



A NATIONAL SUMMIT ON  
**SMART GRID AND  
CLIMATE CHANGE**

DECEMBER  
**2-3 2014**  
WASHINGTON, DC

## Detailed Agenda

*All Summit events are held at the Ronald Reagan Building (1300 Pennsylvania Avenue, Washington, DC)*

**NOTE: All sessions on Day One, including both breakout session tracks, will be webcast live to State Commissions and State Energy Offices thanks to our sponsors:**



### Tuesday, December 2

**7:30 – 8:30 am**      **Networking Breakfast and Registration** (Atrium Ballroom Foyer)  
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**8:30 – 9:00 am**      **Welcome Remarks** (Atrium Ballroom)

**A Conversation with Phil Sharp, President, Resources for the Future**

Phil is President of Resources for the Future (RFF), one of the most well-respected and credible non-profit organizations in Washington, known for its technical and quantitative research and reporting. When it comes to climate change, several RFF climate scientists have been official members of the Intergovernmental Panel on Climate Change (IPCC), the arm of the UN that recently issued its fifth report on Impacts, Adaptation and Vulnerability. Phil sits on a number of Boards and is a former Member of Congress, where he was Chairman of the House Energy and Power Subcommittee. Not a lot has happened in the world of energy in the past 20+ years without Phil being involved somehow as an actor or informed observer. He will share with us his thoughts about the political and policy context in which electricity and environmental issues find themselves these days.

**9:00 – 10:30 am**      **Roundtable 1 - Policymakers: What are they thinking? What are they preparing to do?**  
When it comes to electricity, climate change represents a new area where policymakers have to consider actions and steps, both on the mitigation front (e.g. EPA's Clean Power Plan) and in terms of resiliency and preparedness. This roundtable will feature officials talking about the role of an energy official in the context of climate change.

**Cheryl LaFleur**

Chairman, Federal Energy Regulatory Commission

**Doug Scott**

Chairman, Illinois Commerce Commission

**Asim Haque**

Vice Chairman, Public Utilities Commission of Ohio

**John Rhodes**

President and CEO, NYSERDA

**Michael Picker**

Commissioner, California Public Utilities Commission

**10:30 – 11:00 am**      **Networking Break** (Atrium Ballroom Foyer)

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**11:00 am – 12:30 pm**      **Roundtable 2 – The Electricity Industry: Will new technologies and business models help utilities and tech companies address climate change?**

This roundtable will feature a mix of utility and technology executives discussing smart grid and climate resiliency and adaptation.

**Ed White**

VP of Customer Strategy and Environmental, National Grid

**John Trawick**

SVP Commercial Operations and Planning, Southern Company

**Chris King**

Global Chief Regulatory Officer, Smart Grid Solutions, Siemens

**Paul Sotkiewicz**

Chief Economist – Market Services Division, PJM Interconnection

**Andy Bennett**

SVP, Energy and Infrastructure, Schneider Electric

**Gregg Dixon**

SVP, Marketing and Sales, EnerNOC

**12:30 – 1:30 pm**      **Networking Lunch** (Pavilion Ballroom)

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**NOTE: Following lunch, the program will split in to two simultaneous tracks of breakout sessions:**

**Track A - Smart Grid and Mitigation** (Atrium Ballroom)

**Track B - Smart Grid and Adaptation** (Atrium Ballroom)

**1:30 – 2:30 pm**      **Breakout Session 1** (Atrium Ballrooms)

**1A Smart Grid and Mitigation: Savings & Emissions Reductions**

This session will involve presentations of case studies and other information that shows how and to what extent smart grid technologies and practices can lead to emissions reductions. It will address the inclusion of smart grid options in 111(d) compliance plans.

**Moderator: Derek Kirchner, Principal Supervisor - Demand Response, DTE Energy**

**Kevin Jones, Deputy Director at the Institute for Energy and the Environment, Vermont Law School**

Kevin spent time earlier in his career working in the electric utility industry. Now at the Vermont Law School, he is the author of a new book called *“A Smarter, Greener Grid – Forging Environmental Progress through Smart Energy Policies and Technologies.”* He will give an overview as to the many ways that smart grid and climate change may be intersecting.

