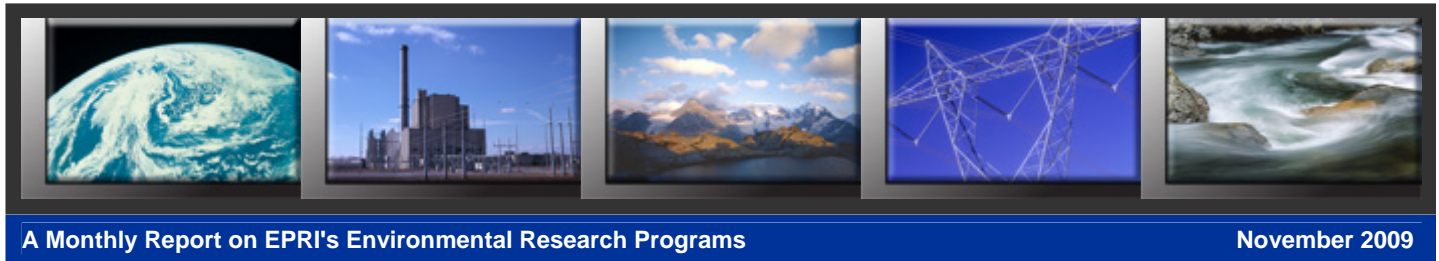


Environment Quick News



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:

At our recent advisory meetings in Colorado, we asked you to complete the annual member satisfaction survey. Preliminary figures show that we are doing quite well in your collective opinion but, as always, there is room for improvement. We will report on the final results at the meetings in March, but in the meantime we will be reviewing the results and putting action plans in place to address specific issues raised.

One area that is consistently rated high in importance in the survey is our effort to inform regulators and other key decision makers about our research results. While we rated quite high in this category, the message was to continue apace and do even more. In this issue of "Quick News" you will note articles summarizing the many activities we have conducted in the last couple of months to inform key stakeholders. These include:

- comments to EPA on the Agency's proposed Urban Visibility program
- comments to EPA on its Advanced Notice of Proposed Rulemaking on visibility improvements in Class I areas and BART cost-effectiveness
- comments to EPA on its Integrated Science Assessment for fine particulate matter
- briefings to Congressional staff and various agencies on the characteristics of coal combustion products and implications of managing these materials as hazardous waste
- briefings to executives and other stakeholders on greenhouse gas offsets opportunities
- meeting with EPA's 316(b) Rule Development Team on the status of EPRI's research on cooling tower retrofitting and EPA's plans for its new rule
- our working relationship with EPA (and industry) on the Agency's recently announced decision to select the electric sector for updating effluent guidelines for water discharges

We have endeavored to keep you informed of these and other interactions via webcasts and e-mail alerts. Please feel free to contact the appropriate EPRI staff for briefing materials and other information on our outreach activities.

It was good to see many of you in Boulder. Please make sure that you have the next meetings in Orlando on March 15–18, 2010 on your calendars.

Bryan Hannegan
Vice President, Environment
and Renewable Energy
bhannegan@epri.com
(650) 855-2459

Michael Miller
Director, Environment
mmiller@epri.com
(650) 855-2455

Tina Taylor
Director, Env. Business Development
tmtaylor@epri.com
(650) 855-2369

Presentations From 2009 Fall Environment Council Meetings Posted

Presentations from the October 2009 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 Meeting Materials tab. Documents may be restricted to members who fund the specific programs.

Program 91: Assessment Tools for Ozone, Particulate Matter, Regional Haze and Atmospheric Deposition***Data Analysis Phase to Begin in Winter Nitrate Study***

The collaboration between EPRI and the Lake Michigan Air Directors Consortium to analyze data gathered during the 2008–2009 Winter Nitrate Study is moving forward. The University of Iowa has been selected as the data analysis and modeling contractor. Similar measurements taken in the EPRI-sponsored Southeastern Aerosol Research and Characterization (SEARCH) network will be analyzed in parallel, giving a broader interpretation of the results and adding to the basic understanding of reactive nitrogen chemistry in the atmosphere. The conceptual model of wintertime particulate matter–nitrate formation developed under this study will ultimately lead to improved representations in air quality models. For more information, contact Stephanie Shaw, (650) 855-2353, sshaw@epri.com.

