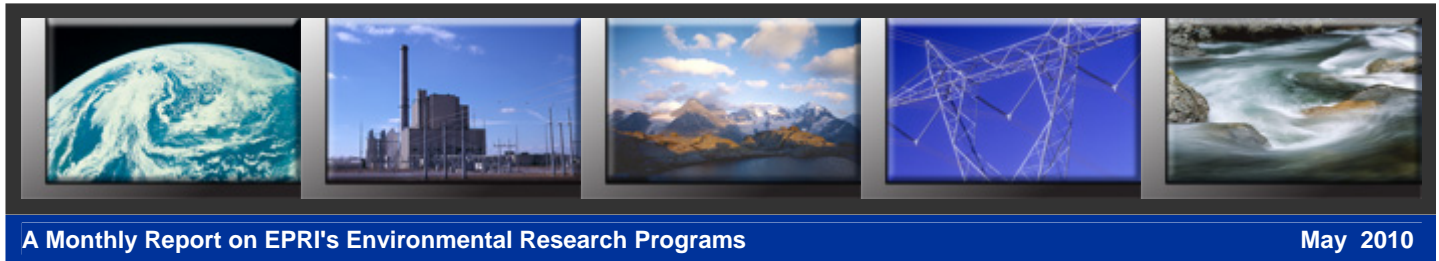


Environment Quick News



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:

One of our goals at EPRI is to anticipate and be prepared for emerging issues. In the late 1980s we anticipated that hazardous air pollutants might become an issue, so we started the PISCES project (which we now call the Power Plant Multimedia Toxics Program) to characterize releases of all potentially toxic substances from air, water, and solid discharges. In the 1990 Clean Air Act Amendments, EPA was required to study the issue of hazardous air pollutants and prepare a Report to Congress. Since we had already started down this road, we were able to provide significant input to that study.

As the toxics issue evolved, mercury became the primary substance of concern. However, EPA is now examining a much broader set of hazardous air pollutants as part of its Information Collection Request (ICR) and resulting Maximum Achievable Control Technology (MACT) regulatory process. Selenium, which we have been studying for several years, is gaining more regulatory attention. Like mercury, selenium can exist in many forms in the discharges from coal-fired power plants. In response to member requests, we will be holding a webcast to communicate our existing research on selenium from both the Environment and Generation sectors, and to identify needed further research. We have also appointed an Issue Manager, Naomi Goodman, who is already working on these activities. Please feel free to contact Naomi if you have ideas or questions, (650) 855-2193, ngoodman@epri.com.

We would again like to thank you for your contributions to our research programs. The 2011 Portfolio is about to be launched, and the list of critical issues seems to grow even larger. Our goal in 2011 is to broaden participation so that we can address these issues most effectively. Please give your participation careful consideration.

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Decision Nears on Lowering Allowable Arsenic Levels

Prior to its September meeting, the Environmental Protection Agency's (EPA's) Science Advisory Board (SAB) is expected to accept or reject a report, approved by an SAB Work Group, describing inorganic arsenic as an oral carcinogen. The report, "Toxicological Review of Inorganic Arsenic," proposes a twentyfold increase (from 1.5 to 25.7 mg As/kg-day⁻¹) in the oral cancer slope factor for inorganic arsenic published in EPA's Integrated Risk Information System (IRIS). The cancer slope factor increase would significantly lower allowable levels of inorganic arsenic for most media. If the SAB accepts the report and the Office of Management and Budget approves it, the new cancer slope factor would immediately increase the likelihood of crossing health thresholds in site-specific or industrywide quantitative multimedia cancer risk assessments. Ultimately, the change would impact EPA's regulatory programs, including those for drinking water, ambient water quality criteria, and soil cleanup. EPRI submitted [comments](#) on the draft report to the official docket (Docket ID No. EPA-HQ-ORD-2010-0123) and directly to the SAB Work Group, which met April 6–7 to review the draft report in a public forum (public comments are available [here](#)). For more information, contact Sharan Campleman, (650) 855-2331, scampleman@epri.com, or John W. Goodrich-Mahoney, (202) 293-7516, jmahoney@epri.com.

