

*Defining the Role of
States and Localities in
Federal Global Warming Legislation*

A NACAA Conference Held
February 12-13, 2008
In Arlington, Virginia

Conference Proceedings
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Preface

Defining the Role of States and Localities in Federal Global Warming Legislation, an innovative two-day conference of local, state and federal government officials, was convened by the National Association of Clean Air Agencies (NACAA) on February 12-13, 2008 in Arlington, Virginia.

The purpose of this conference was to bring together experienced air regulators and interested colleagues to brainstorm concepts and ideas related to the role states and localities can and should play in federal climate change legislation and programs to combat global warming – including roles states and localities already fulfill for existing programs, as well as potential new roles. Unlike many other conferences, where participants listen to a series of speakers, at this conference the focus was on the participants. The goal of the conference was for participants to engage in dynamic, interactive dialogue with their counterparts from across the nation on the likely and appropriate roles of states and localities in the context of federal climate change legislation. Conference participants were welcomed and goals of the conference were presented by NACAA Executive Director S. William Becker and NACAA Co-President Andrew Ginsburg.

To set the stage for our discussions, we first heard from five key congressional staff members, who provided an overview of major legislative climate change proposals and described opportunities for states and localities to inform these proposals. We then turned our attention to four issues of major relevance to states and localities, as framed by the four thought-provoking discussion papers, which NACAA had provided in advance of the conference¹:

- Preserving the right of states and localities to set more stringent greenhouse gas (GHG) reduction requirements;
- The role states and localities can play in implementing a federal GHG reduction program;
- The role states and localities can play in a federal allowance program and in determining how funding is distributed; and
- The role of states and localities in data management under a federal climate change program.

Each paper served as the basis for a conference session, during which the session leader provided a brief introduction and then participants were divided into small groups for facilitated discussion based on a set of questions posed at the end of each paper. It was clearly stated that the papers and questions were intended solely for the purpose of eliciting discussion and did not represent policy positions of NACAA, nor were they intended to limit the scope of possibilities for roles that states and localities can play. Participants were encouraged to think broadly and innovatively about all topics. NACAA made a point of rearranging the composition of the small groups for each session, so that participants had the opportunity to meet with many different colleagues over the course of the two days. Discussion group facilitators reported back to the full conference, in a panel format, at the end of each session, and further questions and comments were considered by the entire group.

¹ The papers are available on NACAA's web site at www.4cleanair.org/documents/GWConferenceMaterials.pdf.

Conference participants varied greatly in their familiarity with GHG reduction strategies and in the environmental approaches of their home states or localities. The conference was not designed to produce a unified position. Rather it was designed to allow air regulators and colleagues to wrestle with these concepts, express ideals and concerns and generate ideas.

The conference proceedings that follow this preface are intended to describe the spectrum of ideas and opinions expressed during the conference, and to capture any consensus, themes or trends that emerged. In general, these proceedings are based on the discussion group report-outs. An effort was made to reflect the diversity of ideas and concerns raised, as well as when a critical mass of participants was heading in the same direction. Details from the small-group discussions are occasionally included as examples in footnotes or parenthetical statements.

NACAA thanks Catherine Murray and Richard Cowart of the Regulatory Assistance Project and Chris James of Synapse Energy Economics, Inc. for their assistance in compiling these conference proceedings. The association also thanks the discussion paper authors, session leaders and discussion group facilitators for the significant role they played in engaging conference participants in meaningful discussion.

Executive Summary

In *Defining the Role of States and Localities in Federal Global Warming Legislation*, a conference convened by the National Association of Clean Air Agencies (NACAA), local, state and federal officials explored an array of challenging issues of federalism in a rapidly evolving field of politics and public policy. Participants represented states and localities² with diverse situations and diverse views from across the nation, and there was robust dialogue on almost all of the main issues.

A panel of House and Senate staff who are actively engaged in crafting national legislation to reduce greenhouse gases (GHGs) addressed the conference and indicated that Congress is interested in incorporating state views and concepts into the GHG reduction bills being developed. They encouraged state officials to develop clear recommendations, and suggested that to help create a coalition for comprehensive legislation states should consider linking global warming with economic issues. In particular, Congress needs states' input on how flexibility in program design can contain the costs of a GHG program and reduce emissions sooner and more cost-effectively.

On the whole, conference participants responded positively to this challenge. Over the course of the conference, a broad sense of agreement developed on at least three basic points:

- Most participants agreed that *a program of national emissions limits is necessary* to ensure continuing progress in lowering GHGs and to demonstrate to the rest of the world that the U.S. is serious about reducing emissions. Moreover, most are familiar with *cap and trade as a mechanism* and support its application to GHG reduction.
- However, most participants also expressed the belief that a national cap-and-trade program, by itself, would not result in the GHG reductions that are needed or likely to be called for in national legislation. *There was broad agreement that additional state and local policies and implementation activities would be needed to meet national goals.* Those policies include building codes, land use and transportation planning, end-use energy efficiency programs and agriculture and forestry policies, among others.
- For this reason, most participants concluded that *active participation by states is essential.* A related common theme in many sessions was that *any apportionment value or auction proceeds should be made available to states for the purpose of implementing those essential, complementary programs.* Participants concluded that a national cap-and-trade program that does not support these techniques will be too expensive and likely ineffective in securing deep reductions.

The conference was organized around a set of four challenges and questions. Highlights of the discussion in those four areas are noted briefly below.

² The word "state" and its variations are used throughout these conference proceedings to indicate state and local entities, except where an explicit distinction is drawn (e.g., when describing how state roles might differ from local roles).

Preserving State Authority to Adopt More Stringent GHG Reduction Targets

Discussion of state authority addressed the federal-state relationship from both ends of a spectrum. On one end, representatives from states that are now leaders on climate change spoke of their concerns about a potentially weaker national program. These states anticipate losing ground on their environmental goals if Congress does not integrate their views. Other states, perhaps as many as 15, are limited in their ability to implement programs that are more stringent than the federal program. As a result, in addition to preserving the right of states to go above and beyond the federal program, conference participants recommended that federal GHG legislation include minimum standards, provide guidance to assure flexibility for states to implement the standards and include accountability measures to ensure that states implement the minimum program requirements. As discussions progressed during the conference, many participants advocated for a federal program that not only preserves the right of states and regions to go above and beyond the minimum federal program, but actually supports such efforts.

What Roles Should States Play in Implementing a National GHG Program?

One of the consistent themes of the conference was that any national program will likely not be stringent enough to achieve the necessary emission reductions, and that a national cap-and-trade program will not by itself be able to capture the needed reductions. Thus, additional actions by states will ultimately be needed. Air regulators expect that federal agencies will look to the states for at least their usual partnership. However, there was also general recognition that these traditional roles would likely not be enough. A number of participants noted that addressing GHG emissions will not be just an “air problem,” nor even an “environmental problem,” but a multi-faceted issue that will require multiple agencies and changes across society. Since GHG reductions, mitigation and adaptation cannot be addressed solely at the source, new behaviors, offsets, alternatives and new technologies will be required. These, in turn, will require new partnerships and skill sets at all levels, with energy, land use, transportation, emergency management, marketing and other expertise needed.

There was widespread agreement that complementary state-level policies focused directly on reducing GHG emissions will be necessary, in addition to a national cap-and-trade program, in order to achieve the full level of needed emission reductions. For this reason, participants proposed that air regulators will need to make a paradigm shift and not rely only on familiar roles. Many concluded that creation of state climate plans makes sense, and participants discussed the kinds of elements needed in those plans, as well as the personnel and administrative challenges raised by this need. There was strong agreement that the State Implementation Plan (SIP) model, in which state plans are subject to federal review and approval, was not the preferred model for implementing national GHG regulations. Finally, there was considerable agreement that federal funding should be provided to develop and implement state plans, and that Congress should provide incentives for states to meet and exceed national minimum goals.

Allocating Allowances and Allowance Values – What Should the State Role Be?

The value of carbon allowances in a cap-and-trade system will be set by the market and is not now known. However, conference participants were told that the value could be well over \$100 billion per year. What role should states have in determining how allowances are allocated, and how should the revenues from any auctions of allowance values be distributed and invested? While there was a meaningful diversity of opinion among participants on these questions, there was also a growing sense of agreement on the main elements of a state-federal approach. For the most part, participants concluded that Congress could accelerate national GHG emission reductions and lower program costs by creating a national cap-and-trade system, apportioning a large fraction of allowances to states and giving states implementation flexibility through performance-based incentives to invest allowance values in programs that reduce emissions at low cost and otherwise meet individual state needs.

In general, in breakout sessions and the plenary discussion, participants expressed strong support for the auction of allowances rather than free allocation to covered industries, both as a means to moderate generator windfalls and to raise funds for low-carbon investments. A driving principle in the discussion of allowance revenues was to consider how spending this money will advance the goal of reducing GHGs faster at lower cost to society. As noted above, there was strong support at this conference for the idea that state and local governments should have a much larger degree of control, discretion and flexibility in the allocation of allowance value than has been reflected in national legislation to date. Most bills have not explicitly included allocations to states at all, while the leading bill, Lieberman-Warner, allocates only about 10 percent to states. Most state officials at this conference expressed the firm belief that this fraction should be much higher.

The Role of States in Data Management

The final session of this conference was focused less on theory and more on practical suggestions and concerns. Participants were generally very experienced in environmental data management and took a keen interest in the discussion of all facets of data management under a federal climate change program.