Particulate Matter Assessment Focuses on Urban Visibility

EPRI recently submitted comments to the U.S. Environmental Protection Agency (EPA) on the *External Review Draft of the Particulate Matter Urban-Focused Visibility Assessment*. The assessment focuses on the effectiveness of a one-hour peak light extinction–based indicator for a possible secondary PM National Ambient Air Quality Standard based on visibility in urban areas. A primary concern expressed by EPRI was that the diurnal PM component profiles used to get hourly concentrations of PM species from the 24-hour measurements are based on the Community Multiscale Air Quality (CMAQ) model. The hourly component concentrations are needed as input to the IMPROVE light extinction equation to get hourly values of light extinction to determine possible nonattainment. The CMAQ model has not been validated for this application, and it is known to have substantial inaccuracies in estimating diurnal profiles of many PM components. Another comment noted the lack of justification for using the current IMPROVE equation—developed for regional haze in remote areas—for haze in urban areas. For more information, contact Naresh Kumar, (650) 855-8758, nkumar@epri.com or Stephanie Shaw, (650) 855-2353, sshaw@epri.com.

Linking Advanced Air and Watershed Models

An EPRI study has developed a linkage for transferring data on concentrations of gases and particles in air and rain from EPRI's advanced 3-D Eulerian model (AMSTERDAM) to its mechanistic watershed model (WARMF). The linkage also transfers data from a meteorological model to the watershed model. The research is described in a [poster](#), "Linking two advanced air and watershed models," presented at the October 6–8 National Atmospheric Deposition Program Annual Meeting and Scientific Symposium. Inherent differences in air and watershed models, plus sparse observational data, often lead to simplistic linkages that do not make use of fine-resolution model outputs. This improved linkage overcomes some of these limitations and will be especially useful for source contribution and critical load analyses. For more information, contact Eladio Knipping, (202) 293-2691, eknippin@epri.com or Robert Goldstein, (650) 855-2154, rogoldst@epri.com.

EPRI Comments on Proposed Rulemaking for Visibility Improvements

EPRI has provided public comments to the U.S. Environmental Protection Agency (EPA) on the *Advanced Notice of Proposed Rulemaking* regarding anticipated visibility improvements at Class I Areas and cost-effectiveness of Best Available Retrofit Technology (BART) for two generating stations in the Southwest. EPRI's comments focus on the scientific appropriateness of EPA's proposed treatment of hydrogen chloride (HCl) and hydrogen fluoride (HF) as nonvolatile PM fine mass. Research indicates that HCl and HF are

emitted as gases and will not form particles that impact visibility on a regional level. EPRI 's comments review the physical properties of HCl and HF in detail and use theoretical calculations along with measurement data to demonstrate that the treatment of these two emissions as PM fine mass is inappropriate for regional haze calculations. For more information, contact Eladio Knipping, (202) 293-2691, eknippin@epri.com.

Program 92: Assessment of Air Quality Impacts on Health and the Environment

EPRI Comments on Integrated Science Assessment for Particulate Matter

EPRI recently submitted comments to the U.S. Environmental Protection Agency (EPA) on the *Second External Review Draft of the Integrated Science Assessment for Particulate Matter* (PM). Comments focused on major scientific shortcomings in the assessment, including insufficient consideration of the specific components of PM when evaluating adverse health effects. Non-PM co-pollutants, and the role they may play in observed effects, were also inadequately addressed. For more information, contact Annette Rohr, (650) 855-2297, arohr@epri.com, or Ron Wyzga, (650) 855-2132, rwyzga@epri.com.

GLOBAL CLIMATE CHANGE

[Visit the Global Climate Webpage](#)

Program 102: Global Climate Policy Costs and Benefits

Update on EPRI's Regional Energy–Economic Model

EPRI is developing a model that will more accurately assess the impact of new climate policies on the electric power sector, the energy system, and the economy. Work on the U.S. Regional Economy, GHG, & Energy Model (US-REGEN) began in early 2009 and is planned for completion in 2010. The model is intended to help member companies with investment decisions in a carbon constrained world. The project

- has established a model design with a 12-region aggregation of the U.S. economy,
- has developed a working version of a partial equilibrium electricity market model,
- has developed a pilot land-use model to explore relationships between the agriculture and forestry sectors and the demand for bio-energy, and
- is developing a dynamic version of the electricity model, including the ability to trade electricity across regions.

