

Promotion Strategy and Outcome of Energy Conservation Policy



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Chinese Taipei

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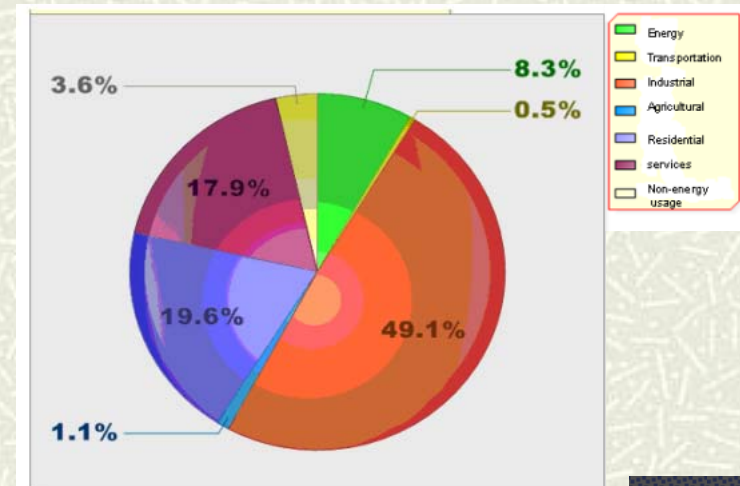
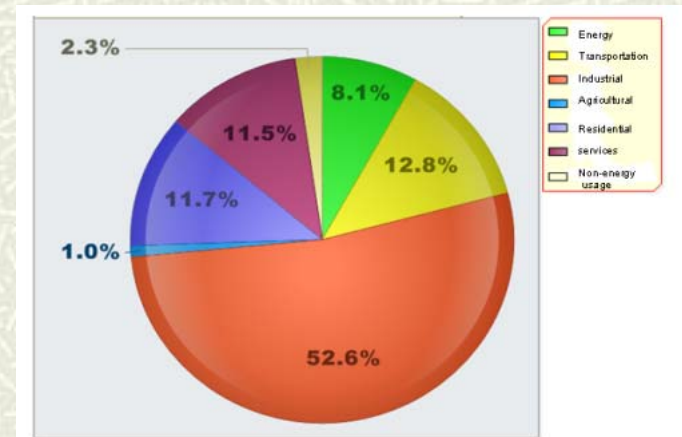
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I. State of Domestic Energy Consumption

- 99% of domestic energy consumption relies upon imports, of which petroleum accounts for more than 99.97%.
- The energy consumption of 2008 totaled 117.68 million KLOE (kiloliter oil equivalent), of which 52.6 % is for industrial sector, 11.7 % for services, 12.8 % for transportation, 11.5% for residential, 8.1 % for energy, 1 % for agricultural, and 2.3% for non-energy usage.
- The electricity consumption of 2008, totaled 238.3 TWh, of which 49.1% was for industrial sector, 19.6% for services, 0.5% for transportation, 17.9 % for residential, 1.1% for agricultural and 8.3% for energy sector own use.