Presentations From 2010 Spring Environment Sector and Area Council Meetings Available

Presentations from the March 2010 meetings of the Environment Sector and Area Councils are now available on epri.com. Please use your epri.com ID and password to sign in first, then use [this link](#) and select the Program Material or Sector Council Material tab. Documents may be restricted to members who fund the specific programs.

Wide Range of Discussions at Energy Sustainability Interest Group Workshop

Attendees at the May 3–4 Energy Sustainability Interest Group workshop in Boston participated in a wide range of discussions, including sustainability in the supply chain, success cases for sustainability, creating goals and choosing targets, sustainability in operations and planning, and a review of ongoing interest group projects. In addition, guest speaker Dan Esty, co-author of *Green to Gold*, led a half-day workshop focused on developing and implementing sustainability-based strategies to innovate, create value, and build competitive advantage. The Energy Sustainability Interest Group meets by webcast regularly throughout the year, as well as for both spring and fall workshops, to exchange best practices, discover strategic value in sustainable business practices, and solve sustainable energy challenges collaboratively. For more information, contact Todd Maki, (650) 855-2162, tmaki@epri.com.

Air Quality Area News

EPRI Aerosol Research to be Presented in California Air Resources Board June 2 Webcast

Professor Tony Wexler of the University of California, Davis will present EPRI research in a live webcast of the Chair's Air Pollution Seminar on June 2, sponsored by the California Air Resources Board. Dr. Wexler's presentation, "Part I—Ambient Aerosols: Collection of Source-Oriented Samples for Toxicity Testing," describes research done as part of EPRI's Secondary Particulate Health Effects Research (SPHERES) Supplemental Project. Information regarding the webcast is posted on the California Air Resources Board website, <http://www.arb.ca.gov/research/seminars/seminars.htm>. For more information, contact Eladio Knipping, (202) 293-6343, eknippin@epri.com.

EPRI Research Highlighted in Aerosol Conference

Papers from EPRI air quality and health research played a prominent role in the recent American Association for Aerosol Research Specialty Conference—Air Pollution and Health: Bridging the Gap from Sources to Health Outcomes. EPRI-funded research was cited throughout the conference by many researchers and highlighted at the two plenary sessions. A central theme in the conference was the discussions related to health effects from different components of particulate matter. Abstracts of presentations may be downloaded from the conference [website](#), including nine presentations authored/coauthored by EPRI staff. For more

information, contact Eladio Knipping, (202) 293-6343, eknippin@epri.com; Annette Rohr, (650) 855-2297, arohr@epri.com; or Ron Wyzga, (650) 855-2132, rwyzga@epri.com.

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

EPRI Project Improves Emissions Estimates for On-Road Vehicles

An EPRI project has refined the methods used for calculating emissions for on-road vehicles. In a modeling study for the Detroit and Atlanta regions, researchers put the updated on-road emission factors and usage patterns into the newest EPA vehicle emissions model, MOVES, and found large increases in particulate matter (up to a factor of four in light-duty gas vehicle emissions), particularly in wintertime, and large increases in NO_x, particularly in summertime. Now that the MOVES model is officially required for use by states and regions for future State Implementation Plan development, these refinements are expected to have significant impacts on air quality compliance modeling. These results were presented at the March 22–24 Coordinating Research Council On-Road Vehicle Emissions Workshop, and a paper is being prepared for journal submission. For more information, contact Stephanie Shaw, (650) 855-2353, sshaw@epri.com.

GLOBAL CLIMATE CHANGE

[Visit the Global Climate Webpage](#)

Program 102: Global Climate Policy Costs and Benefits

EPRI Participates in Energy Modeling Forum

On April 20–22, EPRI staff participated in the first meeting of the Energy Modeling Forum's Working Group 24 on Technology Strategies for Greenhouse Gas Mitigation. The Energy Modeling Forum is an international forum for sharing and discussing energy policy and global climate issues among experts. Working Group 24 is focusing on "development and cross-model comparisons of new international and domestic climate policy intervention scenarios." Mitigation strategies to be covered in depth include renewables, carbon capture and storage, nuclear, energy efficiency, and shale gas. The group is analyzing the efficacy of different policy options, including alternative assumptions about the timing and type of mitigation, and the allocation of mitigation across nations. The analyses will also examine a range of technology and policy scenarios for the United States. EPRI's Model for Estimating the Regional and Global Effects of Greenhouse Gas Reductions (MERGE) and U.S. Regional Economy Greenhouse Gas and Energy Model (US-REGEN) will both be used in the study. Working Group research will continue into 2011. Results will be broadly communicated and publicized in peer-reviewed journal articles. For more information, contact Geoff Blanford, (650) 855-2126, gblanford@epri.com.

