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The Trouble With Markets for Carbon

By JAMES KANTER

Correction Appended

BRUSSELS — As the United States moves toward taking action on global warming, practical experience with carbon markets in the European Union raises a critical question: Will such systems ever work?

Backers of these markets, which involve setting limits on greenhouse gases and then allowing companies to buy and sell emission permits, see the approach as one of the cheapest and most effective ways to control the gases in advanced economies. The presidential candidates Barack Obama and John McCain have both endorsed the idea.

Yet in Europe, which created the world's largest greenhouse gas market three years ago, early evidence suggests the whole approach could fail. Carbon dioxide emissions are still rising in many industries, not falling.

"We currently are in danger of losing yet another decade in the fight against global warming," said Hugo Robinson of Open Europe, a research group in London.

This week, the European Environment Agency reported that emissions from factories and plants that trade pollution permits rose 0.4 percent in 2006 over the previous year, and 0.7 percent in 2007, the first two years of the system's operations.

Europeans took an early lead in efforts to curb global warming, championing the Kyoto Protocol and imposing a market-based system in 2005 to cap emissions from about 12,000 factories producing electricity, glass, steel, cement, pulp and paper. Companies buy or sell permits based on whether they overshoot or come in beneath their pollution goals.

European Union officials acknowledge that establishing such a vast market has been more complicated than they expected.

"Of course it was ambitious to set up a market for something you can't see and to expect to see immediate changes in behavior," said Jacqueline McGlade, the executive director of the European Environment Agency. "It's easy, with hindsight, to say we could have been tougher."

A major stumbling block arose at the outset, when some participating governments allocated too many trading permits to polluters when the market was created. That led to a near-market failure after the value of the permits fell by half, and called into question the validity of the system.

Since then, officials have promised changes, and the price of carbon permits has largely recovered. Yet a ferocious lobbying battle is under way as European Union regulators seek to overhaul dysfunctional parts of the market by charging polluting companies more and reducing the supply of permits. Brussels is also seeking to consolidate its oversight of the market, rather than leave it partly in the hands of national governments that have proved susceptible to corporate lobbying.

"The politics you're seeing in Europe now are the real politics of carbon," said David Victor, the director of the Program on Energy and Sustainable Development at Stanford.

Energy-intensive industries, like power, steel and aluminum, have challenged proposals that would force them to buy many more permits than in the past. During the three years in which they participated in the first phase of the market, carbon emissions in the iron and steel sector in Britain alone rose more than 10 percent while emissions in the cement industry rose more than 50 percent, according to transcripts from the British Parliament.

Electricity producers, oil companies, steel companies and airlines are among those fighting to protect their interests, with some threatening to freeze investments in Europe unless the system is tweaked to suit them.

Meanwhile, poorer countries in the union, led by Hungary, are clamoring to overturn emissions allowances that they say are too stingy and risk undermining their economic growth.

The proposals are also under attack from environmentalists, who want to restrict polluters from using large numbers of permits from an offsetting program run by the United Nations. It funnels money to poor countries for investments that purportedly reduce carbon emissions, but the effectiveness of the program has been questioned.

“The sheer amount of lobbying creates so much uncertainty about the way these markets operate that nobody really is investing in cleaner technologies in Europe,” said Mr. Robinson of Open Europe.

Carbon markets, also known as cap-and-trade systems, have come into vogue because they are more politically palatable than imposing carbon taxes.

Americans pioneered pollution markets in the 1970s and used them on a broader scale with some success during the 1990s to control emissions from power plants that contributed to acid rain. American officials also pushed hard for emissions trading to be included in the Kyoto climate treaty on the grounds that markets are the most effective way of encouraging innovative emission-reducing technologies.

But the momentum in the United States to create a nationwide carbon market ground to a halt in 2001, when President Bush withdrew support for the Kyoto Protocol. Mr. Bush said carbon controls would put an undue burden on the American economy unless fast-growing countries like China and India also made commitments to cut emissions.

Now the tide is turning again in favor of carbon markets in the United States. Although the Senate this month blocked a bill that would have imposed a cap-and-trade system to slash greenhouse gases by 2050, the issue is expected to come up again after the elections. Both Mr. McCain and Mr. Obama have pledged support for market-based systems like the one in Europe.

Mr. Obama has said he supports the use of a market to reduce carbon emissions by 80 percent below 1990 levels by 2050. His proposal would require pollution credits to be auctioned rather than given away to big industries, including coal and oil companies.

Mr. McCain favors giving permits away to big polluters before moving to an “eventual” auctioning of permits to reduce emission levels 60 percent below 1990 levels by 2050.

Americans were likely to experience many of the same problems already playing out in Europe, said Mr. Victor, the Stanford expert. “The challenge for the United States now will be to have enough pork to get people to the meal, but not to give away so much that we end up squandering public resources,” he said.

The biggest question hanging over the European system — and that is likely to be of major concern to American policy makers — is whether the rules can be tightened enough that they achieve the social goal of reducing the emissions that are warming the planet.

Henrik Hasselknippe, the director of emissions trading analysis at Point Carbon, a consultancy in Oslo, said the European system was beginning to show signs of success. He said the price of carbon had been rising, and that would prompt factories and installations covered by the system to move toward cleaner power generation, such as burning natural gas instead of coal.

Mr. Hasselknippe said efforts to overhaul the European system by reducing corporate influence and government largess would mean greater certainty about price of carbon permits during the next decade. And he predicted that emissions from industries covered by the European system would finally decline this year, by 2 percent.

This article has been revised to reflect the following correction:

Correction: June 25, 2008
A picture on Friday with an article about Europe’s carbon-trading market may have left an incorrect impression that the smog shown obscuring the Eiffel Tower was caused by emissions of carbon dioxide. While smog and carbon dioxide emissions share a common source in automotive and industrial use of fossil fuels, smog results from a combination of ground-level ozone and

hydrocarbon particulates, not from carbon dioxide.