**Chris King, Global Chief Regulatory Officer, Siemens Smart Grid**

Chris has long been considered the world's leading thinker on how demand response and smart grid technologies can lead to real, measurable energy use reductions. He will be putting some real numbers to technologies and practices – numbers that most people may not be aware of. His presentation is entitled *“Kwh Savings – It's Not All About KW When it Comes to DR and Smart Grid.”*

**Rob Pratt, Senior Staff Scientist, PNNL**

Rob is a senior staff scientist at Pacific Northwest National Laboratory and is one of the early thought leaders behind the smart grid, focused on an information-rich future for the power grid. He will talk about the work that PNNL has done, and will be doing, on the energy-reducing power of smart grid in a presentation called *“Applying the Smart Grid to Climate Change Mitigation.”*

**1B Smart Grid and Adaptation: Reports, Analysis, & Recommendations**

This session will take a look at the rise of weather and sea level-related events, such as Superstorm Sandy, and their impact on the electricity system. It will focus on lessons learned and recommendations made by those working in this area.

**Moderator: Eric Lightner, Director of the Federal Smart Grid Task Force,  
U.S. Department of Energy's Office of Electricity Delivery and Energy Reliability**

**Dick Bratcher, Senior Principal Consultant, DNV GL – Energy**

Dick has lately been applying his industry expertise to the question of how to use and create data that will help utilities identify and prepare for climate events. His presentation will be *“Assessing Climate Change Hazards to Electric Power Infrastructure.”*

**Karen Lefkowitz, VP, Business Transformation, Pepco Holdings**

A long-time expert on the utility-technology nexus, Karen will present the findings and recommendations of the study performed by the GridWise Alliance – *“Improving Electric Grid Reliability and Resilience: Lessons Learned from Super Storm Sandy and Other Extreme Events,”* and will apply her policy and business perspective to what's ahead in terms of modernization of the distribution system to make it more resilient in the face of climate events.

**Parag Parikh, Smart Grid Solutions Executive Consultant, Ventyx**

Parag and the Ventyx team have been looking at the lessons learned from Superstorm Sandy and how smart grid technologies and practices can meet the challenges that climate change will bring. His talk is entitled *“Superstorm Sandy Fuels Grid Innovation.”*

2:30 – 2:45 pm

**Networking Break** (Atrium Ballroom Foyer)

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2:45 – 3:45 pm

**Breakout Session 2** (Atrium Ballrooms)

**2A Smart Grid and Mitigation: Savings & Emissions Reductions/M&V/Impacts**

This session will follow on the previous session in the Mitigation Track and will present additional information and evidence of the role that smart grid can play in addressing climate change.

**Moderator: Mike Alexander, Manager – DR Measurement and Evaluation, Pacific Gas & Electric**

**Peter Cappers, Research Scientist and Group Leader, LBNL**

Lawrence Berkeley National Laboratory has long been on the forefront of examining new developments and applying its experience and expertise to produce new, useful data for policymakers, utilities, and technology companies. Peter is one of the key individuals leading the lab's efforts, and he will present *"Insights from Smart Meters: The Potential for Peak-Hour Savings and Emissions Benefits from Behavior-based (BB) Programs."*

**Ethan Goldman, Energy Informatics Architect, VEIC**

The Vermont Energy Investment Corporation may sound like an effort specific to the Green Mountain State, but it is actually an entity that is helping other companies around the country with increasing energy efficiency through programs and projects. Ethan will talk about their growing experience in *"Using New Smart Grid Technologies for Better Measurement of Electricity Savings"* – something that will be increasingly important as such reductions become a new currency under EPA 111(d).

**Alex Orfei, Economist, Opower**

One of the questions that has always faced traditional energy efficiency is the quality of the M&V that is being used. This question has now arisen with behavioral efficiency, which is playing a growing role among demand side options at the same time that new technologies that can help with M&V are being deployed. In this session, Alex will talk about brand new results Opower has on using smart meters to determine behavior efficiency results in a presentation titled *"New Approaches to Measurement of Behavioral Programs Using Smart Grid Technology."*

**2B Smart Grid and Adaptation: Resilience – Risk Management & Preparedness**

This session will include case studies and other content that shows how smart grid options are being and can be used in risk management, resiliency planning, and preparedness.

