Defending Liberty
Pursuing Justice

ENVIRONMENT
ENERGY AND RESOURCES

Climate Change, Sustainable Development, and Ecosystems Committee Newsletter

Vol.12, No. 1 **January 2009**

MESSAGE FROM THE CHAIRS

Edna Sussman
Chair, Alternative Dispute Resolution Committee

William R. Blackburn
Joseph A. Siegel
Co-Chairs, Climate Change, Sustainable Development, and Ecosystems Committee

In this newsletter issue, a joint effort by the Alternative Dispute Resolution Committee and the Climate Change, Sustainable Development, and Ecosystems Committee, nine authors highlight alternative dispute resolution (ADR) techniques that have been used to solve difficult problems and facilitate positive actions to reduce greenhouse gas (GHG) emissions and support local sustainable development. Collaborative planning, a form of ADR, is an important tool in meeting this societal challenge. ADR is one of the tools that can assist the Obama administration, as it has state and local governments, to develop policies and obtain social support for the change necessary to address global warming and reduce GHG emissions.
This newsletter is the first effort by the committees to advance the use of ADR mechanisms to foster solutions to the climate change challenge. We will be following up with a teleconference on Jan. 21, 2009 (see ad within for registration info) and another in June on climate change and ADR. Subsequent newsletters will report on lessons learned and on the methodologies and tools used by communities to arrive at a consensus for the future. We are also embarking on a public service project to assist communities with the use of ADR tools to foster sensitive, responsive, and climate-friendly planning. Please contact Edna Sussman at esussman@sussmanadr.com or Joe Siegel at jsiegel@law.pace.edu if you want to help or have any ideas for implementation.

The articles in this newsletter present a variety of scenarios that underscore the benefits of using ADR to facilitate climate change planning and decision making. The first article, ***Sustainable Westchester: A Case Study in a Community Collaborative Effort*** by **Edna Sussman**, of Edna Sussman Dispute Resolution and chair of the Alternative Dispute Resolution Committee, describes how one community, Westchester County, New York, created a county-wide Global Warming Task Force (GW Task Force) composed of stakeholders representing all of the major interests in the county. Sussman describes the steps leading to the creation of the GW Task Force, its mission, and the process by which the GW Task Force was able, in approximately one year, to educate itself and its stakeholders, develop and publicize an action plan, and work to implement the plan throughout the county.

Joseph Siegel, co-chair of the Climate Change, Sustainable Development, and Ecosystems Committee and Public Service vice chair of the Alternative Dispute Resolution Committee Committee, calls for local government action in ***Climate Change and Sustainability Action Plans: A Call for***

Climate Change, Sustainable Development, and Ecosystems Committee Newsletter
Vol. 12, No. 1, January 2009
Gabriel Calvo and Alan S. Miller, Editors

In this issue:

This newsletter is a publication of the ABA Section of Environment, Energy, and Resources, and reports on the activities of the committee. All persons interested in joining the Section or one of its committees should contact the Section of Environment, Energy, and Resources, American Bar Association, 321 N. Clark St., Chicago, IL 60654.

Collaborative Processes. Siegel describes how the Alternative Dispute Resolution Committee and the Climate Change, Sustainable Development, and Ecosystems Committee are jointly initiating a public service project to assist local governments interested in entering into collaborative projects to formulate climate and sustainability action plans. He provides links to many of the resources available to local governments and asks for those with experience in facilitation, mediation, and consensus building to join in the public service project on climate and sustainability action plans.

Environmental dispute resolution (EDR) professionals have been involved in professional activities related to climate change. **Ona Ferguson** writes about how agency staff and environmental conflict resolution practitioners joined together to discuss local, regional, and national implications of climate change. She outlines a set of steps that EDR professionals may take in the article ***Climate Change in the 21st Century: Implications for Practice in Environmental Dispute Resolution***.

As many of you are aware, we often see local opposition to new projects including those that provide environmental or sustainable development benefits. In ***Avoiding and Managing Community Opposition and Enabling Project Implementation***, **Stephen L. Gordon**, principal of Beveridge & Diamond, PC in New York City, describes how stakeholder involvement activities promote greater understanding of community and environmental concerns and how to plan effective community outreach. If done properly, as Gordon outlines in his article, community and stakeholder involvement projects enable better understanding of community concerns and needs, and often can develop greater support and understanding for the project. Stakeholder support can make a positive difference in the success of the project.

As **Kenneth A. Colburn**, an independent consultant, succinctly writes, "If ever there was an issue that could generate conflict, global climate change is it." In ***Constructive Conflict Resolution: Structuring Success in State Climate Action Planning***, Colburn points out the good news that, despite the many difficult issues and vast potential for conflict and

gridlock, there are significant technological and policy solutions already available and—with the assistance of organizations such as the Center for Climate Strategies (CCS)—he describes the constructive methods CCS employs to bring disparate interests together to develop effective climate change mitigation and adaptation policies. He describes how CCS, a not-for-profit organization specializing in developing stakeholder-based consensus driven planning processes for states, has found that disparate state stakeholders can come together in unanimous recommendations of the vast majority of climate action policies.

In ***Rising Waters: Improving Climate Change Preparedness in the Hudson Valley***, **Stephen C. Aldrich** describes how his company, bio-era, facilitated one effort to define and strengthen the Hudson River Valley's responses to anticipated global climate changes and develop climate change adaptation strategies. The first step was to lead stakeholders through a formal exercise to develop a set of four plausible scenarios for the future of the valley through 2030. Each scenario was a richly detailed, highly plausible future describing how the valley could adapt to climate change. These scenarios represented an introduction to the various influences driving climate change preparedness in the valley and become the point of entry and the foundation for deep and meaningful dialogue among stakeholders about the most difficult and complex social and economic problems.

When the Vermont Agency for Natural Resources (ANR) began to develop a statewide waste prevention and reduction strategic plan in 2007, they realized that neutral facilitation of the effort would be necessary to give citizens and groups with interest in and knowledge about waste prevention a voice in developing effective strategies. ANR also understood that neutral facilitation of the effort would be critical to its success. **Jeff Edelstein**, a principal of Edelstein Associates and a senior consultant with the Consensus Building Institute, describes this stakeholder consensus-based project in ***Making the Link Between Greenhouse Gas Emissions and Waste Management—Facilitating Stakeholder Involvement in the Vermont Waste Prevention Initiative***.

Gail Bingham, president emeritus of RESOLVE and a mediator of complex multi-party disputes for over thirty years, writes in ***Shared Learning May be Our Only Path through Seemingly Impassable Conflicts to a Sustainable Energy Future*** about how government leaders face difficult juggling acts when public policy decisions require the active engagement of stakeholders and involve complex scientific and technical issues. Climate policy, and the countless decisions that will be needed to implement that policy, will require investment in many collaborative tools. She examines the many collaborative approaches that have helped people deal with their differences in ways that yield productive outcomes. Public leaders, when faced with difficult scientific and policy issues, can be more successful if they understand the tools and strategies outlined in Bingham's article.

The last article, ***United States Climate Action Partnership: Creating a Consensus Policy Position on Climate Change Policy*** by **Kevin Bryan,** a mediator at the Meridian Institute, describes a stakeholder dialogue among the members of the U.S. Climate Action Partnership (USCAP). USCAP was formed to recommend the prompt enactment of national legislation in the United States to slow, stop, and reverse the growth of GHG emissions. USCAP members include utility, energy, manufacturing, consumer products, and financial services companies and leading non-governmental organizations focused on climate change. In January 2007 USCAP released its ***Call for Action*** (www.us-cap.org) to build consensus on national climate change policy. USCAP continues to deliberate and hopes to publish its consensus-based detailed policy recommendations in early 2009.

We thank all of the authors for contributing to this first newsletter on the intersection of environmental conflict resolution and climate change. We hope to have more collaborative efforts between the Alternative Dispute Resolution Committee and the Climate Change, Sustainable Development, and Ecosystems Committee and welcome any thoughts or suggestions you may have to help us in this collaboration.

SUSTAINABLE WESTCHESTER: A CASE STUDY IN A COMMUNITY COLLABORATIVE EFFORT

Edna Sussman

Responding to communities' need for guidance on how to foster sustainability and tackle global warming, a wealth of Web sites and manuals have been developed with concrete action step recommendations and real life examples of successful measures. A growing number of individual communities have developed and released instructive climate change/sustainability plans. Less however, has been written about the collaborative process that communities have and must undertake in order to develop a strategy and plan that gains wide acceptance and participation by all segments of the community: government, business, education, and the general citizenry. While each community will have to be cognizant of and responsive to its own unique power bases and motivators, it would be instructive to share experiences among communities in approaching collaborative planning for sustainability and global warming. This is the story of one community, Westchester County, New York.

Westchester County was blessed with a county government that was environmentally friendly and had undertaken many measures to improve the environment. Among many measures already adopted, the county had dedicated large sums for open space preservation, did not use pesticides on its beautiful county parks, had worked hard to get the county airport ISO 14001 certified, and lunched a concerted water quality campaign. But the necessary systemic approach to the issues facing the county through broad-scale sustainability planning that served to inform county and local governments as well as other segments of the community had not been undertaken.

Action for Tomorrow's Environment, a local not-for-profit organization, approached the county in 2004 urging the adoption of a sustainability resolution and the commencement of county-wide sustainability planning. (The letter is available at http://www.actionfor tomorrow.org/west_letter.htm.) The county legislature responded by asking that a task force be formed that could provide more details as to what was being proposed. The Sustainable Westchester Task Force (Sustainability Task Force) was formed and completed its work in early 2006 with the release of a comprehensive planning document outlining why sustainability planning was essential and proposing a structured process for community engagement and for the development of the plan. (The report is available at http://www.actionfortomorrow.org/docs/Sustainability_draft_032206.pdf.)

While the report was being prepared the Sustainability Task Force began the process of contacting and recruiting representatives from various segments of the community to elicit their support for and participation in the planning process so that the project launch would be quick and effective once the county was persuaded to start.

As they say, "timing is everything." Shortly after the completion of the Sustainability Task Force report, "An Inconvenient Truth" was released, a movie that had dramatic impact on so many, as was recognized by the Nobel Peace Prize that former vice-president Al Gore received. The Westchester County Executive, Andrew Spano, saw the movie and immediately moved forward with the creation of a county-wide Global Warming Task Force (GW Task Force). While the main focus was to be on global warming, sustainability was to be part of the mission. Such issues as water quality, so important in Westchester which is part of the New York City watershed, were to be included in the effort. The GW Task Force was launched in January 2007.

The GW Task Force mission was "to identify practical steps to reduce global warming and foster sustainable development, and to present this information in action plans and implementation strategies appropriate for all sectors of the community." The GW Task Force was asked to: (1) Update a six-year old GHG inventory, (2) Recommend an emissions reduction goal, (3) Develop action plans to achieve the goal, (4) Recommend a sustainable development program for Westchester, and (5) Develop a plan to monitor progress.

