

CHINA'S RENEWABLE ENERGY LAW:

NOT ENOUGH TO OVERCOME CHINA'S ENERGY AND ENVIRONMENTAL PROBLEMS

by Nathan Borgford-Parnell*

China's rapid economic growth over the last two decades has brought numerous environmental problems. Today, China contains seven of the ten most polluted cities in the world and is now the second-largest source of carbon dioxide emissions, behind the United States.¹ China's new renewable energy law recognizes the looming energy and environmental crisis on the horizon but may not be enough to solve the problem.

Current trends show China's energy use growing faster than its GDP.² Over two-thirds of its energy is produced from coal.³ Current projections for China's energy consumption in the near future could be as much as fifty percent higher than expected.⁴ Given China's dependency on coal for energy, its greenhouse gas emissions could grow equally as fast unless there is a significant shift to cleaner energy sources.

The Standing Committee of the National People's Congress of China passed a comprehensive renewable energy law on February 28, 2005. The law sets an aggressive target for renewable energy—fifteen percent of China's energy will come from renewable sources by 2020, up from approximately seven percent today.⁵ Overall, the law calls for the creation of 137 gigawatts of new renewable power generation in the next thirteen years.⁶ The law offers financial incentives, like a national fund to foster renewable energy development, discounted lending, and tax preferences for renewable energy projects.⁷ Due to the new law, China showed a sixty percent increase in wind power generation between 2004 and 2005; biogas and solar show similar growth.⁸

Unfortunately, this growth of renewable energy may not be enough to have a substantial impact on China's increasing dependency on fossil fuels. This is due in part to the fact that renewable energy projects have much higher up-front costs than fossil fuel projects, making financing of the projects much more difficult. Additionally, due to antiquated laws governing coal energy production, the environmental controls for renewable energy projects are much stricter than those for coal plants, making approval for energy projects much more costly and difficult.⁹

The Chinese law also mandates that power grid operators purchase energy produced from renewable sources at a price set by state authorities.¹⁰ For example, the national rate set for wind

energy is 6.5 cents per kilowatt hour, a forty percent increase over the average 4.5 cent rate for coal-generated power.¹¹ Unfortunately due to the higher cost for wind energy production, even at 6.5 cents per kilowatt hour, wind farm development in China is still slow.¹² At this rate, only one-third of one percent of wind projects approved in 2004 were completed and none were approved in 2005 or 2006.¹³ Mongolia pays between 8 and 9.5 cents per kilowatt hour for wind energy and is projected to see rapid growth in renewable energy development.¹⁴ To increase the speed of development, some of China's provin-

cial governments are now allowing payments of around 8.1 cents per kilowatt hour. All wind projects selling at that rate have been completed.¹⁵ These provincial rate increases have helped considerably, doubling installed wind capacity in China in 2006.¹⁶

At its current rate of consumption, China is likely to face serious energy shortages and growing environmental problems as it draws upon readily available coal resources and oil imports to remedy the problem.¹⁷ China's renewable energy law is not facilitating development of renewable sources fast enough to meet demand, and new and creative solutions are needed to meet this challenge.



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Endnotes:

¹ Zhang Zhengming et al., *Renewable Energy Development in China: The Potential and the Challenges* 3 (Jan. 3, 2007), available at <http://www.worldbiofuelssymposium.com/Renewable-Energy-Dev-in-China.pdf> (last visited Feb. 20, 2007).

² Jonathan E. Sinton et al., Lawrence Berkeley National Laboratory, *Evaluation of China's Energy Strategy Options* (May 2005).

³ Sinton et al., *id.*

⁴ Jiang Lin et al., Lawrence Berkeley National Laboratory, *Achieving China's Target for Energy Intensity Reduction in 2010* (Dec. 2006).

⁵ The Energy Foundation, *China Emerging as New Leader In Clean Energy Policies* (Dec. 2007), available at <http://www.efchina.org/csepupfiles/news/200712745928684.4034173459462.pdf/China%20Clean%20Energy%20Fact%20Sheet%20071206.pdf> (last visited Jan. 11, 2008).

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