Air regulators anticipate some role and responsibility for GHG reduction data no matter how the federal program is structured. A number of state regulators noted advantages in preparing for this work, compared to earlier tasks, such as acid rain. They pointed to the significant work done already by The Climate Registry and its model of input from states. The existence of other environmental databases that can be built upon was also noted, but both optimism and deep concerns were voiced.

Many participants viewed state involvement in GHG emission reduction data management as inevitable, and outlined their concepts of ideal outcomes, which would include consistent state and federal reporting requirements, advances in practice (including measuring and verifying offsets and reporting protocols generally) based on science, and a set of nationally available emission factors built on state experience.

Concluding Observations

The conference concluded with a discussion of the appropriate roles for states while national legislation is unfolding, and in particular the following:

Provide input to Congress – As the panel of congressional representatives made clear, the expertise of state air officials is needed in the congressional debates, and Congress is quite interested in hearing the views of the states on the design of the future national GHG program.

Keep leading – States that are proactive in reducing GHG emissions should continue to implement their plans and actions. NACAA should continue to lead by facilitating state, local and federal discussions.

Start talking – State officials should initiate discussions with each other and with the public about the entire array of imperatives and policy choices facing both states and the nation.

Prepare the workforce – We can anticipate some of the new skills that will be needed and form partnerships with schools to prepare the workforce for new jobs.

Expand on traditional efforts – Traditional air regulations will not be enough. However, air agencies can begin to build on a wide range of complementary initiatives such as energy and efficiency issues in Smart Growth training and collaboration, incorporating carbon dioxide (CO₂) performance standards in regional transportation plans, using drought mitigation groups and flood mapping as educational opportunities, etc.

Anticipate opportunities – States can look at the interaction between criteria pollutants they already regulate and CO₂ and other GHGs and consider activities that will reduce them in tandem.

More than once during the conference the comment was made that climate change regulation is a “brave new world” for state and local air officials, and that there is much we do not know and cannot anticipate right now. We face not just an “air” issue, but a multi-disciplinary, multi-agency, multi-venue set of challenges and opportunities. State and local air officials will be at the forefront in meeting climate challenges, and federal laws and agencies will need to forge creative and effective partnerships with them as part of any national program to meet GHG-reduction goals.

Chapter 1. Federal Legislation: Congressional Staff Discuss Major Legislative Proposals

Moderator: S. William Becker, Executive Director
National Association of Clean Air Agencies

Panelists: Greg Dotson, Chief Environmental Counsel
House Oversight and Government Reform Committee
Tom Dower, Deputy Chief of Staff and Legislative Director
Office of Senator Arlen Specter (R-PA)

David McIntosh, Counsel
Office of Senator Joseph Lieberman (I-CT)

Bettina Poirier, Staff Director and Chief Counsel
Senate Environment and Public Works Committee

Lorie Schmidt, Counsel
House Energy and Commerce Committee

A panel of House and Senate staff who are actively engaged in crafting national legislation to reduce greenhouse gases (GHGs) opened the conference with a thoughtful and constructive overview of their work. Recommendations for how states can shape legislation were also discussed. Panel members consistently indicated that Congress is interested in incorporating state views and concepts into the GHG emission reduction bills being developed. Panelists also mentioned that members of Congress receive mixed messages and emphasized several particular design principles important for states to consider as they develop a strategy for providing their input to Congress.

1.1 Status of federal legislation and prospects for action

Highlights of the panelists' respective assessments of GHG legislation and its status include the following points:

- Congressional views are still evolving. A majority of Senators agree that mandatory legislation to reduce GHGs is required. House members have had many fewer hearings than their Senate colleagues and there does not yet appear to be consensus around whether or not to pursue national legislation. Some House members in leadership positions have, however, indicated their desire for national legislation to include at least partial preemption of states' rights (e.g., for adopting state motor vehicle standards).
- States should focus their immediate attention on providing input to the Senate, in particular on S. 2191, the Lieberman-Warner "America's Climate Security Act of 2007." That bill, in some form, is expected to be the legislative vehicle advanced to the Senate floor in June 2008; Senator Boxer will be the floor manager.

- Many members of Congress focus on the “global” in global warming and are less compelled by the fact that the impacts of global warming can be local and disproportionately experienced.
- Industry views and perspectives are influencing Congress. Panelists mentioned that some members of Congress are very concerned that unilateral action on a global problem will have an adverse impact on industries that compete globally. They are also concerned about a potential “patchwork” of state programs. They look to cost-containment or other strategies in response to the interests expressed by industry stakeholders.
- Congress is paying the most attention to the design of a cap-and-trade program for the utility sector and perhaps for other sectors as well.
- Passage of legislation to reduce GHG emissions may be the most important environmental issue facing the nation today, but overall, as compared to the economy and the Iraq war, it does not dominate national debate. To broaden support and help create a coalition that can move and pass comprehensive legislation, states should consider linking global warming with economic issues.³

1.2 State concerns, expertise and suggestions can improve national cap-and-trade architecture

Congressional panelists indicated that state comments and input should be focused, specific and provided to Congress over the next several months. States should describe the impacts that could occur if bill language is not revised, and include any studies they may have completed or examples of impacts that occurred under previous legislation,⁴ to illustrate why states should have the flexibility to be more stringent or go above and beyond the federal program. It is important for states to appreciate perspectives from other stakeholders, especially those from industry and consumer groups, since these groups have lobbied early and frequently about their interests and concerns. Congress wants states’ input on how flexibility in program design could reduce emissions sooner and more cost-effectively. The congressional panelists also outlined several other areas where they would like to receive focused state input:

- Preemption is a significant issue for states, which have a prime interest in preserving their authority to take the action(s) necessary to effectively reduce GHGs and combat global warming. Some panel members expressed their belief that sweeping preemption language will not pass the Senate. However, they recommended that states work toward constructive solutions and consider whether the issue of preemption is the same across all sectors and programs. For example, it might be acceptable for Congress to enact cap-and-trade program for one sector, command and control for a second and encourage indirect approaches for other sectors.

³ One panelist encouraged states to be sure their own resource decisions consider climate. To give an idea of the magnitude of this problem, he noted that the GHG emissions from just two new conventional coal plants could nullify all the reductions from the 12 states adopting the California vehicle emissions standards.

⁴ Examples include the statutory preemption of state authority to adopt standards for lawnmowers and other small non-road engines or, conversely, the recent vacating of EPA’s mercury rule.

- Congress has not yet clearly heard the message that, regardless of the type of national bill passed and its reduction goal, states will still want to maintain their ability to achieve deeper and more timely reductions. States must communicate their desire to preserve their ability to go above and beyond the federal program and make the case for why this is important and how it might work.
- Congress will be interested in proposals that make efficient use of local, tribal, state and federal resources to get the most GHG reductions at the least cost.
- State input is desired regarding the amount of allowances to auction versus the amount to give away for free to various sectors. The success of the Regional Greenhouse Gas Initiative (RGGI) and its acceptance by states and many of the affected sources has been noticed. The latest draft of S. 2191 (Lieberman-Warner) increases the amount of allowances to be auctioned and shortens the period during which generators will receive a portion of them for free.
- The point of GHG regulation for each sector (upstream versus downstream) has not been finalized. State input on rationale for different points will be useful. S. 2191 regulates generators at the smokestack, but also provides a small portion of allowances to load-serving entities. The carbon content of fuel is proposed to be regulated at the refinery.
- Remind Congress of states' ability to improve programs and assure effective implementation. Congress is aware of the effectiveness of state environmental programs.
- Incentives and rewards to states for reaching/exceeding goals are possible, but describe how this can happen without being at the expense of another jurisdiction.
- Give Congress specifics on technologies/policies that can reduce GHG emissions immediately following enactment. (For example, we know carbon capture and storage is years away; what can we do now to cost-effectively reduce emissions?)
- Share with Congress examples/cases that illustrate how GHG reductions are being achieved today, including economics (e.g., cost of program versus benefits). Describe what life will be like for an affected company located in a state which has, or wants to have, a program more stringent than that of the national program.
- Propose ideas for cost-containment. Industry is assuming the worst: that an expensive, stringent program will pass, that states will want to do more and that this will drive costs even higher for them.
- Describe complementary policies that can supplement emissions reductions from cap and trade (e.g., energy efficiency and renewable portfolio standards).
- Share with Congress state views regarding why the Clean Air Act (CAA) is, or is not, a basis from which to develop a national GHG program.
- Propose strategies for the ideal interactions of GHG regulation with existing environmental programs.

Panelists told participants that most members of Congress agree that regulations across all economic sectors are necessary to achieve significant reductions and avoid inconsistent regulatory approaches that may occur if some economic sectors (e.g., transportation, agriculture) are not included. The congressional staff also emphasized that the resulting approach must be fair and affordable for affected sources.

States were encouraged by panel members to develop information, including reference materials and case studies related to the topics and recommendations raised by the panel. Providing input will help to educate members of Congress and their staff and demonstrate states' willingness to help develop and enact comprehensive legislation that achieves the reduction goals needed to stabilize the earth's climate.

