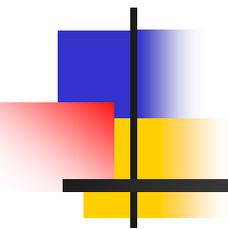


EWEC2006, Athens

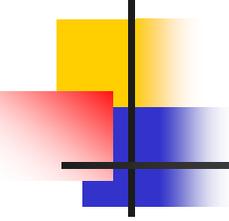
China Renewable Energy Policies, Law, Implementation Regulations and Wind Power Development



CRED

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National Development and Reform Commission
Feb. 28th to March 2nd, 2006

CREIA

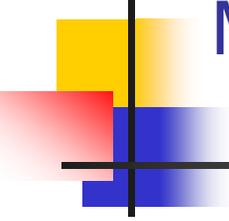


Outline

1. China Renewable Energy Law and Implementation Regulation
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 2. China Renewable Energy Law
 3. Major Regulations Issued and Their Effectives
 4. Points Need Further Discussion
2. China Wind Power Development Status and Prospect
 1. Status
 2. National target
 3. Opportunity

Part 1 China Renewable Energy Law and Implementation regulation





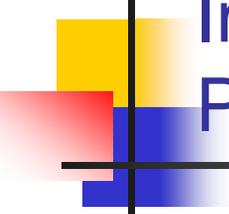
Milestones of Issue of Law and Implementation Regulations

- **China Renewable Energy Law**
 - In June 2003, the draft was listed in the legislation plan by National People's Congress
 - On Feb 28th 2005, approved by National People's Congress
 - Effective on Jan 1st, 2006
 - On Jan. 12th, a news-release meeting was held for announce the effective of the Law and implementation regulations
- **Major regulations related to renewable power**
 - Regulation and Management Measure of Renewable power generation
 - Regulation on Renewable Power Pricing and Cost Sharing
 - Issued in the first half of Jan. 2006 and effective on Jan.1, 2006

China Renewable Energy Law

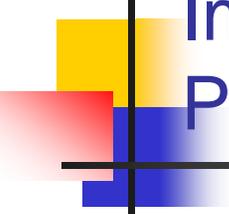
- Mechanisms and measures identified in RE law
 - Setting up total target of RE development
 - Priority of RE power grid-connection
 - System of catalogue RE power prices
 - cost sharing by all power consumers for high price of RE power
 - Special RE fund
 - Loan policies
 - Tax policies





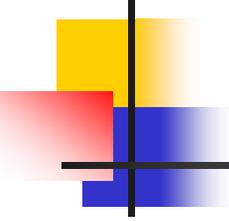
Implementation Regulations Related to Renewable Power and Their Effectives

- Regulation and Management Measure of RE Power Generation
- Effective
 - Overcome the barrier of grid-connection for renewable power
 - Power-grid companies must provide the service for renewable power grid-connection
 - Overcome the barrier of renewable power generators selling RE power and price
 - Power-grid companies must purchase RE power with the tariff of Government Fixed Price
 - Overcome the barrier of power-grid companies paying the cost of grid-extension for RE power generation
 - Cost for grid extension for RE power generation is included in the scope of nationwide cost sharing



Implementation Regulations Related to Renewable Power and Their Effectives (continued)

- Regulations on Renewable Power Pricing and Costing Sharing
- Effective
 - define the principles for different technologies RE power pricing
 - Tariff for wind power is based on tender bidding,
 - Feed-in-tariff for biomass power, quite effective
 - Price for other RE power, need checked and approved by government in advance, according to rational benefit rate and economic principle
 - All incremental cost are shared by the nationwide power grid, including
 - Cost of grid-connected RE power
 - Operation and maintain cost of independent RE power systems (government invested)
 - Cost for grid extension for RE power generation