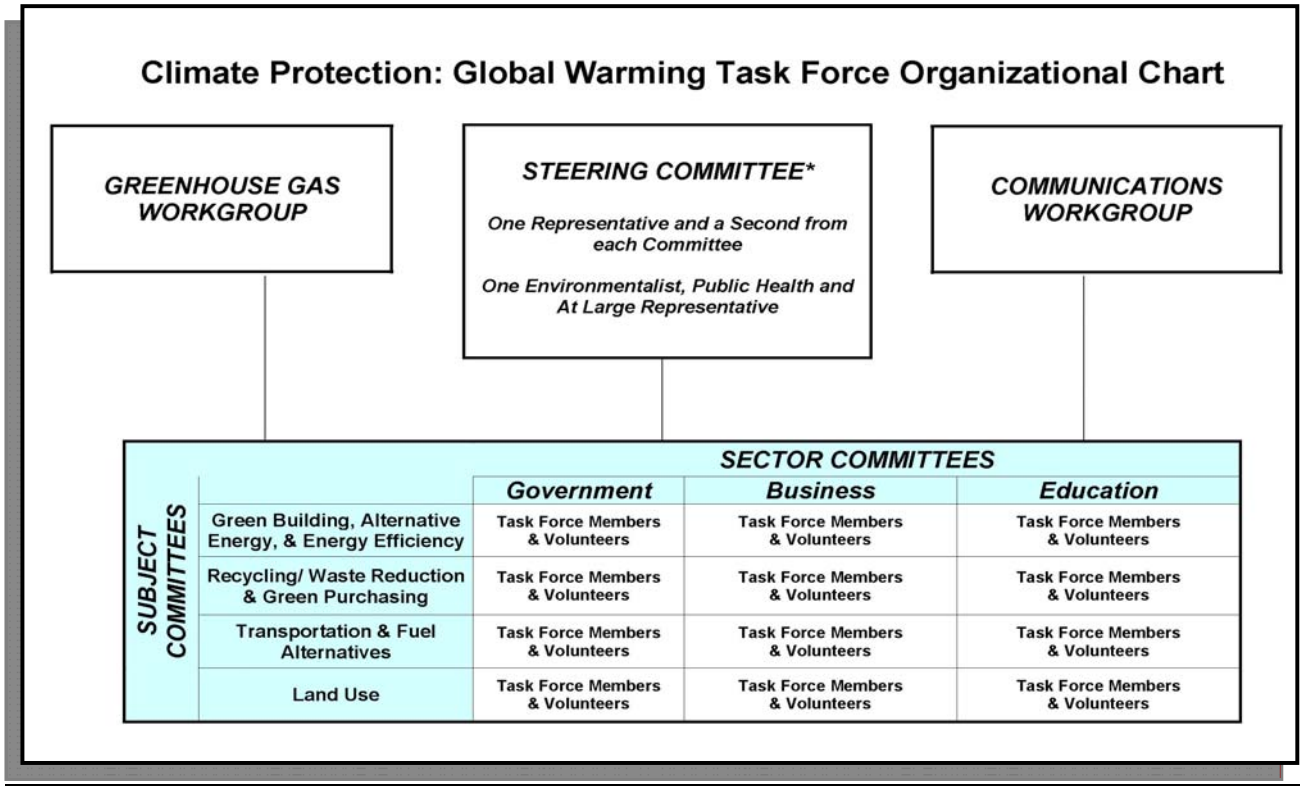

Figure 1

With the appointment of thirty-four members to the GW Task Force, the work began. These were not political appointments. Great care was taken to create a solid working group and select representatives to the task force who could provide both subject matter expertise and an ability to engage important constituent groups in the county. Maximizing the utilization of existing resources in the county was a priority. Local not-for-profits with relevant expertise, existing umbrella organizations such as the county business groups, the universities consortium, and the municipal officials association and leading community organizations were tapped for the effort. A county employee in charge of environmental matters and the supervisor of one of the municipalities were appointed to co-chair the GW Task Force.

As shown on the chart in Figure 1, the task force was structured to establish committees both by subject matter and by community sectors.

Three sector committees were created:
(1) Government—which included both county employees and representatives from the forty-three municipalities in Westchester; (2) Business—with representation from several of the businesses in the county as well as from the two major business organizations in the county, and (3) Education—with representation from the many institutions of higher education and K-12 in the county. The faith-based community and the general citizenry were included in this sector.

Four subject committees were formed with at least two representatives from each sector committee:
(1) Energy—which included energy efficiency, green building, and renewable energy; (2) Transportation and alternative transportation fuels; (3) Waste reduction, recycling, and environmentally preferable purchasing; and (4) Land use.

Two overarching committees were formed to work on the preparation of a county greenhouse gas (GHG) inventory and to work on the press relations and outreach that would be critical to the success of the effort. A steering committee with two representatives from each committee was formed. Following the introductory meeting, the GW Task Force was opened up to community volunteers who could join as GW Task Force associates. Many well informed community members joined in that capacity and provided invaluable input.

The county joined the ICLEI Cities for Climate Protection Campaign program and county employees were assigned the task of working with the task force and facilitating its progress. The county also employed the services of an outside consultant to assist in streamlining communications and helping to consolidate the work of the committees.

The committees' work began with a focus on the subject matter development of action steps to recommend in each area of concern. The recommendations developed by the subject committees were recorded on a common matrix used by all committees so that they could be readily reviewed by the sector committees and consolidated. Once the subject committees had completed their work, the recommendations were turned over to the sector committees to assess which action steps would be most suitable and practically and economically feasible for their constituencies to accomplish. Action steps were ranked by each sector in order of priority and strategies for implementation were developed. The county GHG inventory, which showed that 40 percent of emissions were generated by transportation, 35 percent by the residential sector, and 25 percent by the industrial sector, was considered in developing the final recommendations. Work began on developing resources for implementation for the Web site that would accompany the recommendations.

While many solutions related to buildings are common to all, different constituent groups have different characteristics and require the development of individualized action steps. Moreover, some can be expected only to improve their own operations while others have opportunities to influence others as well and should be encouraged to do so. Accordingly, the GW Task Force's goal was to prepare a program for each constituent group in the county, i.e., local government, K-12, universities, the faith-based community, citizens, and various types of business such as offices, retail, restaurants, hospitality, health care, and multi-nationals corporations.

The work of the GW Task Force launched in January 2007 culminated in the public release of the action plan in February 2008. The plan is available at http://www.westchestergov.comenvironment_globalwarming actionplan.htm. A full-day public event was held with many exhibitors and a series of sessions targeted to each sector so all can learn more about how they can contribute to this critical county initiative. Following the release of the action plan, each sector continued with outreach and implementation measures.

The Westchester effort provides one model of how a sustainability initiative can be realized. We invite you to share with us your experiences and provide other models for consideration by the many communities undertaking this work.

Edna Sussman *(esussman@sussmanadr.com), of Edna Sussman Dispute Resolution, is a litigator, mediator, and arbitrator serving on the panels of many of the leading dispute resolution institutions including the American Arbitration Association. She is the chair of the Alterative Dispute Resolution Committee of the ABA Section of Environment, Energy, and Resources, serves on the New York City Panel on Climate Change, served as the chair of the Sustainable Westchester Task Force, and served as co-chair of the Business Sector of the Westchester County Global Warming Task Force.*

CLIMATE CHANGE AND SUSTAINABILITY ACTION PLANS: A CALL FOR COLLABORATIVE PROCESSES

Joseph A. Siegel

We are at a defining moment in our nation's environmental movement. Actions we take on climate change in the coming years will determine the sustainability of our planet. There is growing recognition that the federal government must adopt aggressive mandatory measures to reduce our emissions of greenhouse gases (GHGs). In the absence of adequate solutions on the national level, states and local governments have been developing regulatory structures and policies to reduce emissions of GHGs. Some local governments have begun to formulate climate and sustainability action plans. Those of us in the conflict resolution field can use our skills to assist local governments interested in entering into a collaborative process to design and implement these action plans. To that end, the Alternative Dispute Resolution (ADR) Committee will initiate a public service project in conjunction with the Climate Change, Sustainable Development, and Ecosystems Committee, dedicated to furthering this effort, as described below.

There is a great opportunity for significant GHG reductions through measures well-suited for implementation by local government. They can adopt measures to change their infrastructure, for example, by installing energy efficient lighting in municipal buildings, requiring LEED standards for new government buildings, and implementing landfill methane gas management practices. They can also use traffic flow management systems to decrease emissions from motor vehicles, purchase hybrid vehicle fleets, and adopt anti-idling regulations.

Carbon dioxide emissions from the residential sector have grown an average of 1.5 percent per year since 1990, and grew by 4.4 percent in 2007 alone, *U.S. Carbon Dioxide Emissions from Energy Sources, 2006 Flash Estimate, Energy Information Administration (2007), available at* http://www.eia.doe.gov/oiaf/1605/flash/flash.html. In order to reverse the dramatic increase in residential GHG emissions, local government can support home energy efficiency improvements, smart metering, and distributed generation, and impose energy consumption restrictions on new home building.

In addition to infrastructure, transportation management, and residential GHG mitigation, other measures such as sustainable development and agriculture as well as smart growth can also be included in local action plans. These are but a few of the options that local government can consider in designing climate and sustainability action plans. The huge suite of GHG mitigation options and the diversity of interests within each town, village, municipality, and county suggests that neutrals, who can assist with collaborative processes, can perform a valuable service in the design and implementation of climate and sustainability action plans.

In addition to GHG mitigation efforts, many local governments are also interested in adopting climate change adaptation measures. They recognize that there may be some impacts that are already inevitable despite plans for aggressive climate change mitigation efforts. Adaptation measures can also be included in the action plans to address resources that will be stressed as a result of climate change. Such measures can address water supply management concerns such as low water supply during periods of drought, storm water management problems such as combined sewer overflows during extreme weather events, road operations, maintenance problems such as buckling and washed out roads from heat waves and unusual rainfall events, and shoreline erosion from rising sea levels. These concerns, along with other problems such as potential species and ecosystem losses, homeowner vulnerability, and agricultural damage, are but a few of the items that local government will have to consider in formulating adaptation plans.

As we go forward with efforts to assist local governments in designing and implementing climate change action plans using collaborative processes, we can draw on the experience of local efforts already underway. ICLEI Local Governments for Sustainability has established its Cities for Climate Protection to encourage municipalities to develop and implement

action plans for climate change mitigation. Each local government must analyze its GHG emissions levels, set a reduction target, and develop, implement, and monitor a local action plan, and report the results. Over 150 towns, cities, and counties in the United States already have joined. ICLEI partnered with Natural Capital Solutions to develop the *Climate Protection Manual for Cities (2007),* available at www.climatemanual.org. ICLEI, along with the Climate Impacts Group and King County, Washington, also developed a manual on local government adaptation, *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments, available at* http://www.cses.washington.edu/db/pdf/snoveretalgb574.pdf. In addition, the Center for Clean Air Policy has launched its Urban Leaders Adaptation Initiative on Infrastructure, Land Use, and Climate Change. *See* http://www.ccap.org/index.php?component=programs&id=6. Not only are there resources available, but there are excellent models for climate change action plans developed by cities such as Cambridge, Massachusetts, *Cambridge Climate Protection Plan (2002),* available at http://www.cambridgema.gov/~CDD/et/climate/index.html#plan, Marin County, California, *Marin County Greenhouse Gas Reduction Plan (2006),* available at http://www.co.marin.ca.us/depts/CD/Main/pdf/final_ghg_red_plan.pdf, Austin, Texas, *Climate Protection Plan (2007),* available at www.ci.austin.tx.us/council/downloads/mw_acpp_points.pdf, and Keene, New Hampshire, *Local Action Plan, Climate Protection, available at,* www.ci.keene.nh.us/planning/climateLAPSummary.htm. A model for sustainability was developed in Westchester County, New York, *Sustainable Westchester, A Community Partnership, A Model for Implementing a County-Wide Sustainability Plan* (2006), available at http://www.actionfortomorrow.org/docs/Sustainability%20working%20draft%20for%20circulation%203-22-06.doc.(*see Sustainable Westchester: A Case Study in a Community Collaborative Effort* in this newsletter by Edna Sussman, chair of the Sustainable Westchester Task Force). Westchester County later issued The Westchester Global Warming Action Plan 2008, available at http://www.westchestergov.com/environment_globalwarmingactionplan.htm.

To date, over 850 mayors, representing more than 80 million Americans, have signed the U.S. Conference of Mayors Climate Protection Agreement pledging to meet or exceed Kyoto Protocol GHG reduction targets. When one considers all of these cities, the local governments that have joined ICLEI, and the many towns, villages, cities, and counties that are considering taking action on climate change and sustainability, there is a growing need for assistance in facilitating design and implementation of climate and sustainability action plans. The ADR Committee, in collaboration with the Climate Change, Sustainable Development, and Ecosystems Committee, is initiating a public service project to provide such assistance to local governments. If you have experience in facilitation, consensus building, or other collaborative processes, and would like to join us in a public service project on climate and sustainability action plans, please contact Joe Siegel, at jsiegel@law.pace.edu.

Joseph Siegel *(jsiegel@law.pace.edu), is co-chair of the ABA Section of Environment, Energy, and Resources' Climate Change, Sustainable Development, and Ecosystems Committee and Public Service vice chair of the Section's Alternative Dispute Resolution Committee. He is a senior attorney with the U.S. Environmental Protection Agency, Region 2 and an adjunct professor at Pace Law School. The views expressed in this article do not necessarily reflect the views of the U.S. EPA.*

GETTING RENEWABLES PROJECTS BUILT: OVERCOMING THE BARRIERS, AVOIDING AND RESOLVING OPPOSITION AND DISPUTES

January 21, 2009
12:00 pm - 1:30 pm Eastern; 11:00 am - 12:30 pm Central; 10:00 am - 11:30 am Mountain; 9:00 am - 10:30 am Pacific

Please join us for this informative Webinar/Teleconference/Brown bag sponsored by the ABA Section of Environment, Energy, and Resources' Alternative Dispute Resolution Committee, Renewable Energy Resources Committee, Climate Change, Sustainable Development, and Ecosystems Committee, and others in collaboration with ACORE. You can join from your computer, your phone or at one of our 20 host cities.

