



## GOINGS ON

### Carbon Mitigation Policies Debated at RFF Seminar

As the debate over how to develop an effective and viable carbon mitigation policy continues, experts on the subject gathered at RFF in December to discuss the financial and political costs of carbon dioxide and other greenhouse gas emissions reduction programs. While great progress has been made in understanding the aggregate costs of such policies, not enough attention has been paid to the distribution of those costs and the political ramifications thereof. To this end, four papers were presented in an effort to determine who is likely to bear the costs of various reduction policies under discussion and, as a result, the feasibility of those policies.

#### The Cost of Political Feasibility

The first presentation was from Stanford University Professor and RFF University Fellow Larry Goulder. His research considers the distributional effects of future carbon mitigation policies. "Standard CO<sub>2</sub> policies are cost effective but politically unrealistic," he explained. "The lion's share

of the economywide costs falls on a few highly [politically] mobilized industries, [and] these industries seem to wield effective veto power." This political power, said Goulder, is responsible, at least in part, for the failure of some cost-effective and efficient policies.

Goulder's research suggests that efforts to preserve fossil-fuel industry profits would have a very small impact on the efficiency of carbon mitigation programs. If 13% of permits were given rather than sold to industry, then after-tax profits would be protected and the increase in the overall cost to industry would be negligible.

#### Keeping the Constituents Happy

Where Goulder examined options for compensating the fossil-fuel sector for the burdens imposed by mitigation policies, RFF researchers William Pizer, James Sanchirico, and Michael Batz looked at the effects of those policies on households in different parts of the country.

According to Pizer, the question driving

their research was, "If you take the same household and plop it down somewhere else, what happens?" The answer could help carbon-mitigation decisionmakers evaluate the effects various plans might have on their constituents.

Using information based largely on the Census Bureau's Consumers Expenditure Survey—specifically, the results from 1984 to 2000—Pizer, Sanchirico, and Batz discovered large discrepancies in energy use in the different regions of the United States. Because of these discrepancies, the costs of carbon mitigation, households in some sections of the country, notably the Midwest and Texas, would face heavier burdens than those in other regions dramatically so when compared to those in the Pacific Northwest.

#### Eye on the Bottom Line

The second session focused on the study of carbon policy impacts on industry. RFF's Richard Morgenstern presented a paper he wrote with colleagues Mun Ho, Jhih-Shyang Shih, and Xuehua Zhang, which poses the question, "If we put a charge on all the carbon in use now, how would it affect individual industries in the manufacturing sector?" The researchers studied the effect of two different policies: an economywide carbon mitigation policy (such as a carbon tax) and a downstream policy focused exclusively on the electric-utility industry. The results varied dramatically, said Morgenstern. (See Table 1 for an overview of their results.)

The petroleum-refining industry, the industry that would be hardest hit under an economywide plan, ranks 145th under the electricity policy. The eight industries that would suffer most under an economywide policy bear more than 50% of the total cost to manufacturing. Under the electricity policy, these rankings differ, in many cases,

#### Editor's Note

We hope you like the new look of *Resources*. This issue marks the first phase of the redesign process, with more changes to come in subsequent issues. We're adding bibliographies to feature stories so that you can find out more about a given topic. There's also a new section – "Reaching Out" – that highlights the work RFF researchers are doing to share their ideas with a broader audience, such as giving testimony before Congress, appearing on television and radio, and writing opinion pieces for major newspapers.

We welcome your comments and suggestions. You can contact the editorial staff at [editor@rff.org](mailto:editor@rff.org). To learn more about all that's going on at Resources for the Future, visit our website, [www.rff.org](http://www.rff.org).

Felicia Day  
Editor



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Table 1. Comparison of Economywide and Electricity-Only Policies

Ranked by Economywide Policy			Ranked by Electricity-Only Policy		
Industry Name	Economywide Carbon Charge	Electricity-Only Carbon Charge	Industry Name	Economywide Carbon Charge	Electricity-Only Carbon Charge
Petroleum refining	1	145	Primary aluminum	13	1
Products of petroleum and coal	2	191	Electrometallurgical products, except steel	18	2
Lubricating oils and greases	3	154	Cement, hydraulic	9	3
Carbon black	4	36	Aluminum rolling and drawing	49	4
Asphalt paving mixtures and blocks	5	76	Primary smelting and refining of copper	52	5
Lime	6	6	Lime	6	6
Nitrogenous and phosphatic fertilizers	7	25	Primary nonferrous metals	64	7
Asphalt felts and coatings	8	196	Blast furnaces and steel mills	10	8
Cement, hydraulic	9	3	Metal cans	48	9
Blast furnaces and steel mills	10	8	Aluminum castings	95	10

Source: Morgenstern et al. 2001

dramatically. The presentation concluded with the notion that the two policies have very different effects on the different industries.