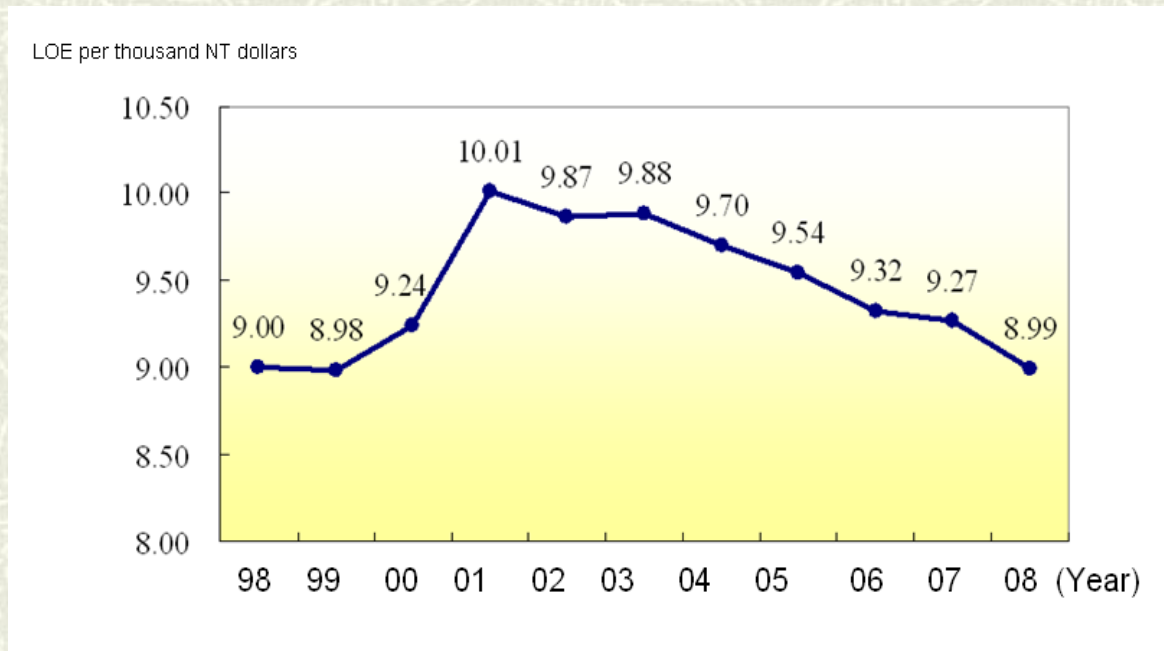


II. Strategy of Promotion

- Reducing the ratio of energy consumption in industrial sector.
- Restraining the growth of energy consumption of commercial-residential and transportation sectors.
- Improving the performance efficiency of the power industry, restraining the peak loads.
- Expanding technology and research, assisting industrial development
- .Enhancing educational promotion, promoting energy-conservation activities among citizens.
- Putting the reasonable energy prices in effect, inducing energy conservation through the market mechanism.

III. Present State of Energy Conservation Promotion and Outcome (1)

- There has been a distinct improvement in Energy Intensity in the recent five years, from 9.88 LOE per thousand NT dollars in 2003, and then reducing to 8.99 LOE per thousand NT dollars, in 2008. The percentage of the average improvement is 1.87 %.



Energy Intensity during 1998-2007

III. Present State of Energy Conservation Promotion and Outcome (2)

1. Industrial Sector

- Implementing an energy auditing and guidance system for 4,500 large energy users.
- Establishing all-round Energy Conservation Center, providing energy-conservation technological services to the top-five energy consumption industries, electronic industries, targeted commercial businesses, and governmental agencies ◦ It serves more than 611 organizations per year.
- Promoting the voluntary energy-conservation programs on the targeted energy users.
- In order to implement energy-saving goals, the Bureau has guided the five major signed voluntary energy-saving focused service industry of “convenience stores”, “discount stores”, “Hospital”, “hotel”, “department stores” ◦

III. Present State of Energy Conservation Promotion and Outcome (3)

2. Energy (Electric Power) Sector

- Implementing time-of-use rates (TOU) and electricity saving measures, improving power transmission and distribution facilities, raising efficiency of power generators by replacing old units.

3. Transportation Sector

- Implementing fuel economy standards management for engines of automobiles, motorcycles, and fishing boats. The ones without meeting the energy efficiency standard will be forbidden to be imported or sold domestically.

III. Present State of Energy Conservation Promotion and Outcome (4)

4. Residential and Governmental Sectors

- Executing mandatory energy-efficiency management, promoting high-efficiency energy-labeled products, pushing forward the program of zero growth in electrical consumption in schools and government agencies, assisting government agencies improve energy conservation, leading the public to carry out the energy-saving program.

5. Schools and Public Sectors

- Assisting popularize energy education in schools, promoting energy conservation to the public, training for professional personnel in the field of energy conservation.

IV. Enhancement Measures in Future **(Supply-side)**

- To improve the proportion of low-carbon and high-efficiency power generation plants by increasing the efficient gas combined-cycle power generation ratio. In 2025, it is expected to account for 25% of the power generation system.
- To introduce the world's best available technology for power generation by speeding up power plant replacement, setting plans to raise the overall efficiency of power plants and calling for the world's best practice power conversion efficiency standards for all new power plants.

