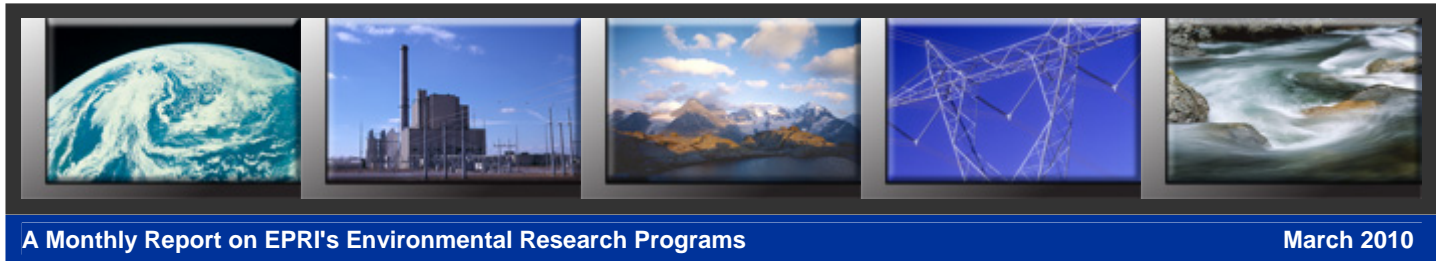


## Environment Quick News



Program members can use their epri.com ID and password to download Acrobat PDF files of EPRI technical reports. For assistance, contact the EPRI Customer Assistance Center at (800) 313-3774.

Dear Environment Sector members:

As we write this letter we are preparing for the advisory meetings in Orlando, Florida, where we will provide you with a summary of our key achievements in 2009 (including the Annual Overview document), finalize our 2010 program, and seek your input on research priorities for 2011. For those of you unable to attend, please voice your opinions to the respective program managers, as everyone's input is important. Given the many environmental regulatory and policy issues on the table today, it is critical that we spend your investments wisely to maximize impact and provide decision makers with the best possible science and technology information.

Among the issues we have dealt with recently are environmental implications of the Smart Grid and the new Smart Meters. Concern has been raised by some of your customers with regard to the radio frequency energy emitted by the meters and their potential health impacts. Working jointly with our colleagues in the Power Delivery Sector, we prepared a [White Paper](#) that discusses how these meters operate, their duty cycles, the level of RF energy associated with them, and how those energy levels compare with established standards. The bottom line is that the meters operate well below existing health thresholds. However, we need to be alert to new research and will be performing our own independent studies of these meters and other facets of the Smart Grid.

One message from the Smart Meter example is that new technology needs to be carefully examined for environmental issues that may arise. Our Technology Innovation project managed by Annette Rohr is examining the health and environmental impacts of new fossil-based generation, including carbon capture and storage. We are also starting a new body of work on environmental aspects of renewable energy. It is critical that we get out in front of these issues early and make any necessary changes now before a technology or process reaches commercial operation.

We hope most of you were able to join us in Orlando. If not, we hope you have the opportunity to join us in San Antonio in September or participate in our ongoing series of webcasts.

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## Air Quality Area News

### *EPRI Air Quality Research Presented at Toxicology Conference*

Three posters describing EPRI research findings were presented at the Society of Toxicology's 49th Annual Meeting, held in Salt Lake City in early March.

- Wagner, J.G., et al. "PM<sub>2.5</sub>-Induced Changes in Heart Rate Variability in Spontaneously Hypertensive Rats are Associated with Specific Sources in Detroit, MI and Steubenville, OH." Co-authored by EPRI's Annette Rohr, this poster described rat exposures to concentrated ambient particles (CAPs) from two Midwest airsheds. CAPs concentrations were similar for the two airsheds, but the cardiovascular effects from the PM were greater in Detroit and more strongly associated with major emissions sources than in Steubenville.
- McDonald, J., et al. "Comparison of Health Effects and Composition of Toluene-Derived Secondary Organic Aerosols Formed With and Without Sulfur Dioxide." Co-authored by EPRI's Eladio Knipping and Annette Rohr, this poster presented the initial findings from the Secondary Particulate Health Effects Research (SPHERES) program. Inhalation exposure of rodents to toluene-derived secondary organic aerosol revealed no increase in pulmonary inflammation, while some other toxicity endpoints indicated injury.
- Yager, J.W., et al. "Genomic changes in human primary uroepithelial cells following exposures to arsenite and its metabolites." Co-authored by former EPRI manager Janice Yager, the poster described a study to look at specific toxicological aspects of the dose-response relationship for the carcinogenicity of inorganic arsenic. Gene alterations were found with higher-concentration arsenic treatments, and the number of genes altered increased with increasing arsenic concentrations. This finding indicates that the genomic response is different at low doses as compared to high doses, an important property when modeling arsenic exposure.

