



国家能源局

National Energy Administration

Strategy and Policies for Renewable Energy in China

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1. Status of RE Development in China

RE resource in China



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- Hydro: 400 GW
- Biomass: 500 million tce
- Wind: 2500 GW
- Solar: rich in more than 2/3 land area

2009 status of RE in China



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- Wind: 10 GW installed in 2009, 22 GW in total
 - ✓ 25.5TWh electricity from wind, in 2009
- Solar PV: 4 GW, produced in 2009
 - ✓ Pilot solar PV station
 - ✓ Building integrated PV
- Solar water heaters: 42 million m² in 2009, 150 million m² in total
- Biomass power: 4.5 GW in total
- Biogas: annually, 15 billion m³ from 30 million biogas pools and 2500 large-scale projects



2. RE policy Framework in China



Milestones of China's RE policy

- Feb. 2005, release of the RE Law
- Jan. 2006, RE law came into force, 10 associated regulations released later
 - ✓ Cost-shared over grid;
 - ✓ special national financial funds
- Sep. 2007, *China RE Medium and Long-term Planning*
 - ✓ The proportion of RE to total energy consumption
 - ✓ By 2010, 10%, by 2020, 15%

Major aspects of the revised law



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Dec., 2009, the law was revised

- Coordination of national planning with local planning, grid planning
- Priorities of wind integrated to the grid
- Guaranteed purchase of RE electricity
- preferential tariffs for renewable power
- Uniform Special National RE Funds

Tariff of RE electricity



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- For wind power
 - 4 tariffs according to wind resource grades in various regions
 - 0.51yuan/kWh to 0.61yuan/kWh
- Feed in tariff for Biomass Power
 - 0.25 Yuan/kWh + local coal fired power price
 - Plus 0.10 Yuan/kWh for poor projects
- Solar power
 - 1.09yuan/kWh for a bidding project



3. RE promotion activities by the government



- Concession bidding
 - Since 2003, 5 rounds of 10 GW projects
 - Encouraging lower cost and localization of wind turbines
 - Fast growing local wind turbine industry
- Offshore Wind Power
 - 100 MW Donghai bridge pilot project in Shanghai
 - 3 MW turbines manufactured by local company
 - 4 offshore projects are now being asked for bidding



- 10 MW solar PV pilot project in Gansu
 - Lowest bidding price: 1.09 Yuan/kWh
 - 13 projects with 270MW, will be asked for bidding recently
- PV utilized on building
 - 15yuan/W, subsidized by the government.
- Demonstrated projects, individual size up to 10MW
 - 50% subsidized by the government.

4. New planning Targets



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The 12th RE Planning

- By 2020, 15% of non-fossil energy in total energy consumption
 - Hydro power, 350GW, 400 million tce
 - Wind power, 1.5GW, 100 million tce
 - Solar Power, 20GW
 - Biomass power, 30MW
 - Biofuel for transportation, 10 million tonnes
- The total RE will be 600 million tonnes



5. Cooperation US with China

- Policies and planning methodology
- Integration and transmission of wind power
 - Forecasting technology
 - Grid operation with high proportion of wind power
- Distributed power integrated into grid
- Solar power station, CSP
- Biomass power, bio-fuel
- Biomass pellets production and use



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Thanks!