Completion of US-REGEN, model testing, and priority analyses is scheduled for 2010. For more information, contact Francisco de la Chesnaye, (202) 293-6347, fdelachesnaye@epri.com.

EPRI Report Describes Roadmap for Reducing Greenhouse Gas Emissions

[The Power to Reduce CO2 Emissions: The Full Portfolio](#) (1020389). This Technical Report details the updated Prism and MERGE analyses presented at the 2009 EPRI Summer Seminar and summarized in the Summer 2009 *EPRI Journal*. The report covers the key factors, technical assumptions, and methods used in the analyses. The analyses provide an assessment of the technical and economic feasibility for reducing greenhouse gas emissions in the U.S. electric sector. For more information, contact Geoff Blanford, (650) 855-2126, gblanford@epri.com.

Multinational Project Seeks Better Representation of Asia in Global Climate Models

EPRI is a sponsor and steering committee member of the Asia Modeling Scenarios Project, a new multinational project designed to better articulate the role of Asia in addressing climate change. The project attempts to bring together global modelers—knowledgeable in international policy architectures—with regional modelers and experts with Asia-specific knowledge, data, and analysis skills. The outcome of the project will be a coordinated modeling exercise that attempts to link these communities to provide more effective modeling and analysis of Asia within a global context. EPRI's Geoff Blanford attended the recent kick-off meeting held in Tsukuba, Japan. The next meeting will be held in Beijing in Spring 2010. For more information, contact Geoff Blanford, (650) 855-2126, gblanford@epri.com.

Program 103: Greenhouse Gas Reduction Options

Executives Briefed on Role of Greenhouse Gas Emission Offsets in U.S. Climate Policy

EPRI's Adam Diamant provided a briefing to the CEO Climate Change Task Force of the American Public Power Association at its Fall 2009 meeting in Washington DC. The briefing focused on three main topics:

- the near-term challenge of reducing U.S. and electric sector greenhouse gas (GHG) emissions
- the key benefits and risks of including GHG emissions offsets in evolving U.S. climate policy
- the role of offsets in H.R. 2454—the “Waxman-Markey” bill

The briefing was attended by more than 25 CEOs and other senior executives representing public water and power utilities across the United States. Mr. Diamant's presentation is available to Program 102 and 103 subscribers and can be downloaded [here](#) (ID and password required). For more information, contact Adam Diamant, (510) 260-9105, adiamant@epri.com.

LAND AND GROUNDWATER

Program 49: Coal Combustion Products—Environmental Issues

EPRI Research Informs Pending Coal Ash Disposal Regulation

To inform decisions leading to EPA's final regulatory proposal on coal ash disposal, due in December, EPRI's Ken Ladwig recently briefed federal agency representatives and Congressional staffers in Washington, DC on sustainable management of coal combustion products (CCPs). He presented the results of six separate, fast-tracked EPRI supplemental projects performed over the summer related to:

- **Composition.** Ash and rocks have similar composition, but ash has slightly enriched levels of trace metals. FGD gypsum and mined gypsum have similar composition.
- **Leaching.** CCPs do not fail EPA's Toxicity Characteristic Leaching Procedure. Ash leachate resembles leachate from nonhazardous metal industry wastes. Risks from CCP leachate are several orders of magnitude lower than risks from nonhazardous municipal solid waste leachate.
- **Damage cases.** Proven and potential cases of damage related to CCPs typically involve old, unlined facilities that predate 1980. There are only three off-site exceedances of a Maximum Contaminant Level.
- **Mercury and radioactivity.** Levels in CCPs present little risk in disposal or use.
- **Beneficial use.** Savings as a result of commercial use of CCPs in 2007 were 159 trillion Btu of energy, 32 billion gallons of water, and 11 million tons of CO₂ equivalent. Hazardous waste designation threatens beneficial use.
- **Management costs.** High management costs associated with designating CCPs as hazardous threaten electricity capacity margin and reliability, with potentially critical impacts in the Midwest and mid-Atlantic and likely important impacts in the Southeast.

