

Brief Report on Energy Consumption Audit in Chinese Government Agencies

China Certification Center for Energy Conservation Products (CECP)

I. Background

International and domestic research shows that the governments (including the public sector such as national defense and education) have been the largest energy user, whose energy expenses account for a large part in government administration expenses. To reinforce energy conservation of governments and agencies does not only contribute to saving energy and reducing governments' energy administration expenses; most important of all, by the means of taking government as a model, to improve energy conservation awareness of the whole community, to promote the large-scale use of energy efficient products and equipments, to drive the development of national energy efficiency, to enhance social energy efficiency level and improve government energy management authority so as to fulfill the final targets on saving energy and protecting the environment.

Chinese government has been aware of the significance of reducing energy consumption in government agencies. In the tenth five-year plan for energy conservation and resource comprehensive utilization, it is specified that measures should be taken to reduce government energy consumption. During "National Energy Conservation Week" in 2001, the China State Economy and Trade Committee (SETC), jointly with Ministry of Finance (MOF) and Government Organ Affair Supervise Bureau of State Department (GOASC), called on all government agencies to reduce energy consumption.

In order to provide the necessary data to evaluate the potential savings from the government energy management programme, to develop labeling criteria for office equipment, and to develop a baseline from which to measure the effectiveness of government energy efficiency project and advance the sustainable development of management, authorized by SETC and supported by Energy Foundation and LBNL, China Certification Center for Energy Conservation Product (CECP) conducted an audit of the energy consumption of products and equipments in 2002. The survey was conducted in 3 representative central government organs and 12 representative local government agencies. Factors such as scale, location and economical development were taken into consideration when the interviewed organs were chosen. The interviewees are located at Beijing area, Jiangshu and Ningxia provinces respectively, which are developed, developing and undeveloped economy areas, and cover very cold, cold and warm areas. The 12 local agencies include full-financed government organs, colleges, hospitals and institutes. The survey not only record basic data such as product name lists, product types, usage behavior, unit energy consumption, and stock estimates, but also include general procurement information and awareness question.

II. Key Findings from the Survey

- Reducing energy consumption in government agencies are progressive

The survey results show that part of government agencies are aware of the question and adopt measures to reduce energy consumption. They not only take product energy efficiency into consideration during procurement process, but also use a lot of high efficiency products. For example, 87% agencies use high efficiency lighting source in 15 interviewees, 80% for delayed lighting switch, 73% for water conservation faucet, 53% for insulation of boiler pipeline and energy-efficient windows.

- Great energy-saving potential in government agencies exists

It is estimated by experts that energy consumption in China's government agencies amounts to 5% of national overall energy consumption, the amount of electricity used by government agencies is nearly equivalent to electricity used by all over national rural dwellers and more than 80 billion Yuan was expended, which is equivalent to 13.3% finance budget of the

following 3 items: 1) operating expense for culture, education science & health care, 2) expenditure for government administration, and 3) expenditure for national defense. Compared with 1990, more 65% electricity was consumed in 2000 and the growth rate of electricity volume of government equipments is rapidly. From the survey results, energy-saving potential in government agencies is more than 20% by improving energy efficiency of building envelope, appliance, office equipments and other end-use products.

- Energy efficiency is not clearly specified in on-going procurement policy

The Law of Government Procurement was enacted in 2002 and came into force on January 1, 2003. And there are different management regulations of government procurement in 26 provinces in China. But we found that energy efficiency is not clearly specified in these laws or regulations.

- The biggest barrier for energy-efficient product procurement is short of energy efficiency information

It's found that why energy-efficient products are not procured is due to the fact that consumer can't identify which product is energy-efficient. Energy efficiency labeling is a good mechanism to identify energy-efficient products. Measures should be taken to strengthen energy efficiency labeling in China.

III. Suggestions

Referring to the international successful experience and the survey results, following policy suggestions are provided:

- Launch overall government energy management initiative in China;
- Specify mandatory energy-saving target for government agencies and develop regulations such as how to manage and monitor energy consumption in government agencies;
- Develop government procurement policy for energy-efficient products and facilitate energy efficiency labeling;
- Establish an energy audit system;
- Strengthen training, information and education on energy efficiency;
- Monitor and evaluate energy efficiency results, e.g. establishing energy consumption reporting system;
- Manage energy use of vehicle;
- Conserve water

IV. Follow-up actions

Chinese government reviewed the survey report and Premier Wen Jiabao was impressed by the findings and pointed out that measures should be taken to reduce energy consumption in government agencies. Now the State Economic and Trade Commission (SETC), cooperated with other 5 national departments, is considering how to conduct government energy management programme in China. The initial step is to audit energy consumption in about 100 government agencies in representative climate zones and further analyze the energy-saving potential. It's scheduled to get the survey results in May. Based on the survey results, comprehensive policy on government energy programme will be developed.

V. Contact

Dr. Liu Caifeng
China Certification Center for Energy Conservation Product (CECP)
No.3, Yuhui South Road, Chaoyang District,
Beijing 100029, China
Phone: +86 10 8463 4191
Fax: +86 10 8463 3226
Email: liucf@cecp.org.cn