

The following summary of Seminar on the Evolution of Energy Efficiency in the United States, held in Beijing on December 11-12, 1997, was prepared by Mark Friedrichs of the U.S. Department of Energy. This is an unofficial summary and does not represent the views of the U.S. Government or the Department of Energy.

## **SUMMARY OF MEETINGS**

The seminar was attended by over 40 Chinese government officials, as well as a few Chinese managers/representatives of U.S. companies, including Johnson Controls, Honeywell and Armstrong. Most officials were from national government commissions or ministries, including the State Planning Commission (the sponsoring organization), the China Energy Conservation Investment Corporation (the seminar's host), the Beijing Energy Efficiency Center (BECON, which helped organize the meeting), as well as many others (see attached list of attendees).

The presenters included myself, Peter Salmon-Cox, Mark Levine (LBNL), Roger Hamilton, Chairman of the Oregon PUC, David Nemetzow, Director of the Alliance to Save Energy, Bill Keese, Chairman of the California Energy Commission, Steve Nadel, Deputy Director of the American Council for an Energy Efficient Economy (ACEEE), and David Goldstein from the Natural Resources Defense Council. In addition, the seminar was attended by the two NRDC organizers, Barbara Finamore and Robert Watson, and by David Cowhig from the U.S. Embassy.

The seminar was opened by Chen Heping, Division Chief of the Department of Transportation and Energy, and subsequently chaired by either Mark Levine or Barbara Finamore. It was organized into seven panels of presentations:

- o Introduction to U.S. Structure of Energy Efficiency Policy and Programs
- o Climate Change Initiatives and Proposals
- o Equipment and Building Standards
- o Industrial Energy Efficiency
- o Utility Energy Efficiency Programs and Restructuring
- o Transportation Policies and Programs
- o Market Transformation and Voluntary Commitment Programs

Each panel was usually made up of three presenters. Presentations were 20-40 minutes long (with sequential translation), followed by questions and discussion. During the first morning, there were few questions and little discussion, but for the remainder of the seminar there was considerable interaction between the panelists and the audience, and sometimes among those in the audience. Zhou Dadi, Executive Director of BECON, often lead or participated in the audience discussion.

## **INSIGHTS**

Status of Market v. Government intervention debate within government: There appears to still be an active debate within the Chinese government about the appropriate role of government in encouraging or requiring improved energy efficiency. Although China's new Energy Conservation Law relies heavily on direct or implied regulation, there seemed to be considerable uncertainty

regarding how these new mandates would be implemented. The audience appeared to show interest in the discussion of market barriers and other related motivations for government action.

Limited control of central government: It was apparent in many of our interactions with Chinese government officials and other observers of the Chinese government with whom we spoke that the national government has tenuous control over the actions of provinces and municipalities, and even less control over the rapidly growing "private" sector. The government apparently has difficulty collecting taxes, and determining or enforcing compliance with government mandates. Participants in the seminar often raised questions that touched on basic enforcement issues, such as how U.S. governments ensure that a fee on utility bills is actually levied by the utilities, with the proceeds being conveyed to the government. Other questions touched on how the government assures that products are actually tested in accordance with established test procedures and that energy efficiency labels are applied only to complying products.

Central government control over the actions of provinces and municipalities was often characterized as limited, relying more on persuasion than on regulatory authority. Perhaps because of the limited ability of the central government to tax as well as a desire to further constrain the state sector, government ministries are being strongly encouraged to set up their own profit making enterprises in order to raise monies to support themselves.

Interest of Chinese in "technical" exchanges on details of program/policy implementation: While questions and comments were wide-ranging, it was apparent that many participants wanted to obtain more detailed information on program design, implementation and enforcement than was possible to convey during the seminar. Discussions of possible follow-up activities focused mainly on more detailed exchanges on specific topics, such as utility regulation, test procedures and the certification of testing labs, specific industries (such as iron and steel), etc.

Limited interest in climate change policies: David Nemtzwow and I provided overviews of U.S. climate change policies, proposals and the outcome of the Kyoto conference. However, there were few questions or comments on these presentations. This lack of reaction may indicate a limited interest in climate change as a motivator of energy efficiency policies or it may simply reflect the fact that these presentations occurred early in the seminar, and the participants had yet to become sufficiently comfortable to ask questions or make comments.

Possible areas for further exchanges:

- o Product testing: I believe there would be interest among several of the participants in learning more about public and private mechanisms for testing products in the United States. The role of the National Institute of Science and Technology, and independent testing and standards organizations could be the focus of such exchanges.
- o Energy service company contracting by government entities: The World Bank and the World Bank's Global Environment Fund is supporting the development of energy service companies in China. I believe many government ministries might have a particular interest in the experience of U.S. and state government agencies who have used energy service companies, as well as the current efforts of the Federal Energy Management Program to expand their use by Federal agencies.

- o Utility regulation: There was considerable interest shown in a broad range of utility regulatory issues; especially the mechanisms by which utilities are required or encouraged to implement energy efficiency programs/services. We also learned that economically and energy inefficient power plants continue to be built and used largely as a result of the competition of central, state and municipal governments for control of power production and the resulting revenues.
  - **Joint ownership of powerplants**: I suspect that there would be considerable interest among various government entities in contractual and other legal mechanisms for sharing the costs and revenues of new power plants. Such mechanisms would enable the construction of more economically and energy efficient, and environmentally cleaner power plants by removing the incentive of different government levels to build their own plants.
  - **Small powerplants**: Because of the continued construction of small plants by municipal and provincial entities (in part to escape the mandatory review of larger plants by the central government), technology transfer focused on improving the efficiency and reducing the emissions of such plants would likely be highly valued by provincial and municipal governments.
  - **Ratemaking policy**: It appeared that there was limited understanding of ratemaking concepts, but a general desire to improve the pricing of electricity.
  - **Utility metering/accounting**: We learned that simply metering and accounting for energy use is still a significant challenge for many governments. With the increased desire of governments to use utilities as a source of revenue, technical exchanges on these issues might be appreciated.
  - **Impacts of DSM programs**: Based on the many questions at the seminar, technical exchanges that focused on the impacts of demand-side management programs on energy use, loads, rates and general welfare would be valued.
- o Specific Industries: The central government has many ministries that are responsible for managing specific state industries, several of which had representatives at the seminar. These representatives obviously have industry-specific interests that could involve exchanges between government, as well as private technical experts from the U.S.
- o Transportation emissions/congestion: Urban road congestion and vehicle emissions appear to be major problems facing the Chinese. I suspect that technical exchanges focusing on these issues are likely to be well received.

There was some discussion of possible follow-up activities at the conclusion of the seminar, but no specific plans were formulated. *It was agreed that SPC will inform the Policy team leader (Mark Levine - LBNL) of the desired next steps.*