

REPORT
China Energy Efficiency Team Meeting
February 23, 1999

Attendees: Peter Salmon-Cox, DOE; Steve Nadel, ACEEE; Tracy Narel, EPA; Ted MacDonald, EPA; Mary-Margaret Jenoir, DOE; Mary Beth Zimmerman, DOE; William Chandler, PNNL; Ken Langer, Coleman Research Corporation, Riyaz Papar, LBNL; Vestal Tutterow, LBNL; Susan Rochford, Honeywell; Michelle Perez, Alliance to Save Energy; Steve Weiner, PNNL; Jeff Logan, PNNL; Jack Siegel, Energy Resources International; Patricia Vazquez, Enterprise Advisory Services; Marianne Bailey, EPA; Curtis Waller, DOE; Brian Castelli, DOE

The purpose of the China Energy Efficiency Team Leader Meeting was to update the attendees on the teams' recent activities and to establish a tentative date in June for the energy efficiency steering meeting in Beijing in June 1999.

Information Exchange and Business Outreach

Jeff Logan summarized the work of his team, which continues to distribute information on China's energy efficiency issues, publish a newsletter, and maintain a web site at <http://www.pnl.gov/china>. Jeff also provided news on recent energy activities in China:

- China has placed a moratorium on the construction of new, conventional power plants which have unit sizes of 600MW or smaller, and were not already in the pipeline. Oversupply of power capacity, and slowing economic growth have led to this measure. Opportunities for upgrade of existing plants however exist.
- The central government is proposing to initiate a fuel tax, supported by the Premier. The controversial tax, equivalent to about 50 cents per gallon, would eliminate a lot of the localized road-use taxes.
- Localized fees for electric power will be abolished as an attempt to encourage economic growth. In Guangdong province, for example, power is so expensive it impedes people from buying electrical appliances.
- With exports hurt by the Asian economic crisis and domestic spending flat, domestic infrastructure spending by the central government is one of the few means left to spur the economy. The government is therefore taking relevant actions such as issuing bonds to finance the projects.

Buildings

Mary-Margaret Jenoir described the buildings team's plans to conduct two workshops, the first in the US and the second in China, to expose US and Chinese industry to best practices and emerging technologies applicable to China. The US workshop will be held in the first part of 1999. Joe Huang and NREL are working with Mary Beth Zimmerman (DOE's Policy Office) to develop a demonstration building project in China. Mary Beth stated that the demonstration, for a commercial building, is in the feasibility stage. LBNL and NREL recently made a presentation to China's Agenda 21 group. The technical feasibility study is complete and the team will work with Chinese architects to explore it further. DOE posted a Federal Register Notice of Opportunity for a US coordinator to lead the project, if it goes ahead. Among other duties, the coordinator would organize potential US suppliers for the project.

In a related item, Tracy Narel described EPA's work with SEPA and the Ministry of Construction to develop a proposal for GEF funding for a residential apartment building demonstration. EPA, with LBNL and Rob Watson of NRDC, is doing the sector survey and other data collection to help prepare the proposal.

Cogeneration

Jack Siegel described his team's work to draft model documents for power purchases, steam sales and joint venture agreements in China. Participants at a cogeneration workshop, held November 16-17, 1998 in Beijing, discussed the documents as well as China's restructuring and its effect on cogeneration. The workshop was very productive but problems remain, such as electricity pricing, monopoly of the regulatory power bureau, unreliable contracts, etc. ENRON helped develop the workshop but did not attend, however a General Electric representative was able to participate. The workshop attendees laid out next steps and China will now try to internally address each issue brought up at the workshop.

Jack has been asked by the State Power Corporation to help develop a framework for improving the performance of power plants in China. It is a multi-year project. Jack is seeking input and advice related to institutional issues that could apply to the power sector.

Industrial Process Controls and District Heating

Susan Rochford outlined the activities related to the industrial process controls and district heating teams. The industrial process controls work remains on hold due to funding issues. Susan described Honeywell's successful district heating project to install heat meters and thermal regulating valves in Yantai apartment buildings. The Ministry of Construction, as well as residents, were pleased with the demonstrations. The final report is not yet translated into English.

Lighting

Steve Nadel outlined the team's work with China's Green Lights program. As the UNDP's one million dollar funding for China Green Lights is running low, the US team is working with China and the UNDP on a GEF proposal to continue funding. The emphasis would be on how to help consumers identify the best products. Steve is working on a paper to summarize Green Lights' accomplishments and the draft will be completed by April. Lin Jiong is working with EPA, LBNL, and SBTC to draft mandatory national standards for ballast efficiency. They are close to circulating the document for comment.