IV. Enhancement Measures in Future

(Demand-side)

1. Manufacturing sector

- Establishing a measurable and validated energy audit system and classification management system for large energy users ; strengthening the energy management functions and the implementation of the energy audit system.
- establishing energy-saving performance measurement verification mechanisms; promoting energy-saving performance guarantee projects; introducing Energy Services Companies (ESCOs) of technology, capital and human resources.
- To improve Energy efficiency by: promoting high-efficiency motor programs and boiler efficiency plans; establishing specific energy consumption indicators.

IV. Enhancement Measures in Future

(Demand-side)

2. Residential sector

- **Promoting non-leakage air conditioning and banning incandescent light within key service industries; Encouraging the service industry to sign a voluntary agreement of energy conservation and setting the energy-saving goals of 5-10%.**
- **Promoting energy efficiency label in electrical appliances; guiding consumers to choose high-efficiency products; and establishing low-carbon consumption habits.**
- **Enhancing the various types of electrical appliances with energy efficiency; expanding electrical products energy efficiency management; subsidizing the purchase of energy-saving products; promoting the use of high efficiency & low standby power products.**
- **Promoting the revolution in lighting. In 2012, we will replace incandescent bulbs extensively and promote the LED lighting application model.**
- **Promoting price discount programs: Residential customers and primary schools, using less than the average daily kWh usage of the same period of the previous year will be given a discount.**

IV. Enhancement Measures in Future **(Demand-side)**

3. Transportation sector

- Promoting vehicles' energy efficiency label; Raising energy efficiency standards for vehicles up to 25% by 2015.
- promoting the replacement of LED lighting for traditional traffic lights.
- LED lights and the road indicator demonstration projects are expected to be completed in 2011.

4. Government departments

- Promoting negative growth in oil & electricity consumption within government agencies and schools in the coming year, aiming at an accumulated savings of 7% by 2015.

Other Future Activities

APEC Workshop for the Promotion and Application of LED Lighting Technology

- **Purpose**

To echo “The Joint Statement of 2009 APEC Ministers”

- **Elimination of trade barriers of the four basic clean energy technologies (such as Wind, Solar, Clean Coal and High-Efficiency Lighting)**
- **Strengthen the International Standardization activities, especially in the standards related to energy and environmental issues**

- **Key Objectives**

- **To show how does Chinese Taipei successfully set up the LED lighting standards and contribute to industrial development with LED demonstration cases as well as public works**
- **To share the experiences of promotion and application on LED lighting technology with each others between APEC Member Economies, such as the United States Raileigh driven LED City program, the program of 10000 Street lights 10 cities in mainland China and others.**

- **Time: June 2011**

- **Place: Taipei**

- **Budget: Self-funded by BOE, MOEA of Chinese Taipei**

Conduction of voluntary Peer Review on Energy Efficiency in Chinese Taipei

- Under the auspices of the Energy Working Group, APEC

Background

1. Asia-Pacific region accounts for the majority of world economy, however it is a large net energy importing area which causes some concerns on energy security in the future.
2. In order to enhance the performance of energy efficiency within this area, APEC Leader's Meeting directed the Energy Working Group (EWG) and Asia Pacific Energy Research Center (APERC) to initiate a voluntary Peer Review Mechanism, called the Peer Review on Energy Efficiency (PREE) in 2007
3. Four economies have finished the mechanism in 2009

Processes

1. PREE is going to conduct the on site audit of national/sector's EE performances with an expert team recruited by the APERC
2. It is the voluntary economy's responsibility to prepare their own background info in accordance with the PREE regulation
3. The expert team shall produce a feedback report with critiques and recommendations to the EWG for further discussion after they obtain the agreement of host economy
4. After the delegates of EWG contribute additional comments to the feedback report and the host economy agrees with the final content, APERC will officially release and share it with APEC economies
5. EWG and APERC will report the final results to the Leaders' Meeting in November 2010

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CT's Schedule

1. CT has obtained the endorsement of EWG and ready to participate the PREE in 2010
2. The expert team is scheduled to visit CT in August
3. It is expected CT will finish the PREE by 2010

Benefits

1. Be able to access the best practices of the completed voluntary economies
2. Systematically compile the overall and sector's performance of energy efficiency
3. Obtain professional critiques and recommendations from the expert team
4. Co-consider the context of the best practices and the recommendations and turn them into substantial policies
5. Extend the cooperation network of energy efficiency among experts
6. Be internationally known for promoting the improvement of energy efficiency

The End



Thank you for listening!