The development of renewable energy requires massive new infrastructure deployment. Large-scale projects such as wind farms, concentrated solar installations, biofuels, and biomass thermal—and new electric transmission lines to serve those facilities—are needed. Opposition in a nation known for its NIMBY (Not In My BackYard) reaction to projects in the neighborhood and for its litigious culture can significantly delay or even block viable projects. The regulatory requirements of different agencies—often at several levels of government—can create obstacles that are often difficult to surmount. Construction problems can slow project implementation and drive costs up dramatically. The panel will discuss how the development of a public perception as to the many long-term benefits to society of renewable projects would be instrumental in facilitating the growth of renewables and how carefully designed processes can be utilized to overcome the barriers and avoid or minimize opposition, delays, and disputes that may arise.

Moderator:
Edna Sussman, Edna Sussman Dispute Resolution

Speakers:
Hon. Marc Spitzer, Commissioner, Federal Energy Regulatory Commission
Topic: *Getting America on Board*

David Nash, McMahon DeGulis LLP
Topic: *Coordinating the regulatory approval processes to streamline and achieve success*

Bart Cassidy, Manko, Gold, Katcher & Fox, LLP
Brad Campbell, Clean Legacy, LLC
Topic: *Developing a strategy to prevent and address local opposition*

Jeff Appelbaum, Thompson Hine LLP
Topic: *Negotiating contractual dispute resolution mechanisms that reduce construction delays and costs*

For registration and information: www.renewableenergyinfo.org

CLIMATE CHANGE IN THE 21ST CENTURY: IMPLICATIONS FOR PRACTICE IN ENVIRONMENTAL DISPUTE RESOLUTION

Ona Ferguson

Communities around the world face questions about climate change and its local and global implications. Agency staff and environmental dispute resolution (EDR) professionals have unavoidably entered this discussion. At the May 2008 U.S. Institute on Environmental Conflict Resolution Conference in Tucson, Arizona, approximately forty-five agency staff and environmental conflict resolution practitioners joined together to discuss the local, regional, and national implications of climate change and to view those aspects through the lens of EDR and to consider how the field might be of service.

Ric Richardson of the University of New Mexico, Michael Elliot of the Georgia Institute of Technology, and Ona Ferguson of the Consensus Building Institute led the session. They began by presenting examples of ways mediators and other collaborative leaders can help advance knowledge and collaborative solutions to issues related to climate change at a national, regional, and local level.

Participants then broke into smaller groups. These small groups focused on efforts within the United States and discussed two questions at a national, regional, or local level: (a) the characteristics of conflicts likely to emerge as a result of climate change, and (b) the conditions that will need to be in place to manage and resolve conflicts and to support collaboration. The following are the summary points from each breakout session:

A. National policies and programs. This group considered the development and implementation of federal policies or regulations and the creation of nation-wide collaborative efforts and institutions. They concluded that a new system is needed to encourage collaboration that is based on a systems approach, new paradigms, and a new way of seeing. New leaders are needed, and a huge commitment and culture change will be required from leaders at all levels and in all sectors if we are to address these challenging issues. Finally, though it often seems overwhelming, taking action to address issues related to climate change will be beneficial: religious communities will feel that they are fulfilling ethical obligations, many business sectors will reap economic benefits, and there are political benefits for those willing to take up leadership roles.

B. Regional initiatives. This group discussed regional challenges related to climate change, which they said are characterized by geographic or climate-type regimes, such as interstate water resources, coastal and arid landscapes, and temperate climate regimes. They determined that a primary challenge will be the cross-jurisdictional nature of the problems, interests, legal rights, and political power. The group identified a need for new organizations that match the regional nature of the landscape (which mimic watersheds, transportation systems, etc.). They recommended creating incentives for organizations and leaders to collaborate regionally, and noted that the field of EDR has the opportunity to pilot innovative approaches to regional collaboration then share best practices.

C. Local actions and demonstration projects. This group reviewed initiatives such as greening cities, food production and safety, land conservation, and local resource management. Participants stated that local problems and opportunities related to climate change are exacerbated by inter-jurisdictional issues, including boundaries concerns, overlapping resource regimes, and economic and market boundaries for purchasing local goods and resources. They identified a need for deeper understanding of the necessity and opportunity for local action and leadership in the context of climate change. They agreed that we all must plan for a transition from the status quo (such as the way we grow and distribute food) to future models of action (buy and eat locally and regionally).

At the end of the session, participants suggested steps that EDR professionals should take:

- Nurture new leaders by teaching elected officials collaborative leadership skills.
- Create a database of those in the U.S. Institute for Environmental Conflict Resolution's network working on climate change-related issues and projects.
- Hold topical forums and discussions about interrelated issues in the context of climate change.
- Connect to other national organizations that engage in collaborative initiatives in climate change, such as the Policy Consensus Initiative or Deliberative Democracy organizations.
- Join with other experts working on issues of climate change and policy science.
- Ask the Environment and Public Policy section of the Association for Conflict Resolution (EPP) to set the goal of carbon neutrality for the June 2009 conference in Denver, Colorado, or to commit to make the conference as green as possible.
- Ask the U.S. Institute for Environmental Conflict Resolution to convene a climate change dialogue, discussion, or working group.
- Make connections to leading work already underway in research universities.

The following day, a plenary lunch featured speaker Jonathan Overpeck, of the University of Arizona and coordinating lead author for the on-going Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment, who shared current data on climate change and its anticipated impacts. The EPP conference scheduled for June 11-13, 2009 in Denver, Colorado, will focus on climate change.

Ona Ferguson *(oferguson@cbuilding.org) is a senior associate at the Consensus Building Institute in Cambridge, Massachusetts.*

AVOIDING AND MANAGING COMMUNITY OPPOSITION AND ENABLING PROJECT IMPLEMENTATION

Stephen L. Gordon

Many proponents of projects view community stakeholders solely as potential problems, and are consequently leery of engaging with local interest groups and active individuals. Even clean energy projects, like wind farms or solar photovoltaic systems, have met with opposition. A thorough understanding of the concerns, needs, and positions of community stakeholders can be a powerful tool in building support for a project among community members and among interested and involved local governmental bodies. Developing and maintaining good contacts in the community, among community members and governmental bodies, will also provide you with valuable information in planning the project and preparing your client for possible complications.

This article presents an overview of community outreach planning and implementation. Of course, the features of a particular project or community may change your strategy and the value of certain elements of your plan.

The first step in effective community outreach is to identify the stakeholders with a potential interest in your project proposal. Conduct Internet research using keywords for the neighborhood, the region, and potentially affected resources, in order to identify organizations formed to protect or improve those areas. Collect names of locally active organizations and people from the project proponent and the consultants working on the project. Likewise, ask local government officials and employees for active stakeholders, once you have established ties with local government. If necessary, hire a public relations firm or other consultant familiar with local politics and stakeholder groups.

It is also critical to identify and engage a broad spectrum of local political decision makers. Identify the majorities and interest groups within local governmental bodies, including those without direct

jurisdiction over the project; the relationships among all local governmental units may be important to building support for your project within a particular body with jurisdiction. Also, obtain an understanding of the dynamics and relationships between local governmental bodies and community members and groups, who may have influence over particular officials. In your engagement with local governmental bodies, try to obtain early public statements of support from public officials: such statements can generate support in the community or coordinate governmental bodies, or lessen initial opposition to the proposal.

Plan your timing and the sequence of community outreach efforts carefully. Your project proposal should be well defined before performing outreach, so that your presentations will be clear and consistent over time. Meet with local government officials first, and provide them with information necessary to respond to questions from community members. If possible, conduct important community and governmental meetings before filing applications for the project.

Your meetings with community stakeholders should be well planned, and you should be prepared to discuss a number of points in detail. At the initial meetings, present a reasonably detailed project plan, including the necessary permits and approvals, and provide contact information for ongoing communication. Be sure to highlight all of the benefits that the project will or may bring to the community, particularly those that might otherwise be overlooked. For energy-related projects, be prepared to explain in clear and simple terms the benefits of your project within the context of energy markets, as discussed below. Be prepared to discuss the project's potential impacts, both environmental and socio-economic, as well as related avoidance or mitigation measures, in detail.

At your community meetings, be factually accurate on all points, and acknowledge any unknown features in the project plan. Solicit feedback, and demonstrate that you understand the nature of any concerns expressed by stakeholders. Be careful to make only those promises and representations that the project and your client can honor.

On energy projects, particular topics of concern will require your careful preparation, and you should be prepared to explain complicated economic and ecological dynamics in simple terms. The potential climate change benefits of new fossil fuel generation plants can be difficult to grasp, so be prepared to explain in simple terms how new energy infrastructure can create carbon efficiencies. For instance, new plants are more efficient than older plants, and new plants meeting local demand can reduce transmission losses. New plants added to meet increased demand are usually adding capacity only for peak-demand generation, so their addition of total generating capacity may only be realized for very short periods. During off-peak periods, a new plant may displace less efficient generation, potentially reducing the region's total carbon emissions. If possible, provide reasonable estimates of carbon emission reductions attributable to the new plant to help community stakeholders understand the project's potential carbon emissions benefits.

Investigate and identify any of the community's needs, even those not directly related to potential project impacts, that the project proponent can meet or improve. Community resources such as schools, fire and ambulance companies, and community centers may be in need of support or improvement; determine whether the project proponent can support such community resources on a long-term basis. If the proponent is willing to consider such support, work with community stakeholders to formulate a proposal for the project proponent's support of community resources, possibly to be incorporated in land use approvals.

Also consider whether community concerns can be addressed with modifications to project plans. Some community concerns may be meaningfully addressed with relatively minor changes to the project. Be sure to clearly communicate to stakeholders any modifications to the project that are adopted in response to community concerns.

After your initial meetings, maintain contact with community stakeholders. Advise stakeholder representatives of major milestones, such as the

availability of significant reports, filing dates, and permits or certifications obtained. Consider creating a project Web site with up-to-date information on the project applications' status, and contact information for feedback. Don't rely on stakeholders' party or intervenor status to provide them with all information relevant to the project's status.

Expect opposition to the project, and prepare for certain community stakeholders to adopt positions adverse to the project proposal. Work to understand the nature of stakeholders' opposition, particularly as expressed in early communications. With that in mind, craft the project's applications and other materials to clearly address points of opposition, and prepare regulators and other involved government officials with information responsive to points of community objection. The project proponent may also consider (again) whether any project changes could be made to satisfy community concerns and lessen or eliminate opposition. In your ongoing contact with community groups and coordination with governmental bodies, identify particular sources of entrenched opposition, and isolate them by focusing your communications and information-sharing with responsive community members.

Stakeholder submissions in ongoing proceedings will also determine the nature of potential future administrative appeals or legal challenges, and help you to plan a long-term strategy for such challenges. Keep project proponents and financiers up to date on the status and nature of community opposition, and the risks of administrative or legal challenges. If possible, plan the project's funding and construction around the timeframes of potential administrative or legal challenges.

Your efforts to understand and communicate with community stakeholders, and to support community needs, may be rewarded with a general tide of support for your project. That support can make a concrete difference in the progress of the project, affecting everything from the turnaround time for governmental review to the likelihood of full project approval.

Stephen L. Gordon *(sgordon@bdlaw.com) is a principal of Beveridge & Diamond PC in New York City. His practice includes providing legal services to local government, energy, real estate development, natural resource, manufacturing, and waste management companies in all aspects of environment and land use law.*

CONSTRUCTIVE CONFLICT RESOLUTION: STRUCTURING SUCCESS IN STATE CLIMATE ACTION PLANNING

Kenneth A. Colburn

If ever there was an issue that could generate conflict, global climate change is it.

