



By Robert N. Stavins

## Can We Afford to Cut Carbon?

Can the nations of the world address the threat of global climate change without inflicting unjustifiable damage to their economies? The answer is “yes,” as I explained in an essay not long ago in the *Wall Street Journal*. If appropriate and intelligent policies are employed, the job can be done at reasonable cost.

Critics argue that U.S. legislation to cut domestic emissions 80 percent below 2005 levels by 2050 will mean disruptive changes to our infrastructure and untold economic damage. But they make a couple of basic errors. For one thing, they seem to think we’d have to replace the entire infrastructure quickly, paying trillions of dollars to shift to cleaner power. They also seem to assume that we have to choose between much more expensive energy and no energy at all.

The move to greener power doesn’t have to be completed immediately, and it doesn’t have to be painful. The right transition path will increase consumers’ bills gradually and modestly, and allow companies to make gradual, well-timed moves.

How would this work? One way is via a combination of national and multinational cap-and-trade systems. The effect would be to send price signals through the market — making use of less carbon-intensive fuels more cost-competitive, and provid-

ing incentives for energy efficiency and stimulating climate-friendly technological change, such as methods of capturing and storing carbon, as well as safe nuclear power.

True, in the short term changing the energy mix will come at some cost, but this will hardly stop economic growth. As economies have expanded and matured, they have become more adept at squeezing more economic activity out of each unit of energy they generate and consume. From 1990 to 2007, while world emissions rose 38 percent, world economic growth soared 75 percent — emissions per unit of economic activity fell by more than a fifth.

Critics argue we can’t possibly increase efficiency enough to hit the 80 percent goal. In a very limited sense, that’s true. Efficiency improvements alone, like the ones that propelled us forward in the past, won’t get us where we need to be by 2050. But progress will not rely solely on boosting efficiency. Good policies that send carbon price signals through the market will bring about a host of other changes, such as moving toward greener power sources. What’s more, making gradual changes means we don’t have to scrap still-productive power plants, but rather begin to move new investment in the right direction.

As for how much this will cost, the best economic analyses — including studies from the Congressional Budget Office and the Energy Information Administration — say such a policy in the United States could cost considerably less than 1 percent of gross domestic product per year in the long term, or up to \$175 per household in 2020. In the end, we would be delaying 2050’s expected economic output by no more than a few months.

Some of the best economic experts have validated the wisdom of adopting climate policies: from Yale’s Wil-

liam Nordhaus, who has supported moderate carbon taxes to cut emissions as an “insurance policy” against the most serious consequences of climate change, to MIT’s Richard Schmalensee and Columbia’s Glenn Hubbard, who have endorsed the climate policy recommendations of the bipartisan National Commission on Energy Policy, to Harvard’s Martin Weitzman, who has argued for more aggressive policies because of the risk of particularly catastrophic outcomes.

The longer we put off serious action, the more aggressive our future efforts will need to be, as greenhouse gases and carbon-spewing capital assets continue to accumulate. Plants built today will determine emissions for a generation. In the steel sector — where plant lifetimes typically exceed 25 years — more than half of all plants in the world are now

less than 10 years old.

The picture is similar in the cement industry, as well as more broadly throughout the economy. For every year of delay before moving to a sus-

tainable emissions path, according to the International Energy Agency, the global cost of taking necessary actions increases by hundreds of billions of dollars.

The world of tomorrow will be wealthier and better able to absorb the costs, but acting sooner will lower the ultimate costs of achieving the target, because there will be more time allowed for gradual transition — which is what keeps costs down. Perhaps most important, the costs of failing to take action — the damages of climate change — would be substantially greater.

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