1.3 Early reactions of conference participants

Based on the opening panel and discussions in the plenary and breakout sessions that immediately followed, conference participants shared thoughts on educating and informing Congress. Among the suggestions offered for feedback to Congress were the following:

- States should help Congress address misinformation regarding costs and impacts. Some of the messages that should be conveyed to Congress include 1) "Business as usual" costs U.S. taxpayers billions of dollars for many reasons (e.g., to protect imported oil supply, to commute long distances to affordable housing, etc.); 2) energy efficiency, even aggressive programs that can offset increased electric demand, is less expensive than the cost of new generation;⁵ and 3) policies that reduce GHG emissions can also reduce criteria and toxic air pollutants.
- Every state is interested in growing its economy. A state will not pursue more stringent GHG reduction strategies if the result will be economically detrimental. States that have already pursued GHG reductions have evaluated the economic, energy and environmental benefits.
- Program diversity will permit GHG reductions to be deeper and more cost-effective. Establishing minimum standards can ensure price consistency across the U.S. and dispel industry's concerns about the potential costs.
- Congress should address the potential for allowances, costs and benefits to shift among regions (e.g., if a state, or a region with several states, is allowed to pursue a more stringent program, how will the economic and environmental impacts be addressed?)
- A cap-and-trade program is not suitable for all sectors.
- Other gases beyond CO₂ are important.
- States will continue to enact and implement programs as Congress ponders legislation.

⁵ Congress may hear arguments that efficiency investments increase rates, but it also needs to hear that efficiency can reduce bills and is cheaper than new generation and infrastructure, which also increase rates.

Chapter 2. Session 1: Preserving the Right of States and Localities to Set More Stringent Greenhouse Gas Reduction Requirements than the Federal Program

Session Leader: Steve Owens, Director
Arizona Department of Environmental Quality

Discussion Group 1 Facilitator: Andy Ginsburg, Administrator
Oregon Air Quality Division

Discussion Group 2 Facilitator: James Goldstene, Executive Officer
California Air Resources Board

Discussion Group 3 Facilitator: Nancy Seidman, Division Director
Massachusetts Department of Environmental Protection

Discussion Group 4 Facilitator: Dennis McLerran, Executive Director
Puget Sound Clean Air Agency

Discussion Group 5 Facilitator: Jared Snyder, Assistant Commissioner
New York State Department of Environmental Conservation

Discussion Group 6 Facilitator: Jeff Genzer, Counsel
National Association of State Energy Officials

During this session, conference participants repeatedly remarked how important this conference was in engaging states and helping them focus on the challenge of enacting a national GHG reduction program. Representatives of states currently considered leaders with respect to addressing climate change spoke of the need to agree on principles important to them in the design of a national program. These states expect to be significantly affected by any national program; they anticipate losing ground on their environmental goals if Congress does not integrate their views. Other states, perhaps as many as 15, are limited in their ability to implement programs that are more stringent than the federal program. As a result, in addition to preserving the right of states to go above and beyond the federal program, conference participants recommended that federal GHG legislation include minimum standards, provide guidance to assure flexibility for states to implement the standards and include accountability measures to ensure that states implement the minimum program requirements. (As discussions progressed during the conference, many participants advocated increasingly for a federal program that not only preserves the right of states and regions to go above and beyond the minimum federal program, but actually supports such efforts.)

2.1 Should States administer national GHG legislation through state-level implementation plans?

Initial discussions at the conference revealed conflicting opinions about whether Congress should require states to develop and implement a plan to reduce GHGs and to achieve the national goals. Such discussions occurred in each of the six breakout groups and continued throughout the two days of the conference in subsequent plenary and breakout sessions. States

appeared to move toward agreement that Congress should require states to develop a plan that includes the following features:

- Plans should have a broad scope, beyond that of just the electric sector (the exact type, scope and structure were not yet agreed upon).
- The State Implementation Plan (SIP) should not be the planning model.
- Federal funding should be provided to develop and implement the plans.
- Congress should provide incentives for states to meet and exceed the goals of plans that are developed.

Conference participants did not answer the questions of what exactly states should be required to do and what incentives should be provided to ensure that requirements are completed. However, most attendees favored linking the amount of incentives provided by Congress to the success of the plan, agreeing that states should be held accountable, but they also agreed that not having a plan should not trigger punitive measures by any federal oversight agency. Rather, the plan, its objectives and the degree of success should be rewarded. States that fail to develop plans or fall far short of achieving the plan's goals would not be eligible for any of the incentives that would be provided to those states that met and exceeded the goals of their respective plans. Most participants concurred that the various state climate change action plans that have been completed were examples of one plan type that should be acceptable. Others agreed that a smart growth plan that required multi-agency coordination to be successful could also qualify.

2.2 How can a national program respect and incorporate state caps and initiatives that are more stringent than the national caps or reduction targets?

The questions raised in the discussion paper for this session focused on the role of states in a national GHG reduction program and areas where states could be more stringent than the federal program. The breakout discussions revealed more questions than answers about this role and what may be appropriate, perhaps due to the diversity of attendees. Many state attendees have not been actively engaged in developing climate change action policies, plans or strategies. Some attendees from states with plans have just begun implementation and have not thought about how a national program might affect them. Other participants have been actively pursuing GHG reductions at the state level for several years.

There were several areas where state representatives agreed on reasons for state initiatives beyond national targets. There was wide expectation that the national program would not be stringent enough to result in the necessary emission reductions. Another core principle was that GHG emissions have both global and local effects. The local effects experienced by a particular state or region may be disproportionate to that state's total GHG emissions. Co-benefits from GHG reduction policies, such as reduced criteria pollutant emissions and improved water quality, will also differ from region to region, depending on resource mix, usage patterns, etc. Some regulators made the point that state- and local-level attention to mitigation and adaptation can also increase political will to meet goals. In general, state attendees favored a national program that provides them with flexibility in:

- achieving established reduction goals;
- designing programs to achieve the goals; and
- determining how funds or allowances that are allocated to states are used.

Two basic perspectives were described by participants. “Leading” states (those which have already developed climate plans, have binding GHG targets or are part of a regional GHG reduction strategy) want to be able to continue to implement these programs and to do so in a way that does not discount their success. Other attendees, many from states that are precluded from being more stringent than the federal government, also desire flexibility. But these states want to assure that any national program has minimum requirements that all states have to meet.

2.3 State and local programs are essential to successful national GHG reduction

Participants generally agreed on several key points with respect to the scope and structure of the state role in a national GHG program:

- Electricity demand-side programs such as energy efficiency and demand response can reduce GHG emissions in the near-term and their benefits are cumulative. State agencies have experience running successful programs. Additional funding can help programs reduce electric demand in real terms.
- Distributed supply-side programs such as increased development of renewable energy resources and combined heat and power comprise another near-term strategy to reduce GHGs, fuel price risk and volatility.
- With respect to the amount of allowances auctioned, there was significant agreement that the 10-percent level currently in the Lieberman-Warner bill is not adequate. Many conference participants favor a level of at least 30 to 50 percent auctioned initially, increasing rapidly from that level, while decreasing, as rapidly as possible, the time period during which generators receive allowances for free. (This topic was discussed in more detail in Session 3, on allowances.)
- States desire flexibility in how allowances are allocated (if Congress allocates allowances to states) and/or flexibility in how revenue from the allowance auction is utilized (if Congress allocates funding to states or if Congress permits states to auction allowances). An expected outcome is more efficient emission reductions.
- States are interested in the ability to use the GHG program as a basis to improve local decision making, especially for land use and development.
- States are also interested in using the state allowance pool as a reward/incentive for those states that go beyond the minimum federal program. S. 2191 does have a provision that would provide extra allowances to states that have more aggressive energy efficiency programs. There was significant support for this provision and, in general, for directing more allowances to states.

2.4 How can the federal government support state-level GHG reductions?

If such a program was politically feasible, many state regulators indicated they would prefer a simple national program structure that establishes the GHG reduction goal and timeframe, provides allowances to states based on the reduction goals and year and provides guidance to states on what programs could be implemented to achieve the national goals. States discussed the fact that industry may not favor this approach since it could lead to different standards implemented in different states. Accordingly, participants discussed numerous possibilities for potential/appropriate federal roles in a national GHG program. The federal government could:

- Set the floor for the GHG reductions goal (i.e., the cap must result in a reduction of at least X percent).
- Structure the national program as a hybrid, with cap and trade for some sectors, (i.e., generators) and standards for others (e.g., vehicles, appliances, buildings).
- Provide states with flexibility in how to meet the reduction goals.
- Establish standards for how emissions and reductions are to be measured and verified and require their use nationally.
- Establish minimum appliance and building standards.
- Require the U.S. Departments of Energy, Transportation, et al., to integrate GHGs into their routine planning efforts. Projects that receive federal funding and/or must undergo federal review should be required to include GHG impacts and encourage alternatives that reduce GHG emissions.
- Establish policies to ensure uniform carbon prices across the nation.
- Provide flexibility to allow states to address competing problems (i.e., criteria pollutant issues).
- Require “state plans” and provide incentives for their completion and successful implementation.
- Facilitate revenue recycling back to states and provide guidance for how revenue can/should be spent to ensure that funds are spent on GHG-reduction activities and not on unrelated programs.

In each of the breakout sessions, participants discussed the congressional panel that began the conference. Participants focused some attention on the panelists’ recommendation that states provide specific suggestions related to climate legislation and the “story” of what life would be like for an affected source. Participants agreed that such a story and specific suggestions do indeed exist, and that states should work to compile them and provide them to members of Congress and their staff.