For more information, contact Annette Rohr, (650) 855-2297, [arohr@epri.com](mailto:arohr@epri.com); Eladio Knipping, (202) 293-6393, [eknippin@epri.com](mailto:eknippin@epri.com); or Sharan Campleman, (650) 855-2331, [scampleman@epri.com](mailto:scampleman@epri.com)

## Program 42: Air Toxics Health and Risk Assessment

### *Paper Advances Understanding of Mercury Cycling in the North Pacific Ocean*

Sunderland, EM, et al. "[Mercury sources, distribution, and bioavailability in the North Pacific Ocean: Insights from data and models](#)," *Global Biogeochemical Cycles*, 23 (2), 2009 (EPRI Product E230563). This research uses mercury sounding data collected from 16 hydrographic stations in the North Pacific and regional results from EPRI global mercury deposition modeling to develop patterns of oceanic mercury transport between hemispheres. These transport patterns influence levels of methylmercury in North Pacific fish, a primary source of mercury exposure for the U.S. population. For more information, contact Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com).

### *EPRI Contributes to UN-Sponsored Overview of Global Mercury Research*

Pirrone, N., and Mason, R. (Eds.), [Mercury Fate and Transport in the Global Atmosphere: Emissions, Measurements and Models](#), Springer Science+Business Media, LLC, New York, NY, 2009, 637 pages (EPRI Product E230564). This book offers a state-of-the-art overview of major issues related to the interaction of mercury with terrestrial and aquatic ecosystems. It evaluates emission sources, regional concentrations and fluxes, and global atmospheric mercury modeling—including a detailed chapter on the AER/EPRI Global Chemical Transport Model for Mercury. Seventy international experts contributed to the book, sponsored by EPRI and other members of the United Nations Environment Programme Global Partnership for Mercury Air Transport and Fate Research. For more information, contact Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com).

## Program 91: Assessment Tools for Ozone, Particulate Matter, Regional Haze and Atmospheric Deposition

### *EPRI Visibility Experiment Continues to Shed Light on Aerosol Properties*

EPRI's Advanced Visibility Measurements Experiment completed its measurement phase last summer, and several analyses are now under way. The multiyear, multisite project is investigating the causes of aerosol light extinction in U.S. national parks, using intensive periods of collocated measurements at selected sites in

the National Park Service's Interagency Monitoring of Protected Visual Environments (IMPROVE) network. Of particular note is an ongoing analysis by Liz Alexander, Pacific Northwest National Laboratory, using high-resolution aerosol mass spectrometer (AMS) data from the Mt. Rainier site. In comparing the AMS data with measured hygroscopic growth factors for a 10-day period, she found that periods of increasing organic mass correlated with periods of decreasing water absorption. The inverse relationship suggests that a significant fraction of the organic mass comes from biogenic organic compounds, which tend to be less-water absorbing. Further research is under way to speciate the organic fraction. For more information, contact Naresh Kumar, (650) 855-2990, [nkumar@epri.com](mailto:nkumar@epri.com).

## GLOBAL CLIMATE CHANGE

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[Visit the Global Climate Webpage](#)

### **Global Climate Change Area News**

#### ***EPRI Staff Speak at Energy and Environment Conference***

EPRI's global climate research was presented at the EUEC 2010 Energy and Environment Conference, held Feb. 1–3 in Phoenix, AZ. Tom Wilson provided an overview of public cost estimates of HR 2454 (Waxman–Markey) and key assumptions that led to large variation in these estimates. Adam Diamant's presentation, "The Key Role of GHG Emissions Offsets in a U.S. CO<sub>2</sub> Cap-and-Trade Program," highlighted the risks and benefits of emissions offsets in planning for a low-carbon energy future. Delavane Diaz discussed the impacts of alternative offset supply assumptions on an electric company's strategy for compliance with a climate policy in her talk, "Why Carbon Offset Policy Matters for Electric Companies." These presentations are posted on the [Global Climate Webpage](#). For more information, contact Tom Wilson, (650) 855-7928, [twilson@epri.com](mailto:twilson@epri.com); Adam Diamant, (510) 260-9105, [adiamant@epri.com](mailto:adiamant@epri.com); or Delavane Diaz, (650) 855-2332, [ddiaz@epri.com](mailto:ddiaz@epri.com).