Points Need Further Discussion-Wind Power

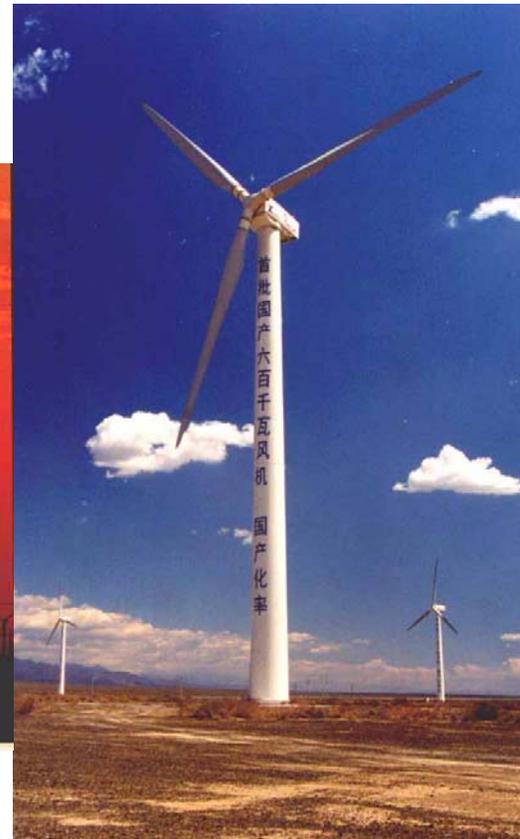
- Whether the tender pricing system for wind power will restrict the development of wind power
 - Tariff level is not a fix level for all project nationwide
 - Increase the risk for project development
 - Increase the difficulty for financing, especially for small scale project developer
 - Rising the input on personnel and capital in preparation stage, as a result increase the cost of the whole project
 - Low price level restricts the development of manufacturing

Other Implementation Regulations



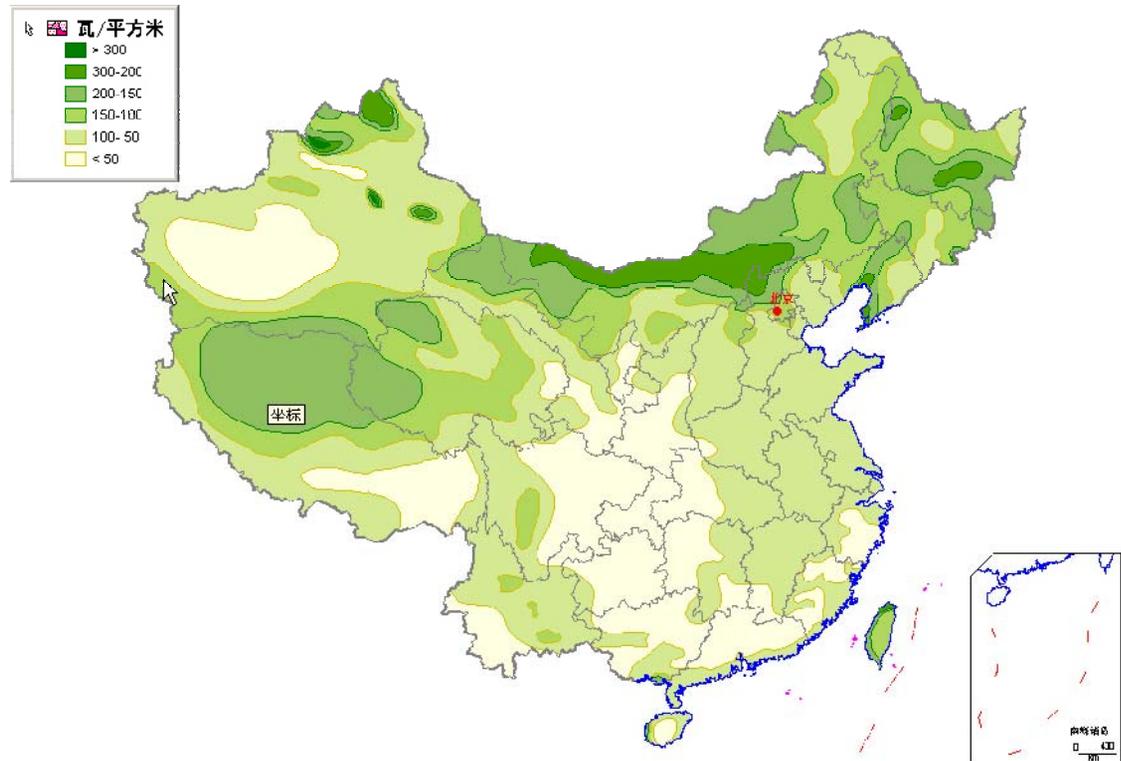
- Regulations issued so far/to be issued before March 2006,
 - Middle and long-term RE development strategy
 - 11th-five-year Plan for RE development
 - Guideline of RE industry development (technology catalogue)(it's a base work for implementing the favorable economic policies, like tax and loan)
 - Effective:
 - Definite the national target, key projects and their distributions
 - Giving a sound signal