One of the consistent themes of the conference was that any national program will likely not be stringent enough to achieve the necessary emission reductions. Congress is also focused today on the features of a cap-and-trade program, initially applied to electric sector sources. The combination of these two factors will create opportunities for states to pursue programs above and beyond the federal government by requiring deeper reductions, expediting the timeframe in which reductions are to occur, or both. The ramifications of this affected all topics discussed at the conference. States have considerable experience in this arena and it is critical that this experience be highlighted. The many examples of successful CAA programs that have achieved deeper reductions more cost-effectively than was predicted when legislation was being developed can serve as a firm foundation for compelling arguments related to state GHG strategies.

For example, acid rain programs were delivered for one-tenth their anticipated costs. The NO_x budget program and California low-emission vehicles have equally been implemented cost-effectively. Such successful experiences have informed the states that have developed state-level climate plans, making for an effective “story” to provide to the framers of national GHG legislation.

Chapter 3. Session 2: What Role Can States and Localities Play in Implementing a Federal Greenhouse Gas Reduction Program?

- Session Leader: Gina McCarthy, Commissioner
Connecticut Department of Environmental Protection
- Discussion Group 1 Facilitator: Ron Burke, Associate Director
Illinois Environmental Protection Agency
- Discussion Group 2 Facilitator: Larry Greene, Air Pollution Control Officer
Sacramento Metropolitan Air Quality Management District
- Discussion Group 3 Facilitator: Judi Greenwald, Director of Innovative Solutions
Pew Center on Global Climate Change
- Discussion Group 4 Facilitator: Rick Sprott, Executive Director
Utah Department of Environmental Quality
- Discussion Group 5 Facilitator: Mary Uhl, Chief
New Mexico Air Quality Bureau
- Discussion Group 6 Facilitator: Charles Gray, Executive Director
National Association of Regulatory Utility Commissioners

This discussion was opened by considering the environmental regulation relationships between the federal government and state and local agencies. These agencies are partners, have a long history of working together and have used their different strengths, skills and resources to achieve significant environmental progress together. These assets are important and participants were asked to focus on partnerships and expectations rather than preemption. Attendees were asked to evaluate how our experience can be used to craft a national GHG program that covers all economic sectors and leverages our respective strengths to ensure that GHG emissions are reduced quickly and economically.

Overall, states reported that building upon present skill sets and traditional roles to support a federal GHG reduction program would be appropriate. Air regulators expect that federal agencies will look to the states for at least the usual partnership. However, there was also general recognition that traditional roles would likely not be enough. A number of participants noted that addressing GHG emissions will not be just an “air problem,” nor even an “environmental problem,” but a multi-faceted issue that will require multiple agencies and changes across society. Since GHG reductions, mitigation and adaptation cannot be addressed solely at the source, new behaviors, offsets, alternatives and new technologies will be required. These in turn will require new partnerships and skill sets at all levels, with energy, land use, transportation, emergency management, marketing and other expertise needed.

State-level climate plans, and their implementation, are important influences on national GHG legislation and its scope. In addition, there was widespread agreement that a national cap-and-trade program, by itself, will not achieve the necessary emission reductions and, therefore, state

and local plans for further reductions will be needed. Some participants experienced with climate plans noted the plans revealed economically advantageous steps for states to take. While there was substantial support for some form of GHG planning, participants expressed near unanimity in opposition to a system of state planning and federal review similar to the SIP process under the CAA.

Participants indicated this conference was a good first step toward framing questions on how to prepare for the new state responsibilities likely to arise. Some participants were admittedly new to this whole topic. In fact, the full spectrum along the experience curve of addressing GHG emissions was present at this conference and the significant value of the conversation was noted. During this session, the breakout groups and plenary discussions followed the topics and questions raised in the discussion paper.

3.1 Suggested implementation roles for states and localities are appropriate

Most discussion groups reported that, at a minimum, the traditional roles for state air regulators as described in the discussion paper are appropriate, build on our strengths and are likely to be useful in developing the framework for a national program. State strengths and core program skills include emissions verification, permitting, enforcement, data collection and submission, monitoring, emissions tracking and education and outreach. The role of states as innovators, good at cross-cutting approaches and capable of going beyond national standards, was mentioned by most groups. There was also the suggestion that, for the purposes of this conversation, we need to think of states more broadly than just air regulators or environmental regulators since the nature of the problem and solutions will require a multi-agency, multi-sectoral response.

Participants were asked to think about what we do best, what we want to keep doing and what we want to do to meet new challenges. What do we bring to the table; what are our expectations? What do we do better at the state/local level? What does the federal government do better? Do we want to engage in enforcement and compliance? Participants also emphasized that we must consider the specific roles of local agencies and identify the areas of implementation for which these agencies are best suited to assume primary responsibility.

Conference participants had many different responses to these questions, in part because there was not consensus on what the most likely or desired regulatory structures would be. A range of regulatory scenarios was described that would provide the context for federal/state/local roles. Some participants posed models similar to present approaches: a Clean Air Interstate Rule (CAIR) model, with the federal government handling most of the issues but states having flexibility to distribute allowances; an acid rain model, with states responsible for gathering data, tabulating, reporting, monitoring and verification; or some kind of hybrid.

Although state regulators were inclined against a SIP-like model, there was some concern that federal legislation will need to clearly lay out how a new GHG regulatory process, with or without state plans, would fit with the CAA. If GHG regulation creates a parallel process to existing CAA criteria pollutant regulation, this could create a disconnect. Instead, officials regulating CAA pollutants need to be involved. One speaker noted, and others agreed, that a federal cap-and-trade program could dominate air regulators' agenda. Then, in order to address

public health issues (e.g., from fine particulate matter and ozone), we will have to integrate the traditional responsibilities with climate change. States that move to a multi-pollutant integrated approach, that includes co-benefits, will be in a stronger position to implement a national program and achieve overall benefits.

3.2 New roles expected for local, state and federal regulators

Given the range of experience in the room, there were varied opinions and perspectives regarding the expected or desired regulatory structures in federal legislation. Will the federal bill be dominated by a market-based approach or by command and control? Will the states' role be primary or limited to gap filling?

Some participants felt that reducing GHG emissions is a fundamentally different role than that which air regulators traditionally fill. Because a comprehensive multi-sectoral effort and major behavioral changes in society will be required, participants proposed that all regulators will need to make a paradigm shift and not rely only on what is familiar, traditional or comfortable (e.g., they must expand beyond their SIP role). Federal-level approaches might require states (or states might desire) to have a strong role with a portfolio of policies and programs to support and supplement the federal program. This would strengthen the states' hand but also require new roles and skills to be developed. This discussion of traditional models, hybrid approaches and new paradigms revealed a range of opinions, and the need for further discussion of all these topics beyond this conference.

Against this backdrop, and recognizing these differences, various local, state and federal roles were postulated as appropriate or desirable:

- *Accepting federal delegation:* There was significant support for states accepting federal delegation of some responsibilities. Many participants said we know our regulated community better. Further, an expanded role translates into a seat at the table, as well as additional revenue and resources. Discussion groups mentioned that, ideally, clear roles for states should be laid out in the federal program; however, at a minimum, there must be a savings clause to ensure that states and local areas can differ from/go beyond/supplement what the federal government does.
- *Multi-agency coordination:* Participants who expected new tasks saw the need for multiple state agencies to play new roles. Traditional roles like air regulation will be needed, but other players will have to come to the table (e.g., transportation and land use planners). Both the supply and the demand side will have to be targeted. Perhaps one role of state air regulators will be coordinating other groups to look at unintended consequences so that energy, water and land use implications for climate change are considered. It will be important to build coalitions of state/local agencies (e.g., transportation, agriculture, utility regulators) to address GHGs through an integrated, versus piecemeal, approach. Smart growth approaches could contribute emission reductions and this may be a role most appropriate for local agencies.
- *Integrated and local approaches:* Many participants mentioned that state and local environmental regulators are better at integration and cross-cutting approaches than

federal agencies. These skills will be useful if national legislation or regulation dictates that integrated planning occur closer to the ground and allow flexibility for non-cap-and-trade implementation locally. Some attendees said that local knowledge and expertise will be important regarding offsets and credits. Others disagreed, noting a potential advantage for multi-state companies if the federal government handles offsets.

- *Education, outreach and bottom-up activities:* Discussion groups expected there to be a significant need for education, outreach, bottom-up data aggregation and behavior modification. States are better than the federal government at these activities (e.g., recycling) in partnership with local agencies and other institutions. One example given of an important task is to complete state/local level inventories in order to inform the process of setting goals. It made sense to most participants to have the agencies closest to the emissions (e.g., state/local regulators) collecting the data.⁶
- *Adaptation, mitigation and emergency management:* Most discussion groups thought states are better positioned for adaptation planning, mitigation and emergency management. Adaptation planning would not be a new role (e.g., many states already engage in drought planning) but would require expanded capabilities and multi-institutional coordination. Federal agencies need to identify adaptation issues and provide common definitions (e.g., at-risk resource, what does and does not count for mitigation, fugitive emissions), technical support and funding.
- *Allowance or revenue functions:* There was growing interest in an active state role regarding emission allowances and/or revenues. Discussion group representatives reported that participants believed strongly that states should receive more allowances than are currently allocated under the Lieberman-Warner bill, and should have flexibility for determining how the allowances are distributed. However, a federal role was envisioned for providing guidance and setting some limits on how revenues can be spent (e.g., spending should be targeted to GHG reduction investments, like energy efficiency, and not diverted away to unrelated programs). Some participants also thought states, rather than federal agencies, should have a role in collecting fees, to recoup costs for emissions regulation. This could be a federal requirement (like CAA Title V permit fees) or the federal program could authorize states to charge fees. But regulators cautioned that, unlike Title V, this fee arrangement should not result in an inverse relationship between program effectiveness and fees collected.
- *Likely federal roles:* Various federal roles were described by the discussion groups, including providing adequate funding to states to support an increased workload. The federal government should support R&D (e.g., for carbon capture and sequestration) and work with states to commercialize promising technologies. As with the acid rain program, federal agencies have a fundamental role in program design and operation, and timely development of model rules, a data system, as well as guidance and technical assistance. Federal agencies would also be involved in the transfer of best policy practices and technology solutions to states.

