

Capacity Building for Rapid Commercialization of Renewable Energy in China

The Challenge

The primary source of energy in China is coal and oil, and their use is forecasted to increase in the future in line with economic growth. China's fossil fuel based energy structure is generating high and rapidly increasing CO₂ emissions. On the other hand, many households in Western China still lack access to basic energy supplies.

The development of renewable energy in China will help mitigate the growing environmental and health effects associated with use of fossil fuel energy sources. For this reason the government has set targets of doubling energy supply from renewable sources by 2020. Renewable energy sources can also promote socio-economic development in remote or poor areas that have no access to the electricity grid.

The Response

Through strong support of the Global Environment Facility (GEF), this programme has promoted the widespread adoption of renewable energy technologies (RETs) in China. It strengthened the capacity of China to shift from supply-oriented technology deployment to demand-driven, investor- and consumer- friendly approaches. The programme also developed market-based institutions and instruments to attract new players in renewable energy industries and increase investments in RETs. In order to boost and strengthen national RET markets, the programme helped remove major barriers to RET market development including insufficient demand, low rates of return on investment, high degree of investment risk, and insufficient knowledge and experience of policy makers and private sector professionals. The strategies used by the Programme included the following:

- i) capacity building at national and local levels targeting market participants and stakeholder groups;
- ii) increasing the financial attractiveness of investments in RETs to both investors and consumers, and reducing the risk in RET investments; and
- iii) provision of hands-on experience and demonstration of viability through pilot projects.

Achievements

This project integrated policy development, market reform and technology dissemination to achieve the following:

- Developed national capacity for the rapid commercialization of renewable energy systems in China, including support for establishment of the China Renewable Energy Association
- Demonstrated successful models for hybrid power for town- and village-level rural households
- Developed national solar water heating program
- Developed national wind resource assessment and wind development program
- Assisted with formulation of China's new renewable energy law
- Removed primary barriers to four promising renewable energy technologies: Solar/ wind hybrid electricity, wind; large-scale anaerobic biogas commercialization; bagasse cogeneration

At A Glance

Start Date: 1999

End Date: 2007

Implementing Partner: China National Development and Reform Commission (NDRC)

Project ID: 00012107 – CPR97G31

UNDAF: Outcome 3 – Efficient Management of Natural Resources

MDG: Target 9, Goal 7 – Ensure environmental sustainability

CPAP: Outcome 6 – End-use energy efficiency and application of new and renewable energy technologies improved

Website: <http://www.ccre.com.cn/>

Total Budget:	US\$	26,570,000
UNDP	US\$	740,000
Government	US\$	11,500,000
Donor (GEF):	US\$	8,800,000
Donor (Australia):	US\$	3,000,000
Donor (Netherlands):	US\$	2,530,000

Project locations: Beijing, Shandong, Xinjiang, Zhejiang, Hubei, Yunnan, Inner Mongolia

To contribute to this initiative, or to find out more about the programme, please visit our website or contact Dr. Shen Yiyang, Programme Manager at (86-10 8532 0736) or yiyang.shen@undp.org

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