Part 2 China Wind Power Development Status and Prospect

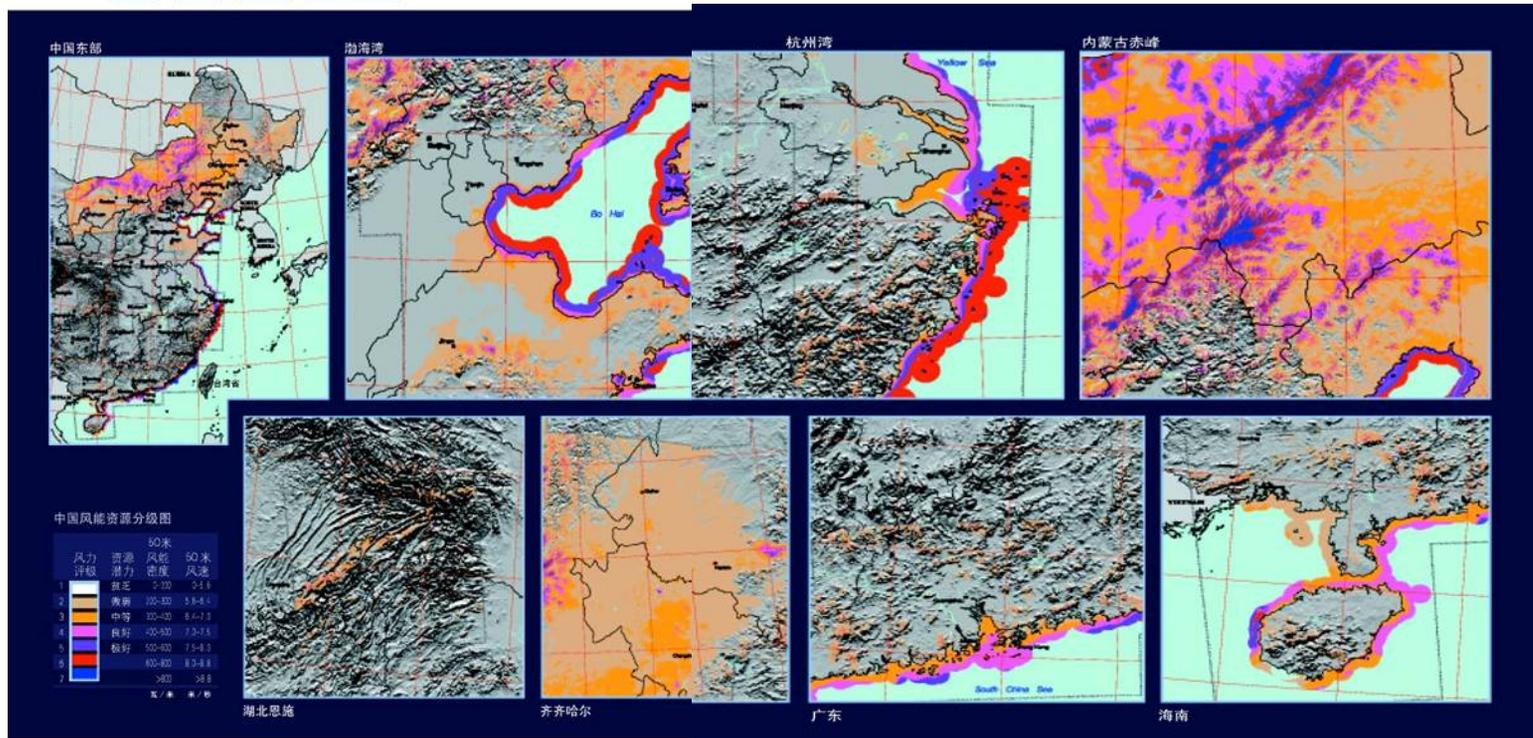


Status for Wind Development -Resources

- Abundant wind resources in China
 - 253 GW potential at 10 meters height in land; and 750 GW potential off shore (according to former survey of wind resources)

