Conference Sponsors

New York State Energy Research and Development Authority • New York State Department of Public Service • New York State Department of Environmental Conservation • New York State Department of Health • U.S. Environmental Protection Agency • U.S. Geological Survey • Adirondack Council • Center for Clean Air Policy • Clean Air Task Force • Environmental Energy Alliance of New York • New York Academy of Sciences • Northeast States for Coordinated Air Use Management

Environmental Monitoring, Evaluation, and Protection In New York: Linking Science and Policy

Photo by Michael McHale

Winnisook watershed, Catskill Mountians

New York Energy $mart℠

EMEP

Environmental Monitoring, Evaluation, & Protection

October 7-8, 2003

Albany Marriott • 189 Wolf Road • Albany, NY

This conference brings together scientists and policy makers to share information on environmental research in New York State and its implications for policy making. The New York Energy $mart℠ Environmental program supports policy-relevant research in order to enhance understanding of energy-related environmental issues. The program will highlight research on air quality and related health issues, ecosystem responses to atmospheric pollutants, and proposed pollution control policies affecting New York State. A series of panels, breakout and plenary sessions will focus on four key areas: particulate matter, acid deposition, ozone and mercury. Results of NYSERDA/EMEP-sponsored and related research projects will be presented in poster sessions throughout the two-day event. The plenary sessions will draw attention to major energy-related environmental issues of the 21st century and offer recommendations for improving the effectiveness of science-based policy.

Environmental Monitoring, Evaluation, and Protection In New York: Linking Science and Policy
October 7-8, 2003

Albany Marriott • 189 Wolf Road • Albany, NY 12205

Tuesday, October 7, 2003

8:00 a.m.	**Registration and Continental Breakfast**
8:30 a.m.	• **Welcome and Opening Remarks** Peter R. Smith, Acting President New York State Energy Research and Development Authority (NYSERDA) Erin Crotty, Commissioner New York State Department of Environmental Conservation (NYS DEC)
9:00 a.m.	• **Overview of the New York Energy $mart℠ Environmental Monitoring, Evaluation and Protection (EMEP) Program** Janet Joseph, Program Manager, NYSERDA
9:30 a.m.	• **State of the Environment: Major Energy-Related Environmental Issues of the 21st Century** John Bachmann, Associate Director for Science Policy and New Programs, U.S. Environmental Protection Agency (U.S. EPA) *This presentation will provide an overview of the major environmental issues facing New York and the nation. The presentation will review progress made to date in the environmental arena and will identify scientific and policy challenges ahead. The presentation will underscore the linkages between research progress and policy developments.*
10:00 a.m.	**Break**
10:30 a.m.	**Panel: Energy-related Environmental Policy Initiatives Affecting New York State and the Region** Chair: John Bachmann, Associate Director for Science Policy and New Programs, U.S. EPA • Electricity and the Environment (Renewable Portfolio Standard, Environmental Disclosure, Climate Change Initiatives) James Gallagher, Acting Director, Office of Electricity and Environment, NYS Public Service Commission • Ozone/PM2.5 State Implementation Plan, Low-sulfur Fuels and Diesel Rules Carl Johnson, Deputy Commissioner, NYS DEC • Improving Information for Policy Makers Susan Wierman, Executive Director, Mid-Atlantic Regional Air Management Association (MARAMA) • Local/Regional Initiatives and Emerging Opportunities Ken Colburn, Executive Director, Northeast States for Coordinated Air Use Management (NESCAUM) *The panelists will present brief summaries of environmental policy initiatives relevant to New York and the region. The panelists will provide an update of these initiatives and will identify information/research needs to support the policy initiatives. The presentations will be followed by a 20 minute Question/Answer period.*
12:00 - 1:30 p.m.	**Luncheon and Poster Session**