⁶ Upon completion of a local inventory one MPO was surprised to find that transportation was responsible for 50 percent of GHG emissions locally, compared to 40 percent statewide. This changed their local plan and goals.

3.3 Consensus: New skill sets and resources will be needed

There was considerable consensus among conference participants that states addressing climate change and GHG emission reductions will require training, new skills and resources (both funding and technical assistance). Examples include technical support from federal agencies on flood plain maps and funding for states to take the lead on adaptation. There was not necessarily disagreement on the details, but there were many detailed needs reported out by the discussion groups.

Participants who expect to implement a comprehensive multi-sectoral approach anticipate needing to hire or train people who can effectively communicate with one another and can “talk across programs.” Land use and transportation planners will need to be trained to understand pollution and climate change. Air regulators will need to learn about energy and energy efficiency. Many fundamental GHG concepts (e.g., leakage and indirect emissions) will be unfamiliar to many air regulators, so training will be critical. Capacity for team building will have to be increased. Behavior modification needed in the general population will require new skills from regulators. One speaker noted that local and state agencies will need assistance developing local planning processes, and that the process will be more important than the actual plan since involving stakeholders will bring results.

The need for new staff and/or skills and preparation in the following areas were mentioned by one or more discussion groups: climate and economic modeling, water resource planning, hydrology, emergency management, markets, marketing, public relations, communications (including electronic communications), mapping, smart growth, energy efficiency, best practices, behavioral psychology, auctions, accounting, finance, financial oversight and electric infrastructure verification.

Some discussion groups described very specific skill sets that will be needed, such as training in the protocols for offsets and additionality on a global scale.⁷ Educational materials about adaptation behaviors, such as landscaping for different climates and water levels, should also be developed.

In addition, once various unanswered questions – such as how allowances will be handled and how progress will be measured – are answered, other necessary skill sets might be identified. Finally, discussion groups consistently mentioned the need for federal funding for training.

3.4 Pros and cons of a national requirement for state climate plans

The topic of state climate plans inspired robust discussions, with numerous perspectives offered on the issue. However, there was widespread agreement that complementary state-level policies focused directly on reducing GHG emissions will be necessary, in addition to a national cap-and-

⁷ Carbon offset projects are only meaningful when their GHG emission reductions are *in addition to* business as usual. This quality is called “additionality.” Carbon reduction projects that already result in favorable returns on investment, and have ready access to capital and technology should not need carbon offset revenues to go forward. Skills in setting standards for and determining additionality in a variety of settings will be needed if offsets are used to generate emission reductions.

trade program, in order to achieve the full level of emission reductions. Therefore, development of state climate plans makes sense. Participants were asked to think about the many actions that are not appropriate for cap and trade that could result in significant, cost-effective GHG reductions.

As discussed earlier, participants concluded that the SIP was not the preferred model for climate plans. However, there was significant interest expressed in potentially using some other kind of tool or plan.

Different traditions regarding environmental activism helped define acceptable options for participants. Some states have already taken the lead and developed comprehensive climate plans. Other participants indicated that incentives might allow some states to support state-level climate plans. But other states, by law, can only respond to federal requirements, not federal inducements. Some discussion groups indicated it might be acceptable to have a federal requirement or inducement to have all states prepare climate plans with minimum required elements, including complementary programs. A comprehensive state-level plan would absolutely be needed if states were given overall GHG emission reduction budgets with some portion of the reductions to be achieved by a federal cap-and-trade program and other federal strategies and the remaining increment to be achieved by states.⁸

A variety of pros and cons for mandatory state-level climate plans was identified in the discussion groups.

Concerns:

- State agencies will need additional resources, as current laws, regulations and requirements are already under-funded.
- If emission reductions are a shared responsibility and federal programs address the “lowest-hanging fruit,” states will be compelled to pursue the more difficult- to-achieve reductions.
- A federally required climate plan might mean penalties for states that miss targets.
- Success will require political will at the state/local level.

Positives:

- A requirement for a mandatory state climate plan would solidify the states’ role in the planning process and should result in more flexibility and funds for states.

⁸ Air regulators from states that have already completed climate plans noted the significant benefits of a governor-level infrastructure that fosters robust communications across agencies responsible for implementing the requirements of the plan.

- If states do not plan, the federal government may end up regulating every sector, thus losing the advantage of the states' ability to identify viable portfolios of effective approaches.
- As of February 2008, over 30 states have engaged in some climate planning; about 10 states have over three years of experience with the process. Participants reported that, so far, those climate action plans have revealed economically advantageous steps to take and have led to positive changes and partnerships.
- A proactive role by states could translate into less federal involvement in plan approval.
- There was general acknowledgement that we could learn from each other's planning experiences (good and bad).

3.5 State and local agencies can take some actions now

What can state regulators do now while Congress is debating national goals and the structure of a national climate change program? Discussion groups brought forward a number of suggestions for what we can do now to plan for the skills, resources and coordination that will be required to implement national GHG legislation, no matter what form it takes.

Keep leading. There was general agreement that states that are proactive in reducing GHG emissions should continue to implement their plans and actions. State actions with respect to inventories and registries, and towards creating regional cap-and-trade efforts, should also proceed. NACAA should continue to lead by facilitating state, local and federal discussions.

Start talking. We should be initiating discussions with each other and with the public. Regulators can start to cross-train in "lingo" and decision processes so they can work effectively together (e.g., Air 101, Transportation 101 and Energy 101). Regulators can start talking to the public in a different manner. We can incorporate the climate connection into our traditional air quality messages. Modes of electronic communications – such as blogs, YouTube and podcasts – can be utilized to expand our reach. The public needs to be sensitized and induced to act.

Prepare the workforce. We can anticipate some of the new skills needed and form partnerships with schools to prepare the workforce for new jobs.

Expand traditional efforts. Smart growth training and collaboration is a useful model, where many stakeholders are represented and work well together (e.g., business, health care, land use, transportation). Energy and energy efficiency are often missing, but could be brought in to put downward pressure on GHG emissions. This is an arena where localities have a very strong role to play and Metropolitan Planning Organizations (MPOs) can be a good resource.

As standards are available, city and county planning agencies can make use of them. One participant described an MPO including carbon dioxide (CO₂) performance standards in the regional transportation plan, with the support of local political leaders. Ongoing efforts, such as drought mitigation groups, can remind people of the implications of inaction. Mapping areas that may be flooded can help motivate the public and policy makers.

Anticipate opportunities. States can look at the interaction between criteria pollutants we already regulate and CO₂ and other GHGs and consider activities that will reduce both. States can also consider and propose approaches that will deliver efficiencies going forward, such as “piggyback” reporting.

Depending on the design of a federal program, significant financial resources may flow to the states. States can start to learn about and discuss how funds might best be used. For example, the RGGI states have determined that auction revenues will be held for public benefit. Many of the RGGI states have passed legislation tagging a small portion of auction revenues for administration and adaptation, with most of the remainder going to energy efficiency and other GHG reduction activities.

3.6 Thoughts to consider

At the conclusion of the first day of the conference several of the day’s facilitators offered thoughts for conference participants to consider overnight:

- 1) The congressional staffers with whom we met in the morning asked for our help in identifying potential state roles. We need to decide what roles we should recommend and whether we want to do more than accept delegation of a federal program. Do we want to develop a climate strategy that is controlled more by our governors or mayors than the federal government? Such a strategy would have to be consistent with federal goals, but could do more or be more responsive to local needs and opportunities. Or would we prefer to limit our roles to those delegated to us by the federal government? The resources and training needed will differ depending on the roles states and localities take on. Do we support a federal approach similar to that in proposed legislation that deals directly with sources through allowances? Or do we prefer a climate plan that includes a market system with state goals (like CAIR or the Clean Air Mercury Rule) including many federal sector requirements (this could be a carbon budget)? Or do we prefer a hybrid program with cap and trade? These are questions we should keep in mind as we continue our discussions at this conference and beyond.
- 2) Under the historic (i.e., traditional SIP) model, cities and states have to meet standards, with some help from federal agencies. Then the federal government’s role diminishes and states and localities move ahead. With respect to achieving GHG reductions, states and localities cannot be responsible for meeting all the goals, but can and should take responsibility for some portion.
- 3) Deferring to the federal government to take control of this entire program simply will not work. We have a distinct state/local role to play and must take an active role in implementation; the roles and solutions will be different for every region, state and local area.
- 4) When this federal “baby” is born it will be five years overdue and very needy, and it will be the responsibility of states to take care of it. We have experience developing good

programs, even without having received the necessary federal funds. States have a very important role to play by providing a different perspective to the federal government. Behavioral change is necessary. This is not a source-by-source or sector issue. Federal agencies must be challenged to help us meet our goals.