Ladwig's sustainable management of CCPs presentation is available on EPRI's [Coal Combustion Product Management webpage](#). For more information, contact Ken Ladwig, (262) 754-2744, keladwig@epri.com.

Coal Ash: What It Is, Where It Goes, How It Impacts the Environment

[Coal Ash: Characteristics, Management, and Environment Issues](#) (1019022). Forty percent of the 92 million tons of coal ash produced each year by U.S. coal-fired power plants is beneficially used, while 60 percent is managed in storage and disposal sites. This Technical Update describes the physical and chemical characteristics of coal ash, beneficial use applications, disposal practices, and management practices to mitigate concerns about environmental issues such as leaching, windblown ash, mercury in ash, and radioactivity. For more information, contact Ken Ladwig, (262) 754-2744, keladwig@epri.com.

Program 50: Manufactured Gas Plant Site Management

Progress Report Showcases Reactive Capping Demonstration

Sediment Management Work Group members received current information on EPRI's reactive capping demonstration in the Hudson River at an October meeting in Saratoga Springs, NY. EPRI's Jeff Clock reviewed the design, fabrication, and installation of the capping system and discussed results from recent

monitoring activities. Performance of the cap, which will remain in place for 12 months, will guide further remedial action at the site. Other presenters covered sediment remediation case studies and issues. In addition, attendees visited the GE Hudson River PCB dredging project. For more information, contact Jeff Clock, (845) 608-0642, jclock@epri.com.

WATER AND ECOSYSTEMS

Program 54: Fish Protection at Steam Electric Power Plants

EPRI Meets With EPA 316(b) Rule Development Team

In late October, EPRI's Doug Dixon and Dave Bailey met with the EPA 316(b) Rule development team to discuss EPRI's 2009 research results as well as 2010 preliminary plans. EPRI meets with EPA each fall to obtain the Agency's input on needed fish protection-related research. EPRI learned that EPA is committed to issuing a final Phase II Rule by the summer of 2012 and that, in order to meet this commitment, delivery of a draft for public review and comment will occur in the summer of 2010. EPA encouraged EPRI to submit the results of its fine-mesh screen research as soon as possible to support the Agency's rule development efforts. EPRI also learned that EPA is considering many of the regulatory options included in the remanded Rule, including cost-benefit analyses, as recently allowed by the Supreme Court. For a list of research ideas that EPRI reviewed with EPA and meeting notes, contact Doug Dixon, (804) 642-1025, ddixon@epri.com.

New EPRI Report Provides Monitoring Results From Ohio River Ecological Research Program

Ohio River Ecological Research Program (ORERP): 2007 Ohio River Monitoring Results (1019550). This EPRI Technical Report presents the results of the 2007 ORERP fish population sampling near 10 Ohio River power plants that cover nearly the entire length of the river. The sampling program consisted of adult/juvenile fish, habitat, and water quality field studies conducted upstream and downstream of the participating power plants. The report provides information on methods for assessing fish populations in large rivers and determining the effects of power plants on fish communities. For more information, contact Doug Dixon, (804) 642-1025, ddixon@epri.com.

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

EPRI Wins \$1.3 Million in Federal Grants for Water Quality Trading Program

EPRI has received \$1.3 million in federal grants from the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA) to launch a regional water quality trading program in the Ohio River Basin. The project will focus on nitrogen and phosphorus discharges from sources within the Basin and is expected to result in cost-effective water quality improvements throughout the region, which encompasses parts of eight states. The EPA award addresses watershed protection through targeted watershed grants for water quality trading or other market-based projects to reduce the hypoxic zone in the northern Gulf of Mexico. The USDA award addresses agricultural credit calculation tools for water quality and greenhouse gas trading under a Natural Resources Conservation Service conservation innovation grant. Based on its recently completed feasibility study for this project, EPRI will now work with regional stakeholders to develop a first-of-its-kind working project in the Basin. Additional information can be found at the [project website](#). For more information, contact Jessica Fox, (650) 855-2138, jfox@epri.com.