Program 103: Greenhouse Gas Reduction Options

Nitrous Oxide (N₂O) Offsets Protocol Published

Millar, N., et al. "Nitrogen fertilizer management for nitrous oxide (N₂O) mitigation in intensive corn (Maize) production: an emissions reduction protocol for U.S. Midwest agriculture," *Mitigation Adaptation Strategy Global Change*, 2010, 15:185-204 (EPRI Product E233753). This journal article lays out an emissions reduction protocol that could be used to credit offsets for avoided nitrous oxide emissions from reduced nitrogen fertilizer use in agricultural crop production in the Midwest. The research was supported by EPRI, the National Science Foundation, Queensland University of Technology, and the Michigan Agricultural Experimental Station. For more information, contact Adam Diamant, (510) 260-9105, adiamant@epri.com.

Wind Generation in a Decarbonized Electricity Future

EPRI's Victor Niemeyer conducted an analysis to assess the potential for using wind generation to reduce carbon emissions in future energy production. The analysis used the U.S.-Regional Economy, Greenhouse Gas and Energy Model (US-REGEN) to estimate wind supply versus cost for varying amounts of wind resources. The results showed that while there is great potential for wind generation at low cost, getting the wind power to customers in large enough quantities to have a significant impact on CO₂ reductions is expensive due to the cost of new transmission and spillage (energy wasted when wind energy outputs do not

align with energy loads). Niemeyer gave an overview of the analysis at EPRI's Global Climate Change Area Council March meeting and a detailed presentation at EPRI's Global Climate Change Research Seminar. For more information, contact Victor Niemeyer, (650) 855-2262, niemeyer@epri.com.

LAND AND GROUNDWATER

Program 50: Manufactured Gas Plant Site Management

Green Remediation Subject of Advisory Workshop

See story under Program 51 in the T&D Environmental Issues Area.

Program 59: Power Plant Multimedia Toxics Characterization

EPRI's Information Collection Request Data Quality Review: How to Submit Stack Testing Data

Approximately 500 U.S. coal- and oil-fired power plants are gathering stack testing data to comply with the Environmental Protection Agency's (EPA's) Information Collection Request (ICR) for hazardous air pollutants. To ensure ICR data quality, EPRI invites power plants to participate in a voluntary, no-cost data quality review conducted by EPRI. But companies must act quickly so that EPRI can review the data and the utilities have a chance to correct data errors before EPA submittal deadlines starting July 5 and ending September 5.

- To initiate participation in EPRI's data quality review, companies must contact EPRI via email at ICR@epri.com.
- Then, company personnel will receive instructions for transferring ICR Part III report and data electronic files to EPRI's secure ftp site.

EPRI will screen power plant data to identify potential data quality problems and report findings to companies for their use. Data are confidential until publicly released via submission to EPA. For more information, consult "[ICR Data Evaluation Instructions to Participants](#)" and contact Paul Chu, (650) 855-2362, pchu@epri.com, George Offen, (650) 855-8942, goffen@epri.com, or Naomi Goodman, (650) 855-2193, ngoodman@epri.com.

Information Collection Request: How to Report Data in Electronic Form

[Responding to the EPA Information Collection Request for Electric Utility Steam Generating Units: ICR Part III Electronic Data Reporting](#) (EPRI Product 1020914). The Environmental Protection Agency (EPA) requires companies to report data from Part III of its Information Collection Request (ICR) for Electric Steam Generating Units in electronic form using EPA's software. This brochure explains the electronic reporting process, offering suggestions to avoid problems and minimize effort. The brochure is one in a series of technical papers that EPRI has prepared to help power plant owners provide high-quality ICR data to EPA. For more information, contact Naomi Goodman, (650) 855-2193, ngoodman@epri.com.