It's an issue that cuts across all geographic, national, economic, industrial, social, race, and cultural lines. There are vastly differing degrees of climate change causality, vastly differing technological capabilities to respond and abilities to pay, and there will be vastly differing scales of climate change impact, potentially even including a few "winners." Add to this the inescapable fact that solutions are urgently required, and you have a circumstance that cries out for conflict resolution.

The good news is that there are significant technological and policy solutions already available and awaiting widespread implementation, and more are in the pipeline. More importantly, many U.S. states have found both the political will to address climate change and—with the assistance of the Center for Climate Strategies (CCS)—have found constructive ways to bring disparate interests together in the development of effective mitigation and adaptation solutions.

CCS is a not-for-profit organization which has specialized in planning, structuring, facilitating, analyzing, quantifying, and ultimately implementing stakeholder-based, comprehensive, consensus-driven climate mitigation and adaptation planning processes for governors and executive branch agencies in U.S. states. Since 2004, CCS has worked with almost thirty

states, developing climate mitigation and adaptation action plans through a process that is carefully and purposefully structured to overcome conflicts, achieve consensus, and avoid surprises. In the course of developing these plans, three purposes are served: (1) stakeholders produce a set of quantified, workable recommendations that reflect policy options determined by and for the citizens of the state (rather than foisted upon the state by outside partisan interests or consultants); (2) stakeholders build working relationships that can help break down barriers and build political support for implementation of the consensus recommendations that evolve out of the process; and (3) taken as a whole, the process creates a safe, depoliticized, and deliberative context for executive and legislative decision making that can be far more effective than traditional, adversary-based policymaking processes.

Once this safe political context is created, we get to work with stakeholders. The best way to avoid disputes, of course, is to prevent them from occurring in the first place, or at least reducing the likelihood that they will occur. CCS takes this tack in framing the "what," "who," and "how" of each state process: working with the governor to identify and specify the tasks and issues to be addressed, and then applying a carefully structured process reflecting broad inclusiveness concerning sectors, stakeholders, policy options, and implementation mechanisms.

"What"

Carefully delineating the issues to be addressed and tasks to be accomplished in a climate planning process can avoid many of the stumbling blocks that have traditionally interfered with climate policy development. Opponents to action, for example, often cite the "scientific debate" about climate change, even though there is very little genuine debate at this point about anthropogenic contribution to Earth's warming. Such diversions can be readily overcome in the initial framing of the process. A governor's executive order initiating the planning process, for instance, may stipulate that the scientific questions have been adequately addressed and the time has come for action. Alternatively, a governor may indicate that while some questions remain, the purpose of this process is nevertheless to identify, characterize, and aggregate those climate policy options best suited to the state. With careful delineation, predictable attempts to derail the governor's intent can quickly be ruled out of order.

Two other key components of "what" include what policy options are to be considered, and by what mechanisms they might be implemented. The guiding principle CCS applies is that unless otherwise specified in the governor's executive order, nothing is "off limits." CCS achieves this universality in two stages: First, it brings to the convened stakeholder group an exhaustive "catalog" of policy options reflecting measures that have been implemented by or considered in other states and jurisdictions. This catalog covers actions of all types across all sectors, and typically numbers 300-400 options. Then, as its first task in the structured process, the stakeholder group is called upon to add—in a "blue sky," uncritical manner—any additional policy options that it believes are missing from the catalog. In this way, the stakeholder group can be satisfied that its starting point reflects the genuine "universe of options" open to the state. Another benefit accrues as well: the "universe" expands as the additions from one state's stakeholder group make for an even more comprehensive catalog for the next state's consideration.

Deliberation of implementation mechanisms hinges, of course, on the specific policy options being considered, so this issue follows the stakeholder group's identification of priority policy options for further analysis. The starting point for implementation mechanisms, however, echoes the breadth of the catalog. All implementation options are initially on the table, including voluntary and/or negotiated agreements; funding mechanisms and incentives; market-based mechanisms; regulations, codes, and standards; technical assistance, information, and education; pilot programs and demonstration projects; research and development efforts; and other approaches.

"Who"

Inclusiveness with respect to both sector and stakeholder breadth also avoids dangerous pitfalls. To date, for instance, most discussion of greenhouse gas

(GHG) emission reductions has focused on the electric power sector. Electricity generation represents only about one-third of U.S. GHG emissions, however, leading electric power companies to understandably question why equally harmful GHG emissions from other sources aren't also on the table. Including *all* major sectors in a state climate planning process overcomes this concern by enabling consideration of all GHG emissions from all sources. This in turn allows the power sector to contribute its ideas and information, rather than circling the wagons defensively. In its work with the states, CCS' mitigation processes typically incorporate five broad sectors: energy supply; residential, commercial, and industrial energy demand; transportation and land use; agriculture, forestry, and waste management; and cross-cutting issues such as emission reductions goals or targets, emissions inventories and forecasts, and public education and outreach. Sector divisions for adaptation processes are far more dependent on states' specific circumstances, and thus vary more greatly.

Breadth is equally important with respect to the individuals selected to participate in the stakeholder process. It is not uncommon to see industry and environmental interests represented in policy planning or regulation negotiation ("reg-neg") efforts. But the effects climate change is having and will have on our society are so wide-ranging that planning processes are better served by incorporating the experience, perspective, and wisdom of a far broader set of people. CCS assists governors and agencies in identifying prospective stakeholders by suggesting nearly fifty types of individuals that they may wish to consider, including builders and manufacturers, healthcare professionals, educators and academics, municipal officials, farmers and ranchers, extraction industry professionals, banking and insurance professionals, automobile dealers and fleet operators, high technology professionals, legislators, retirees, and just plain citizens, among others. CSS typically recommends that the stakeholder group number of twenty-five to thirty-five, big enough to be broadly representative, but small enough to function effectively. Importantly, though they come from all walks of life, stakeholders are generally appointed as individuals bringing specific knowledge and expertise, not as representatives of specific companies or industries. The idea is to bring to the table the collective wisdom born of a broad array of life experiences within the state, not to create a pseudo-legislature of constituent representatives.

"How"

Consensus-building in stakeholder self-determination of climate policy recommendations is best served through a clearly understood purpose, a thoughtfully structured process, and a set of common, transparent methods, data, and assumptions. As noted above, the governor's executive order specifies the group's purpose, and CCS' structured process inherently incorporates and embodies the latter element. This starts even before the stakeholder group first meets, with the development of a comprehensive GHG emissions inventory and forecast for the state.

Often a generic GHG inventory has been developed, but CCS sources state agencies, utilities, and others to develop state-specific inventory data to the greatest extent possible. It then applies projections of population, industrial, and other anticipated changes to develop a forecast of future GHG emissions looking out 12-15 years in detail, and often for longer periods with less resolution. This draft product is transparently shared with the stakeholder group and its sector-based technical work groups so that it can be refined and improved through the benefit of their direct local knowledge. Consistent with self-determination, the final inventory and forecast is among the policy cornerstones approved by the stakeholder group.

The second step in the process—the development of a full range of possible policy options—was described above. The revised "catalog" of policy options is then screened by sector-based technical work groups (TWGs) of the stakeholder group, and priority options for further analysis are identified using the criteria of cost or savings, degree of emission reduction, feasibility issues, and any ancillary co-costs or co-benefits. (The screening of policy options in adaptation processes is much more complex because adaptation impacts and potential policy responses vary greatly state-to-state by geography, population, infrastructure,

economy, culture, and other factors. Understanding of climate change impacts and appropriate adaptation responses is rapidly evolving in U.S. states and, indeed, globally.) Once the recommended priorities are approved by the stakeholders, "straw proposals" characterizing each priority policy with reasonable specificity are developed. The detailed "straw proposals" must also pass muster with the stakeholder group. They then become the basis for quantifying the costs (or savings) associated with implementation, as well as the GHG emission reductions that would be expected to result.

In the course of this quantification, common assumptions are applied for such universal factors as the period of evaluation and the discount rate, and then policy-specific methods, data, and assumptions are applied. The results of recent, independently adopted policies in the state are also considered. These factors are articulated transparently using clear, concise templates for each policy option, and stakeholders are encouraged to offer improvements and/or revisions wherever appropriate. Externalities and feasibility issues are also considered and characterized in the policy option templates.

The crystallization provided by quantification can illuminate differences of opinion among stakeholders, of course, so efforts are then made to identify alternatives that can enhance consensus. This process is iterated until consensus is maximized, and remaining objections—if any—are noted. The final policy option results approved by the stakeholder group are then aggregated. Any double-counting that may exist between sector-based options is eliminated, and the collective results are compared to the original "business as usual" GHG forecast as well as any emission reduction goals or targets that may have been specified prior to or developed as part of the stakeholder process. The background, inventory and forecast, priority policy options, and quantification results are then summarized and assembled in a final report of recommendations to the governor from the stakeholder group.

The overall process benefits greatly from: (1) the repeated iterative reviews associated with policy identification, selection, and quantification by stakeholders and the shared learning and relationship-building that occurs as a result; and (2) the use of flexible balloting procedures to screen and identify recommended priorities and the practice of assessing stakeholder approval through the expression of objections, which more effectively reveals genuine concerns and the bases thereof.

Consensus within the stakeholder group on individual policy options is typically characterized at three levels: unanimous consent, a super-majority (generally five or fewer objections), or a simple majority. Policy options that do not secure even a simple majority, of course, are not included among the recommendations of the stakeholder group.

Conclusion

Addressing global warming presents a multitude of difficult conflicts and disputes. In at least some cases, however, these difficult challenges can be met through thoughtfully structured, comprehensive, stakeholder-based, consensus-driven processes. In fact, CCS' experience shows that through transparency, shared learning, and iteration in such processes, extraordinary outcomes are achieved. Specifically, CCS has found that disparate state stakeholders typically come together in unanimous recommendation of the vast majority of climate action policies (85-100 percent). Further, the GHG reductions attributable to these policies could dramatically reduce "business as usual" GHG emissions, typically meeting or exceeding any specified goals or targets. Finally, and perhaps most significantly, the implementation of the state stakeholders' recommendations would typically provide substantial economic savings in the state.

Plans, of course, aren't emission reductions; much work remains in terms of adoption and implementation. Follow-on analyses in terms of macro-economic interplay, distributional effects, and jobs impacts are often in order. But these state initiatives certainly illuminate a constructive path forward, one that taken collectively could apply equally effectively at the federal level. Were this to occur, it would represent merely the latest chapter in the history of the states'

groundbreaking environmental leadership in advancing U.S. federal environmental policy.

Kenneth A. Colburn *(kcolburn@symbiotic strategies.com), an independent consultant, has co-led several state climate action planning processes with the Center for Climate Strategies and has provided strategic assistance to foundations, companies, and organizations in their efforts to address climate and energy issues*.

RISING WATERS: IMPROVING CLIMATE CHANGE PREPAREDNESS IN THE HUDSON VALLEY

Stephen C. Aldrich

"Generally speaking, the first nonviolent act is not fasting, but dialogue." *Hildegard Goos-Mayr*

When George Bernard Shaw wrote "The problem with communication . . . is the illusion that it has been accomplished," he perhaps unwittingly summarized a major challenge facing those who try to solve the most vexing kinds of social problems. By their nature, such problems reflect collisions between diverse social and economic interests with highly divergent views and perspectives on the cause and character of what is at issue, and the consequences that flow from there. Climate change is a good example. In principle, everyone is affected, and thus everyone has a legitimate interest. But as so aptly illustrated by the six blind men asked to describe an elephant based solely on a part they were holding—ear, tusk, trunk, leg, tail, or belly—we are very unlikely to agree on the nature of the beast if we cannot all see the same big picture.

This article briefly describes one effort aimed at accomplishing this essential first step in a project aimed at strengthening the Hudson Valley's adaptive capacity and preparedness to anticipated changes in the global climate. The "Rising Waters" project was organized as a collaborative, multi-stakeholder effort to identify and recommend climate change adaptation strategies for the Hudson Valley. My company, bio-era, was hired to facilitate this process. Our first step was to lead a diverse group of stakeholders through a formal exercise in developing plausible scenarios for the future of adaptation to climate change in the Hudson Valley. By taking the group through this methodical, sometimes tedious, and sometimes contentious process, we consciously sought to build a shared conceptual vocabulary among the participating stakeholders—a "lingua franca," if you will, of common meaning around the current and potential future problem of adapting to climate change. Our belief is that sharing a foundational understanding is an essential requirement and backdrop for enabling productive dialogue and the reasoned evaluation of proposed solutions.