Second Printing of Conservation and Biodiversity Handbook Released, Japanese Translation Expected

Conservation and Biodiversity Banking: A Guide to Setting Up and Running Biodiversity Credit Trading Systems. Edited by Nathaniel Carroll, Jessica Fox and Ricardo Bayon; reprinted in paperback by Earthscan Publications Ltd. This handbook, co-edited and authored in part by EPRI's Jessica Fox, provides detailed information on how a biodiversity credit trading system—conservation banking in the United States—is currently working and where the practice may be heading in the future. The handbook is the first comprehensive book on species mitigation banking, providing practical guidance, tools, case studies, analysis, and insights into endangered species banking in the United States and abroad. It is designed for a broad audience, including private landowners, complying industries, regulatory agencies, policymakers, bank developers, and interested general readers. The handbook is expected to be translated into Japanese in the near future. For more information, contact Jessica Fox, (650) 855-2138, jfox@epri.com.

Report From Government Accountability Office on Energy/Water Sustainability

Energy-Water Nexus: Improvements to Federal Water Use Data Would Increase Understanding of Trends in Power Plant Water Use (GAO-10-23 October 16, 2009). In the context of growing demands for both water and electricity, this U.S. Government Accountability Office (GAO) report discusses approaches (including drawbacks) to reduce freshwater use by power plants, states' consideration of water use when reviewing proposals to build power plants, and usefulness of federal water data to experts and state regulators. EPRI's Kent Zammit and Bob Goldstein were among those providing information to the GAO for their review of this issue. This report is an example of the growing governmental interest in the energy/water nexus. It is also a clear and accurate discussion of the issue from an agency (GAO) that has not been previously involved. For more information, contact Robert Goldstein, (650) 855-2154, rogoldst@epri.com or Kent Zammit, (805) 481-7349, kezammit@epri.com.

Linking Advanced Air and Watershed Models

An EPRI study has developed a linkage for transferring data on concentrations of gases and particles in air and rain from EPRI's advanced 3-D Eulerian model (AMSTERDAM) to its mechanistic watershed model (WARMF). The linkage also transfers data from a meteorological model to the watershed model. The research is described in a [poster](#), "Linking two advanced air and watershed models," presented at the October 6–8 National Atmospheric Deposition Program Annual Meeting and Scientific Symposium. Inherent differences in air and watershed models, plus sparse observational data, often lead to simplistic linkages that do not make use of fine-resolution model outputs. This improved linkage overcomes some of these limitations and will be especially useful for source contribution and critical load analyses. For more information, contact Eladio Knipping, (202) 293-2691, eknippin@epri.com or Robert Goldstein, (650) 855-2154, rogoldst@epri.com.

Program 56: Effluent Guidelines and Water Quality Management

U.S. Environmental Protection Agency to Revise Current Effluent Guidelines

Based on a multi-year study, the U.S. Environmental Protection Agency (EPA) recently announced its [plans to revise the current effluent guidelines](#) for the Steam Electric Power Generating industry. Information about data collected and findings in the study can be found in the EPA report, [Steam Electric Power Generating Point Source Category: Final Detailed Study Report](#). EPRI staff will work with the Effluent Guidelines and Water Quality Management Program Steering Committee to obtain feedback on and direction for EPRI's research plan. For more information, contact Paul Chu, (650) 855-2362, pchu@epri.com.

Program 58: Waterpower

EPRI's Doug Dixon Makes Waterpower Presentations at HYDRO 2009

EPRI's Doug Dixon traveled to Lyon, France, where he gave two presentations and participated in the HYDRO 2009 International Conference for the hydropower industry. His first presentation, "Assessment of U.S. Water Power Potential and Development Needs", covered EPRI's about-to-be-released report on waterpower potential in the United States by 2025, as well as the R&D and economic incentives needed for this potential to be realized. The second presentation, "Development of a "Fish-Friendly" Hydroelectric Turbine", reviewed EPRI's ongoing Department of Energy–industry collaboration to complete the preliminary engineering and model testing of the Alden turbine. EPRI is trying to gather international support for the turbine's development. For more information, contact Doug Dixon, (804) 642-1025, ddixon@epri.com.

