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A publication of
THE NATURAL RESOURCES DEFENSE COUNCIL
Winter 2004 ■ Volume 25, Number 4

China Power

How do you bring clean energy to 1.25 billion people?

BY JANE BRAXTON LITTLE

Barbara Finamore helps move China into the age of clean power.

On a bad day, Barbara Finamore, director of NRDC's China Clean Energy Program, can't see the buildings across the street from her hotel in Chongqing. The air looks like dirty dishwater, pasty yellow and thick. Chongqing, like every other city in China, is powered by coal-fired plants, which are largely responsible for the stubborn haze. Low-grade, high-polluting coal generates 75 percent of China's electricity, and over the next 25 years, as China's growing per capita wealth stimulates energy demands, nearly as many coal-fired plants will be built here as in the rest of the world combined.

By 2030, China could overtake the United States as the world's leading greenhouse gas emitter. This is a fate that Finamore wants to help China avoid. "We can't deny the Chinese people their desire to live more comfortably," she says. "We just hope to find ways to do that without the environmental impacts."

Changing the energy policies of a nation with 1.25 billion people sounds like an impossible undertaking, but Finamore, who has lived on and off in China for more than a decade, is optimistic. "China wants cleaner energy," she says. "They want what works in the United States." With such a receptive audience, Finamore needs only to prove that clean-energy programs can work for China too.

Take a project she guided in Jiangsu, a power-hungry province north of Shanghai. Finamore was among those who helped the local government design a fund—the first of its kind in China—that pays factories to buy energy-efficient equipment. This, in turn, reduces electricity consumption at peak times. "The very notion that you can legislate clean energy is new in China," she says. The program has slowed the need to build more power plants and brought the 71 participating factories almost $1 million in shared annual profits from electricity savings.

The project so impressed officials that in November Finamore delivered a presentation about it to the National People's Congress in the Great Hall of the People; the Jiangsu program may become a model for the entire country. "When the government sees something that works, it will invest in it," Finamore says. "Eventually policy changes."

For now, coal remains the undisputed king in China, but Finamore sees signs of progress. By 2020, China intends to double the amount of electricity produced by renewable sources such as wind and solar. In Beijing, an eight-story office building that captures rainwater for irrigation and solar heats water will soon open; it is China's first building certified to meet international green-construction standards. Shanghai manufacturers and a Canadian company, brought together by Finamore, hope to begin production of fuel-cell scooters, which could cut down on urban pollution (see "All Vroom, No Fumes"). And China is investing research money in coal-gasification, which would produce electricity, hydrogen, and liquid fuels with near-zero emissions.

The question remains as to whether China can develop these technologies and policies fast enough to offset the population's burgeoning energy demands: Rapidly escalating electricity shortages have forced Finamore to occasionally attend candle-lit meetings in unheated offices. And yet, she says, the doors are always open to her and NRDC. "They're listening," she says, "and that gives me a lot of hope."

ALL VROOM, NO FUMES

When fuel-cell scooters hit the Shanghai streets next year, no one will notice. That's the point, say the designers. The scooter is just a plain-looking two-wheeler. But the careful observer will notice two things that are missing: a noisy, two-stroke engine and a tailpipe belching exhaust. The presence of these vehicles in China is revolutionary. With NRDC serving as a catalyst, the Municipal People's Government backed a partnership between Chinese manufacturers and Canada's Palcan Fuel Cells Ltd. to produce the scooters, which are powered by a two-kilowatt fuel cell and can cover more than 60 miles on one hydrogen canister.—JBL

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