



# *Findings of EPI of Energy Industry in Xichang City*

**Xichang EPB**

**Zeng Jiping**

**June 16,2009**



## Basic Situation

- I. Signed the cooperation contract with EU program in April of 2007.
- II. Finished the overall outline of the Report on EPI in Energy Industry of Xichang with the help of EU expert and Chinese counterparts in Oct. 2007.
- III. EU counterparts put forward comments and suggestions on the Report on EPI in Energy Industry of Xichang when we visited EU in November of 2007, which are reflected in the EPI report.
- IV. The Report on EPI in Energy Industry of Xichang was completed in Feb. 2009 after four times revision.



Reporters: Zeng Jiping, Zhang Hui,  
Chen Panjiang, Xiao Guangyan  
Ma Hongyan

Supporters: Gao Jie, Wang Honglei, Li Jun  
Gao Yong, Zhu Ming, Chen Lin  
Gao Jianhu, Ji Yali, Guo Jun  
Gu Fanghong, Lu Fawen, etc.

# *Introduction of Energy Use in Sichuan and Xichang*



## 1. Energy consumption in Sichuan and Xichang

Adminis- trative area	Area ( km2 )	Population ( 1000 )	Energy consump. (10,000 t coal equivalent)
Sichuan	485000	87246	35425
Xichang	2655	568.8	89.2

# *Impacts of economic and social development on energy consumption*



## I. Energy consumption growth in Sichuan Province

Coal: 49.86 million t coal equivalent in 2000;  
84.93 million t coal equivalent in 2005

**Average annual growth at :10.64%**

Natural Gas: 5.3 billion m<sup>3</sup> in 2000;  
9.0 billion m<sup>3</sup> in 2005

**Average annual growth: 11.07%**

Hydropower: 33.3 billion kWh in 2000  
57.7 billion kWh in 2005

**Average annual growth: 11.57%**



## II. Factors affecting energy consumption in Sichuan due to economic growth

- a. Continuous economic growth
- b. Rapid development of industry, agriculture and tertiary industry thanks to the historic opportunity of “large scale development of West China”.
- c. Evident increase of energy development and investment

## III. Social factors affecting energy consumption in Sichuan

- a. Population growth
- b. Urbanization and rise of urban population
- c. Government encouragement of utilization of clean energy and new energy
- d. Regulation on energy by national policies



#### IV. Economic factors leading to rise of energy consumption in Xichang

- a. GDP exceeds 10 billion Yuan, up by 16.9 % ;
  - b. Industrial added value went up by 31.1%;
  - c. Annual growth of 11.5% for tertiary industry;
  - d. Strong development of hydropower in Liangshan.
- #### V. Social factors leading to rise of energy consumption in Xichang
- a. Population growth (4.77‰)
  - b. Higher urbanization (38 % )
  - c. Rise of living standard in urban and rural areas
  - d. Increase of migrant population
  - e. Active promotion of the development of renewable energy & clean energy, leading to change of energy mix

# *Environmental problems resulting from energy consumption*



## 1. Current status of energy use in Xichang (2005):

- a. Energy consumption by urban residents totaling 33307 t ceq;
- b. Energy consumption of tertiary industry totaling 98374 t ceq;
- c. Energy consump. of suburb and rural residents totaling 15176 t ceq
- d. Industrial energy consumption totaling 843301 t ceq.

## 2. State of the environment of Xichang (2005)

### a. Water environment quality

All monitoring items for all natural lakes and major rivers within Xichang met Grade II~III quality standard of GB3838-2002.



b. Ambient air quality (2005):

Ambient air quality of Xichang met Grade II limit of Ambient Air Quality Standard (GB3095-1996)

c. Noise (2005)

Urban area noise of Xichang met the national noise limit for the urban functional areas specified in the Standard of Environmental Noise of Urban Area (GB3096-93) during the year

3. Energy utilization and environmental pollution

4. Analysis on change of environmental quality

# *Principle and target for SEA of energy in Xichang*



1. Laws & regulations of China on EPI and SEA
2. Rules of China on EPI & SEA
3. Standard or criteria of China for EPI & SEA
4. Principle, scope and main target for the development of energy plan for Xichang
5. Assessment and analysis of energy plan for Xichang

# *Energy Administration Mechanism in China*



Four levels of governments, from central to county (city) level, establish a competent energy administrative department and energy policy implementation department

1. The role of provincial EPB in developing provincial energy plan;
2. The influence of provincial EPB on economic growth;
3. The role of Xichang EPB in developing and implementing energy policy for the city
4. The influence of Xichang EPB on economic growth
5. When implementing the environmental policy, Xichang integrates the forces of all stakeholders, depends on unique administrative tools in China, implements the initiative to improve environmental quality with full guarantee in organization, institution and supervision mechanism. However, there are still the following problems: 1) lack of communications among responsible units; 2) lack of funds (public financial input); 3) poor advantage integration among departments.

# *Practice of SEA in Special Planning*



Practice of SEA of energy planning in Xichang

The implementation of SEA of energy planning in  
Xichang

Advantages & disadvantages of energy SEA in  
Xichang

# *Application of EPI instruments*



SEA work in Xichang:

1. EIA of the Planning for Taihe concentrated vanadium & titanium processing zones in Xichang
2. Planning EIA of north industrial park of Xichang
3. Planning EIA of Jingjiu Industrial Park of Xichang
4. SEA of energy planning of Xichang

# *Track & Learn*



1. Planning EIA requirements
2. Environmental management
3. Environmental monitoring
4. Track & assessment
5. Establish an incentive mechanism in Xichang for energy conservation

# *Conclusions and Suggestions*



1. Achievements of EPI and SEA in energy planning in Xichang
2. Existing shortcomings of EPI and SEA in energy planning in Xichang
3. Thoughts on how to use EPI concept in other areas