Chapter 4. Session 3: What Role Can States and Localities Play in a Federal Allowance Program and in Determining How Funding Is Distributed?

Session Leader: Doug Scott, Director
Illinois Environmental Protection Agency

Discussion Group 1 Facilitator: Stu Clark, Manager
Washington Air Quality Program

Discussion Group 2 Facilitator: Richard Cowart, Director
The Regulatory Assistance Project

Discussion Group 3 Facilitator: Peter Iwanowicz, Director
New York State Department of Environmental
Conservation, Climate Change Office

Discussion Group 4 Facilitator: Lisa Jackson, Commissioner
New Jersey Department of Environmental Protection

Discussion Group 5 Facilitator: Art Williams, Director
Louisville Metro Air Pollution Control District

Discussion Group 6 Facilitator: Anthony Eggert, Policy Advisor
California Air Resources Board

The third discussion session was premised on the expectation that federal GHG legislation is likely to rely to a great extent on a nationwide cap-and-trade program across several economic sectors. Within this context, the resulting discussion, both in the plenary session and the breakout sessions, tended to focus on four state/federal structural issues:

- First, whether the *national* program can succeed in practice and at acceptable cost without substantial policy and implementation efforts *by the states*.
- Second, whether sector-by-sector reduction goals should be set at the national level, or whether state-level reductions should be mandated, with states given flexibility to achieve the goals.
- Third, the degree to which states should be given allowance credits or revenues in order to facilitate low-cost GHG emission reductions and address other state needs.
- Fourth, the degree to which a federal program allocating significant carbon allowances or revenues to the states must, or should, mandate or restrict how the allowances or revenues should be invested or returned to the public.

While there was a meaningful diversity of opinion among participants on these questions, as the discussion advanced, there was also a growing sense of broad agreement on the main elements of a state-federal approach. For the most part, participants concluded that Congress could accelerate national GHG emission reductions and lower program costs by creating a national

cap-and-trade system, by apportioning a large fraction of allowances to states and giving states implementation flexibility through performance-based incentives to invest allowance values in programs that reduce emissions at low cost and otherwise meet individual state needs.

This broad outline grew out of discussions of the following topics.

4.1 To what degree is achievement of national GHG goals dependent on cap-and-trade mechanisms that might be implemented through a single national market and to what degree will the nation need to rely on policies and programs developed and administered directly by state and local governments?

In addressing this fundamental structural question across the breakout groups, there was a significant degree of agreement on two points:

- Most participants believed that a national cap-and-trade program is necessary in order to establish a framework to ensure continuing progress in lowering GHGs and demonstrate to the rest of the world that the U.S. is serious about reducing emissions. Moreover, most are familiar with cap and trade as a mechanism and support its application to GHG reduction.
- However, most participants also said that a national cap-and-trade program, by itself, would not result in the level of GHG reductions that is needed or likely to be called for in national legislation. There was broad agreement that state and local policies and implementation activities – such as building codes, land use and transportation planning, end-use energy efficiency programs and agriculture and forestry policies – would be needed to meet national goals. For these reasons, most participants stated that active participation by states is essential and a national cap-and-trade program that does not support these techniques will be too expensive and is likely to be ineffective in securing deep reductions. A related common theme that arose during this discussion, as well as in other discussions, was that any apportionment value or auction proceeds should be made available to states for the purpose of implementing those essential, complementary programs.

Many participants also warned that we do not have the luxury of waiting to reduce emissions until an overarching cap-and-trade system is in place nationwide; that a variety of GHG-reducing actions are needed now; and that states are well-positioned to deliver these programs and policies.

4.2 Should Congress mandate the GHG reduction targets assigned to each major sector, or should Congress assign an overall reduction target for each individual state and allow each state to design its own carbon reduction implementation plan that is responsive to its individual state priorities?

The second major question in this session was whether Congress and/or federal agencies should specify the sector-by-sector details of cap administration, or whether substantial flexibility should be left to states to administer caps and/or complementary programs to reduce emissions in non-cap/trade sectors. Participants had differing opinions on these questions.

- As a starting point, few if any participants judged that a federal agency could develop and administer comprehensive climate management plans for the entire nation – meaning that significant state involvement will be necessary.
- There was, on the other hand, considerable opposition to the idea of “carbon SIPs” with responsibility for plan review and approval vested with EPA. This was so even though many participants recognized that states must have the flexibility to develop plans that would cut across capped and non-capped sectors and set out how any auction revenues (see issue 4, below) would be invested or distributed.
- There was considerable support for the notion that if state programs and agencies are going to be required to administer a national GHG program, each state should have the discretion to determine programmatic priorities for that state, consistent with general national standards.
- Some participants expressed interest in a limited national cap, focused on sectors most easily regulated and most well understood – rather than an economy-wide cap that would be more difficult to administer. The acid rain program and the CAIR program were used as examples here.
- There also was some discussion of the idea of a “hybrid” approach to the cap-and-trade system, in which Congress would establish national caps for some categories of sources and states could implement parallel caps for other sectors, as a tool to implement complementary policies. In any event, even without hybrid state/federal caps, many participants thought that the national GHG program will have to be “hybrid” in nature, with both cap-and-trade elements and programmatic/policy elements working together.

4.3 Within any covered sector, or within a state’s apportioned cap, should allowances be distributed for free to covered entities, or should they be auctioned to those who must have and retire them? Should Congress make these decisions, or could individual states make them for that portion of the national allowance pool attributable to a state?

In general, in breakout sessions and the plenary discussion, participants expressed strong support for the auction of allowances rather than free allocation to covered industries. The experiences of the RGGI states (moving to auction) and the European system (initially free allocation, now moving more to auction) were cited in support of auctions, both as a means to moderate generator windfalls and to raise funds for low-carbon investments. There were, however, some caveats.

- In some cases, participants noted that they were not necessarily speaking for their respective state, as many states have not grappled with this issue formally and might support some degree of free allocation to affected industries.
- State officials also reserved judgment on the specific desired size of any auction pool (10 percent? 50 percent? 100 percent?) since the preferred portion will vary depending on the other elements of the program (e.g., Is the point of regulation on generators or load-

serving entities? Where will auction revenues go; and how will the revenues be spent? A large auction program that imposes high costs on consumers and does not return the revenues for investments in low-carbon resources was judged to be an unwelcome program design.).

Most state officials supported the suggestion that where there to be an auction, it should be conducted by federal officials on a unified basis, rather than by state officials on a state-by-state basis. This was judged to have market advantages such as a more fluid market, greater transparency and less volatility, and would also lower administrative burdens on and costs to state agencies. It does not follow, however, that auction revenues should revert to the federal government. State agencies could effectively be the “sellers” as equitable owners of credits to be sold in such markets, even if they are not doing the selling directly.

4.4 If carbon credits are sold at auction, who should receive the revenue and what should it be used for? To what extent should these decisions be left to the discretion of states, as opposed to a highly nationalist approach that leaves both the decision on sales and all of the revenue in the hands of the national government?

A driving principle in the discussion of allowance revenues was to consider how spending this money will advance the goal to reduce GHGs faster at lower cost to society. As noted above, there was strong support at this conference for the idea that state and local governments should have a much larger degree of control, discretion and flexibility in the allocation of allowance value than has been reflected in national legislation to date. Most bills have not explicitly included allocations to states at all, while the leading bill, Lieberman-Warner, allocates only about 10 percent to states. Most state officials at the conference expressed the firm belief that this fraction should be much higher.

Discussion then turned to how a larger allocation to states could be administered.

- Some participants favored a program design similar to the RGGI model, at least within the power sector, in which individual states would have the authority to determine what fraction of “their” apportioned allowances would be awarded free to covered entities or to others and what fraction would be placed at auction.
- It was also noted that a state-discretion model like RGGI could be difficult to apply to unregulated industrial sectors, since different rules in different states could raise competitiveness challenges among affected sources.
- One recurring theme was the need to use a small fraction of allowance value to support the work of GHG program administration by state agencies. Participants were clear in saying the program should avoid imposing unfunded mandates, either administrative or substantive, on state and local governments.
- Another alternative posed was to conduct the auction at the federal level and then distribute auction revenues directly to states or to entities regulated by states (such as electric and gas load-serving entities). State officials were less enthusiastic about this approach since the likelihood of revenues being appropriated for other purposes by

Congress, or diverted to other purposes by state legislatures, would seem to be higher in a revenue-allocation program than under a credit-allocation formula.

- Some participants believed allocating credits directly to states would empower states to go for further reductions, but they also noted that revenues from auctioning those credits could create disincentives to retire those credits.
- If credits or auction revenues were to be allocated to states, on what basis would they be apportioned? Time did not permit close examination of this question, but breakout groups and the general discussion touched on several possible apportionment criteria:
 - Distribution in proportion to state population;
 - Distribution using an overlay factor for the number of households in the state eligible for the Low Income Home Energy Assistance Program (LIHEAP);
 - Distribution using a factor to reflect the need for transition assistance to heavily affected industries;
 - Distribution for the purpose of providing adaptation assistance; and
 - Distribution for the purpose of supporting accelerated deployment of low-carbon resources, including energy efficiency, renewable power, combined heat and power and the like.

Of these various factors for apportioning allocations, most discussion focused on two:

- A “base allocation” based on population, number of households or similar external metrics.
- Distribution to states or state-regulated entities for the purpose of supporting and rewarding success in state policies to reduce GHG emissions and the deployment of low-carbon resources.

