter Region, a local residential standard was developed for Chongqing (1999-2000); this was followed by a national effort that started in March 2000, was completed in May 2001 and approved by Ministry of Construction in July 2001; promulgation is expected by October 1
- In July 2001 development of a Residential Standard for the Hot-Summer Warm-Winter was initiated
- Development of local commercial building standard is expected to be initiated in Shanghai in the Fall 2001
- Work in the area of energy-efficient windows, includes development of Chinese/English glossary and software information for Window 5 (University of Massachusetts); training and use of computer programs to model window performance (LBNL); and adaptation of the Residential Fenestration (RESFEN) to China (Tsinghua University). RESFEN is an easy to use program that calculates the energy performance of different windows installed in a typical house. It contains a library of 8 building types and 239 US locations, and models different types of window in five orientations (4 cardinal directions plus a skylight) while running the DOE-2 building energy simulation program in the background

### **Issues and Opportunities**

- There is interest in the design of energy-efficient buildings in Shanghai, Harbin and elsewhere
- There may be support for a Green Buildings Consortium in Shanghai
- The Beijing 2008 Olympics present an opportunity for bids to design an energy-efficient Green Building on the Olympic grounds

### **Next Steps**

- Implement Chongqing Residential Standard; this includes developing and refining implementing regulations, developing of an enforcement and administrative infrastructure, and developing staffing levels, training and funding
- Initiate development of a Non-Residential Standard for Chongqing
- Three Gorges Museum
- Initiate development of a Shenzhen Green Building Standard
- Complete residential standard for Hot-Summer Warm-Winter Region
- Implement a residential standard for Hot-Summer Cold-Winter Region, which will include development of compliance software for Performance Path and identification of partners for demonstration of efficient buildings meeting or exceeding the standard

- Development of commercial building standard for Shanghai and laying ground work for eventual a national commercial buildings effort
- Establish program to promote energy-efficient windows in China in conjunction with HSWW residential standard

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