## Level Playing Field

RFF's Dallas Burtraw discussed the effect of allowance allocation approaches on the cost of carbon emissions trading, research that he conducted with colleagues Karen Palmer, Ranjit Bharvirkar, and Anthony Paul. Burtraw told the audience he was concerned that "efficiency and equity head in opposite directions," pointing out that the electricity industry is responsible for one-third of carbon emissions but would be responsible for two-thirds of reduction targets under a cost-effective economywide policy.

Burtraw and his colleagues compared three allocation approaches—auction,

grandfathering, and generation performance standards (by which emissions allowances are determined by the amount a firm generates)—as they pertain to the electricity sector. They concluded that allocation of permits by auction was the most efficient reduction method, saying such a program would cost society half as much as a grandfathering or generation performance standard.

Looking back at the workshop, Morgenstern, who organized the conference, said, "We engaged the policy community in discussing these issues and developed the information base." He described the workshops as a "critical step in designing potential policies so as to minimize the adverse burdens" to industries, thereby creating a climate in which appropriate and effective policies can be enacted.

## Correction

In the Summer 2001 issue of *Resources*, an article about an ongoing project in Shanxi Province in China did not mention all of the members of the research team. They included: Robert Anderson, Resource Consulting Associates, Inc.; Steinar Larssen, Norwegian Institute for Air Research; Wang Jinnan, Yang Jintian, and Cao Dong of the Chinese Research Academy of Environmental Science; and Stephanie Benkovic, Melanie Dean, Joseph Kruger, and Jeremy Schreifels of the U.S. Environmental Protection Agency.



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### Methods for Reforming Permitting Process Explored in New RFF Report

In *Reforming Permitting*, a new RFF report, Senior Fellow Terry Davies paints a realistic picture of the U.S. pollution control permitting process, assesses current permitting reforms, and offers policy recommendations "to improve a system that is suffering from major defects and weaknesses."



Terry Davies

"Permits are the pivot on which much of the pollution control system turns," Davies says. "If the permitting process is cumbersome,

costly, and not effective in controlling pollution, then pollution control also will be inefficient and ineffective. This is, arguably, the situation in the United States today."

The permitting system is so fragmented and complex that even specialists cannot tell what the rules are, Davies says. A large portion of permits are outdated, leaving facilities with time-consuming permit requirements that may have little relationship to current operations or government regulations. Environmental groups and the public are also handicapped by the complexity of the regulations and the opaqueness of the permits, he says.

Davies offers detailed recommendations for Congress, the U.S. Environmental Protection Agency, the states, industry, and environmental groups. The opportunities for constructive change are many and run the gamut from minor corrections to revolutionary changes, he says. Small permitting reforms can have a significant impact but the bigger challenge "will be to use permitting as a lever to change the overall pollution control system."

RFF's Robert Hersh, Aracely Alicea, and Ruth Greenspan Bell also contributed the report.

*Reforming Permitting* can be found on the RFF website at [www.rff.org/reports/PDF\\_files/reformingpermitting.pdf](http://www.rff.org/reports/PDF_files/reformingpermitting.pdf).

### New RFF Report Assesses EPA's On-Line Workshop on Public Participation

In his new report, *Democracy On-Line*, RFF Fellow Thomas Beierle evaluates the U.S. Environmental Protection Agency's (EPA) on-line experimental workshop on public participation—the National Dialogue on Public Involvement in EPA Decisions. The Dialogue, which was held last year, gave more than 1,000 people an opportunity to discuss public participation in EPA policies, from rulemaking and permitting to the drafting of its draft Public Information Policy (PIP).

Beierle, with funding from the William and Flora Hewlett Foundation, investigated participant satisfaction, whether new voices were introduced into the policy process, the quality of communication, and what participants and EPA gained from the process.

"In undertaking the Dialogue, EPA

broke new ground," writes Beierle. "It was the first time that the agency had sponsored an on-line public dialogue in conjunction with a formal public comment process."

According to Beierle, the Dialogue was a great success. He found most participants were pleased with the results, and the number and diversity of participants was far greater than could otherwise be achieved with an in-person event; reaching such a diverse group was EPA's goal. For its part, EPA had more staff participants in the Dialogue than have been represented at an



Thomas Beierle

in-person meeting.

More than half of participants thought their participation would have some impact on EPA's PIP and its implementation; lead agency staff members already have begun incorporating comments from the Dialogue into the PIP implementation plan. More than three-quarters of participants claimed they learned a great deal about the views of other participants on public participation. None of this is to say the process was flawless, but most problems related to the Dialogue—such as software issues and concerns regarding participant access to computers—can be overcome, says Beierle.

*Democracy On-Line* can be found on the RFF website, at [www.rff.org/reports/PDF\\_files/democracyonline.pdf](http://www.rff.org/reports/PDF_files/democracyonline.pdf).