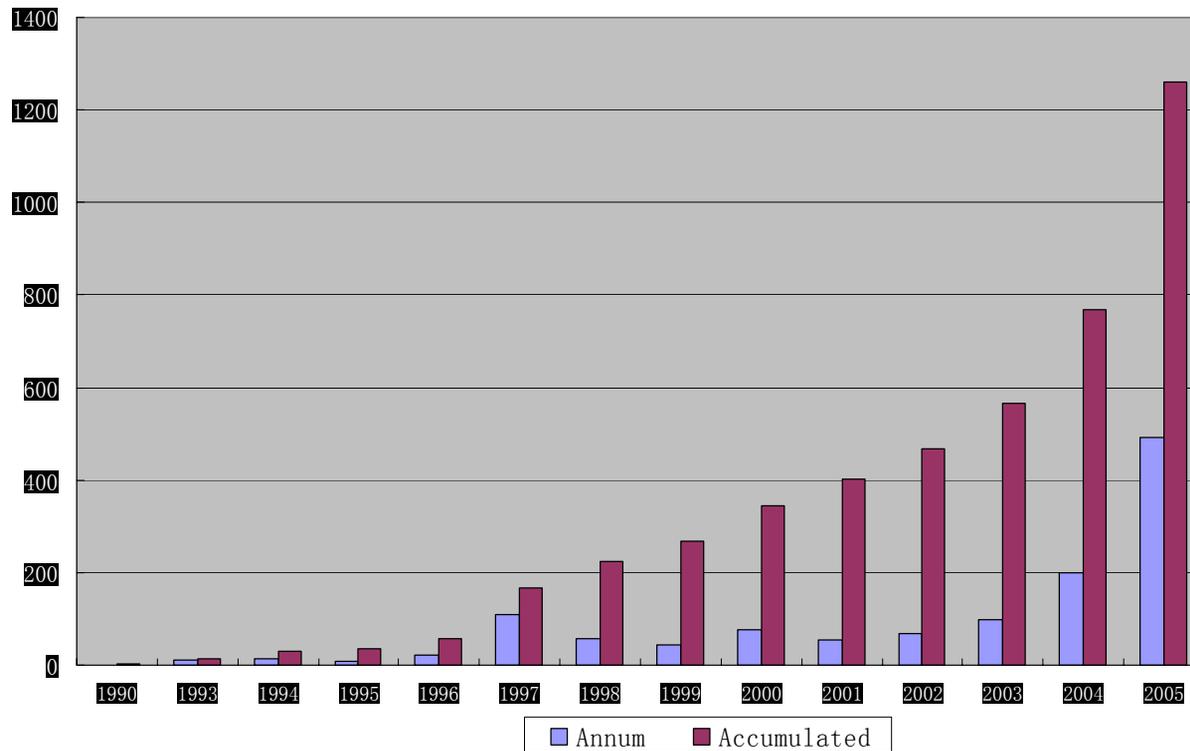


Status for Wind Development -Resources



- At least 3TW potential in land, according to the studies of NREL and DLR (supported by SWERA project)

Annual Capacity Installed and Cumulative Capacity of Wind Turbines installed in 1990-2005 in China



