

Energy Indicators Development Work Progress and Problems in China

Dr. Zhou Fuqiu

Deputy Director

Energy Efficiency Center

Energy Research Institute

National Development & Reform Commission, China

Paris, France

April 27, 2006

1. Recent Indicators Development Activities

(1) At national level

- Energy use Management Evaluation and Examination Indicators System Development Program (2005-2006)
 - Addressing the national EE target reducing GDP energy intensity by 20% or so by 2010 on 2005 basis, set in the 11th Five-Year Plan
 - Work led by the State Energy Office under the State Energy Leadership Group, with Premier Wen Jiabao as the team leader, and Ministers over 10 ministries as team members.
 - Objective: indicators developed to define energy use management responsibilities of governments/enterprises, evaluate and examine their performance in this regard
 - Objects evaluated/examined: relevant ministries of Central Government, provincial/municipal governments, key energy intensive enterprises

1. Recent Indicators Development Activities

—Four types of indicators preliminarily designed

(a) energy intensity indicators

- ◆ Energy use per 10,000 Yuan GDP
- ◆ Energy use decrease rate per 10,000 Yuan GDP
- ◆ Energy use per 10,000 Yuan industry production value added
- ◆ Electricity use per 10,000 Yuan GDP

(b) policies, regulations and standards formulation and enforcement duties indicators

(c) energy management, monitoring and service institutions and capacity building progress indicators

(d) EC technology advance indicators

- ◆ Specific energy use of primary energy intensive products
- ◆ Application rate of energy efficient products (CFLs, etc.)

1. Recent Indicators Development Activities

- Develop and Test the Tools, Techniques and Procedures Necessary to Establish the Energy Management Information System (EMIS) Program (2006-2007)
 - A sub-project under the UNDP/China End-Use Energy Efficiency Program (EUEEP)
 - Ultimate goal: to establish an EMIS covering key energy intensive enterprises in China
 - Main Tasks:
 - ◆ Establish an industrial energy consumption statistics indicators system meeting international practice (including to improve definitions and calculation approaches of energy consumption indicators for domestic primary energy-intensive industrial products, and establish an industrial energy consumption statistics indicators system meeting international practice as well as Chinese situation)
 - ◆ Develop and test one enterprise energy consumption statistics analysis software
 - ◆ Develop a monitoring and evaluation plan for this activity

1. Recent Indicators Development Activities

(1) At provincial level

- Yunnan Province Energy Management Information System (Yunnan-EMIS) Development Program (2006-2007)
 - Program financially supported by Yunnan provincial government
 - Yunnan- EMIS is to be developed to provide data support for EE decision-making of this province
 - Yunnan- EMIS will be a platform software, which could be used to analyze energy use data collected from key energy intensive enterprises of the province
 - Under the program, an energy use statistics indicators framework system will be established, which will include EE indicators, emission indicators, etc.. In addition, calculation approaches of indicators will be properly defined.

1. Recent Indicators Development Activities

(1) At provincial level

- Zhejiang Province Energy Management Information System (Zhejiang-EMIS) Development Program
 - Energy use statistics indicators developed under the program:
 - ◆ specific energy use per unit energy intensive product (steel, cement, etc.)
 - ◆ comprehensive energy use per unit energy intensive product
 - ◆ energy use per enterprise production value added
 - Zhejiang-EMIS came into trial operation in 2002, with 100 plus key energy intensive enterprises registered in it
 - By 2005, of 1216 key energy intensive enterprises in the province, 1069 of which already registered in and monitored by Zhejiang-EMIS, accounting for 81%

2. Problems in Data availability

- In general, availability of energy data, especially energy use data, is poor in China due to multiple reasons:
 - At government level, energy statistics agencies and their functions have been weakened
 - ◆ Since the 1990's, with several times of government restructuring, most industrial ministries were cancelled. As for energy statistics agencies affiliated to these ministries, most of them were also cancelled, and capacity and functions of those remained were weakened. As a result, industry energy statistics work was weakened, which is reflected by slack industrial energy statistics channels, confusing statistics scopes, and conflicted energy use data of different statistics sources.
 - ◆ Functions of State Statistics Bureau (STATS) and its branches were weakened, and they gradually abandoned complete energy use statistics of enterprises. Currently, STATS simply requires key energy intensive enterprises to report annual comprehensive energy use data. Neither STATS nor central government energy conservation management departments could get complete energy use data of key energy intensive enterprises. This results in a weak energy use data basis for government's EE decision-making.

2. Problems in Data availability

—At enterprise level, energy use statistics divisions and capacity have also been weakened

- ◆ Influenced by elements like merging, organization structure adjustment, etc., energy use statistics divisions within most enterprises were weakened.
- ◆ Enterprises' energy use statistics system incomplete
- ◆ Energy use statistics approach used by enterprises is not standardized
- ◆ Frequent move of enterprises' use statistics staff
- ◆ As a result, energy use data reported by enterprises to government lack reliability, rationality, and not comparable

3. Opportunity identified for co-operation between IEA and China

- Develop and Test the Tools, Techniques and Procedures
Necessary to Establish the Energy Management Information System (EMIS) Program under the EUEEP
 - ◆ Development of an industrial energy consumption statistics indicators system meeting international practice
- Improve China's national energy statistics system
- Energy indicators development and application experience and information exchange

Personal contact information

Dr. Zhou Fuqiu

Energy Efficiency Center

Energy Research Institute

National Development & Reform Commission, China

Tel.: +86-10 63908577

Fax: + 86-10 63908556

Email: zhoufuqiu@eri.org.cn

zhoufuqiu@amr.gov.cn