CHINA IS GOING GREEN

BY GARY DIRKS AND DAVID G. VICTOR

BACK IN THE 1990S, WHEN DIPLOMATS were designing the Kyoto treaty on global warming, they exempted China from any requirement to control emissions. The country was too poor, the thinking went, and had many more urgent priorities to tend to. A decade later, that thinking has changed. Having surpassed the United States as the world's biggest emitter of carbon dioxide, the main greenhouse pollutant, China is now seen as a laggard.

The reality, however, is different. In the past few years, severe pollution and worries over dependence on fossil fuels have prompted the Chinese government to launch a radical transformation in how the country uses energy. It is embracing efficiency, imposing limits on pollution, and investing in new green technology that it can sell worldwide. And while most countries around the world were giving the highest priority to dealing with unemployment and other repercussions of the economic collapse, China's government and industry haven't broken stride on green reforms. With a little more effort, and some help from the United States and a few other countries, China could turn out to be a leader of the coming clean-technology revolution. That's good for China and for the world.

China is already taking the first crucial step: it is cutting emissions by becoming more energy-efficient. Beijing has forced every province and major city to adopt efficiency targets. The top 1,000 companies have their own goals, and Beijing has created a scheme to help smaller firms do their part. In the past two years, China has pushed its provinces and companies to change faster.

The economic downturn has made it easier to implement these reforms. When the economy was firing on all cylinders, there was no capacity to spare, but in these slack times China has closed some of its oldest (and most inefficient) coal- and oil-fired power plants. At the same time, Beijing shifted away from energy-hungry industries such as steel and concrete to higher-value activities, such as skilled manufacturing, that are more frugal with natural resources.

China is also trying to move away from fossil fuels. Wind turbines are sprouting like weeds, most quickly in the geographical middle and far west. The country sees this construction as a form of development aid to these regions, which have lagged coastal cities like Shanghai in economic growth, but also as a way of nurturing its commercial wind industry. So far, China doesn't export many wind turbines, but as quality rises, so will foreign sales.

China is also embarking on a massive investment in nuclear power. While Western nations fret about safety and politics, China is now building one third of all the world's nuclear-power plants. It has also continued to develop a novel "pebble bed" nuclear reactor that is smaller and probably safer than conventional reactors. Although German and American firms invented the technology, Chinese firms are improving on it and offering the only credible promise of actually building some plants.

China gets a lot of flak for its reliance on coal, which accounts for nearly 80 percent of its electric power. Because coal is cheap and plentiful, it will be hard to drop. That's why the country is focused on making coal less polluting. Using Western technology, China is building more of the world's most efficient coal plants than any other country.

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All this adds up to a massive impact on greenhouse-gas pollution. By 2011, greater efficiency will have reduced emissions by an amount equivalent to nearly twice Germany's annual emissions, and probably more than the entire effect of the Kyoto treaty. The Chinese government is already exploring scenarios for an even more aggressive effort after 2011 modeled on Japan, the most energy-efficient major world economy. Top Chinese analysts wired into the country's planning system are now looking at ways to level China's emissions before 2050 and then cut them deeply beyond. By contrast, just a few years ago Chinese planners foresaw exponential pollution growth into the future.

Deeper cuts are possible with new technologies. A generation ago, China was a bit player in worldwide investment in energy research; today it is a rapidly rising star. It is investing in a wide array of technologies, from novel power-transmission lines to advanced vehicle engines and batteries for electric cars. Despite these gains, however, China needs the West's help in managing R&D. Because most of China's R&D investments are new, it doesn't have much experience in getting new technologies out of the lab and into the marketplace. As the government has shifted to a greater use of market forces, the country's research institutes have become more fragmented and isolated from commercial pressures, which doesn't bode well for fast adoption of new technologies.

The most urgent area for R&D is coal. Power plants that capture carbon-dioxide pollution and inject it safely underground are much discussed these days, but few firms anywhere in the world are actually building them. Chinese scientists have finished mapping the country's geologic sites for places to put the carbon, and a couple of large Chinese firms are in the early stages of testing plants that could be refitted to capture carbon. By partnering with Western firms, the Chinese could bury much of the pollution underground.

We'll know when China is ready to lead when it starts playing offense in climate talks as well as defense. As it proves that it can cut emissions, it can make extra efforts contingent on other countries doing the same. Such an offer would smoke out the United States, which has so far been slow to develop its own plan, in part because American lawmakers use Chinese inaction as an excuse for doing nothing.

Green leadership will not come easily to China, but it is overdue. Basic math makes China indispensable. A more active role could reshape world politics and, along the way, help save the planet.

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