The seeds of the formal techniques of scenario planning were originally planted at Rand Corporation in the 1960s, and were subsequently brought to fruition by Pierre Wack and Ted Newland in the 1970s while colleagues in Group Planning at Royal Dutch Shell. Although this form of scenario planning originated in the energy industry, it has been widely adopted in many industries, and adapted for use in a variety of social contexts. According to a recent survey, nearly one-third of the Fortune 500 companies now use formal scenario-planning techniques.

The process seeks to formally distinguish what is known from what is unknown, and to identify and understand key uncertainties whose resolution could dramatically determine future outcomes. Scenarios are not predictive, and scenario thinking is not an attempt to forecast the future. Though models of linkages, trends, and projections may be used to develop scenarios, long-term futures are fundamentally resistant to meaningful forecasts.

According to Peter Schwartz, one of the pioneers of scenario techniques, "good scenarios are both highly plausible and surprising, with the power to break old stereotypes, and forge a shared understanding of a deep reality." Building scenarios teaches us about the present, while opening us up to future possibilities.

The methodology requires setting a time horizon (in our case through 2030), and then proceeds by asking that we identify the most important elements of the system

in question. In this instance our focus was the enormously complex integration of human communities and natural systems within the Hudson River watershed, which we needed to understand to contemplate proposals for action directed at strengthening the Hudson Valley's preparedness and adaptive capacity with respect to future climate change impacts. This, to use Ted Newland's language, was our "problematique," and our method began with deconstructing the "system under consideration" into four categories:

1. Predetermined Elements
2. Driving Forces
3. Prime Movers
4. Major Uncertainties

Our Rising Waters project identified long lists of candidates for membership in each category, and the group eventually whittled them down to a handful that the majority agreed were the "most important" finalists:

Predetermined Elements—*Things we know will be true for all plausible future scenarios*

- Global Climate Change Impacts (i.e., increasing temperatures, rising sea levels, etc.)
- Strong Hudson River Valley linkages to New York City
- Fragmented government responsibilities with respect to climate change preparedness
- Aging public infrastructure

Driving Forces—*The most important forces influencing the problem over the long-run*

- Land-use decisions in the Hudson River Valley
- Oil prices
- The "greening" of the economy
- Rising tension between private rights and social responsibilities

Prime Movers—*Those institutions, groups or persons whose decisions and actions are most critical*

- Local governments
- Media
- Real estate developers
- Hudson Valley railroads
- Educational and religious institutions
- New York City

Major Uncertainties—*The key questions around which scenario outcomes are often structured*

- How much gets done to prepare for the impacts of climate change?
- What will be the character of the preparations? (e.g., to what extent will preparations work in concert with changing natural systems?)

Following identification of the scenario elements above, individuals were encouraged to write up imaginative scenario sketches using the elements as the major features of their stories. A remarkably wide array of narratives emerged—as diverse in content, tone, and character as the individuals writing them. This creative exercise also resulted in a common vocabulary and understanding, and exposed all the participants to the many difficulties and pitfalls in scenario development. It created plausible stories about the future that respect the importance of all of the scenario elements. Through this process, participants were building a common understanding around what was most important and uncertain regarding the future of adaptation to climate change in the Hudson Valley.

To narrow down the possibilities, bio-era gathered together the best of this creative work, and with the help and guidance of a Scenarios Team drawn from the larger stakeholder group, organized a formal framework to guide the creation of a final set of four scenarios. Although there are many ways to organize scenario thinking, in this case we did so by ordering our scenarios around different combinations of answers to our two Major Uncertainties. This led to the graphic guide in Figure 1 producing four scenario outcomes.

Meanwhile, the stakeholder participants self-organized into seven "Working Groups" aimed at learning more about key aspects of the problem and potential strategies and responses that might increase the valley's adaptive capacity. These groups (Ecosystems, Infrastructure, Government, Communications and Community Impacts, Agriculture, Technology and Economics, and Climate Information) also served as

Climate Change in the Hudson Valley:
Structuring Scenarios

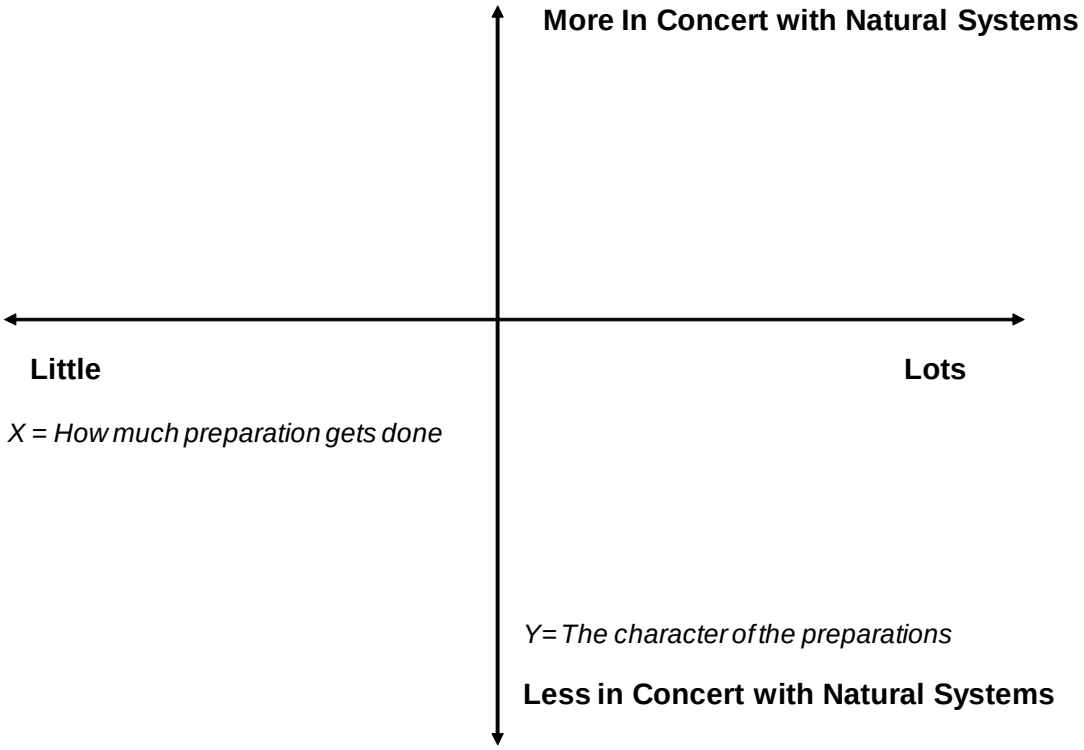

Figure 1

independent experts supporting the Scenarios Team and the development of the final scenarios by fact-checking drafts and strengthening their plausibility by adding real-life details and examples.

In the end, the group developed a set of four very different, richly detailed, highly plausible scenarios describing possible adaptation to climate change in the Hudson Valley, which reflect the learning across the group about our understanding of the future challenge. The scenarios build on learning within the group and thus are not easily accessible to those standing outside. Nonetheless, the scenarios do serve powerful pedagogical purposes—both inside and outside the community of participants.

For the insiders, the scenarios are first and foremost a portfolio of plausible futures for testing ideas and proposals for action. In the end, they are the backdrop against which proposed recommendations for actions will be judged and evaluated. They enable us to systematically think through and evaluate how a given action will perform (or "return") across a range of different plausible futures. In this regard, we often speak about the relative "robustness" of proposed response strategies. If they are highly robust, it means they perform well in three or four of the scenarios.

For outsiders, the scenarios represent an introduction to the dynamics driving the future preparedness of the valley to meet the challenges of climate change. They are both the point of entry, and an invitation to engage in becoming part of the solution. The scenarios and the story of how we arrived at them, can serve as a guide to a foreign language—a language that, once understood and shared, empowers individuals to join in the dialogue with the confidence that they will be heard and understood. The careful forging and sharing of this scenario language can create a powerful foundation for deep and meaningful dialogue among stakeholders, even for the thorniest and most complex of social and economic problems. It's true that it requires a substantial investment of time, effort, and expense at the front end of an effort to address a problem; but

without it, you are much more likely to end up where George Bernard Shaw started us off—with just the illusion that meaningful communication has happened at all.

Stephen C. Aldrich *(saldrich@bio-era.net), is the founder and president of Economic Research Associates, bio-era (http://www.bio-era.net), a leading provider of independent research and advisory services on the economic and societal impacts of human-induced change to biological systems. Before starting bio-era, Mr. Aldrich managed the development of the natural gas practice at CERA (http://www.cera.com) for 15 years, working with senior management teams on strategic and scenario planning. In 1978, he earned a graduate degree in evolutionary biology from Harvard.*

June 2009 Conference on Climate Change, Collaborative Governance and Environmental Conflict Resolution

On June 11-13, 2009, the Association for Conflict Resolution's Environment and Public Policy Section and the University of Denver's Conflict Resolution Institute will co-host a conference in Denver, Colorado, focusing on ways to help local communities, regions, states, and national governments confront the vulnerabilities and challenges—as well as leverage the opportunities—associated with global climate change. Presenters and participants will include leading practitioners of environmental conflict resolution, collaborative governance, and deliberative democracy; leaders from the business and public/non-profit communities; scientists; and elected officials and staff from all levels of government. Conference goals include sharing of knowledge, lessons learned, and transferable models, and exploration of innovative new strategies to further the use of consensus-building, collaboration, and conflict resolution to address climate change. The gathering is intended to serve not just as a stand-alone event, but also as the foundation and catalyst for establishing new collaborative efforts to address this global imperative.

For more information, go to www.du.edu/con-res/center/June2009ConferenceEPP.htm.

MAKING THE LINK BETWEEN GREENHOUSE GAS EMISSIONS AND WASTE MANAGEMENT—FACILITATING STAKEHOLDER INVOLVEMENT IN THE VERMONT WASTE PREVENTION INITIATIVE

Jeff Edelstein

Introduction

Through the hard work of more than one hundred stakeholders over the course of a year, the state of Vermont has developed a comprehensive Waste Prevention Strategic Plan, establishing a vision and a set of twenty-nine specific strategies to reverse the steadily increasing rate of waste generation. The use of facilitation to guide this complex effort was an essential element in creating this consensus-based plan. As one participant put it, "without a consistent and professional facilitator, the process would have gone in circles."

Background

Ask most people about how to reduce the generation of greenhouse gases (GHGs), and they will likely talk about increasing vehicle fuel efficiency, developing renewable energy sources, creating more efficient appliances, and improving building energy efficiency. It is the rare person who mentions reducing the amount of waste we generate. Sure, waste is a problem, but not one that affects global warming, right?

Wrong—massive amounts of energy are required to handle and dispose of the mountains of waste produced by our society: every day a fleet of nearly 180,000 trucks takes to our nation's roads collecting, processing, transporting and disposing of our garbage, spewing thousands of tons of carbon dioxide. This is more than twice the number of urban transit buses on the roads—82,600 buses.

So, the answer is to promote more recycling, right? Wrong again. Although recycling helps, still over 30,000 of the waste trucks that are on the road spewing GHGs are moving recyclables—if we recycled 100 percent of our waste, there might be just

as many, if not more, trucks on the road. And not to mention the energy needed to process recyclables and the fact that many materials are only recycled once, because the final products are unable to be recycled again.

More importantly, the waste aspect is representative of a larger problem: it's not just the energy used to dispose of the trash that has an impact, it's also the energy consumed at every stage of a product's lifecycle: from raw material extraction, to manufacturing of products and packaging, to transportation, to the energy used to light and heat the seemingly ever-increasing number of stores to sell these products.

Efforts are underway around the world to shift from a mind-set of waste management to one of resource or materials management, looking holistically at the entire product lifecycle and seeking ways to reduce material and energy use at multiple points. This approach is sometimes referred to as "cradle-to-cradle" or "product stewardship"—the concept that all parties involved with products (extractors, manufacturers, retailers, and consumers) must play a role to minimize the negative impacts of those products.