RY2009 Land Release Estimating and Record-Keeping TRI at Power Plants (LARK-TRIPP) Software Available

[Land Release Estimating and Record-Keeping TRI at Power Plants \(LARK-TRIPP\) RY2009 Version 1.0](#) (EPRI Product 1019895). This most recent version of EPRI's software estimates chemical releases from power plants for use in 2010 Toxics Release Inventory reporting to the Environmental Protection Agency (EPA). The program is newly upgraded to allow automatic data transfer into EPA's TRI-ME Web online software. For more information, contact Naomi Goodman, (650) 855-2193, ngoodman@epri.com.

EPRI Updates Methodology for Estimating Sulfuric Acid Emissions

[Estimating Total Sulfuric Acid Emissions from Stationary Power Plants](#) (EPRI Product 1020636). This report updates a methodology for estimating sulfuric acid emissions from fossil-fuel-fired electrical power production facilities. The report presents calculations that allow power plant owners to estimate the sulfuric acid produced during fuel combustion, removed by air pollution control equipment or flue gas treatment, and released to the environment in stack gases. The methodology was developed by Southern Company Services (SCS) and

modified by EPRI with permission from the developers. For more information, contact Naomi Goodman, (650) 855-2193, ngoodman@epri.com.

WATER AND ECOSYSTEMS

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

Strategy Meeting on Nuclear Power Plant (NPP) Cooling Water Issues

On April 14, EPRI held a joint strategy meeting with Idaho National Laboratory and industry representatives to discuss the cooling water issues facing existing and proposed nuclear units. Tom Mulford and Jeff Hamel (Nuclear Sector) and Kent Zammit (Environment Sector) represented EPRI at the meeting and discussed ongoing EPRI research in fish protection, cooling tower retrofit costs/benefits, and water conserving cooling technologies. Several EPRI members presented overviews of the issues they are facing with existing and proposed facilities. The attendees expressed interest in further research into these high priority issues:

- application of dry, hybrid, and indirect dry cooling to nuclear units
- an RFP on advanced cooling with outreach to the academic community to search for new solutions
- better information to inform the regulatory debate
- optimization of nuclear intakes to reduce entrainment and impingement
- alternative uses of waste heat
- methods to reduce water use at existing cooling towers

EPRI will be working with its advisors to expand and expedite its water research program based on this input. For more information, contact Kent Zammit, (805) 481-7349, kezammit@epri.com.

Paper Describes Model's Simulation of the Effect of Sulfate Addition on Methylmercury Output

Chen, C. W., and Herr, J. W. "[Simulating the Effect of Sulfate Addition on Methylmercury Output from a Wetland](#)," *Journal of Environmental Engineering*, 2010: 136(4):354-362. This paper describes a new application of the Watershed Analysis Risk Management Framework (WARMF). The model was used to simulate the response of Wetland S6 of the Marcell Experimental Forest in Minnesota to additions of sulfate. The model simulated wetland outflows that matched the measured outflows with an R-square of 0.856. WARMF also simulated other phenomena observed in the experiment: higher sulfate and MeHg levels at the wetland outlet after every sulfate addition, and higher sulfate and MeHg levels in the pore water of the bog after only the May addition, not the July and September additions. WARMF analysis indicates that the varying response of the pore water is a result of hydrologic processes. Results demonstrate the robust capability of WARMF to successfully simulate watershed mercury biogeochemical cycling, including the interrelationships of sulfate and mercury. For more information, contact Robert Goldstein, (650) 855-2154, rogoldst@epri.com.

Program 56: Effluent Guidelines and Water Quality Management

Case Studies Test Water Treatment Technologies for Removing Selenium

[Review of Water Treatment Technologies for Selenium Removal Implemented at Power Plants](#) (EPRI Product 1020813). Researchers investigated commercially available technologies for removing selenium from flue gas desulfurization (FGD) water in full-scale case studies at 10 coal-fired power plants. They found that biological treatments attained lower selenium levels than physical/chemical treatments at pH values optimized for overall trace metals removal. The fate of selenium (partitioning to ash, water, or FGD solids) and its chemical form varied significantly with FGD design, coal fired, and limestone used in the FGD process. For more information, contact Paul Chu, (650) 855-2362, pchu@epri.com.