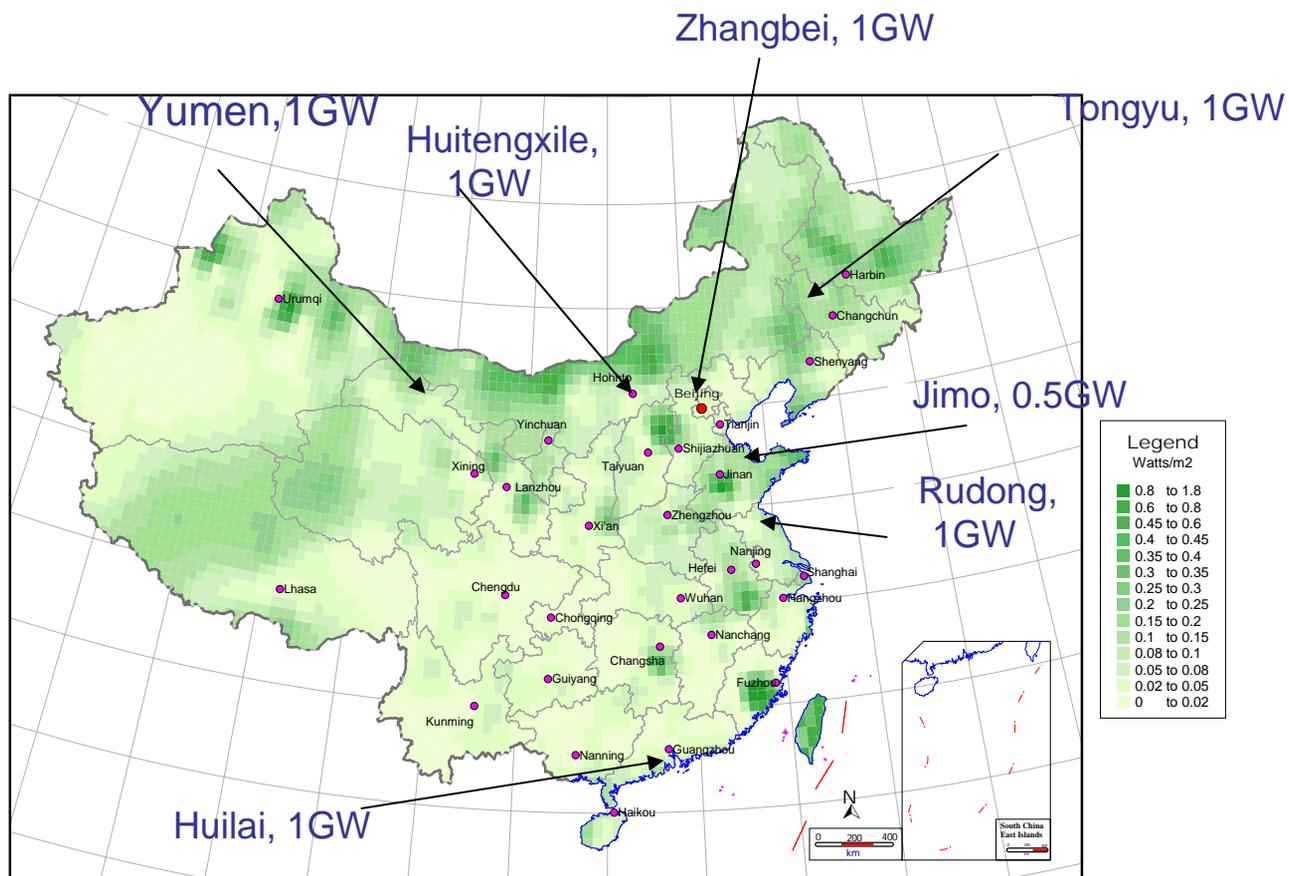
- It is expected the total capacity will be 2GW by end of 2006

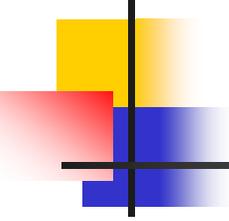
National Target of Wind Power

- 5GW installed capacity in 2010, 20GW in 2020, according to the national Middle and Long-term Strategy of Renewable Energy Development
 - To set up 3 big groups of wind farms, in Jiangsu, Hebei and Inner Mongolia respectively
- Positive prediction: over 6GW
- Projects with near total 10GW are planned and in preparation stage by wind developers



Large Wind Farms in Planning before 2010





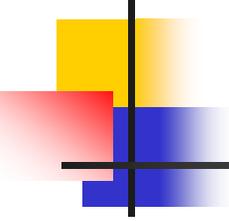
Opportunity

- Wind farms' developers
 - From 2006-2010, 4b Euro investment potential for wind farms in China, and from 2010-2020, 20b Euro investment potential
- Manufactures
 - Not sure, it is expected to reaching 1b Euro
 - Most of majors manufactures, especially in Europe, are entering Chinese market
 - China domestic manufactures need enlarge the production scale in short time, by cooperation with others manufactures as well as getting more risk financing

Opportunity

- Cooperation between Europe and China
 - Roadmap of Wind Power Development in China
 - R&D and co-design of new models
 - Cooperation in industry
- Events





Thank you

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