**Moderator: Wayne Harbaugh, Director Pricing and Regulatory Services,  
Baltimore Gas & Electric**

**Mike Sullivan, SVP - Utility Services, Nexant**

Mike is working on several projects involving the integration of DER, DR, EE, and storage into distribution system platforms as called for in the Reforming the Energy Vision (REV) proceeding in New York State. He has particularly focused on identifying the known and unknown costs and benefits (in real dollars) that can arise from these investments. He will present a framework for assessing these benefit and cost streams, and discuss how investments in reliability and resiliency can and should be factored into the mix, in a presentation called *"What we know and don't know today about benefits and costs of integrating Smart Grid, DER, DR, EE and storage."*

**Gary Fauth, Consultant, Iberdrola USA**

Central Maine Power, a subsidiary of Iberdrola USA, was a Smart Grid Investment Grant (SGIG) recipient, and became a leading example for the industry on how to implement and deploy smart grid projects. Gary is known for his work in using data, including customer interruption costs, to target investments in transmission and distribution systems based on the improvements that would occur.

**Dick Patterson, Senior Manager - Finance, Pacific Gas & Electric**

Dick's responsibility at PG&E includes cost-benefit and risk analyses on projects intended to increase grid resiliency. He will talk about his work coordinating various departments at the company in a new type of modeling analysis used on a project in downtown San Francisco. His presentation is called *"Analyzing Risk and Benefits of Resiliency Projects."*

**4:00 – 5:00 pm**

**Breakout Session 3 (Atrium Ballrooms)**

**3A Smart Grid and Mitigation: Conservation Voltage Reduction (CVR)**

This session will examine how energy efficiency has morphed beyond its traditional end-use focus, and how technologies in the utility system itself can wring efficiencies out of that system and produce energy savings and emissions reductions.

**Moderator: Dan Violette, Managing Partner, Navigant Energy Practice**

**Kelly Warner, President, Deerpath Associates**

Those of you who attended last year's National Summit on Integrating Energy Efficiency and Smart Grid will remember Kelly's eye-opening presentation on Conservation Voltage Reduction (CVR). Since then, he has been busy producing a new report on that topic for the Department of Energy (DOE) that will be revealed in his presentation *"Conservation Voltage Reduction – A Review of Existing Programs and Next Steps to Increase Deployment."*

**Tom Weaver, Manager, Distribution System Planning, AEP**

One of the companies that Kelly identified early on as a CVR leader is American Electric Power (AEP). Tom will be on the panel to talk about the specific efforts his utility has undertaken, and talk about lessons learned and future expectations. He will present a *“Case Study on CVR Implementation.”*

**Ward Camp, Vice President of Regulatory and Government Affairs, Landis+Gyr**

Landis+Gyr, a subsidiary of the Toshiba family of companies, is one of the largest smart grid technology companies in the world, providing products and services in the area of smart metering, demand response, and distribution management. They are active in enabling utilities around North America in deploying Conservation Voltage Reduction (CVR) programs, and will talk about that experience in a presentation entitled *“Using Smart Grid Technology to Expand Energy Efficiency Opportunities.”*

**3B Smart Grid and Adaptation: Resilience - Planning & Funding**

This session will focus on how grid modernization planning and funding is being done today, and how that is tied into planning and funding for grid resiliency.

**Moderator: Joe Paladino, Senior Advisor, U.S. Department of Energy's Office of Electricity Delivery and Energy Reliability**

**Lew Milford, President and Founder, Clean Energy Group**

Since starting up the Clean Energy Group, Lew has increasingly been involved on the leading edge of state efforts to develop new approaches to resilient power. He will talk about all aspects – financing, policy, markets and technology – of the various programs being put together in the Northeast and in California. His presentation is entitled *“Resilient power for critical infrastructure – options for states and municipalities.”*

**Mitch Carpen, Executive Director, NJ Energy Resilience Bank**

It should come as no surprise that a state hit hard by Superstorm Sandy is taking resiliency seriously. Evidence of this is the creation of an “Energy Resiliency Bank” in New Jersey. Mitch is the head of that organization, and he will talk about why the Bank was formed and what kind of things it will be doing, in a presentation called *“A State-based financial approach to support energy resiliency efforts.”*

**Bill Gausman, SVP, Strategic Initiatives, Pepco Holdings, Inc.**

The push for increased resiliency creates many challenges for utilities, including financial. Bill will explain the creative approach taken by Pepco and the DC government to fund the DC PLUG project.

5:00 – 7:00 pm

Networking Reception (Pavilion Ballroom)

## Wednesday, December 3

**7:30 – 8:30 am**      **Networking Breakfast** (Atrium Ballroom Foyer)

Sponsored by:  **OPower**

**8:30 – 9:00 am**      **A Conversation with Peter Fox-Penner, Principal, Brattle Group** (Atrium Ballroom)

Peter is a Principal of Brattle Group, one of the leading national consulting firms in the energy and environmental arenas. He is a former White House and DOE official and is now an active member of the Brattle team that is focused on being out in front on trying to produce substantive work products that identify cross-cutting issues and trends that industry players need to be aware of. In addition to his work at Brattle, he also devotes time to serving on a number of Boards representing a diverse set of organizations. Beyond that he somehow finds time to be an author, with his most recent book being titled *“Smart Power, Climate Change, the Smart Grid, and the Future of Electric Utilities.”* He will be sharing some thoughts from his book.