Waste Prevention

Some readers may be familiar with the commonly used hierarchy of waste management: reduce, re-use, recycle, dispose. The highest priority—reduce—is often overlooked. Waste reduction, or as we will refer to it here, waste prevention, rests on the concept that preventing the generation of waste in the first place is the most effective tool for minimizing environmental impacts. Waste prevention techniques range across a broad spectrum:

- Reducing the use of disposable products
- Reducing packaging
- Designing packaging to have functional uses
- Designing products for greater durability
- Designing products and manufacturing methods to minimize waste in the manufacturing process
- Increasing the use of rented, leased, or shared equipment (either personal or business)
- Using building designs and construction techniques that decrease construction waste
- Optimizing food storage methods and surplus food usage
- Reducing overall consumption habits

Issues of consumption, waste, and resource management touch upon nearly everyone and involve individuals, businesses, and institutions in all sectors. Attempts to change how we, as a society, manage our resources—from extraction to manufacturing to recycling, re-use, or disposal—bring up the challenges of potential unintended consequences, competing environmental values, and economic winners and losers. As such, this realm stands to benefit from dialogue-based stakeholder involvement on a broad scale.

Vermont's Initiative

In early 2007, Vermont's Agency of Natural Resources (ANR) began a stakeholder-based process to develop a statewide waste prevention strategic plan. ANR recognized that it was important to give citizens and groups with interest in, and knowledge about, waste prevention a voice in developing effective strategies. ANR also recognized that neutral facilitation of this effort would be critical to its success and issued an RFP for facilitation services, with funding provided by the U.S. Environmental Protection Agency (EPA) and ANR. The process began by holding a one-day planning session with an eight-person ANR planning team. This team worked closely throughout the effort to plan and implement the process.

The effort was launched with a one-day *Waste Prevention Public Forum* to present waste prevention efforts from around the United States and world, get feedback on Vermont challenges and opportunities, and obtain stakeholder commitments to participate in the planning process. Over 120 people attended the forum, representing a wide variety of interests, including municipalities, institutions, waste managers, environmental advocates, retail business representatives, the hospitality industry, construction sector, architects, and more. The ideas that were generated at this forum informed our design of the planning effort.

Following the forum, we convened a twenty-five-person stakeholder Steering Committee with representatives from all major sectors. To develop this Steering Committee we first identified the major stakeholder sectors, then generated lists of potential representatives of each sector, then ANR staff made outreach calls to potential participants, and then lastly, a diverse group of representatives was selected.

At the first Steering Committee meeting, there was agreement to form subcommittees to create waste prevention strategies in each of five major material sectors: organic materials (food, yard waste, and agricultural materials), electronics, construction and demolition materials, recyclable products (glass, metal, plastic, paper) and household hazardous materials. Members of the Steering Committee were recruited to chair each subcommittee, and each subcommittee was assigned at least one ANR staffer to provide support for logistics, note-taking, and similar tasks. Facilitation for each subcommittee was provided either by the subcommittee chair or by an ANR staffer.

We began the subcommittee work by first developing a common process for each group to follow. This was done collaboratively by the ANR planning team and the subcommittee chairs. An initial facilitation guidance session for subcommittee chairs and ANR support staff was conducted to help give them the tools necessary to move through their work. Then the subcommittee chairs and ANR staff recruited additional stakeholders to participate in each subcommittee, whose membership ranged from nine to twenty-two people per group.

By early fall of 2007, most of the subcommittees had completed their work and developed draft recommendations for waste prevention strategies. Over the course of the fall, the Steering Committee identified common themes among the strategies and developed an overall comprehensive approach for the state. At this stage, an additional subcommittee was formed to explore methods to finance the implementation of the strategies.

In early 2008, ANR staff and the Steering Committee developed a final report describing waste prevention issues and challenges, the history of the planning process, and the recommended strategies.

There are some interesting issues to note, in terms of consensus-based efforts. First, although ANR convened the effort, and provided its perspective throughout, it gave final decision-making authority over the final report and its recommendations to the stakeholder Steering Committee. ANR felt it was important that the strategies represent the views of the stakeholders, not ANR.

Second, a remarkable degree of consensus was reached, with all of the strategies representing a consensus view of the stakeholders. One area—electronic waste—was particularly challenging, given that a hotly contested bill on this issue was in the state legislature at the time, and that the subcommittee had representatives from a wide array of interests, ranging from local solid waste districts to national electronics industry associations. A key factor in helping this group reach agreement was the inclusion of a statement in the final report that "this report presents an overall consensus view of the subcommittee, meaning that all participants agree with the overall theme and intent of the recommendations, although not every participant necessarily agrees with the details of all recommendations." This approach provided the ability to utilize the power of consensus to move the recommendations forward, while allowing organizational representatives to be careful not to get too far out ahead of their memberships or constituents.

The final report identifies twenty-nine strategies, which fall into the following overall categories:

1. ***Public Education and Outreach***: Educate Vermonters about the value of waste prevention, why it is important, and how to prevent waste.
2. ***Product Stewardship:*** Ensure that responsibility for waste is shared by all those involved in a product's life cycle.
3. ***Government Leadership:*** State government must show leadership in preventing waste through its purchasing practices and other policies, such as its state building contracts.
4. ***Infrastructure:*** The state needs to develop

collection and processing systems for reusable, recyclable, and compostable materials and provide incentives for the private sector to develop businesses that use and sell the materials.

5. ***Mandates and Bans:*** Mandates and bans can provide the drivers to help build an economy to reuse and recycle discarded materials, and ensure that resources are not wasted.
6. ***Standards:*** Standards can be developed to ensure that best practices are used for waste prevention, such as in designing and constructing buildings or manufacturing products. Standards can also insure that diversion efforts are conducted in an environmentally and socially responsible manner.
7. ***Partnerships:*** The state of Vermont must actively collaborate and coordinate with regional, national, and international efforts to change the way we manage our resources.

A number of steps are now being taken to move this effort from planning to implementation. An Executive Committee, made up of selected members of the Steering Committee and ANR and Environmental Protection Agency staff, has been formed to guide future implementation steps. An internal ANR team is developing a "government leading by example" approach for state government agencies. The recommendations are being considered by a legislatively convened solid waste study group, which is looking at overall waste issues in Vermont and which will issue legislative recommendations in January 2009. A statewide e-newsletter is being distributed to serve as a clearinghouse for waste prevention information around the state. A Vermont Product Stewardship Council has been formed, the first of its type in the eastern United States. And lastly, a public forum is planned for the spring of 2009 to develop a broad base of support for implementation of the waste prevention strategies. For additional information and to download the final report and e-newsletter, go to: http://www.anr.state.vt.us/dec/wastediv/r3/DECwpPLAN.htm

Jeff Edelstein *(edelstein@psouth.net), a former professional engineer, provides mediation and facilitation services for technically complex natural resource, environmental, and public policy issues. He serves as principal of Edelstein Associates, and is a senior consultant with the Consensus Building Institute. He led the effort as the facilitator of the Vermont ANR initiative.*

SHARED LEARNING MAY BE OUR ONLY PATH THROUGH SEEMINGLY IMPASSABLE CONFLICTS TO A SUSTAINABLE ENERGY FUTURE

Gail Bingham

(This article is adapted from *When the Sparks Fly: Building Consensus When the Science is Contested,* reprinted with permission from RESOLVE.)

Leaders in democratic societies increasingly speak the language of dialogue and consensus building. They seek to understand the interests and concerns of diverse constituencies and to craft solutions that are influenced by the insights and wisdom they gain from such consultation. Such leaders know that finding solutions to many public issues requires the active engagement of multiple individuals and groups, and that this happens best when the stakeholders are involved in a collaborative manner. This is no easy task under almost any circumstances. It is particularly difficult today when public policy decisions involve complex scientific and technical issues.

Leadership through the Looking Glass

As they engage multiple stakeholders, leaders also must look to the natural and social sciences to help inform their decisions. This is a challenging juggling act, but doing both well in an integrated manner will be essential to finding policy options for reducing this nation's carbon footprint, to constructing new energy facilities, locating transmission lines to move power from new locations to where it is needed, assessing sites for geologic sequestration of carbon dioxide, and sorting through novel controversies that we haven't yet even imagined.

The imperative to make well-informed decisions has never been more important. We need solutions that work. The challenge, however, is that science does not provide the crystal clear answers we seek. Leaders often feel like Alice peering down the rabbit hole, or even falling into another world where it's difficult to distinguish fact from fiction. What can leaders do to "get the science right" when experts present conflicting information or widely differing predictions about the consequences of a decision and when stakeholders interpret that information through their different perspectives? How much information is enough? What can we do when the science runs out? Newspaper headlines across the country and around the world call our attention every day to public decisions involving contested science. Leaders are asked about and constituencies care about such diverse and complicated problems as: What level of naturally occurring arsenic is safe in drinking water? What policies should govern our new abilities to produce pharmaceuticals in plants or to grow organs in animals for transplant into humans? What is causing the rapidly rising incidence, particularly in minority children, of asthma, and what are some effective public health responses? How should water be allocated in the Klamath River basin between farms and fish? How do we manage our national forests to reduce the danger of fires, protect habitat, and support human uses of the land? What levels of mercury in the Great Lakes or PCBs in the Delaware River are too high, and who should do what to achieve reductions, if needed? To what degree—and why—is antibiotic resistance growing? What role should renewable sources play in providing for the energy needs of the country, and what decisions are needed when licensing or siting hydroelectric dams, wind turbines, and other facilities?

In practice: *Imagine yourself in the shoes of officials at the U.S. Environmental Protection Agency almost ten years ago, knowing that the disinfection of drinking water supplies has been one of the most significant advances in the history of public health, yet seeing growing scientific evidence suggesting that cancer and reproductive health risks may be associated with the chemical byproducts of disinfection. Some experts are telling you that the cancer risks may exceed 10,000 per year in the United States alone; others criticize the methodology used in these studies. All worry about increasing the risk of waterborne disease just when the number of people with compromised immune systems is rising and wonder whether enough is known about the effectiveness of different engineering solutions. The cost of changing water treatment systems around the country could be astronomical and even calculating those costs will be controversial. You know that the stakes are high, that you don't have enough information, and that you don't have the resources to get more information in any reasonable period of time. It is a risk/risk tradeoff, requiring many kinds of expertise. It is both a risk assessment and a risk management decision, with significant interests that have differing attitudes toward risk and toward incurring costs before understanding the nature and magnitude of the risk. EPA and its stakeholders have made major strides in resolving these problems through a series of negotiated rulemakings.*

Questions such as these involve not only competing interests and passionately held values, but also scientific and technical uncertainties about what will and will not work. What can collaborative leaders do when looking into the Wonderland of competing interests and contested science? Imagine successful leadership in these circumstances. We must, because the problems are only getting harder and the success of our democratic institutions is so important. We do know what is at the heart of leadership—it is a timeless vision—but we may be losing confidence in our ability to achieve it. A great leader is a superb listener, clear about the results that need to be achieved and able to inspire others to work together to produce them. It sounds so simple, and yet it is increasingly hard to do.

What's the Problem?

A successful leader is eager for and able to create opportunities where all sides can share their differing perspectives on a given problem and can contribute to shaping solutions that satisfy as many needs and concerns as possible. Public disputes, however—whether over energy policy, natural resources, public

health, or other public issues—are difficult to resolve for many reasons. Introducing a consensus process will not magically make these challenges go away. But leaders can be more successful if they keep a few common challenges—and some possible actions to overcome them—in mind.

Multiple Forums/Changing Incentives

Problem: Frequently, the same or related issues may be the subject of simultaneous administrative, legislative, and/or judicial action, sometimes at more than one level of government. Different forums may be preferred by different parties, based on the chances they see for them to achieve their objectives. Thus, parties' incentives to negotiate may go up or down depending on what forum the dispute is in at the time. They also may have as many different views about whether negotiation is in their interest (and about how to structure any negotiating relationships) as they have views on the issues.

Action: In such circumstances, it is good practice to conduct a feasibility assessment and shared process design. That way, parties can determine if they have something to gain from a consensus-building process. The assessment should uncover any of the challenges below (or others). It should also result in an agreement (often mediated) among the parties as to who will participate and in what way, the scope of issues, any deadlines, the frequency of meetings, information needed to make sound decisions, who the mediator will be (if any), and other ground rules.

Multiple Parties and Issues

Problem: Because environmental disputes usually affect large numbers of interested parties and involve many interrelated issues, organizing a negotiation or consensus-building process can prove difficult. In addition, disagreements often arise about how the issues are framed.