Program 58: Waterpower

Roger Bedard Receives Lifetime Achievement Award

Roger Bedard, EPRI's Ocean Energy Leader, who retired at the end of March, recently received a Lifetime Achievement Award at the Global Marine Renewable Energy Conference in Seattle. Sean O'Neill, president of the Ocean Renewable Energy Coalition, the industry trade association, presented the award, noting Roger's very important role in the genesis of the industry in the United States. Although Roger was unable to attend

and unaware of the award, he sent a video introducing Paul Jacobson, who is now managing this work at EPRI. For more information, contact Paul Jacobson, (410) 489-3675, pjacobson@epri.com.

Update on DOE-EPRI Project Quantifying the Full Value of Hydropower in the Transmission Grid

On March 22, EPRI's Tom Key and Karen Forsten met with the National Hydro Association Director and the DOE Hydro Program Manager to plan for industry cost-share support of the DOE-EPRI project "Quantifying the Full Value of Hydropower in the Transmission Grid." The first industry advisory meeting for this project was held at the National Hydropower Association Annual Conference in Washington DC on April 28. For more information, contact Tom Key, (865) 218-8082, tkey@epri.com.

T&D ENVIRONMENTAL ISSUES

Program 51: T&D Facilities & Equipment: Environmental Issues

Green Remediation Subject of Advisory Workshop

At a Green Remediation workshop held during EPRI's March advisory meetings, Mr. Carlos Pachon of the U.S. Environmental Protection Agency (EPA) described how the Agency is developing [green remediation principles](#) to mitigate environmental impacts from cleanup projects that might include power plant and substation site closures. According to Mr. Pachon, EPA will incorporate energy use, air emissions (including carbon dioxide releases), and impacts to land and water in green remediation principles that will apply throughout its Resource Conservation and Recovery Act, Superfund, and Underground Storage Tanks programs. A number of states also have adopted or are considering green remediation evaluations in their cleanup programs. EPRI's Jeff Clock recently joined the ASTM International committee responsible for developing green remediation standards and will continue to advise members regarding developments in this area. For more information, contact Jeff Clock, (845) 608-0642, jclock@epri.com.

Program 57: ROW: Siting, Vegetation Management, and Avian Issues

Bat Detection and Shutdown System for Wind Turbines Under Development

EPRI is working with the Department of Energy (DOE) to develop and test a bat detection and shutdown system for utility-scale wind turbines. Recent evidence documents high numbers of bat fatalities at wind turbines sited in wind resource areas. Bat fatalities, especially those involving threatened or endangered species, may present a significant stumbling block to the approval of large-scale wind power projects. To prevent bat fatalities, researchers are designing and testing a system that will detect bat calls within the rotor swept area of a wind turbine and stop blade rotation until the area is clear—thus minimizing power generation loss while protecting the bats. EPRI has a firm commitment from DOE to test the system on a General Electric turbine located at the National Renewable Energy Laboratory in Golden, CO. A draft report on the project is due in October. For more information, contact John W. Goodrich-Mahoney, (202) 293-7516, jmahoney@epri.com.

Program 60: EMF and RF Health Assessment and Safety

Visit the EMF and RF Health Assessment and Safety Webpage

EPRI Measures Magnetic Fields From Common Electrical Appliances

[EPRI Appliance Measurement Study](#) (EPRI Product 1020862). This Technical Report describes a measurement survey that characterizes magnetic fields from common electrical appliances used in the home, with an emphasis on appliances that have become available since similar surveys were published in 1985 by the Institute of Electrical and Electronics Engineers and in 1993 by EPRI in its [1,000-home study](#). The present study provides data that can be used to address exposure concerns or to model magnetic field exposure characteristics based on appliance use. For more information, contact Rob Kavet, (650) 855-1061, rkavet@epri.com.

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.

National Rural Electric Environment Association

On March 23, John Novak participated in the Spring Meeting of the National Rural Electric Environment Association at the headquarters of the National Rural Electric Cooperative Association. John's role included a report on the international climate negotiations in Copenhagen and on EPRI activities on the Hazardous Air Pollutants Information Collection Request and Maximum Achievable Control Technology.

Briefing for Federal Energy Regulatory Commission

On March 26, Bob Goldstein (by phone) and John Novak provided a briefing on electric power sector water availability and use for Jeff Wright, Director, Office of Energy Projects at the Federal Energy Regulatory Commission, and his staff. The mission of the Office of Energy Projects is to foster economic and environmental benefits for the nation through the approval and oversight of hydroelectric and natural gas pipeline energy projects that are in the public interest.