### **Program 102: Global Climate Policy Costs and Benefits**

#### ***Workshop on Socioeconomic Scenarios for Climate Research and Assessment***

At the invitation of the National Academy of Sciences' National Research Council (NRC), EPRI's Steven Rose participated in the NRC's Feb. 4–5 workshop, Describing Socio-Economic and Environmental Futures for Climate Change Research and Assessment. The workshop reviewed approaches and methodological issues in developing socioeconomic scenarios, considered the forces and uncertainties that affect the scenarios, and identified the elements of a research plan to advance development of socioeconomic scenarios and narratives. The workshop effort will help direct research for the next U.S. national assessment of climate change impacts and the next assessment report of the Intergovernmental Panel on Climate Change. For more information, contact Steven Rose, (202) 293-6183, [srose@epri.com](mailto:srose@epri.com).

#### ***Non-CO<sub>2</sub> Greenhouse Gas Emissions Dataset Available***

EPRI's Steven Rose and colleagues from Purdue University have completed a preliminary non-CO<sub>2</sub> greenhouse gas (GHG) emissions dataset for the Global Trade Analysis Project (GTAP) version 7 global economic and energy activity database. The dataset includes estimated global emissions for the year 2004 for methane, nitrous oxide, and fluorinated gases. The dataset is available on the GTAP website, along with a [research memorandum](#) describing the methodologies used in developing the dataset. Please note that there is a charge for these data and the user must be a licensee of the GTAP 7 database. GTAP utility orders should be placed at [https://www.gtap.agecon.purdue.edu/databases/Utilities/order\\_form.asp](https://www.gtap.agecon.purdue.edu/databases/Utilities/order_form.asp). For more information, contact Steven Rose, (202) 293-6183, [srose@epri.com](mailto:srose@epri.com).

### **Program 103: Greenhouse Gas Reduction Options**

#### ***EPRI Hosts 7th GHG Emissions Offset Policy Dialogue***

On Feb. 25, EPRI hosted the seventh workshop in its EPRI Greenhouse Gas (GHG) Emissions Offset Policy Dialogue project, held in Washington D.C. Approximately 85 representatives from the policymaking, environmental, industrial, financial, and research communities participated. The workshop explored the potential design, evolution, and scale of mechanisms to reduce GHG emissions across whole economic sectors, particularly in the developing world. Discussions covered policy developments from COP-15, held in

Copenhagen, Denmark in December 2009, including progress on Clean Development Mechanism (CDM) reform. The workshop also explored the potential supply of “sector-based” emissions reductions that could be achieved in key economic sectors and countries around the world. Workshop materials are available on the [Global Climate Webpage](#). For more information, contact Adam Diamant, (510) 260-9105, [adiamant@epri.com](mailto:adiamant@epri.com).

### ***New Project on Market Potential for Greenhouse Gas Emissions Offsets Is Under Way***

In December of 2009, EPRI launched a new supplemental project called “[Improving Emission Offset Estimates and Understanding Their Use as a Compliance Option under Evolving Climate Policies](#)” (1020530). As of Feb. 1, EPRI had received sufficient funding commitments to begin this project. However, additional EPRI member companies are still needed to fully fund the project. This project expands EPRI’s efforts to provide timely information, data, quantitative modeling, and critical analysis related to GHG offsets to help inform policy and regulatory development. It aims to provide more-realistic estimates of the cost, market potential, and timing of possible GHG offset reductions. The EPRI offsets project team plans its kick-off meeting with participating EPRI companies in conjunction with the March 2010 Environment Sector Advisors meeting in Orlando, FL. For more information, contact Adam Diamant, (510) 260-9105, [adiamant@epri.com](mailto:adiamant@epri.com), or Francisco de la Chesnaye, (202) 293-6347, [pdelachesnaye@epri.com](mailto:pdelachesnaye@epri.com).

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## **LAND AND GROUNDWATER**

### **Program 49: Coal Combustion Products—Environmental Issues**

#### ***Tests Support Use of Spray Dryer Absorber Products in Making Cement and Concrete***

[Characterization of Spray Dryer Absorber Products for Use in Cement and Concrete Applications](#) (EPRI Product 1017580). Working toward increasing the use of spray dryer absorber (SDA) products, researchers characterized their physical, chemical, and mineralogical properties. They compared SDA product properties with those described in the ASTM C 618 standard specification for using fly ash in portland cement concrete. Samples from eight power plants met enough of the standard specification criteria to show promise for use in cement and concrete applications. This Technical Report is available at no additional cost to funders of Program 78; others are welcome to purchase it. For more information, contact Ken Ladwig, (262) 754-2744, [keladwig@epri.com](mailto:keladwig@epri.com).