**NOTE: The two breakout session tracks from Day One will continue starting at 9:00 am. Also at 9:00 am, a separate event called “Communications Workshop: Connecting Climate Change, Smart Grid, and Consumer Attitudes” will begin in the Hemisphere Room. An additional registration fee is required for this Workshop.**  
*Workshop Sponsored by:*



**9:00 – 10:00 am**      **Breakout Session 4** (Atrium Ballrooms)

### **4A Smart Grid and Mitigation: Storage and Renewables**

Experts, as well as those new to smart grid, understand that two components of a truly modern grid will be storage and renewable energy. This session will focus on what these two important new areas mean for efforts to reduce the emissions profile of the electricity industry.

**Moderator: Susan Covino, Senior Consultant, Emerging Markets, PJM Interconnection**

#### **Marissa Hummon, Research Scientist, NREL**

Marissa is an expert in modeling and analysis of grid integration of renewables, storage, and demand response technologies. The National Renewable Energy Laboratory (NREL) uses commercial quality unit commitment and economic dispatch software to analyze the performance and value proposition of various system designs. This session will focus on analysis of storage and demand response technologies on systems with a wide range of renewable generation penetration. Marissa’s presentation is entitled *“Analyzing the Value of Storage and Demand Response in a Wholesale Market.”*

**Todd Sankey, Chief Architect, Enbala**

Enbala is a company at the forefront of grid optimization and DER control technology, including supporting the reliable integration of renewables. Todd's presentation will address this topic in a presentation entitled *"Real-Time, Flexible DR Control: A New Tool to Support Reliable Renewable Integration and a More Dynamic, Decentralized Grid."*

**Mike Hopkins, CEO, ICE Energy**

Ice Energy is a leading company in the use of thermal storage technology (in this case cooling) to provide a new option for grid flexibility and resiliency. Mike will talk about that in a presentation called *"Storage as a Distributed Option for Grid Operations."*

**4B Smart Grid and Adaptation: DER/Microgrids**

Is there anything that has been hotter in 2014 than microgrids? Probably not, as federal and state governments have begun stimulus efforts aimed at increasing their deployment, and utilities have begun to see them as a future part of their systems. This session will examine the role of microgrids and other distributed resource options in increasing grid resiliency and managing climate risk.

**Moderator: John Kelley, Director, Forecasting and Resource Planning, Alabama Power**

**Larisa Dobriansky, SVP, Regulatory and Energy Policy, General Microgrids**

Larisa is with General Microgrids, one of the hot new players in this hot new space. She will provide some orientation and background on how microgrids are evolving and developing, and highlight some of the deployments and projects that are happening around the country. She will talk about how and why microgrids should be considered as an option to improve reliability and increase resiliency. She will also focus on how microgrids are an important part of the "smart cities" concept. Her talk is entitled: *"Microgrids: An Important Option for Increasing Grid Resiliency and Creating Smart Cities."*

**Kyle Haas, Energy Policy Manager, MD Energy Administration**

Maryland has stepped out on the policy front to foster the development of microgrids in the state. Kyle is on point for that effort and will talk about the recent assessment on which he led the state's efforts called *"Distributed Energy Resources and Resiliency: A State Perspective."*

**Shay Bahramirad, Manager of Smart Grid and Technology-Innovation Ambassador, ComEd**

With a title like "Innovation Ambassador," you know you will want to hear Shay, in her presentation called *"Microgrid Master Controller Plans,"* talk about the multi-party effort she put together to win Department of Energy (DOE) funding to create new multiple-microgrid coordination technology and where that project is headed.



## **Communications Workshop Part 1:**

### **Segmentation and Personalization Discussion (Hemisphere)**

The opening session for this interactive workshop will present several segmentation frameworks relevant to climate change, smart grid, and energy efficiency. Expert panelists will explore the distinct ways consumers and small businesses change behavior or get involved based on these attitudes and energy worldviews.