1:30 p.m.	**Update of the Latest Research on Major Energy-Related Environmental and Public Health Issues in New York State**	
	Session A **AIR QUALITY AND RELATED HEALTH RESEARCH: PARTICULATES AND CO-POLLUTANTS**	**Session B** **ECOSYSTEM RESPONSE TO DEPOSITION OF SULFUR, NITROGEN AND MERCURY**
	This session will focus on key science/policy questions associated with PM: What are the health effects? Where does the PM come from? What is the picture in New York State?	*This session will focus on ecosystem response to changing levels of sulfur, nitrogen, and mercury in New York State and will address the extent to which "recovery" of acidification is being observed in New York State.*
	Session Co-Chairs: Jim Vickery, Acting National Program Director of PM Research, U.S. EPA, and Ellen Burkhard, Project Manager, NYSERDA	Session Co-Chairs: Kathleen Weathers, Forest Ecologist, Institute of Ecosystem Studies, and Mark Watson, Senior Project Manager, NYSERDA
1:30 p.m.	Overview of State of Science and Policy Implications: NARSTO PM Assessment Jim Vickery, Acting National Program Director of PM Research, U.S. EPA	Overview of State of Science and Policy Implications - Kathleen Weathers, Forest Ecologist, Institute of Ecosystem Studies
2:00 p.m.	EMEP Project Activity and Road Map Ellen Burkhard, Project Manager, NYSERDA	EMEP Project Activity and Road Map Mark Watson, Senior Project Manager, NYSERDA
2:15 p.m.	New York PM Supersite Update: What Have We Learned/Where Do We Need to Go? Ken Demerjian, Director, Atmospheric Sciences Research Center, University at Albany	Changes in Water Quality in Adirondack Lakes and Streams - Karen Roy, Program Manager, Adirondack Lakes Survey Corporation
2:45 p.m.	Sources of PM and Precursor Gases in New York State - Phil Hopke, Director for the Center for Air Resources Engineering and Science, Baryard D. Clarkson Distinguished Professor, Clarkson University	Acid Deposition Assessments of Surface Waters in the Catskills and Adirondacks - Doug Burns, Research Hydrologist, U.S. Geological Survey
3:15 p.m.	**Break**	**Break**
3:30 p.m.	Latest Findings on PM Health Effects Mort Lippman, Professor of Environmental Medicine, New York University Medical Center	Has There Been a Biological Response to Reduced Emission? Sandra Nierzwicki-Bauer, Director, Darrin Fresh Water Institute, Rensselear Polytechnic Institute
4:00 p.m.	Clinical and Mechanistic Health Studies with PM: New Findings and Research Directions Mark Utell, Professor of Medicine and Environmental Medicine, University of Rochester	Mercury Update: What Have We Learned? Charles Driscoll, Professor and Director of the Center for Environmental Systems Engineering, Syracuse University
4:30 p.m.	Panel Questions and Answers	Panel Questions and Answers
5:00 - 7:30 p.m.	**Reception and Poster Session**	

Wednesday, October 8, 2003

8:00 - 8:30 a.m.	**Continental Breakfast**	
8:30 a.m.	**Session C:** **Control of Particulate Matter and Co-Pollutants: Technology Options and Costs** *This session will focus primarily on approaches to controlling particulate emissions and co-pollutants and will address economic implications of control* Session Chair: Sandra Meier, Associate Director, Environmental Energy Alliance of New York	**Session D:** **Crosscutting Science and Policy Issues Related to Nitrogen in the Environment** *This session will focus on the impact of nitrogen compounds on human health, ecosystems and climate, and potential control options.* Session Chair: Rick Haeuber, Environmental Protection Specialist, Clean Air Markets Division, U.S. EPA
8:30 a.m.	Status of PM Emission Inventories Phil Lorang, Supervisory Environmental Engineer, / Tom Pace, Environmental Engineer, U.S. EPA	Overview of Nitrogen and the Energy and Industry Connection - William Moomaw (invited), Professor, Tufts University
9:15 a.m.	Utility PM and Precursor Emissions and Multipollutant Control Options - Praveen Amar, Director of Science and Policy, NESCAUM, and Rui Afonzo, President, Energy and Environmental Strategies	Status and Effects of Nitrogen Pollution in the Northeast - Kathy Lambert, Executive Director, Hubbard Brook Research Foundation
10:00 a.m.	**Break**	**Break**
10:30 a.m.	Motor Vehicle PM and PM Precursor Emissions and Control Options - Tim Johnson, Emerging Technologies and Regulations Manager, Corning Environmental Technologies	Case Study: Nitrogen Sources and Impacts to Rivers and Estuaries of New York State, Elizabeth Boyer, Assistant Professor, College of Environmental Science and Forestry at Syracuse
11:15 a.m.	Distributed Generation Technology: Emission Control Costs - Tom Bourgeois, Senior Economist, PACE University	Benefits of Reduced Air Pollution in the United States - Dallas Burtraw, Senior Fellow, Resources for the Future