### **Program 50: Manufactured Gas Plant Site Management**

#### ***MGP Symposium Highly Successful***

EPRI’s MGP Symposium, held Jan. 27–29 in San Antonio, TX, was rated as a great success by the attendees. Two hundred sixteen people attended and learned about MGP site management issues from 39 technical presentations, 41 posters, and 16 tabletop displays. Topics covered included site characterization, site remediation, groundwater, soil vapor intrusion, air monitoring, sediments, and health risk. Typical comments included “Good content, well organized,” “An excellent job as usual,” and “This was a great conference, both in presentation and content.” For more information, contact Jim Lingle, (414) 355-5559, [jlingle@epri.com](mailto:jlingle@epri.com). or Jeff Clock, (845) 608-0642, [jclock@epri.com](mailto:jclock@epri.com).

#### ***Feasibility Study Illustrates Effectiveness of In Situ Thermal Stabilization to Remediate MGP Site***

[Evaluation of In Situ Thermal Stabilization at a Former Manufactured Gas Plant](#) (EPRI Product 1020425). Researchers used TARGOST® to delineate the subsurface extent of coal tar at a former MGP site and treated site soil samples in the laboratory to determine that in situ thermal stabilization would remediate site contaminants without causing soil subsidence under a nearby railway. These emerging technologies will play an increasingly important role in MGP site remediation near buildings and other infrastructure that cannot be disturbed. For more information, contact Jeff Clock, (845) 608-0642, [jclock@epri.com](mailto:jclock@epri.com).

#### ***Model for the Assessment and Remediation of Sediments Evaluates Active Sediment Caps for Anacostia River Remediation***

[Implementation of the Model for the Assessment and Remediation of Sediments](#) (EPRI Product 1020624). The Model for the Assessment and Remediation of Sediments was used to predict and compare the long-term effectiveness of several active sediment caps in the Anacostia River, which flows through the District of

Columbia. Developed by EPRI, it is the only available software to model river hydrodynamics, sediment transport, and chemical fate and transport sequentially in an integrated framework. The goal of this research was to test the capability of the model to predict the long-term effectiveness of four different subaqueous active capping scenarios. The research team reviewed available literature on hydrodynamic, sediment transport, and chemical fate and transport modeling, as well as model input parameters. They developed specific inputs based on previous studies of the Anacostia River and specific studies undertaken for this research. This report describes results of preliminary simulations. In the future, these results will be verified by comparison to data obtained from the ongoing field-scale, active capping barrier project under way on the Anacostia River. For more information, contact Jeff Clock, (845) 608-0642, [jjclock@epri.com](mailto:jjclock@epri.com).

## **Program 59: Power Plant Toxics Characterization**

### ***Iron Addition to FGD Scrubber Tested for Mercury and Selenium Removal***

[Demonstration Test of Iron Addition to an FGD Absorber to Enhance Mercury Removal](#) (EPRI Product 1017975). In a full-scale evaluation at a power plant burning low-sulfur eastern bituminous coal, researchers added iron to a limestone, forced-oxidation flue gas desulfurization (FGD) scrubber to potentially minimize mercury flue gas re-emissions. A secondary objective was to increase the amount of mercury and selenium contained in the FGD solids, thus reducing mercury and selenium levels in the FGD purge water. Results were promising for selenium but inconclusive for mercury. For more information, contact Paul Chu, (650) 855-2362, [pchu@epri.com](mailto:pchu@epri.com).

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## **WATER AND ECOSYSTEMS**

## **Program 54: Fish Protection at Steam Electric Power Plants**

### ***EPRI Holds Annual Meeting of the Ohio River Ecological Research Program***

The EPRI-managed Ohio River Ecological Research Program held its annual workshop at the American Electric Power Company's Conference Center in Columbus, OH on Feb. 2–3. Representatives from ten power companies operating 14 power plants on the river attended. Program presentations focused on a review of 2008 and 2009 Ohio River monitoring results and analysis of long-term thermal impacts. The program is now sponsoring graduate research, and two graduate presentations were made: (1) use of bioenergetic modeling to assess thermal impacts, by Purdue University; and (2) effects of fish community isolation on fish population genetics, by Marshall University. Presentations by the Ohio River Sanitation Commission (ORSANCO) reviewed ongoing fish population sampling results and water quality standards development. The U.S. Fish & Wildlife Service reviewed the Ohio River Basin Fish Habitat Plan, and a researcher at Ohio State reviewed the status of freshwater mussel populations and mussel biology in the Ohio River. Day two of the meeting included a tour of the Columbus Zoo's Mussel Research Laboratory. For more information, contact Doug Dixon, (804) 642-1025, [ddixon@epri.com](mailto:ddixon@epri.com).