There was a great deal of interest in this general area, with a number of suggestions advanced informally as to how a significant fraction of allowances could be distributed to states through a performance-based formula keyed to success in delivering GHG reductions or low-carbon resources (e.g., energy efficiency). Such a formula could set up a cycle of competition among states to deliver those outcomes, rather than rewarding states, utilities and industries for high historic emission levels.

Finally, as a general matter, conferees discussed the necessity of aligning a variety of other public policies with the objectives of national and state GHG-reduction programs. One prime example is in transportation spending, which is still heavily tilted toward encouraging additional vehicle miles traveled. It will be difficult to achieve the goals of a carbon cap program without federal and state attention to the policy and spending arenas where public choices either support or undermine climate change objectives.

Chapter 5. Session 4: The Role of States and Localities in Data Management under a Federal Climate Change Program

Session Leader: Diane Wittenberg, Executive Director
The Climate Registry

Discussion Group 1 Facilitator: Vince Hellwig, Chief
Michigan Air Quality Division

Discussion Group 2 Facilitator: Michelle Manion, Program Manager
Northeast States for Coordinated Air Use Management

Discussion Group 3 Facilitator: Julie Rosenberg, Chief
U.S. EPA Climate Protection Partners Division, State and
Local Branch

Discussion Group 4 Facilitator: Eddie Terrill, Director
Oklahoma Air Quality Division

Discussion Group 5 Facilitator: Leah Weiss, Senior Policy Advisor
Northeast States for Coordinated Air Use Management

Discussion Group 6 Facilitator: Chuck Mueller, Planning and Policy Advisor
Georgia Environmental Protection Division

The final session of the conference was focused less on theory and more on practical suggestions and concerns. Participants were generally very experienced in environmental data management and took a keen interest in the discussion of all facets of data management under a federal climate change program.

Air regulators anticipate some role and responsibility for GHG reduction data no matter how the federal program is structured. A number of state regulators noted advantages in preparing for this work, compared to earlier tasks, such as acid rain. They pointed to the significant work done already by The Climate Registry (TCR) and its model of input from states. The existence of other environmental databases that can be built upon was also noted.

Both optimism and deep concerns were voiced. The presence of key personnel from EPA at this conference and planned conversations between TCR and EPA were seen as positive developments. At the same time, this group identified concerns at the macro and micro level, from how to reduce reporting burdens to how not to create incentives for regulated entities to inflate baseline data. Participants with extensive experience managing data were quick to anticipate many of the pitfalls awaiting this effort.

The comment was made more than once that climate change is a “brave new world,” that there is much we do not know or cannot anticipate right now. It is not only an air issue, it is a multi-

disciplinary, multi-agency issue, but since the environment is the driver right now, air regulators are going to be heavily involved and may need to re-examine/shift paradigms to achieve goals.

5.1 Ideal objectives for GHG data management: consistency and flexibility

Several discussion groups reported out that they see state involvement in GHG emission reduction data management as inevitable, and outlined their concepts of ideal outcomes:

- State and federal reporting requirements will be consistent.
- If possible, there should be one portal for reporting – a centralized reporting system, with access from states.
- A single process should be created that will work for states and EPA, with the next best case being that all agencies use the same data and methodologies.
- TCR supports mandatory state-level reporting, with all information collected the same way. A comprehensive database should be created, with states filling in the boxes that apply to them.
- Data exchange programs, conduits for sharing data and new data crosswalks should be enabled⁹.
- There should be a focus placed on group dynamics and flexibility among local, state and federal agencies.
- A flexible design process should be incorporated to adjust and adapt as we learn more and as information quality and precision improve.

5.2 State and federal roles

The discussion of state versus federal roles ranged wide and deep. There was some consideration of the roles states might play in a federal-only GHG program. But most participants focused on the likely data management roles and issues related to both federally mandated program and state-level climate change programs.

Many regulators assumed that some states are likely to have emission reduction programs outside the federal cap-and-trade program (e.g., energy efficiency, land use, retail sector, agriculture, forestry) and will need data that federal agencies do not collect. As a result, states might be interested in a registry different than the federal registry, depending on whether the federal data approach is as inclusive and timely as states need. Also, localities might be interested in their own registry for local offsets. Some state regulators indicated they might find good information by analyzing their own data (e.g., they may discover and accommodate more GHGs beyond the six already captured).

⁹ One example given was the National Environmental Information Exchange Program (the “Exchange Network” or “EEN”), a partnership among states, tribes and the EPA for secure data sharing. See <http://www.exchangenetwork.net/>.

Attendees did agree that the states, and the sources regulated by them, will need to be subject to the same protocols, data quality requirements and so on, as the federal programs (i.e., a ton will need to equal a ton throughout the U.S.).

5.2.1. State roles

Most discussion groups indicated that states should play an important, but not unfunded, role in compliance and verification for both state and federal GHG programs. The importance of verification and data quality was stressed often and many participants noted this is a role at which states excel: states have relationships with their sources and know where weaknesses lie. Some participants noted that states may also need to track sources smaller than those covered by the Title V permit program. It was also noted in most discussion groups that data flow should or could go from states to the federal government in order to address confidential business information (CBI).

At least two groups expected a large role for states in outreach and education, especially for new players (i.e., any sources that have not previously been required to report). Many attendees noted that decisions regarding the division of labor between states and localities will need to be made in this area, as well as many others.

One yardstick often used by participants was consideration of what the various parties are already doing. A common example given was that state and local regulators already address landfill methane and waste in place, so federal involvement is not necessary.

5.2.2. State and local roles dictate data and other needs

The discussion of state roles led inevitably to consideration of resource and data needs.

- *Resources:* In several discussion groups, participants indicated that, although they believe states should provide verification and related services, this will be a resource issue; staff training and perhaps new staff will be needed. TCR will be very helpful to the states, but verification responsibilities will require additional resources. Data quality/accuracy is important; states and localities do it well, but participants stressed the need for this effort to be adequately funded. Funding should go to the parties that are actually responsible for gathering and managing the data.
- *Data:* Several groups concluded that states will need more granularity in data collection than federal agencies will or can provide.¹⁰ If federal agencies are not requiring certain data, but states need it, the data management system needs to be flexible enough to add it.
- *Planning:* Registry data (bottom-up) is not the same as data used for planning. Many regulators indicated a need for both top-down and bottom-up data for state and local planning.
- *Access:* There was broad agreement that data needs to be accessible by all who have responsibility, or a use, for the data, especially if states are assigned allowances or have a

¹⁰ For example, tracking performance of state-owned sources is desired by states, but not by federal programs.

role to retire or otherwise manage allowances. Several regulators noted states do not need to own the data, but do need access to it.

5.2.3. Some core federal roles are clear

There was consensus on several points related to the core federal roles in data management, regardless of the ultimate GHG reduction approach. The federal government should:

- Develop and ensure common reporting protocols with state input;
- Ensure national consistency on protocols and definitions;
- Update science and tools/methodologies over time, in partnership with states; and
- Develop emission factors, with input from states, and provide them as soon as possible.

It was also suggested by some that the federal government needs to, or could, assist states by mandating more cooperation among agencies, with parallel regulations or requirements for areas and sources over which states do not have regulatory authority.

5.3 The Climate Registry is useful but its future is not clear

There was specific discussion of the role and fate of TCR. The question was asked: Given the federal push to have a national GHG database within government control, what will the role of TCR be when federal rules come out? Conference attendees were told that this question has not been answered yet. The role of TCR may be transitory or it may be to manage data for emission reduction programs beyond the federal mandates.

Discussion groups offered a variety of examples of functions TCR might provide. Some groups noted that TCR might address small, voluntary programs that will not be part of the federal program but still need to be tracked (e.g., schools). For states with mandatory programs beyond federal reporting requirements (e.g., agriculture), TCR could add mechanisms to manage any data needed, as it has for criteria pollutants. Participants noted that there may be distinctions that are of particular interest to state or local regulators with which TCR can assist (e.g., pinpointing specific equipment emitting within a facility). Some regulators noted that states may want to establish their own portals into which TCR data would feed, to serve as a repository for information that would not necessarily be available to federal agencies or others.

TCR is gearing up to be available for mandatory reporting. TCR's Executive Director reported that TCR draft protocols, including for verification, have been issued.¹¹ Dozens of GHG emissions reporters are already using TCR even though it is new, possibly because a single comprehensive registry is desired.¹²

¹¹ All the draft protocols are available on TCR's website at www.theclimateregistry.org.

¹² Companies that choose to voluntarily report to TCR must report all GHG emissions from direct, indirect, process, fugitive and biogenic sources at the facility level from operations in Canada, the U.S. and Mexico. They can also choose to report at the unit level, world-wide and Scope 3 emissions. Third party verifiers must assess emission reports annually. See www.theclimateregistry.org/downloads/GRP_Summary.pdf.

Several participants noted that, unlike when the acid rain or NO_x programs began, TCR gives states a data registry that is ahead of EPA. Advantages and benefits of TCR were noted by many participants:

- Its flexibility is desirable;
- It represents the states without being a state agency and follows their direction, since states comprise TCR's Board;
- It provides data management services that some states do not have the staff to handle;
- It is a useful forum for engaging states and developing protocols;
- Its non-regulatory format and iterative process give it the ability to quickly adapt to states' needs; and
- TCR allows a unique relationship between states and federal agencies.