Action: Representation issues can be solved in several ways. Coalitions can be formed, allowing several parties to be represented by one negotiator. True conversations also are possible with large groups. This can be accomplished by establishing subcommittees, structuring simultaneous "roundtable" conversations with small groups, hosting "open houses," creatively using the Internet, or simply creating a sufficiently positive climate that parties are patient with the constraints of a very large table. Most critical is that the parties view the choice as constructive. The process of organizing and framing the issues requires even more consultation. It may be possible to manage a large number of issues with subcommittees or with a "single-text" draft of agreements from which everyone works. Consulting with stakeholders about what issues are on the table for discussion and finding a way to frame the issues that encourages people to see that their concerns will be discussed may be the leader's single most important task.

Institutional Dynamics

Problem: Environmental and resource management conflicts typically arise among organizations or groups rather than among individuals. Therefore, the individuals at the table must get proposals ratified by others who are not participating directly.

Action: Because each entity has its own internal decision-making process, it helps to know the degree to which each representative can speak for his or her organization or constituency, make proposals, and commit to an agreement. It may also help to ask representatives to conduct regular internal briefings with those not at the table. Then the negotiation group can address together any questions that are being raised and can determine how best to "make the case" back home.

Inequality of Resources

Problem: Mediation and other consensus processes cost money, just like any other decision-making process. Parties need funds for travel expenses, information collection, evaluation, and expert advice during the process. While government agencies and private corporations generally have financial resources

and are represented by paid staff, other parties may lack the financial and technical resources to represent their interests effectively. Local nongovernmental organizations, for example, nearly always rely on unpaid volunteers.

Action: For the principle of inclusiveness to be realized in practice, adequate resources for participation and informed decision making must be available to all the parties. In cases where parties have unequal resources, the most successful approaches have relied on progressive project sponsors, who recognize the resource needs of all participants. Examples include the Avista Corporation in the re-licensing of two dams on the Clark Fork River and government agencies such as the EPA in negotiated rulemakings.

The Public/Political Dimension

Problem: By definition, controversial public policy issues are resolved (or not) in public forums, with laws, governmental institutions, and the media all playing significant roles.

Action: Attention must be given to open-meeting laws, the role of the media, and communicating the process and rationale for decisions in a way that can withstand public scrutiny and comment. The applicability of the Federal Advisory Committee Act (FACA) and other laws raise legal questions. Experience (particularly at the EPA) suggests that FACA does not inhibit a consensus-building effort and actually can contribute to the perceived legitimacy of the decisions that result.

Complex Scientific and Technical Issues

Problem: Sound scientific and technical information is essential for creating solutions that work. Leaders face numerous obstacles to achieving this goal, however.

Action: The remainder of this article sets forth different obstacles that arise in science-intensive disputes and discusses options for avoiding or overcoming them.

The Knots that Tie Up Science-Intensive Disputes

The problems that entangle efforts to reach solutions that are both consensus-based and well-informed by the science are so numerous that one almost wonders whether it is possible to straighten them out. The key, however, is to select strategies to match the cause of the problem. The problems fall into five broad categories.

Adequacy of the information for the problem.

However exponentially the amount of data and information has grown in recent decades, it is rare to face a policy problem where the information lights the way to an obvious solution. Often, parties do not have the information they need because:

- there's not enough data;
- there's too much data to absorb;
- the data that does exist is outdated;
- access to data is restricted;
- the data is inconclusive or isn't relevant to the decision at hand;
- existing studies have different objectives, assumptions, or methods of data collection and analysis; or
- data exists but it hasn't been analyzed sufficiently to provide useful information.

Clarity of the decision-making process with respect to science.

The problem doesn't always start with the science, however. A key to informed decision making is to clarify what questions need what kind of information. Sometimes the first step is to plan (or rethink) the decision-making process, especially when:

- parties define the problem differently;
- decision makers haven't thought through their objectives clearly enough;
- the conceptual framework for issue definition is shifting;
- parties disagree about the methods for data collection and/or analysis; or
- science is being used as an argument, even though the conflict is really about something other than the science.

Problems parties have dealing with the data.

In some situations, differences among the parties cause problems. This can arise when:

- some parties have access to the data and others don't (either because the information is confidential or because parties have unequal scientific and technical resources);
- some parties have more expertise and can understand the data better than the other parties; or
- the parties have different tolerances for complexity.

Problems scientists have among themselves and in communicating with stakeholders.

Scientists are people too, and the differences among them need to be understood and managed when:

- the information and expertise of scientists from different disciplines is required;
- the issues of interest to scientists are not those of most interest to the stakeholders;
- the decision-making process is on a shorter timetable than is the science;
- scientists' values influence the questions they are asking; or
- the parties have unrealistic expectations of the scientists.

Problems of trust.

It also is more difficult to draw on the full range of information that may be available when:

- the parties do not accept information from studies paid for by their opponents; or
- information has become politicized.

In practice: *The Avista Corporation took a leadership role in convening representatives of federal, tribal, state and local interests early in the preparation of its application to relicense the Cabinet Gorge and Noxon Rapids dams on the Clark Fork River in western Montana and Northern Idaho. Scientific and technical questions about gas bubble disease in migratory fish populations were among the many complicated issues the parties had to deal with. Avista built trust and created a shared information base credible to all sides by sharing the decision making about scoping the studies and selection of consultants to do those studies. The application submitted by Avista was based on agreements it reached with its stakeholders through this collaborative process.*

In practice: *The DuPont Company owned land with significant titanium deposits outside of Folkston, Georgia and near the Okefenokee Swamp. Their interest was in the question of how to conduct mining operations in an environmentally sound manner. Some stakeholders agreed, while others' view was that it was essential to question whether to permit mining operations at all. With the assistance of mediators, the parties were able to engage in negotiations involving both sets of questions.*

Untangling the Knots

In its specifics, each situation is unique—and it may look like a mess. Tools do exist to untangle that mess. However, these tools are only useful in context. Just because one has a hammer doesn't mean that everything is a nail. For any of these tools to be utilized effectively, leaders must have good diagnostic skills. They must be able to choose which tool to use when and tailor it to each situation. There are no cookie-cutter solutions. However, there are guiding principles and questions to ask to help make choices about which tool(s) to use and how to use them. The following five principles will help leaders make better choices when faced with a public decision tangled by contested science.

Clarify the questions jointly before gathering more data.

Too often, we find ourselves in disputes where data exists but people still feel their questions aren't being answered. One of the problems may be that people aren't yet clear about what questions each of them cares about—and which ones of these can be answered within the framework of the decision-making

process. The key is to gather stakeholders together and have them determine jointly which questions are and are not part of the scope of the discussion. Because stakeholders may see the questions differently, this often means seeking answers to questions of importance to one another.

Focus on decision-relevant information.

The problems that confront us clamor for good information. But in some cases, each side may be shouting so loudly about their own data that they can't hear each other at all. Once the parties have agreed on the questions, they also need to discuss and agree on what information is needed to come up with the answers. With that as a foundation, people are often more able to review existing information, determine what they agree on, and focus any further data collection or analysis on filling agreed-upon gaps.

In practice: *Parties with a shared interest in increasing the amount of energy produced from wind have found themselves caught in disputes over the potential impacts of wind turbines on birds, particularly threatened and endangered species. An ongoing facilitated dialogue through the National Wind Coordinating Committee, has produced a series of consensus reports that: clarified the questions researchers thought needed to be asked, defined shared methods and metrics so studies across different sites could be compared, and reached agreement on what is known about avian/wind interaction and what questions remain. These reports were used by the wind industry to guide their research and site selection and government agencies and citizen groups when reviewing permit applications. Future issues include assessing cumulative impacts and effects of wind development on bird populations.*

Let science be science, and don't confuse it with policy.

Science is needed to inform policy, but the choice of what information to collect and why is almost always shaped to some degree by someone's policies and priorities. In each case, ask who set the underlying assumptions and whether the policy makers and their stakeholders shaped the questions being researched. Too often, leaders look to scientific information that was gathered for other reasons. Too often, also, we look to science for answers it doesn't have. For example, science can't tell us what tradeoffs to make or how much risk to accept.

Learn together.

The key to success is as much an attitude as it is a set of skills. Leaders need to see the policy making process as one of inquiry and to include those who will be affected by a decision in the thought process from the beginning. The steps are the same as in any inquiry—clarifying the questions, asking what information is needed, identifying what information is already available and what is needed, creating a well-thought-through process of data collection and analysis, deciding who will conduct the studies, and learning from the results. The process of collaborative inquiry does not necessarily have to be burdensome, although it does need to be intentional. It may require as little as a few meetings or workshops to ensure that the decisions that shape the thought process are transparent and supported by the stakeholders to the eventual policy decision. In other cases, the level of controversy, complexity or stakes to the parties may warrant the investment in a joint technical working group to guide the process together.

Remember that science isn't necessarily the underlying cause of disputes—and draw on other basic consensus-building principles and tools.

People do find themselves in disputes over science. However, in almost all cases, they would not be arguing over the science unless something else was at stake. Perhaps the most important problem-solving skill any leader can have is to bring the underlying interests and concerns to light. The classic advice is to "focus on interests not positions" (Fisher and Ury, *Getting to Yes*). Issues are the question being asked. Positions are the parties' preferred answers, and interests are why those answers are important to them. Checking to make sure you know what the problem really is can save a lot of time and effort, if competing

positions about science are a surrogate for something else. Other basic negotiation principles can help the process of learning together work more smoothly. These include using objective criteria and addressing people problems directly rather than letting them affect the substance.

Tools or Actions to Consider

The following are a few actions to consider that have proven useful to others.

In deciding what approach to take when, it is important to understand where you are in the process. Consensus processes typically have three stages—assessment, dialogue or negotiation, and implementation. Problems about (and opportunities to integrate) complex scientific and technical information arise at each stage in different ways. Thus, to achieve the desired outcomes of each stage, leaders need to do different things at different times.

In practice: *World Wildlife Fund and Unilever developed a partnership built on a shared interest in protecting marine resources to develop a market-based approach to encourage consumers to buy seafood from sustainable fisheries. They founded the Marine Stewardship Council, based on a vision of certifying and labeling sustainable fishery products. However, they recognized that controversy and lack of agreement over what constitutes sustainable fisheries could prevent the Council from succeeding. To build consensus on principles and criteria defining sustainable fisheries, the partners worked with mediators to design and conduct a facilitated consultation process that met the need to address complex scientific issues and to gain broad public input on proposed approaches. A diverse group of experts met to draft principles and criteria, which were then presented to and discussed by stakeholders at workshops around the world. The experts reconvened to consider input from the stakeholders and finalize the principles and criteria. Through this process, the Marine Stewardship Council gained a broadly recognized and accepted basis for awarding certification of sustainable fisheries.*

Solving Data Problems in the Assessment Stage.

The key to managing scientific and technical information during the assessment stage is to diagnose the challenges early—and to communicate with stakeholders about them.

- Conduct an assessment as part of designing the process—and include questions to help identify any barriers to it being a joint inquiry.
- Call and consult people about what questions they think are important to ask, what information is needed, what data exists, what methods of data collection and analysis are most appropriate, what studies might be needed ahead of time, and which credible experts could undertake those studies.
- Talk explicitly about trust, uncertainty, and the role of information in the decision-making process.
- Name the areas of disagreement over information and plan a decision-making process that addresses these differences and builds trust.

In practice: *EPA's series of negotiated rulemakings on microbial and disinfection by-products required the expertise of scientists and engineers from many disciplines, as well as the insights of non-technical policy representatives. At several stages, mediators worked with EPA and the parties to organize technical workshops, with the objective of creating a common vocabulary and understanding of the key issues not only for the non-technical stakeholders but also for scientists from such diverse disciplines as civil engineering, toxicology, epidemiology and cancer risk assessment. Topics and experts were chosen collaboratively. Where the science was in dispute, specific questions were posed to a panel of scientists relied upon by different stakeholders, and the interactive discussion among them was conducted in a fish bowl setting with 100-150 stakeholder participants observing and learning.*

Solving Data Problems in the Dialogue Stage.

The key to reaching well-informed decisions that meet the interests of as many stakeholders as possible is to establish the proper tone and structure for learning together. This also helps avoid fights over the science and experts competing with one another over their studies. The following are some approaches to keep in mind.