### ***Research Initiated on Fine-Mesh Screen with Vacuum Larval Collection System***

EPRI has initiated a laboratory effort to evaluate the performance of the Beaudrey Water Intake Protection (WIP) fine-mesh (2.0 mm) screen, which has a novel vacuum system for collecting fish eggs and larvae as well as debris. The effectiveness of vacuum systems for collecting early life stages of fish and shellfish has not been previously evaluated. This new research will complement the three years of EPRI research on other types of water intake screens with fine-mesh systems (see Technical Update [1020663](#)). The Beaudrey WIP screen with coarse mesh (9.75 mm or 3/8") was previously tested in an EPRI-Nebraska Public Power District North Omaha Station Tailored Collaboration Project and found to be highly protective (>95% survival) of fish. This new evaluation of the fine-mesh Beaudrey WIP screen will be conducted in the Alden Research Laboratory flume in Holden, MA. Results will be available in late 2010. For more information, contact Doug Dixon, (804) 642-1025, [ddixon@epri.com](mailto:ddixon@epri.com).

### ***New EPRI Report Examines Continuous Screen Rotation and Fish Survival***

[Evaluation of Continuous Screen Rotation and Fish Survival: Studies at Plant Barry, Mobile River, AL](#) (EPRI Product 1016807). This Technical Report presents the results of a study on the effectiveness of continuous rotation of conventional traveling screens for reducing impingement of freshwater organisms at a cooling water

intake structure (CWIS) located at an Alabama Power Company plant. The report also describes latent impingement mortality and health evaluations of fish backwashed from a conventional screen to investigate the usefulness of returning these fish to the environment. These research results advance understanding of the usefulness of altering CWIS equipment as a fish protection technology for meeting Clean Water Act (CWA) §316(b) requirements. For more information, contact Doug Dixon, (804) 642-1025, [ddixon@epri.com](mailto:ddixon@epri.com).

## **Program 55: Strategic Water Issues: TMDLs, Availability, Climate**

### ***Three New EPRI Reports Cover Sustainable Water Resources Management***

In 2006, Congress appropriated money to fund a [National Decentralized Water Resources Capacity Development Project](#) (NDWRCDP). NDWRCDP is a cooperative program that supports research and development to improve understanding, training, and practice in the field of onsite/decentralized wastewater and stormwater treatment. EPRI's involvement in NDWRCDP is based on the water sector's use of electric power and the strong interdependencies between electric power and water sustainability with respect to community social and economic vitality. The three EPRI Technical Reports listed below are the result of a research project initiated and managed by EPRI with NDWRCDP funds. The reports will be of value to all parties interested in the water aspects of sustainable development.

- [Sustainable Water Resources Management, Volume 1: Executive Summary](#) (EPRI Product 1019582). This Technical Report summarizes the findings of a three-phase research project investigating sustainable water management.
- [Sustainable Water Resources Management, Volume 2: Green Building Case Studies](#) (EPRI Product 1020602). This Technical Report evaluates how well green building rating systems address sustainable water management practices at the community level by applying three widely used rating systems to three diverse commercial green building projects.
- [Sustainable Water Resources Management, Volume 3: Case Studies on New Water Paradigm](#) (EPRI Product 1020587). This Technical Report evaluates the foundation and requirements for a sustainable water infrastructure at the community and watershed scales.

For more information, contact Robert Goldstein, (650) 855-2154, [rogoldst@epri.com](mailto:rogoldst@epri.com), or Tina Taylor, (650) 855-2369, [tmtaylor@epri.com](mailto:tmtaylor@epri.com).

## **Program 58: Waterpower**

### ***EPRI Kicks Off New Project Quantifying the Full Value of Hydropower in the Transmission Grid***

On Mar. 16, EPRI will kick off a two-year U.S. Department of Energy project on "Quantifying the Full Value of Hydropower in the Transmission Grid." This project will review key hydro assets, including pumped storage in the major U.S. electricity markets, and will use case study data and modeling to increase understanding of best operating mode and value of these assets in a changing electric generation mix. Major partners in this effort include Oak Ridge National Laboratory, Sandia National Laboratories, electric system modeling company LCG Consulting, and hydro power energy engineering consultant HDR-DTA. For more information, contact Tom Key, (865) 218-8082, [tkey@epri.com](mailto:tkey@epri.com).