Commercial and Financial Structuring of Commercial Scale Projects with CCS

On April 6, Tom Wilson and John Novak participated in a Carbon Sequestration Leadership Forum Roundtable on CO₂ Capture and Storage (CCS). The Roundtable objective was to engage the investor community in a dialog on the critical policies and incentives needed to finance and build the initial wave of energy and industrial plants with CCS in the European Union and North America. The dialog was intended to lead to recommendations for consideration in G8/G20 deliberations, which could have global impact. Participants in the Roundtable included senior representatives from the U.S. Department of Energy and government, academic, and industry representatives from the European Union, Australia and the United States. Tom Wilson gave a presentation entitled, "Financial Incentives for Deploying Carbon Capture and Storage: How Much are they Worth?"

New Supplemental Project Opportunities

Program 59: Power Plant Multimedia Toxics Characterization

- [Hazardous Air Pollutants Information Collection Request Part III Stack Test Data Evaluation](#) (EPRI Product 1021277)

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

Upcoming Events

* denotes EPRI sponsored or cosponsored event

Environment Sector

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

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

Air Quality

Goldschmidt™ 2010 – Earth, Energy and the Environment

Jun. 13–18, Knoxville, TN. Contact: Arnout Ter Schure, (650) 855-2281, 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](#).

Air & Waste Management Association 103rd Annual Conference & Exhibition

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

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

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

2010 Joint Conference of International Society of Environmental Epidemiology and International Society of Exposure Science

Aug. 28–Sep. 1, Seoul, Korea. Contact: Annette Rohr, (650) 855-2297, arohr@epri.com.

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

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

9th Annual Community Modeling and Analysis System Conference

Oct. 11–13. Contact: Naresh Kumar, (650) 855-8758, nkumar@epri.com. More information is available at the [CMAS website](#).

National Atmospheric Deposition Program 2010 Annual Meeting and Scientific Symposium

Oct. 19–21, Lake Tahoe, CA. Contact: Leonard Levin, (650) 855-7929, llevin@epri.com or Arnout Ter Schure, (650) 855-2281, aterschu@epri.com. More information is available at the [NADP website](#).

American Association for Aerosol Research 29th Annual Conference

Oct. 25–29, Portland, OR. Contact: Eladio Knipping, (202) 293-6343, eknippin@epri.com.

Air & Waste Management Association Symposium on Air Quality Measurement Methods and Technology

Nov. 2–4, Los Angeles, CA. Contact: Stephanie Shaw, (650) 855-2353, sshaw@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.

Global Climate

**** 10th Annual IEA-EPRI-IETA Greenhouse Gas Emissions Trading Workshop***

Sep. 20–21, Paris, France. Contact: Adam Diamant, (510) 260-9105, adiamant@epri.com.

Land and Groundwater

Air & Waste Management 103rd Annual Conference & Exhibition

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

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

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

Water and Ecosystems

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

Jun. 23–25, Whitefish, MT. Contact: Katie Vroom, (650) 855-2417, 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.

*** Symposium: Hydrokinetic Electricity Generation and Fish: Asking the Right Questions, Getting Useful Answers**

Sep. 12-16, exact date TBD, Pittsburgh, PA. Contact: Paul Jacobson, (410) 489-3675, pjacobson@epri.com. This symposium will be held as part of the American Fisheries Society Annual Meeting.

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

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

T&D Environmental Issues

The Bioelectromagnetics Society 32nd Annual Meeting

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

International Conference on Green Remediation: Environment, Energy and Economics

Jun. 15–17, Amherst, MA. Contact: Jeff Clock, (845) 608-0642, jclock@epri.com. More information is available at the [event website](#).

Progress In Electromagnetics Research Symposium (PIERS)

Jul. 5–8, Cambridge, MA. Contact: Gabor Mezei, (650) 855-8908, gmezei@epri.com. More information is available at the [event website](#).

International Society of Arboriculture 86th Annual Conference & Trade Show

Jul. 23–28, Chicago, IL. Contact: John W. Goodrich-Mahoney, (202) 293-7516, jmahoney@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.

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