Conference Sponsors

NYSERDA

Center for Clean Air Policy

The Adirondack Council

New York Academy of Sciences

Environmental Energy Alliance of New York
1125 Broadway . Albany, NY 12204

NESCAUM
Northeast States for Coordinated Air Use Management

New York State Department of Public Service Commission

DOH

USGS
science for a changing world

United States Environmental Protection Agency

Wednesday, October 8, 2003 (cont'd)

12:00 p.m.	**Luncheon and Keynote: Congressional Update and Perspective on Environmental Policy and Science -** David Goldston**, Chief of Staff, House Committee on Science**
1:45 p.m.	**Improving the Scientific Basis for Environmental Policy** Daniel Greenbaum (invited)**, President, Health Effects Institute**
2:15 p.m.	**Plenary Discussion: Increasing the Effectiveness of Science-Policy Communication - How Do We Get on the Same Page? Chair:** Joanne Fox-Przeworski, Director of the Bard Center for Environmental Policy, Bard College *Panelists will offer insights on how the scientific and policy communities can improve the exchange of information for more effective policies. Examples of successful environmental science-policy transfers will be highlighted.* • Michael Shore, Policy Analyst, Environmental Defense • Andrew Revkin, Science Writer, New York Times • David Allen, Professor, University of Texas (invited) • Quinlan Shea, III (invited), Executive Director for the Environment, Edison Electric Institute • Rona Birnbaum, Chief, Assessment and Communications Branch of the Clean Air Markets Division, U.S. EPA • Dave Shaw, Acting Director, Division of Air, NYS DEC
4:15 p.m.	**Wrap Up and Closing Comments** **Elizabeth Thorndike, Founder and Director, Center for Environmental Information and Member of NYSERDA Board**

Poster Session

The conference will include a poster session highlighting the EMEP portfolio of 35 projects, as well as other related research projects. Conference participants are encouraged to attend the reception and poster session on the evening of October 7, and visit the poster area during the lunch and break periods.

Conference Proceedings

NYSERDA will publish proceedings from this conference, which will include presentation abstracts and commissioned papers summarizing the information from selected sessions.

For More Information

See **www.nyserda.org/environment** for more information on NYSERDA's environmental programs and updates to the conference agenda.

Conference Sponsors

New York State Energy Research and Development Authority • New York State Department of Public Service • New York State Department of Environmental Conservation • New York State Department of Health • U.S. Environmental Protection Agency • U.S. Geological Survey • Adirondack Council • Center for Clean Air Policy • Clean Air Task Force • Environmental Energy Alliance of New York • New York Academy of Sciences • Northeast States for Coordinated Air Use Management

New York Energy Smart Pub

George E. Pataki, Governor

NYSERDA

Photo by Mark Watson

Wet deposition monitor, Whiteface Mountain

Program Contacts

Technical or program issues:
Mark Watson: voice - 518.862.1090, ext. 3314;
fax - 518.862.1091; mw1@nyserda.org

Logistics and registration:
Liz Hanna: voice - 518.862.1090, ext. 3358;
fax - 518.862.1091; ebh@nyserda.org

Poster Session:
Zywia Wojnar: voice - 845.758.7162;
fax - 845.758.7167; wojnar@bard.edu

Conference Location

The conference will be held at the Albany Marriott, 189 Wolf Road in Albany, New York. A block of rooms has been reserved at a special rate of $149.00 per night, plus tax. To receive the NYSERDA conference rate, reservations must be made no later than September 15, 2003. Call the Albany Marriott at (800) 443-8952 for reservations.

The Albany Marriott is only five minutes from the Albany International Airport and offers a free shuttle to and from the airport. For further information and directions, visit The Marriott website at: www.marriott.com

Other nearby hotels include: Holiday Inn 518.458.7250, The Desmond 518.869.8100, Red Roof Inn 518.459.1971, Best Western 518.458.1000, Courtyard by Marriott 518.482.8800, and Wingate Hotel 518.869.9100.

Registration and Conference Fee

The registration form and conference fee of $80.00 must be submitted by September 25, 2003.