### ***Next Phase of Fish-Friendly Hydropower Turbine Development Under Way***

In 2009, EPRI received a grant from the U.S. Department of Energy (DOE) to continue the development of what is now called the Alden Turbine—a novel three-bladed hydropower turbine that has demonstrated high fish survival potential in pilot-scale testing. In the new project, the turbine conceptual design is being engineered to support its future manufacture and deployment. The preliminary engineering will be used to fabricate a physical model, which will be tested for operational and economic performance in a hydraulic test stand facility. Physical model testing will be completed in late 2010, and the final report for the project will be delivered by March 2011. EPRI has received \$1.2 million in funding from DOE, which it will match with \$1.4 million additional cost-share industry funds. EPRI is seeking additional collaborative industry funding to complete the research. For more information, contact Doug Dixon, (804) 642-1025, [ddixon@epri.com](mailto:ddixon@epri.com).

### ***EPRI Serves on Steering Group for Hydro Research Foundation Fellowship Program***

The U.S. Department of Energy has awarded a three-year, \$3 million grant to the Hydro Research Foundation to fund graduate fellowships in a broad range of topics related to conventional and pumped storage hydropower. On Feb. 4–5, the program's Steering Group (with EPRI representation) met in Denver to finalize announcement materials and fellow selection criteria. Approximately 25 fellowships will be awarded to masters students (two years) and Ph.D. students (up to three years). Fellows will receive a living stipend, tuition allowance, allowance for university-provided health coverage, and funds to participate in three Hydro Fellows Roundtables. The Steering Group will meet in Washington in late April to select the first class of fellows. For more information, contact Paul Jacobson, (410) 489-3675, [pjacobson@epri.com](mailto:pjacobson@epri.com).

### ***EPRI Research Presented at Hydropower Meeting***

On Feb. 18, Tom Key chaired a panel and presented "Pumped Storage Applications in a Carbon-Constrained Electricity Future" at the Northwest Hydroelectric Association 2010 Annual Conference in Portland, OR. The National Hydropower Association's Pumped Storage Council also met at the conference and announced results of a recent survey on storage needs in U.S. energy markets. For more information, contact Tom Key, (865) 218-8082, [tkey@epri.com](mailto:tkey@epri.com).

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## **T&D ENVIRONMENTAL ISSUES**

### **Program 60: EMF Health Assessment and Radio-Frequency Safety**

[Visit the EMF Health Assessment and RF Safety Public Webpage](#)

### ***Kavet to Co-Chair IEEE Subcommittee on Electromagnetic Safety***

Dr. Rob Kavet has been appointed co-chair of an Institute of Electrical and Electronics Engineers (IEEE) subcommittee charged with updating standards for exposure to electromagnetic fields. As the result of a recent cooperation agreement between the IEEE Standards Association and the North Atlantic Treaty Organization (NATO) Standardisation Agency, the revised exposure standard will cover the full range of ELF–RF exposure from 0 Hz to 300 GHz and will be applicable worldwide in civilian and military settings. For more information, contact Rob Kavet, (650) 855-1061, [rkavet@epri.com](mailto:rkavet@epri.com).

### ***EPRI Comments on Swedish Study of PCB Accumulation Beneath AC Power Lines***

Öberg, T., and Peltola, P. "Increased deposition of polychlorinated biphenyls (PCBs) under AC high-voltage power line," *Atmospheric Environment* 2009;43:6168–6174 (EPRI Product 1020733). EPRI evaluates the strengths, limitations, and research context of this study, whose authors report that pine needles under AC power lines have polychlorinated biphenyl (PCB) levels almost twice as high as needles from reference sites. The authors imply that power line electric fields may enhance exposures to toxic or carcinogenic agents and write, "Since it has not been possible to establish a direct biophysical mechanism between ELF exposure and leukemia, indirect causation through intermediary factors must also be considered, and the suggested influence through chemical exposure therefore deserves attention." [Comments](#) are available on [epri.com](http://epri.com). For more information, contact Gabor Mezei, (650) 855-8908, [gmezei@epri.com](mailto:gmezei@epri.com).

