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Analysis: Awaiting 'green' light in China

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China's recent decision to increase its use of renewable energy will have a ripple effect on the growth of alternative energy worldwide that depends in large part on how committed Beijing is to the concept of green power.

China's National People's Congress last week approved the Law on Renewable Energy as a means of curbing the nation's dependence on imported oil. Left unsaid, however, was the extent of the central government's enthusiasm for truly renewable power sources such as solar, wind and biomass.

"They are going to be looking for all sorts of energy sources," said Fariborz Ghadar, a professor of international studies at Penn State University. "Renewable sources such as wind and solar are clearly a possibility, although their dependence on oil will remain very, very high, but if the central government gives the green light (to renewable), then that is the way it is in China."

Analysts with experience in China largely agree although the country's huge population and ravenous industrial base made it a potentially pivotal market for renewable energy, a large-scale introduction of green technology is by no means guaranteed.

Recognizing the universal truth that high-priced energy imports can become unacceptable overhead, the People's Congress passed the renewable energy law last February that goes into effect Jan. 1, 2006. It sets the goal of increasing renewable energy to a seemingly modest 10 percent of total energy supply by 2020.

China is no stranger to the types of renewable projects -- such as wind farms and home solar panels -- that are familiar but by no means ubiquitous sights in North America and Europe. Its ethanol industry is the third-largest in the world, but it is limited by the need to divert a large percentage of its corn crop to animal feed.

At first glance, China would seem to be an ideal breeding ground for free-standing, non-polluting sources of energy, much of which is being developed in the United States and other nations that otherwise should be salivating at a potential crack at the huge market in the People's Republic.

China has about 30 million people who do not have electricity; and 760 million souls, mostly in rural areas, rely on their fireplace to cook and heat their homes.

The utopian vision would be to hook up these remote farms and villages to small-scale

generators that run on wind, sunlight or some sort of fuel produced from agricultural waste. However, moving China toward an era in which such alternative sources of power comprise a significant contribution is a far cry from wiring up a small, Third World nation that has far fewer people and a much more modest industrial base.

The sheer scope of China's consumption profile illustrates why, as it is in the United States, green power simply is not up to the daunting task of replacing Big Oil and King Coal as predominant sources of energy.

Energy consumption in China is projected at a 4.3 percent rate of growth through the end of the year, according to the U.S. Energy Information Administration. Broken down by fuel, renewable power usage constitutes only 3 percent, compared to 64.5 percent for coal, 24.5 percent for oil and 3.1 percent for natural gas.

"The largest future growth in terms of fuel shares in the future is expected to be natural gas due largely to environmental concerns ... though the largest increase in absolute terms is likely to be coal," the EIA said in a recent summary of China's overall energy situation.

China's enormous energy needs leave the central government in the quandary of committing to a significant surge in green energy in the countryside, or focusing more on nuclear, or the emission-producing hydrocarbons capable of doing the heavy lifting in an industrial economy.

Although mixing ethanol into gasoline is mandated in some provinces, it is not likely to have much of an effect on oil consumption in the future.

"Ethanol could be produced from agricultural residues, such as cornstover or wheat straw, but this technology is still in the development and demonstration stages," Robert C. Brown, a chemical engineering professor and expert on biomass fuels at Iowa State University, told United Press International.

The conundrum is magnified by the fact that there really is no Chinese free market strong enough to stoke a green revolution at the consumer level, and by the historical penchant of communist governments to stick by a decision no matter how draconian it might seem.

Gu Xiulan, vice chairwoman of the Standing Committee of the NPC, quoted by the Xinhua news services last weekend, told a workshop on the new renewables law in Beijing that China had not abandoned the development strategy of "massive production, massive consumption and massive (waste) discharge."

George Haley, author of the 2004 book "The Chinese Tao of Business," noted even if the government orders a wholesale move toward green energy, the provincial governments hold just enough wiggle room to sidetrack Beijing's wishes in order to protect their own local economic interests.

"Many Americans have difficulty accepting that the Chinese government's power is limited," Haley, a professor of industrial marketing at the University of New Haven, Conn., told UPI in an e-mail. "The Chinese government cannot issue an order and expect all the provincial governments to obey; China rarely ever worked that way at any time in its history, regardless of how our Western history books presented it."

Tom Mast, author of the new energy book, "Over a Barrel: A Simple Guide to the Oil Shortage," told UPI that regardless of the intricacies of Chinese politics, time was of the essence if green-power promoters and entrepreneurs hoped to turn the Chinese market into both an environmental and economic bonanza.

"It is in the best interest of the United States to share its advances in green energy technology as they happen with China," Mast said. "Otherwise, China's tendency will be to continue its aggressive program of building coal-fired power plants that emit huge amounts of pollutants and carbon dioxide."

Bush administration officials have said expanding the use of up-to-date energy technologies in the rest of the world also can benefit the United States in terms of both lower global oil demand and a cleaner environment. In that vein, persuading an industrial power such as China to cut back its intake of coal and oil significantly could be a godsend for alternative energy.

Whether or not the journey to such a brave new green world triggers a boom in the alternative-energy industry, or even gets on track, will depend in large part on the decisions of the Chinese government.

"If you can convince Beijing that is the way to go," predicted Penn State's Ghadar, "then you are probably going to sell a lot of wind and solar technologies and capabilities."

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