EPRI Completes Evaluation of Wave Height and Wave Period Forecasting Accuracy

One potential benefit of wave energy as a renewable power source is that it is much more predictable and has much lower ramp rates than wind and solar, as ocean swells propagate for thousands of miles and their change rate is much slower than rates for wind or solar. A recent EPRI study evaluated wave height and wave period forecasting accuracy as a function of the forecast time horizon for a typical Oregon or northern California wave power plant location. The study compared the National Oceanographic and Atmospheric Administration's (NOAA) operational wind/wave model WAVEWATCH III™ forecast results with wave height and period measurements from an NOAA measurement buoy near Crescent City, CA. WAVEWATCH III was found to predict the significant wave height and peak wave period with an annual mean absolute accuracy of 0.30–0.35 meter and 1.4–1.5 seconds, respectively, for a forecast time horizon of up to 48 hours. The

researchers believe that WAVEWATCH III is capable of meeting grid integration requirements for day-ahead wave energy forecasting. For more information, contact Roger Bedard, (520) 979-3275, rbedard@epri.com.

Dr. Paul Jacobson Joins EPRI Waterpower Program

Dr. Paul Jacobson joined the EPRI on September 28 to head the Institute's marine and hydrokinetic energy research. He will be taking over from Roger Bedard, who is retiring in March 2010. Dr. Jacobson comes from Langhei Ecology, LLC, where he was Cofounder, Managing Partner, and Principal Scientist. He was also the Chairman of the Board of Directors for the Maryland Water Monitoring Council. He has a Ph.D. in Oceanography and Limnology from the University of Wisconsin–Madison and has previously worked as an EPRI contractor. For more information, contact Paul Jacobson, (410) 489-3675, pjacobson@epri.com.

T&D ENVIRONMENTAL ISSUES

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

EPRI Integrated Vegetation Management Research Featured at Rights-of-Way Symposium

An educational session on Integrated Vegetation Management (IVM) featured EPRI research on IVM in U.S. powerline corridors. Christopher A. Nowak, SUNY, Syracuse, NY and John W. Goodrich-Mahoney conducted the session at the 9th International Symposium on Environmental Concerns in Rights-of-Way Management held September 27–30 in Portland, OR. EPRI traditionally cosponsors the Symposia, which “address environmental issues in rights-of-way planning and management, and provide a forum for information exchange among environmental professionals.” This year's event hosted 355 attendees representing six countries. The proceedings of the 9th Symposium will be available in mid-2010 at no additional cost to members of program 57 and attendees. Arizona Public Service will host the 10th Symposium in Phoenix, AZ, tentatively scheduled for fall 2012. For more information, contact John W. Goodrich-Mahoney, (202) 293-7516, jmahoney@epri.com.

Program 60: EMF Health Assessment and Radio-Frequency Safety

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

Technical Update Discusses EMF Exposure and Childhood Brain Cancer

[Electric and Magnetic Field Exposure and Childhood Brain Cancer](#) (1019019). This Technical Update summarizes epidemiologic studies of residential and parental occupational exposure to power-frequency electric and magnetic fields (EMF) as a possible risk factor for childhood brain cancer, and discusses new EPRI analyses that combine data to provide statistically robust estimates of risk. The Update also includes a background section on brain cancer and a summary of experimental studies of possible magnetic field effects on carcinogenesis in laboratory animals and cells. For more information, contact Gabor Mezei, (650) 855-8908, gmezei@epri.com.

Magnetic Field Attenuation Characterized for Power Distribution Transformers

[Characterization of Magnetic Fields From Power Distribution Transformers](#) (1019010). This Technical Report describes a measurement study performed to characterize magnetic field levels as a function of distance away from power distribution transformers located in public and residential areas. Electric company representatives can use this information to address environmental and health-related concerns about magnetic field exposure. For more information, contact Rob Kavet, (650) 855-1061, rkavet@epri.com.

EMF Workstation 2009 Released

[EMF Workstation 2009](#) (1017990). This 32-bit software models electric and magnetic fields in complex situations such as those involving arrays of three-phase substation equipment, transmission and distribution lines, and single-phase custom conductors. For more information, contact Rob Kavet, (650) 855-1061, rkavet@epri.com.