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## **ENVIRONMENT FEDERAL HIGHLIGHTS (Washington D.C. Office, John Novak)**

**For more information on the items below, contact John Novak, 202-293-6180, [jnovak@epri.com](mailto:jnovak@epri.com).**

### ***New York State Climate Action Plan Visionary Meeting***

John Novak gave a presentation on the 2009 Prism/MERGE update and participated in a panel discussion entitled "Possibilities and Options for a Low Carbon Future" at the Climate Action Plan Visionary Meeting held Jan. 5 at the New York Academy of Sciences in New York City. The meeting was held as a result of Executive Order 24, signed by Governor Paterson to set a goal of reducing greenhouse gas emissions in New York State by 80% below 1990 levels by 2050. The Executive Order also created the Climate Action Council and gave it a

directive to prepare a draft Climate Action Plan by September 30, 2010. The Action Plan will assess how all economic sectors can reduce greenhouse gas emissions and adapt to climate change, and identify the extent to which such actions support New York's goals for a clean energy economy.

### ***Washington Campus Presentation***

On Jan. 6, John Novak presented the EPRI Prism/MERGE analysis, "The Value of the Full Portfolio," to a group of executive MBA candidates in a panel discussion organized by the Washington Campus. The Washington Campus is a not-for-profit consortium of some of the top MBA and executive MBA programs, U.S. and international corporations, government exchange programs, trade associations, government agencies, and non-profit organizations. The consortium helps prepare business leaders to participate effectively in the national policy discussion by hosting these leaders in Washington and offering interesting and informative speakers to assist in understanding the "ways of Washington."

### ***IPCC Special Report on Renewable Energy***

The Intergovernmental Panel on Climate Change (IPCC) is preparing an IPCC Special Report on renewable energy. John Novak and Bryan Hannegan joined a number of industry organizations and companies in developing and sponsoring an expert's workshop on Feb. 1–2 to provide input on the report. EPRI also submitted comments on the draft report to the IPCC.

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## **New Supplemental Project Opportunities**

***For a complete list of all active Environment Supplemental Project Opportunities, [click here](#).***

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## **New Marketing Communications**

### ***Program 102: Global Climate Policy Costs and Benefits***

- Tri-State Develops Greenhouse Gas Management Roadmap through EPRI Research and Development, Success Story (EPRI Product 1020644)

### ***Program 59: Power Plant Toxics Characterization***

- [Responding to the EPA Information Collection Request for Electric Utility Steam Generating Units—Fuels, Fact Sheet](#) (EPRI Product 1020724)
- [EPRI Researches Alternative Condensable Particulate Matter Test Method to Help Wisconsin Public Service Measure Emissions](#), Success Story (EPRI Product 1020622).

### ***Program 55: Strategic Water Issues: TMDLs, Availability, Climate***

[EPRI and Minnesota Power Conduct Innovative Study of Water Fluctuation Effects on Mercury in Reservoirs](#), Success Story (EPRI Product 1020734)

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## **Upcoming Events**

\* denotes EPRI sponsored or cosponsored event

### **Environment Sector**

#### ***\* Environment Sector and Area Council Advisory Meetings***

Sept. 27–30, San Antonio, TX. Contact: Marsha Grossman, (650) 855-8760, [mgrossma@epri.com](mailto:mgrossma@epri.com).

## **Energy Sustainability**

### **\* Energy Sustainability Interest Group Workshop**

May 3–4, Boston MA. Contact, Todd Maki, (650) 855-2162, [tmaki@epri.com](mailto:tmaki@epri.com) or Kitty Vroom, (650) 855-2255, [kvroom@epri.com](mailto:kvroom@epri.com). Workshop is open to members of the Energy Sustainability Interest Group. More information is available at the [event website](#).

## **Air Quality**

### **20th CRC On-Road Vehicle Emissions Workshop**

Mar. 22–24, San Diego, CA. Contact: Stephanie Shaw, (650) 855-2353, [sshaw@epri.com](mailto:sshaw@epri.com). More information is available at the [event website](#).

### **AAAR Specialty Conference—Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes**

Mar. 22–26, San Diego, CA. Contact: Naresh Kumar, (650) 855-2990, [nkumar@epri.com](mailto:nkumar@epri.com). More information is available at the [event website](#).

### **\* EPRI/UARG Air Toxics Research Coordination Meeting**

May 5–7, Palo Alto, CA. Contact: Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com).

### **Remediation of Chlorinated and Recalcitrant Compounds**

May 24–27, Monterey, CA. Contact: Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com). More information is available at the [event website](#).

### **\*EPRI Air Quality Summer Seminar—Particulate Matter and Health: Evaluating Alternatives to a Mass-Based PM Standard**

May 26–27, Washington, D.C. Contact: Naresh Kumar, (650) 855-2990, [nkumar@epri.com](mailto:nkumar@epri.com).

