



# Limiting Cost, Assuring Effort, and Encouraging Ratification

## RFF Researchers Work to Improve the Kyoto Protocol

*Dan Quinn*

Perhaps no issue threatens to derail ratification of the Kyoto Protocol more than uncertainty over what it will cost to implement. Estimates of the economic impact of Kyoto vary widely. Some claim it will bring economic ruin, while others believe new technology and important details of the treaty that are still in negotiation will help cushion the blow.

The United States joined with 158 countries in signing the agreement negotiated in Kyoto, Japan, in 1997, but it has not yet been submitted to the U.S. Senate for ratification. Because the decision to ratify the Kyoto Protocol is ultimately a political one, this uncertainty over costs creates a major barrier to its coming into force, according to several RFF researchers. Politicians can design cap-and-trade policies that guarantee the required reductions but such policies may lead to unexpectedly—and perhaps unacceptably—high compliance costs. Or politicians can design domestic policies that limit compliance costs but fail to guarantee the reductions required by the Kyoto Protocol with complete certainty.

To help clear up this uncertainty, RFF researchers Raymond Kopp, Richard Morgenstern, and William Pizer have crafted a new proposal designed to limit the costs of compliance while at the same time providing a transparent and reliable way of tracking whether countries have met their commitments. The proposal was formally unveiled at a workshop RFF co-sponsored in Paris, which was attended by representatives of industrialized and developing countries from four continents. The proposal

will be the subject of further discussions leading up to the critical Sixth Conference of Parties (COP-6) to the UN Convention on Climate Change, which will be held in The Hague in November.

### Filling in the Details on Compliance

To understand the Kopp-Morgenstern-Pizer proposal, one must first realize that the details of the Kyoto agreement are still a work in progress. Parties to the agreement have committed to annual limits on greenhouse gas emissions beginning in 2008 (7% below 1990 levels in the case of the United States). But they have yet to agree on important details like how emission allowances can be traded among countries, how emission reductions in developing countries will be counted, how land-use changes and reductions of noncarbon greenhouse gases will be counted, how the parties will determine whether a country has complied, or what will be done to deal with countries not in compliance.

On the subject of compliance the agreement is particularly silent, saying only, “The Conference of the Parties shall... approve appropriate and effective procedures and

mechanisms to determine and to address cases of noncompliance with the provisions of this Protocol.”

The Kopp-Morgenstern-Pizer proposal fills in the details of what this compliance regime would look like and provides assurance about the maximum amount that complying with the Protocol will cost. Here’s how it would work. Imagine it is 2012, the treaty has been ratified and is in force, and we find ourselves at the end of the first commitment period. Some countries have either met their emissions targets or obtained additional allowances to cover their excess emissions; others have simply fallen short of their targets.

Under the Kopp-Morgenstern-Pizer proposal, countries that do not meet their emission commitments at the end of the first period would have two options in order to remain in compliance: they can purchase additional permits on the international market at the prevailing market price (whatever that will be), or they can pay a fixed fee per ton of greenhouse gas emissions on all tons in excess of their emission allowance. If this fee were \$50 for example, a country that exceeded its target by a million tons would have the option of paying \$50 million to remain in compliance. That \$50 million would then be used to purchase additional emission reductions from other countries in the future.

The proposal specifically limits costs by providing a fixed-price alternative to the possibly high cost of domestic emission reductions or uncertain prices on the international permit market. Because countries can choose to make the voluntary compliance payment on their excess emissions, no country would be obliged to spend more than the established amount to meet its target and remain in compliance.

Kopp, Morgenstern, and Pizer propose the voluntary compliance payment be set close to \$50 per ton of carbon of greenhouse gases, but the exact charge would be negotiated among participating countries. The actual, agreed-upon level is critical to the proposal’s success, they caution. A high payment may not provide a useful compliance alternative. A low payment, on the other hand, may lead some countries to put forth less domestic effort to reduce emissions than the consensus believes is necessary.

The RFF researchers’ proposal sets in place incentives that encourage countries to meet the Kyoto goals based on their own self interest by providing a financial reward to those countries that identify and undertake emission reductions that are less costly than the voluntary compliance payment. Consider the earlier example of the country that exceeded its target by one million tons. The country could pay \$50 million to remain in compli-

ance. But if additional domestic reductions are available for \$20 per ton, the country could save \$30 million by pursuing them and avoiding the compliance payment or the need to enter the international permit market. Furthermore, by using the revenues from the compliance payments to reduce emissions in other countries, it is assured that these payments are used to either reduce emissions at home or abroad.

Perhaps most importantly, the proposal puts a ceiling on the overall cost of complying with Kyoto (total emissions multiplied by the agreed-upon permit price), which Kopp, Morgenstern, and Pizer believe could help ease the fears about the economic effects of the Protocol.

## International Reactions

Reaching international consensus on the Kopp-Morgenstern-Pizer proposal will likely require compromises, participants at the June workshop said. The first potential sticking point, as noted above, is in setting the appropriate price for permits. Another potential barrier is the notion that by allowing non-complying countries to buy more permits, the proposal could allow more greenhouse gases than the original signers of Kyoto had in mind.

In response, the RFF researchers said that by providing a stronger case for ratifying the Protocol, the proposal’s overall benefits outweigh the effects of what is likely to be a modest increase of emissions introduced into the system. Further, providing an incentive for countries to implement strong domestic actions could go a long way in achieving the Protocol’s goal that countries pursue strong domestic policies while also seeking international opportunities to reduce emissions. Other participants suggested that the Kopp-Morgenstern-Pizer proposal would reduce the pressure to make generous use of all flexibility mechanisms, specifically the controversial use of carbon “sinks” or “hot air” in the first budget period. (The oceans and forests function as sinks, capturing carbon and keeping it out of the atmosphere. Hot air reductions in greenhouse gases result from economic collapse in places like the former Soviet Union, not international efforts to curb emissions.) This move might have the effect of increasing the overall environmental integrity of the Protocol.

For more information on the Kopp-Morgenstern-Pizer proposal, visit *WeatherVane*, RFF’s climate change policy Web site, at <http://www.weatherwane.rff.org/features/parisconf0721/KMP-RFF-CIRED.pdf>.

Dan Quinn is RFF’s public affairs manager as well as the managing editor of *WeatherVane*.