



Grab the Green Brass Ring

As Europe moves to profit from the world's next great economic transition—the emerging low-carbon economy—the U.S. faces a stark choice: learn from Europe's experience and fully join the race to find market-driven solutions to combat climate change, or surrender the new century's most important generator of jobs and wealth to our transatlantic competitors.

Thankfully, momentum is gathering for a shift in the way the U.S. generates and uses energy. This week, 10 leading corporations, including General Electric, Alcoa, and Caterpillar, joined environmental groups in a bold call for a market-based cap on America's total carbon emissions. There's also a buzz in the new Congress, and climate change is a hot topic at the annual gathering of financial leaders at the World Economic Forum this week in Davos, Switzerland. So it's a good moment to take a closer look at Europe's experience using markets to fight global warming.

The European “cap and trade” market sets carbon emissions limits for 11,000 facilities, and it allows those who beat their targets to sell their surplus allowances. Although it's only a pilot (the full program kicks in next year), the market has already drawn billions of euros into innovative, low-emitting energy strategies. Without a comparable U.S. market to spur private investment in low-carbon fuels and equipment, our technology will certainly lag, and America will end up having to import the new green technologies, just as we now have to spend our national wealth to import—and defend—foreign oil.

ODDLY ENOUGH, THE EUROPEANS modeled their system on the strikingly successful U.S. acid rain program, which caps sulfur dioxide pollution from all electric utilities and lets those that cut pollution swifly sell spare allowances. In the U.S., that has spurred a healthy competition to find better, cheaper, faster ways of cutting pollution and has shown the power sector as a whole that it can be a pollution-control overachiever.

To encourage more countries to dip a toe in the carbon market, however, the Europeans also let their emitters buy carbon credits from projects in developing nations where there are no emissions caps. That's a risky move. Without national caps, a project can't generate credits unless it proves it has cut carbon below what would have been emitted anyway. That siphons off a substantial portion of

the investment into consultant fees, crowding out all but the highest-margin projects. More important, these trades don't really cut global emissions; they just move business-as-usual emissions from poorer countries to richer ones. The Europeans are starting to recognize this inherent contradiction, and trading within Europe has recently begun growing faster than trading with uncapped countries.

That's the untold story: Despite initial reports to the contrary, emissions data show European companies really are cutting carbon, according to a Massachusetts Institute of Technology study—and faster and more cheaply than predicted. Sales of future years' emission permits are fetching higher prices, reflecting the market's expectation that carbon caps will tighten further. And money is pouring into innovative technologies because the market has finally put a value on low-carbon results.

So, the question is no longer just how to avert the catastrophic impacts of climate change, but which nations will produce—and export—the green technologies of the 21st century. The stakes are huge. Worldwide, clean energy transactions topped \$100 billion in 2006, up 43% from 2005, according to London-based New Energy Finance. And since developing countries will need \$165 billion in electricity sector investment each year just through 2010, according to the World Bank Group, though the lion's share of the nearly \$30 billion in carbon market activity to date has been

in Europe, there still should be room for newcomers.

Historic transitions—from the Industrial Revolution to globalization—are never without dislocations and disruptions, and Europe's pilot carbon-trading program has had its share. But the real lesson from Europe is that the economic winners of the 21st century will be those who grasp low-carbon's inevitability, and act quickly to capitalize—and capitalize on—it. Indeed, without a U.S. carbon cap and trade system that draws on Europe's successes and its missteps, we will be unprepared for forces already reshaping the global economy. **zz**

Fred Krupp is president of Environmental Defense, a New York environmental advocacy organization.