5.3.1. EPA and TCR working together

EPA representatives discussed their plans to initiate a rulemaking to improve reporting.¹³ As of this conference date, Congress approved, but had not yet appropriated, \$3.5 million for this effort. EPA is working with the California Air Resources Board (CARB) and TCR to design a reporting program that harmonizes well with TCR and CARB reporting protocols. EPA hopes to build upon what has occurred at the state level, while identifying and addressing gaps. According to EPA, data will be used for future legislation and/or regulation. The decision has not yet been made as to whether the federal requirements will be more or less comprehensive than TCR's current voluntary reporting requirements. TCR and EPA representatives told attendees that the two entities would be meeting after this conference to collaborate.

5.4 Details of data management matter to regulators

Participants in this session's discussion groups spent considerable time and energy considering local, state and federal data management details. Three topics received particular attention: protocols, CBI and offsets.

5.4.1. Protocols

Recent Congressional legislation directed EPA to examine data collection needs for future regulation. Congress directed EPA to consider all GHGs and all sectors, with appropriate thresholds, as well as data collection upstream (e.g., fuel sales) and downstream (e.g., process emissions). According to EPA representatives, the goal set by Congress is intentionally duplicative (upstream and downstream redundancy). EPA wants to look at what works in current practice and seeks input on the following points:

¹³ EPA will propose its mandatory GHG reporting rulemaking in September 2008 and promulgate a final rule in June 2009. The rule will require mandatory reporting of GHG emissions above appropriate thresholds in all sectors of the economy. See www.epa.gov/climatechange/emissions/downloads/reporting_generic_briefing.pdf.

- What is appropriate in terms of thresholds, scope, scale, roles of different agencies and reporting frequency?
- What are advantages of data collection at the unit level versus corporate level?
- What level of rigor should be applied?

Based on these questions, participants agreed on several points:

- Protocols should be robust and well developed and states should participate in their development and management;
- Data quality is crucial as it will translate into currency, therefore the currency value must be ensured (a ton must equal a ton);
- Equally important are consistency, certainty and transparency;
- Double counting must be avoided; and
- Third party verification is important, especially since emission reductions are a commodity that will be sold internationally.

Participants anticipated a variety of difficulties that will need to be resolved within the context of developing a national GHG program:

- The further regulators get from monitoring (e.g., relying on estimated emissions) the more important verification becomes, especially as the focus moves to sources beyond those already covered by Continuous Emission Monitoring System (CEMS) requirements;
- It will be difficult to establish the boundaries on reporting;
- Emission factors will be very important; and
- There are projections for GHG savings from energy efficiency and renewable energy, but the ability to measure real savings is questionable. To the extent they are available, retrospective analyses of energy efficiency programs would be helpful.

A suggestion was made by one discussion group to establish an advisory body, like the Clean Air Scientific Advisory Committee, to advise EPA on protocols. Other participants responded they would find this disappointing; states should be equal partners with EPA, not advisory stakeholders. EPA responded to these concerns, explaining that the agency is considering an advisory committee not to take the place of federal/state/local partnerships, but to serve as a technical advisory group.

5.4.2. Confidential Business Information

Most discussion groups mentioned that access to CBI is an issue that has not been settled. There did not appear to be a clear answer, except that discussions and decisions are needed regarding federal program requirements and CBI.

Participants raised several points that they felt needed to be considered:

- States need access to CBI;
- State protection of CBI is important. State confidentiality provisions that are more restrictive than those of the federal government need to be considered;
- State input on CBI decisions is crucial; and
- CBI data should be transmitted to states first, so states have all the information they need and can address confidentiality issues.

Participants noted that states have different rules. In some states no emissions are confidential (in one state, at least, that is by statute); in others they are confidential. One state mentioned there is specific data that can be made available and other data that cannot. Most participants believed that states should make final decisions about CBI.

5.4.3. Offsets

Some participants had strong opinions about the data management of offsets. Although there was not sufficient discussion to reach consensus, there was no opposition stated to the following suggestions:

- State and local regulators should participate in developing and managing protocols for offsets to translate to land-use decisions over time;
- Offsets should be handled locally for local use when possible, but should be validated based on national criteria; and
- A consistent and solid level of rigor should be assured.

5.5 Tensions and concerns exist for both sources and regulators

Conference participants who engaged actively in this session's discussion groups were generally very experienced in data management and identified a variety of concerns and tensions for sources and regulators and between sources and regulators.

Focus on sources:

- *Reporting Burdens*: All participants were mindful of the reporting burden on sources, especially sources that have never reported before. Issues raised by participants included how the burden can be reduced for small or new sources, what the threshold for participation should be, the fact that some companies may be too small, the process may be too costly and new sources will need technical and compliance assistance.
- *Large sources*: Participants discussed how regulators will handle companies doing business in multiple states, provinces and countries (i.e., top down or bottom up?). Some businesses want entity-wide reporting, while some state regulators desire facility-level

data and think it is reasonable, noting that businesses have to collect data from facilities anyway.

- *Multiple data streams:* There was concern about the potential for two data streams (e.g., Toxic Release Inventory data versus GHG emissions data). This could be a reporting burden.
- *Perverse incentives:* At least one discussion group anticipated that program design could create incentives to inflate the baseline (e.g., turning on a boiler that has not been used for years would allow for the “over reporting” of emissions now to get credit for reductions later). EPA was urged to design programs that reward companies to report accurate data early.¹⁴

Focus on regulators:

- *New knowledge:* States will be working with sectors and sources that have never reported before. These sectors and sources will need information beyond cap-and-trade emission programs. (States have experience with electric generation units, but do not have experience with indirect emissions, such as electricity use by end users.)
- *Outside comfort zone:* Air regulators know inventories and are comfortable with them, but registries are different and will require air officials to move out of their comfort zone.
- *Registry limits:* Where on a continuum will the federal program emerge?
 - If the federal program is like the acid rain program – reportable and quantifiable – the registry will work. But if it becomes more comprehensive, the registry may not provide all the data needed.
 - How will regulators account for emissions from sources that TCR does not track?¹⁵
- *Smart design:* Do not reinvent the wheel, build on what works and avoid double or triple reporting (there should be just one system to report to).
- *Clarity:* Some states cannot react until they know what the federal program is; these states are waiting for federal rules. Other states want to know who is going to have to report and who will own the data.
- *Funding:* State regulators anticipate needing funding for data management. Should the fees come from the Title V permitting program or the cap-and-trade revenue stream? Further, participants were concerned that EPA has only \$3.5 million to develop a registry and related rules.

¹⁴ For example, OSHA offered free inspections to help companies avoid problems later.

¹⁵ For example, how would TCR handle a comprehensive transportation plan for GHG reductions? TCR looks at city fleet but not overall use of roads.

One discussion group devoted considerable time to the implications of GHG programs on other CAA programs. Some opinions expressed during that discussion included the following:

- Third party verification is considered very important for carbon. Why is it not equally important for other (e.g., criteria) pollutants?
- Past Clean Air Act decisions driven by inventories have not always been good decisions. Perhaps all inventories need to be improved, not just carbon.
- The federal government has been too rigid with Clean Air Act programs in the past. The federal government should set an example with multi-pollutant planning and look for synergies between different pollutants as we move forward, such as including GHG emissions in the Confined Animal Feeding Operation testing effort.

5.6 Opportunities to collaborate, build on existing systems and reap benefits

Regulators also discussed positive opportunities with respect to data management. There was not necessarily consensus on each of these points, but significant numbers of participants brought them forward:

- *Good time to collaborate:* Many participants noted that now is an excellent time to collaborate, before reporting of national emissions becomes mandatory. State and local regulators can work with each other, with TCR and with federal agencies to design and practice with future data management tools.
- *Build on existing systems:* Several regulators noted that existing database systems could be useful (e.g., the National Emissions Inventory and Clean Air Markets) and that any new databases will need to interact with existing ones. Some participants encouraged federal agencies not to take a fundamentally different approach from that taken for the Toxic Release Inventory, Title V, etc. Others pointed to the Exchange Network as a good model for data sharing and consistent currencies (a ton equals a ton).
- *Data is valuable:* Participants noted the value of data.
 - Reporting motivates actions, voluntary and otherwise;
 - Third party verification may uncover wrongdoing, but it is even more likely to uncover cost-saving energy efficiency opportunities; and
 - Because there will be monetary value to carbon credits, there is an even greater incentive to establish carbon data management systems that work.

For Further Reference

National Association of Clean Air Agencies (NACAA)

<http://www.4cleanair.org>

(The four discussion papers prepared for this conference are available on NACAA's web site at <http://www.4cleanair.org/documents/GWConferenceMaterials.pdf>)

National Association of Regulatory Utility Commissioners (NARUC)

<http://www.naruc.org>

National Association of State Energy Officials (NASEO)

<http://www.naseo.org>

Pew Center on Global Climate Change

<http://www.pewclimate.org>

Regulatory Assistance Project

<http://www.raonline.org>

U.S. Climate Action Partnership

<http://www.us-cap.org>

U.S. Department of Energy

<http://www.energy.gov/sciencetech/climatechange.htm>

U.S. Environmental Protection Agency

<http://www.epa.gov/climatechange>

U.S. House Committee on Energy and Commerce

http://energycommerce.house.gov/Climate_Change/index.shtml

U.S. House Select Committee on Energy Independence and Global Warming

<http://globalwarming.house.gov>

U.S. Senate Committee on Environment and Public Works

<http://epw.senate.gov>