

# Managing Costs in a U.S. Greenhouse Gas Trading Program: Workshop Summary

With federal action on climate change seen as increasingly likely, debate over the details of a workable legislative proposal has sharpened. Cost containment has emerged as a major point of contention, forcing policymakers and stakeholders to weigh the need for environmental certainty (in terms of confidence in future greenhouse gas reductions) against the need for safeguards to protect the U.S. economy in the event of high costs.

Recognizing the practical and political importance of these concerns, RFF joined with the National Commission on Energy Policy and Duke University's Nicholas Institute for Environmental Policy Solutions to host a workshop devoted specifically to the topic of cost containment. The workshop, held in March, featured presentations from senior RFF researchers and invited speakers with expertise in economics, financial markets, and environmental regulation.

The day began with an attempt to frame overarching issues related to cost containment. Speakers reviewed the recent evolution of this concept and described some of the specific approaches that have been put forward in various legislative proposals. The second part of the workshop focused on the idea of creating an independent board, akin to the Federal Reserve, that could intervene in future carbon markets to respond to cost concerns. Full details of the workshop, including presentation materials and audio and video recordings of the event are available at [www.rff.org/cost](http://www.rff.org/cost) containment.

Several key themes and questions emerged over the course of the workshop:

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■ Cost management has multiple dimensions. Are policymakers chiefly concerned with managing costs in the short term or over the long run? Is the point of a cost-management mechanism primarily to limit expected costs or to guard against unexpected costs?

■ There are trade-offs between providing economic certainty and environmental certainty. A hard cap on future costs (as would exist under a simple safety-valve mechanism) would provide absolute certainty about maximum costs but has the disadvantage not only of creating uncertainty about final emissions,

but—without a corresponding guard against low costs—of diminishing incentives to invest in technology innovations that could yield major emissions reductions in the future.

■ With sufficient inter-temporal flexibility, markets should—in principle—be able to manage short-term cost fluctuations using conventional financial and risk management tools. In practice, however, reliance on banking and borrowing is likely to be constrained by institutional and other concerns (for example, the existence of default risk or the possibility that firms may not always operate rationally or with adequate foresight).

■ The concept of an independent entity that could intervene in markets if necessary (a "Carbon Market Efficiency Board") would seem to offer a number of advantages—such as an entity could serve an important information-gathering purpose and respond quickly to market developments in a way that Congress cannot. Numerous questions about the specific form and function of such an entity still need to be answered—especially how much discretionary authority it would wield—but independence, transparency, accountability, and an expert staff would all seem to be critical attributes for success.

These and other points generated a lively interchange of questions and comments at the workshop. Several core themes emerged. First, many workshop participants seemed to agree that the primary focus ought to be on managing unexpected, short-term costs. "Uncertainty about whether allowance prices are \$15 or \$100 over the first five years of the program make it very difficult to reach a consensus," said Billy Pizer, a senior fellow at RFF and moderator of the first panel. Concerns about expected short- and long-term costs, several speakers argued, are better handled through other program design features, such as the choice of targets and timetables, the inclusion of technology provisions, and linking the program to international efforts. Likewise, concerns about the distribution of expected costs within the economy can be handled through allocation. Finally, unexpected long-

term costs will be difficult—and in many ways undesirable—to address through any prescribed mechanism now; future events and decisions by future generations must ultimately weigh in.

Second, there was substantial support for banking and borrowing as an important means—but likely not the only one—for addressing short-term price and volatility concerns. One idea currently under discussion is the establishment of a quantity-limited “reserve” of carbon permits that could be drawn upon when market conditions warrant. Such a reserve could be created by withholding a small percentage of permits from future-year emissions budgets. Other concepts that merit further exploration, in the view of workshop participants, include symmetrical cost management (that is, combining any price ceiling with a price floor), the use of offset credits as a further means of increasing compliance flexibility while simultaneously promoting investment in low-cost mitigation opportunities in the United States and abroad, and the creation of an independent board to oversee future carbon markets. Workshop participants seemed to agree that such a board could serve several important functions, but they also noted that it would likely take some time for any new entity to build the kind of institutional authority and credibility currently enjoyed by the Federal Reserve.

Finally, a recurrent theme throughout the day was the need for policy credibility and confidence in the long-term integrity of underlying regulatory commitments to support a robust emissions market. Several workshop participants emphasized that policymakers need to be constantly mindful of trading political risk against economic risk in devising cost-management mechanisms that attempt to respond to concerns about the impact of mandatory greenhouse gas limits on the U.S. economy. ■

## *Pennsylvania Environment Secretary Kathleen McGinty Delivers 5th Annual Landsberg Lecture*

**I**n February, RFF hosted a presentation by Kathleen A. McGinty, Secretary of the Pennsylvania Department of Environmental Protection, at the Fifth Annual Hans Landsberg Memorial Lecture. The series honors the memory of Landsberg, a pioneer in energy and mineral economics who was a devoted member of the RFF staff for nearly 40 years.

With the reality of mandatory climate policies being crafted at both the state and federal levels, Kathleen McGinty encouraged the audience to keep in mind the old saying of “all things in moderation” when considering three options that could be counted as part of a comprehensive strategy to reduce greenhouse gas emissions: corn-based ethanol, carbon taxes, and cap-and-trade systems.

McGinty acknowledged that while carbon taxes and cap-and-trade systems to control emissions are both enjoying considerable “enthusiasm and exuberance” for their potential, “everyone now seems to love to hate corn-based ethanol.” She nudged listeners that “maybe, at least for a time, we could dial up our enthusiasm” for the gasoline alternative that she considers to be an “okay start from an environment point of view,” especially when considered along with the need to increase national energy security.

One concern people have about corn-based ethanol is that while it is net-energy positive, it’s not dramatically so, especially as compared to cellulosic ethanol, said McGinty. She noted that many feel that “we can’t afford the ‘whoops’ in terms of ethanol in building all that technology and infrastructure—let’s wait for

cellulosic.” But, according to McGinty, “about 78 percent of the capital plant equipment for a corn-based ethanol plant is exactly what you would use for a cellulosic ethanol plant. So to me, it’s not a dead end.”

Nor is a carbon tax a dead end or the sole answer for McGinty, which she believes to be an elegant solution to the “perfect storm of the Katrinas, the Iraqs, and the \$3 per gallon gasoline. To me, there is an essential role for a carbon tax to send a price signal.” She also discussed the inherent difficulty in overcoming the fact that a carbon tax alone, in order to make significant reductions in carbon emissions, would have to be set at what she considers to be an unsustainably high level.

The third part of the equation for McGinty is a cap-and-trade system, again emphasizing its role as an “absolutely essential, fundamental building block of an overall climate policy,” but acknowledging that it cannot bear the heavy weight of reducing overall emissions alone. “The job is bigger when we see what is unfolding around the world. We might not have the 2°C head room we thought we had. We might not have the 450 ppm head room we thought we had, and we might not have the 2050 head room we thought we had.”

There is no panacea or quick answer to the complex issues surrounding climate change, McGinty said. Policymakers will need to carefully craft a blend of policies in order to address the global changes that will be the result of a warming planet. ■

Full coverage of Secretary McGinty’s lecture can be found at ► [www.rff.org/McGinty.cfm](http://www.rff.org/McGinty.cfm)