### **Goldschmidt™ 2010 – Earth, Energy and the Environment**

June 13–18, Knoxville, TN. Contact: Arnout Ter Schure, (650) 855-2281, [aterschu@epri.com](mailto:aterschu@epri.com). Dr. Ter Schure will chair a session on Atmospheric Oxidation of Mercury by Reactive Halogen Species. More information is available at the [event website](#).

### **A&WMA 103rd Annual Conference & Exhibition**

June 22–25, Calgary, Canada. Contact: Naresh Kumar, (650) 855-2990, [nkumar@epri.com](mailto:nkumar@epri.com). More information is available at the [event website](#).

### **Joint ICACGP–IGAC Conference—Atmospheric Chemistry: Challenging the Future**

July 11–16, Halifax, Canada. Contact: Knipping, (202) 293-6343, [eknipin@epri.com](mailto:eknipin@epri.com). More information is available at the [event website](#).

### **\* Power Plant Air Pollutant Control “MEGA” Symposium**

Aug. 30–Sept. 2, Baltimore, MD. Contact: Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com). More information is available at the [event website](#).

### **A&WMA Symposium on Air Quality Measurement Methods and Technology**

Nov. 2–4, Los Angeles, CA. Contact: Naresh Kumar, (650) 855-2990, [nkumar@epri.com](mailto:nkumar@epri.com). More information is available at the [event website](#).

### **American Geophysical Union 2010 Fall Meeting**

Dec. 13–17, San Francisco, CA. Contact: Stephanie Shaw, (650) 855-2353, [sshaw@epri.com](mailto:sshaw@epri.com).

## Global Climate

### **\* 15th Annual EPRI Global Climate Change Research Seminar**

May 18–19, Washington, DC. Contact: Christina Kemp, (650) 855-2044, [ckemp@epri.com](mailto:ckemp@epri.com).

## Land and Groundwater

### **\* TRI for Power Plants (LARK-TRIPP) Training Workshop**

Mar. 24–25, Charlotte, NC. Contact: Naomi Goodman, (650) 855-2193, [ngoodman@epri.com](mailto:ngoodman@epri.com).

### **\* EPRI/UARG Air Toxics Research Coordination Meeting**

May 5–7, Palo Alto, CA. Contact: Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com).

### **Remediation of Chlorinated and Recalcitrant Compounds**

May 24–27, Monterey, CA. Contact: Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com). More information is available at the [event website](#).

### **A&WMA 103rd Annual Conference & Exhibition**

June 22–25, Calgary, Canada. Contact: Naresh Kumar, (650) 855-2990, [nkumar@epri.com](mailto:nkumar@epri.com). More information is available at the [event website](#).

### **\* Power Plant Air Pollutant Control “MEGA” Symposium**

Aug. 30–Sept. 2, Baltimore, MD. Contact: Leonard Levin, (650) 855-7929, [llevin@epri.com](mailto:llevin@epri.com). More information is available at the [event website](#).

## Water and Ecosystems

### **\* Webcast: Ohio River Trading Project Quarterly Update**

May 19, 10 a.m. PDT. Contact: Katie Vroom, (650) 855-2417, [kavroom@epri.com](mailto:kavroom@epri.com).

### **\* Summer Water & Ecosystem Area Council Meeting**

June 23–25, Whitefish, MT. Contact: Katie Vroom, (650) 855-2417, [kavroom@epri.com](mailto:kavroom@epri.com).

### **\* Webcast: Ohio River Trading Project Quarterly Update**

Aug. 18, 10 a.m. PDT. Contact: Katie Vroom, (650) 855-2417, [kavroom@epri.com](mailto:kavroom@epri.com).

### **\* Webcast: Ohio River Trading Project Quarterly Update**

Nov. 17, 10 a.m. PDT. Contact: Katie Vroom, (650) 855-2417, [kavroom@epri.com](mailto:kavroom@epri.com).

## T&D Environmental Issues

### **The Bioelectromagnetics Society 32nd Annual Meeting**

June 14–18, Seoul, Korea. Contact: Gabor Mezei, (650) 855-8908, [gmezei@epri.com](mailto:gmezei@epri.com). More information is available at the [event website](#).

### **\* 2010 EMF Scientific Advisory Committee Meeting**

Aug. 16–17, New York, NY. Contact: Gabor Mezei, (650) 855-8908, [gmezei@epri.com](mailto:gmezei@epri.com).

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