New Supplemental Project Opportunities

Program 103: Greenhouse Gas Reduction Options

- [Developing GHG Emissions Offsets by Reducing Nitrous Oxide Emissions in Agricultural Crop Production: Phase 2 \(1020331\)](#).

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

- [Green Substations Interest Group \(1020338\)](#).

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

New Marketing Communications

Program 102: Global Climate Policy Costs and Benefits

- [Climate Science Newsletter, October 2009 – Review of General Circulation Models and Downscaling Techniques \(1020430\)](#).

Upcoming Events

* denotes EPRI sponsored or cosponsored event

Environment Sector

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

Mar. 15–18, 2010, Orlando, FL. Contact: Marsha Grossman, (650) 855-8760, mgrossma@epri.com.

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

Oct. 4–7, 2010, San Antonio, TX. Contact: Marsha Grossman, (650) 855-8760, mgrossma@epri.com.

Air Quality

Society of Environmental Toxicology and Chemistry 30th Annual Meeting

Nov. 19–23, New Orleans, LA. Contact: Sharan Campleman, (650) 855-2331, scampleman@epri.com. More information is available at the [event website](#).

Society for Risk Analysis 2009 Annual Meeting

Dec. 6–9, Baltimore, MD. Contact: Sharan Campleman, (650) 855-2331, scampleman@epri.com. More information is available at the [event website](#).

American Geophysical Union 2009 Fall Meeting

Dec. 14–18, San Francisco, CA. Contact: Stephanie Shaw, (650) 855-2353, sshaw@epri.com. More information is available at the [event website](#).

Remediation of Chlorinated and Recalcitrant Compounds

May 24–27, 2010, Monterey, CA. Contact: Leonard Levin, (650) 855-7929, llevin@epri.com. More information is available at the [event website](#).

Power Plant Air Pollutant Control “MEGA” Symposium

Aug. 30–Sept. 2, 2010, Baltimore, MD. Contact: Leonard Levin, (650) 855-7929, llevin@epri.com. More information is available at the [event website](#).

Land and Groundwater

*** EPRI MGP 2010 Symposium**

Jan. 27–29, 2010, San Antonio, TX. Contact: Jeff Clock, (845) 608-0642, jclock@epri.com, or Jim Lingle, (414) 355-5559, jlingle@epri.com. EPRI received 83 abstracts and has chosen the most interesting and technically innovative for platform sessions, with the remainder as poster sessions. Tabletop displays will also be included. Please register early since the symposium is likely to be overbooked. More information is available at the [event website](#).

EUEC 13th Annual Energy & Environment Conference

Feb. 1–3, 2010, Phoenix, AZ. Contact: Naomi Goodman, (650) 855-2193, ngoodman@epri.com. More information is available at the [event website](#).

Remediation of Chlorinated and Recalcitrant Compounds

May 24–27, 2010, Monterey, CA. Contact: Leonard Levin, (650) 855-7929, llevin@epri.com. More information is available at the [event website](#).

Power Plant Air Pollutant Control “MEGA” Symposium

Aug. 30–Sept. 2, 2010, Baltimore, MD. Contact: Leonard Levin, (650) 855-7929, llevin@epri.com. More information is available at the [event website](#).

T&D Environmental Issues

Radiofrequency Fields and Health

Nov. 23–25, Stuttgart, Germany. Contact: Gabor Mezei, (650) 855-8908, gmezei@epri.com. This workshop will focus on the special topic, “Radiofrequency Electromagnetic Fields and Brain Physiology—What Is the Connection?” The workshop will summarize state-of-the-science knowledge in the field of biological and health effects of RF-EMF. More information is available at the [event website](#).

*** Arsenic Working Group**

Dec. 3, Pensacola, FL. Contact: Mary McLearn, (650) 855-2487, mmclearn@epri.com. Simultaneous audio broadcast of the meeting will be available.

The Bioelectromagnetics Society 32nd Annual Meeting

June 13–18, 2010, Seoul, Korea. Contact: Gabor Mezei, (650) 855-8908, gmezei@epri.com.

Together...Shaping the Future of Electricity®