Please make the check payable to **NYSERDA** and send it, with the registration form, to:

Liz Hanna
NYSERDA – EMEP
17 Columbia Circle
Albany, NY 12203-6399

- ❑ Yes, I will be attending the reception on Tuesday, October 7, 2003, at 5:00 p.m.
- ❑ I have special meal requirements (please list):

_____

Photo by Mark Watson

SUNY ESF student researchers, Arbutus Lake

Name		Title	
Organization			
Address			
Address			
County	City	State	Zip + 4
Phone No. ( )		Fax No. ( )	
E-mail		Website Address	

POSTER PRESENTATIONS

New York Energy $mart℠ Environmental Monitoring, Evaluation, and Protection (EMEP) and Related Research

Fine Particles and Ozone Research Projects	
Clinical Studies of Exposure to Ultrafine Particles	University of Rochester Medical Center
Source Apportionment of Fine Particles in New York City	New York University Medical Center
Impact of In- and Out-of-State Power Plants on Semivolatile Pollutants in New York	Clarkson University
Analysis of Ozone and Fine Particles in the Northeast	SUNY Albany
Assessing the Effects of Transboundary Pollution on New York's Air Quality	NYS Dept. of Environmental Conservation
Enhanced Measurements of Oxidants, Fine Particles and their Precursors	SUNY Albany
Development and Demonstration of Continuous Ambient Particulate Monitor (R&P 6400 series)	Rupprecht & Patashnick Co., Inc.
Development and Demonstration of Innovative Instrument for Ambient Particulate Matter Mass Measurement Standard	Rupprecht & Patashnick Co., Inc.
Fine Particle Constituents and Acute Asthma in Urban Areas	Health Research Inc./NYSDOH
Monitoring Particle Size Distribution in Rochester	Clarkson University
Fine/Ultrafine Particulate Emissions Profiles	Gas Technology Institute; GE Energy & Environmental Research
Workshop on Incorporation of Receptor Models into PM and Adverse Health Effects Study	Clarkson University
Fine PM Precursor Emissions from Biofuel Combustion and Distributed Generation Sources	GE Energy & Environmental Research
Sampling and Analysis of Acidic Compounds in the New York City Area	Rutgers University
Formation and Transformation of Particles in Motor Engine Exhaust	SUNY Albany
Acid Deposition and Mercury Research Projects	
Long-Term Monitoring Program for Evaluating Changes in Water Quality in Adirondack Lakes	Adirondack Lakes Survey Corporation (ALSC)
Evaluation of the Recovery from Acidification of Surface Waters in the Adirondacks	SUNY College of Environmental Science and Forestry
Mercury in Adirondack/Catskills Wetlands, Lakes and Terrestrial Systems	Tetra Tech, Syracuse University, U.S. Geological Survey
Effects of Atmospheric Deposition of S, N, Hg on Adirondack Ecosystems	SUNY College of Environmental Science and Forestry
An Integrated Assessment of the Recovery of Surface Waters from Reduced Levels of Acid Deposition in the Catskills and Adirondacks	US Geological Survey, Institute of Ecosystem Studies
Status and Effects of Nitrogen Pollution in Northeastern United States	Hubbard Brook Research Foundation

Atmospheric Transport and Fate of Mercury in New York State	Research Foundation of SUNY
Monitoring Deposition and Effects of Air Pollution in the Hudson Valley	Institute of Ecosystems Studies
Assessment of Extent to Which Intensively studied Lakes are Representative of the Adirondack Mountain Region	E&S Environmental Chemistry, Inc.
The Potential Recovery of Water Chemistry and Stream Biota from Reduced Levels of Acid Deposition at a Sensitive Watershed in the Catskill Mountains	U.S. Geological Survey
Long-term Monitoring and Assessment of Mercury Based on Integrated Sampling Efforts Using the Common Loon, Prey Fish, Water, and Sediment	Adirondack Cooperative Loon Program/ Wildlife Conservation Society
Strategic Monitoring of Mercury in New York State Fish	New York State Department of Environmental Conservation
Assessment of Chemistry and Benthic Communities in Streams of the Oswegatchie-Black River Basins of the Adirondack Region	U. S. Geological Survey
Adirondack Effects Assessment Program	RPI, NYS Department of Environmental Conservation
Northeastern Ecosystem Research Cooperative	SUNY-Environmental Science and Forestry
Projects Crosscutting the Topics of Air Quality, Health and Ecological Response	
Quantifying Atmospheric Nitrogen Sources with New Stable Techniques	U.S. Geological Survey
Multi Pollutant Policies for the Electricity Sector and Environmental Quality in the Empire State	Resources for the Future
Analysis of New Pollution Control Strategy Utilizing Emission Reduction Credits and Small Scale Combined Heat and Power Units	Navigant Consulting
Quantifying the Environmental Benefits of Increased Deployment of Combined Heat and Power Technologies in NY State and the Impact of Proposed Emissions Standards for Small Distributed Generation	Navigant Consulting
Benefits Associated with Co-firing Willow Biomass and Wood Residues with Coal	SUNY - Environmental Science and Forestry