- Generate multiple problem definitions and use them to agree on the scope of issues.
- Continue to ask, "What information is essential for solving the problem?"
- Respect different types of knowledge and different ways of knowing.
- Find adequate resources to enable all parties to obtain necessary technical expertise to participate effectively.
- Convene a workshop of scientists from each interested party to create a shared picture of what is and isn't known—and what remains in dispute.
- Conduct jointly designed studies ("joint fact finding") and/or create shared models.
- Use interactive panels of scientists (selected by the parties) to address stakeholder questions.
- Establish collaborative technical work groups of scientists selected by the parties.
- Plan the scope of studies and select experts to conduct them in consultation with others.
- Synthesize scientific and technical information in the users' vocabulary and create an explicit role for a "translator"—someone to help policy-oriented and technically oriented participants understand each other.
- Take field trips, jointly planned by those with experiential and scientific knowledge.
- Build confidence intervals around controversial data—ask "what if?" for different points in the range.
- Focus on interests.
- Consider multiple options.
- Use interest-based criteria to evaluate options.
- Decide what you can, based on the information available, and agree upon next steps to gather the additional information needed and to discuss remaining questions.

In practice: *When Portland General Electric proposed to decommission a 90-year-old hydropower project in a scenic area close to Portland, few models existed for how to do it in an environmentally sensitive and cost-effective way. Environmental issues included protecting endangered salmon and preventing damage from the release of sediments accumulated behind the dams. Working with RESOLVE, Portland General Electric formed a dialogue group composed of representatives of government agencies, businesses and public interest groups to jointly examine the issues and develop a plan for the decommissioning. Taking a collaborative approach to the technical issues, Portland General Electric retained experts respected by all of the parties to provide real-time information on questions that arose and develop a model to examine alternative scenarios for the dam removal. Participants reached a comprehensive settlement agreement that will provide long-term regional benefits, including the establishment of a scenic recreation area. A key element of the agreement recognized uncertainties about the effects of changes to the management of the wild and hatchery fisheries and provided for future management based on the results an agreed monitoring plan.*

Solving Data Problems in the Final Agreement/ Implementation Stage.

The keys to successful implementation are to plan ahead and to invest in an iterative process of learning, action, evaluation, and new learning. Before concluding the dialogue stage, parties should consider the following questions and actions.

- Are key questions answered?
- Is the solution technically sound?
- Is the solution balanced and fair to all interests?
- Are implementation safeguards in place?
- Is the agreement able to be reopened if new data emerge?
- Openly discuss the implications of ongoing uncertainty.
- Make contingent agreements.
- Identify remaining questions and make a plan for what to do with them next.

- Make decision making transparent.
- Negotiate the process choices.
- Build agendas cooperatively.
- Level the playing field for all participants.
- Define fairness and adhere to the definition.
- Invest in sound information and analysis.
- Focus on interests not positions.
- Seek options with joint gains.
- Use interest-based criteria for evaluating options.
- Participants won't settle for less than they could achieve without an agreement.
- Plan for implementation.

Finally, it's important to understand what success will look like. This can help guide your choices about which actions to take and which tools to use—and how to implement those actions and tools. The attributes people mention most when they describe a successful consensus process can be grouped into three categories: relationships, process, and substance. Below are general principles that can help you to achieve success in each of these dimensions. These principles not only apply generally to any aspect of a negotiation, but also specifically to how you implement tools for dealing with complex scientific and technical information.

Relationships matter:

- Be inclusive.
- Get to know one another as individuals.
- Check your assumptions—ask questions and listen with respect.
- Talk about values.
- Don't sacrifice doing what will help create positive solutions just because you have problems with certain people.

Process matters:

- Make decision making transparent.
- Negotiate the process choices.
- Build agendas cooperatively.
- Level the playing field for all participants.
- Define fairness and adhere to the definition.

Substance matters:

- Invest in sound information and analysis.
- Focus on interests not positions.
- Seek options with joint gains.
- Use interest-based criteria for evaluating options.
- Participants won't settle for less than they could achieve without an agreement.
- Plan for implementation.

Conclusion

We must all be leaders, each in our own way, working together to seek solutions to the complex climate policy issues of today and tomorrow. Strong evidence exists that such solutions are possible when we think explicitly about how we frame the questions that need to be answered and when we invest in serious efforts to learn together. Conflict per se isn't the problem. Often, conflict is what gives rise to important social debates and allows us to pay attention to new questions and concerns. Conflict itself has value—sometimes—in helping people redefine ourselves as a community as a nation or as a planet and discover new paths to take us where we want to go. But conflicts also can tear at the fabric of communities and institutions of government. New tools and collaborative approaches are demonstrating success in helping people deal with their differences in ways that yield productive outcomes. Climate policy and the countless decisions before us that will be needed to implement that policy will require untangling the scientific complexities that arise. This will be an essential part of learning together and producing lasting results.

Gail Bingham *(gbingham@resolv.org) is president emeritus of RESOLVE, a non-profit organization dedicated to promoting the effective use of consensus-building in public decision making. She has mediated complex environmental issues for 30 years.*

UNITED STATES CLIMATE ACTION PARTNERSHIP: CREATING A CONSENSUS POLICY POSITION ON CLIMATE CHANGE POLICY

Kevin Bryan

Since March 2006, the Meridian Institute has assisted several large companies and national environmental organizations in establishing the U.S. Climate Action Partnership (USCAP). USCAP members have joined together to recommend the prompt enactment of national legislation in the United States to slow, stop, and reverse the growth of greenhouse gas (GHG) emissions as quickly as possible. USCAP members include utility, energy, manufacturing, consumer products, and financial services companies, as well as leading non-governmental organizations focused on climate change.

In our role as a third-party neutral facilitator of the USCAP policy deliberation process, Meridian Institute guides that process between USCAP members as the group seeks to develop and refine its policy recommendations. Meridian teams with Lighthouse Consulting Group, a government affairs and management consulting, and Widmeyer Communications, a public relations firm, to manage political outreach to decision makers on Capitol Hill and in the administration and to communicate the fundamental USCAP ideas to the broader public.

On Jan. 22, 2007, USCAP released its *Call for Action* (which can be found at www.us-cap.org), which provides consensus principles that its members believe should form the foundation of U.S. climate change legislation. The report release serves as the beginning of efforts by USCAP members to build a consensus among policy makers and opinion leaders regarding the U.S. direction on climate change policy. USCAP continues to deliberate on a more detailed set of policy recommendations that members hope will guide legislative proposals on U.S. climate policy.

The USCAP process represents an increasing trend in the use of mediated consensus building processes to craft policy responses to some of our nation's most pressing problems. These efforts are not new; in fact, several staff from USCAP member companies and organizations are veterans of other stakeholder processes facilitated by the Meridian Institute. In the USCAP case, however, we are attempting to use the meditative consensus-building process to influence legislation on one of the most pressing, complex policy issues to confront our nation in the past fifty years.

USCAP members are motivated by two principal drivers. First, scientific evidence supporting the need for urgent action to protect the climate has solidified, and the question is no longer whether climate change is occurring, but rather how should the global community respond to its impacts. Second, we are also confronted by a new energy reality in which we are increasingly dependent on foreign energy sources and an unprecedented surge in energy costs that has significantly impacted the bottom lines of many U.S. households and businesses. This confluence of factors—the need for GHG emissions reductions, continued dependence on foreign energy sources, and escalating energy prices—requires a transition to a low- or zero-carbon economy over the shortest period of time reasonably achievable. USCAP members agree that such a climate change program will drive efficiencies and technology transformation that will reduce GHG emissions and our dependence on foreign energy sources in the most efficient, cost-effective way possible.

These drivers represent a frame that has emerged over the existence of USCAP and are critical to understanding the success of the USCAP process and the ability of the coalition to remain together through the complex political debate on climate change. Through its consensus-building process, USCAP has sought to frame the issue of climate change differently than one may gather from the prevailing public discourse. That debate tends to follow the typical "economy versus environment" dichotomy that has been prevalent in previous debates on environmental issues; that is, increasingly stringent environmental regulations impose proportional cost increases that negatively impact businesses and consumers, and so decision makers must make a choice between those regulations and their economic impact. A typical policy

process often finds individual interest groups or a small collection of like-minded groups fighting to protect specific interests; for instance, an electric utility may pursue policy options that preserve the freedom to use least cost options to generate electricity, or an environmental organization may attempt to influence members of Congress to pass legislation that ensures a particular environmental outcome, such as reduced emissions of a particular pollution into the atmosphere.

The USCAP process directly confronts this challenge through its membership. By creating a coalition that includes major national environmental organizations such as the Environmental Defense Fund and the Natural Resources Defense Council, as well as leading corporations such as GE, BP America, and General Motors, the group brings together entities that can weigh legitimate concerns and create a consensus policy position that addresses both economic and environmental needs.

In creating this politically viable policy position on climate change, USCAP members must weigh their own policy interests in the context of other competing concerns and in the larger context of an overarching policy framework. This requires that members be able to understand the linkages between the various moving pieces of this complex legislative framework. For instance, the stringency of GHG emission reduction targets and timetables are linked to a number of policy elements. More stringent reduction targets will encourage businesses to push for agreement on policy options that reduce the potential costs to businesses and consumers. Likewise, less stringent reduction targets may encourage environmental organizations to seek additional complementary measures.

Thus, the USCAP policy deliberation process becomes one of weighing numerous policy choices among the thirty-two USCAP members in the context of a larger overarching policy framework in an effort to find the consensus policy position. This give-and-take process may or may not occur in a more typical policy formulation; in the mediated consensus-building environment, we use this process as a cornerstone of our efforts to create the policy position. The Meridian Institute role, then, becomes one of managing that give-and-take process. Our team must help USCAP members uncover the key linkages that become the negotiating fulcrums on which the policy agreements balance.

USCAP continues to deliberate on detailed policy recommendations that go beyond the overarching principles outlined in the Call for Action and hopes to publish the results of those deliberations in early 2009. Those results will include policy positions that address the linkages between key policy elements, such as the relationship between reduction targets, costs, and potential complementary measures mentioned above. The coalition will be tested by the challenging political and economic environment facing the nation; we believe the policy frame that USCAP has established will help the group withstand challenges to individual members from its constituents.

Ultimately, Meridian Institute believes that the USCAP process is an example of how meditative consensus building efforts can be applied to similar complex policy issues at the national level. As shown here, these processes can help frame complex issues in a larger context, rather than the often myopic view of individual interest groups. These processes also allow for diverse participants to address the linkages between specific policy options that are inherent in complex policy issues, rather than forcing a zero-sum game that forces potentially unnecessary policy choices, producing winners and losers rather than creating a consensus solution.

Kevin Bryan *(kbryan@merid.org) is a mediator at the Meridian Institute, where he works with other professionals to design, convene, and facilitate multi-party problem solving interactions to resolve public policy problems of mutual interest. Mr. Bryan helps parties identify critical issues, build relationships and trust, construct innovative solutions, and implement the results.*

From ABA Publishing and The Section of Environment, Energy, and Resources

Global Climate Change and U.S. Law
Michael B. Gerrard, Editor

Because global climate change presents extraordinary challenges to the environment and the economy of United States as well as those of other nations, the debate about how to effectively implement more climate-friendly policies is sure to continue and amplify. The scientific case for strong action is becoming more compelling every month, and opinion polls show that the American public increasingly agrees. The law will play an important part in developing mechanisms to protect the climate, such as conserving energy, using renewable sources of energy, and implementing emission caps and trading programs.

Global Climate Change and U.S. Law provides comprehensive coverage of the country's law as it relates to global climate change. After a summary of the factual and scientific background, Part I outlines the international and national legal framework of climate change regulation and associated litigation. Part II describes emerging regional, state and local actions, and includes a 50-state survey. Part III covers issues of concern to corporations, including disclosure, fiduciary duties, insurance, and subsidies. Part IV examines the legal aspects of efforts to reduce greenhouse gases, such as voluntary efforts, emissions trading, and carbon sequestration. *Global Climate Change and U.S. Law* includes key resource aids, including a glossary of climate related terms; a list of acronyms; extensive endnotes; and a comprehensive index.

2007 784 pages 7x10 paperback
Product Code: 5350156
Regular Price: $59.95
Section of Environment, Energy, and Resources Member Price: $49.95

TO ORDER ABA BOOKS, CALL 1-800-285-2221 OR VISIT THE ABA PUBLISHING WEB SITE AT WWW.ABABOOKS.ORG QUESTIONS? E-MAIL: SERVICE@ABANET.ORG