Electric Motor Systems

Steve Nadel also described the Electric Motor Systems team's upcoming workshop in Beijing in Summer 1999. The workshop will focus on pumping systems. The US side is providing technical expertise to showcase demonstration projects that will be funded by industry and CECIC. The team hopes to implement a few pilot projects while obtaining funding for a provincial-level Motor Challenge program that could eventually be a model for a nationwide program. ACEEE is seeking funding from UNDP for this program.

Cooperation has also been initiated with the Technology Cooperation and Assistance Pilot

Program (TCAPP). TCAPP aims to build support for implementing clean energy technologies by facilitating collaboration among the participating countries, the US and other OECD countries, international donors and the private sector. This is a voluntary partnership. TCAPP begins with a country driven process to identify technology needs. China is one of the cooperating countries and has identified energy- efficient motors as one of their five focal areas. A TCAPP/China meeting is being planned for April 1999 in Beijing to discuss these areas. A US motor's system team representative is planning to attend.

Finance

Bill Chandler described a project to conduct business plan training and project development to promote energy-efficiency investment in China. The goal is to encourage energy efficiency business and investment as a means of reducing greenhouse gas emissions through establishment of a permanent training center at an established graduate business school in China. The center would train industrial and energy managers with responsibility for energy efficiency and process management in their enterprises, and would enable each to produce a quality business plan suitable for entering into negotiations with financial and business partners. Significantly, this proposal would support development of 2-3 key financial investments - bankable projects. These projects would be selected from the business plans developed in the training course, and would include assistance in creation of a private-sector energy service company, and, perhaps, modernization of an industrial plant, or upgrading of a municipal district heating company. The W. Alton Jones Foundation has provided initial funding for this project and Bill Chandler expects to launch the project this year.

Ken Langer updated the status of the ExImBank's \$50 million credit facility. With the Premier's visit to the US in April, ExImBank and others are showing renewed interest in the issue. Three revised proposals for the credit facility, one composed by Ken, are being examined.

Energy Policy

Mark Levine was unable to get through on the phone line but later briefed Peter on the Energy Policy team's work. China has identified priorities that they want to address regarding the Energy Conservation Law. The team will summarize these priorities within the next month and will provide greater details in two to three months.

China is about to begin several energy policy activities. The Standards Bureau now reports to the State Council. China is considering regional demonstrations related to energy standards and is evaluating regions for such projects. They are also looking into upgrading energy monitoring and data gathering, energy appliance labeling, and energy efficiency standards. The Chinese are considering defining energy audits more completely and developing new rules for capital investment for energy efficiency projects which would conform to international banking standards. Once priorities are established, China will define the areas in which the US can cooperate. FuQiang Yang will travel to China in Spring 1999 to help with the above effort. The team is also holding discussions with China about expanding building energy standards and China is ready to go ahead on that issue.

Mark is working on a Packard-sponsored study with China on policies to reduce carbon emissions

in China. This is the first time that the Chinese have looked specifically at that issue. The project will involve training, development models, data gathering, and policy assessment and will be reported on at the International Conference on Energy Conservation in China in the year 2000.

In related news, Ted MacDonald described EPA's environmental policy work with China. EPA is proposing to expand low-level programs in three areas: working with China's policy/regulatory regime on issues relevant to pollution prevention and environmental compliance/enforcement; technical compliance programs (with possible opportunities to collaborate with DOE); and information exchange such as energy efficiency case studies and tools for industry. EPA is looking at industrial expansion programs that are emerging at the provincial level. The project will identify two to three key industries in which to look for energy efficiency opportunities and examine supply-side issues.

Other Items

Steve Weiner made the final presentation on the American Institute of Chemical Engineers' (AIChE) Chemical Engineering Conference in China in the year 2000. They are seeking papers for the session on the future of the energy-intensive industries. Steve may be contacted at PNL at 202-646-7870, sc.weiner@pnl.gov.

Michelle Perez indicated that the Alliance to Save Energy is planning the next set of hotel and industrial energy efficiency seminars. The seminars will be held in two Chinese cities in June.

Peter Salmon-Cox led discussion about the upcoming Steering Committee Meeting in Beijing. The Chinese are interested in meeting during the month of June. Based on these discussions and subsequent discussions, it has been decided to propose June 3 and 4 for the energy efficiency steering committee meeting.

Apologies to those people who tried to call in but were unable to do so. The intricacies of the system are now better understood and the problem will be avoided in the future.

Many thanks for all those who attended and for your inputs. If these minutes contain errors or omissions, please let me know and a revised version will be issued.

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