**10:00 – 10:30 am**      **Networking Break for Summit and Workshop Attendees** (Atrium Ballroom Foyer)

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**10:30 – 11:30 am**      **Breakout Session 5**

### **5A Smart Grid and Mitigation: 111(d)**

This session will look at what is emerging in terms of how states will be going about developing their compliance plans pursuant to the EPA Clean Power Plan (i.e. Section 111(d) of the Clean Air Act). There will be specific emphasis on the flexibility provided to states in how they put together a plan, and how smart grid technologies and practices might play a role.

**Moderator: Steve Cowell, President and CEO, Conservation Services Group**

#### **Matt Stanberry, VP, Market Development, AEE**

Advanced Energy Economy (AEE) is a non-profit organization that recently came on the scene and quickly became a major player in trying to pave the way for greater use of new clean energy technologies to make the utility industry cleaner and more efficient. In his presentation *“Incorporation of smart grid technologies into state 111(d) plans,”* Matt will talk about how smart grid technologies and practices deserve consideration by states as they put together their compliance plans.

#### **Holly Rachel Smith, Assistant General Counsel, NARUC**

Holly has been the lead for the National Association of Regulatory Utility Commissioners (NARUC) on all aspects of the EPA Clean Power Plan (111d). She has been the go-between with EPA for State Commissioners, and her presentation *“State PUC Perspectives on 111(d)”* will give attendees an insider’s view on what the states are thinking.

#### **Rich Sedano, Principal and U.S. Programs Director, Regulatory Assistance Project**

Rich is an ex-regulator known for his ability to help policymakers and industry work together to develop new approaches to new challenges. He is currently working with air regulators to help them understand the many options, including DR and smart grid, which can be included in 111(d) plans. He will talk about what states are doing and thinking about as they move forward in their planning efforts.

### **5B Smart Grid and Adaptation: Distribution**

This session will look at resiliency projects that are underway and what they entail, as well as expected results. Outage management and restoration will also be included.

**Moderator: Ward Camp, VP of Regulatory and Government Affairs, Landis+Gyr**

#### **Jim Gallagher, Executive Director, NYS Smart Grid Consortium**

Jim has taken his experience as a former top NYSPSC staffer to head up a diverse smart grid coalition of utilities, technology companies, and other parties that is considered one of the leading stakeholders in a groundbreaking new proceeding (REV) at the Commission. In his presentation *“New York’s Reforming the Energy Vision (REV),”* he will talk about the state’s turn to a more distributed electricity future and the benefits to climate change resiliency it will bring.

#### **Colman Keane, Director of Fiber Technology, EPB Chattanooga**

EPB, Chattanooga’s municipal utility, rolled out a vast Distribution Automation and Automated Metering Infrastructure, thanks in part to a Smart Grid Investment Grant (SGIG), that has proven itself early and often with massive improvements to the city’s outage restoration and storm recovery. Colman will explain both EPB’s process, as well as impressive results from recent events.

#### **Becky Wingenroth, Technical Leader, Principal**

The Electric Power Research Institute (EPRI) is known for staying ahead of the curve when it comes to the development and deployment of new technologies in the electricity industry and cross-cutting issues. This reputation is squarely intact in terms of EPRI’s recent work on how smart grid technologies can be used to increase the reliability and resiliency of the grid. Becky will talk to attendees about these latest efforts in a Session called *“New Resiliency Challenges – How to Use Smart Grid Technologies to Meet Them.”*

### **Communications Workshop Part 2:**

#### **What Varied Customer Perspectives Mean for Communications, Education, Outreach (Hemisphere)**

Creative consultants, environmental activists, consumer advocates, energy industry, and utility communication executives will discuss the challenges of delivering targeted messaging through different communication channels, the implications of delivering the “wrong” message, and integration with smart grid and energy efficiency programs, low-income, renewables, and other silos. Breakout discussions will focus on worries from the field and barriers to execution experienced by the participants.

**11:30 am**

**Conclusion of National Summit**

**12:00 – 1:00 pm**

**Communications Workshop Lunch Break (Hemisphere Foyer)**

**1:00 - 2:30 pm**

**Communications Workshop Part 3:**

**Solutions for Applying Segmentation for Targeted Communications** (Hemisphere)

This session will begin with an introduction of best (and next) practice examples, some of which come from other industries. Discussion will include effective web information architectures, interactive tools, dynamic delivery of relevant messaging and content, and interactive exchanges at various scales (face-to-face, social media, leveraging third party partners). Audience members will be invited to share their organizations' experiences and expert panelists and participants will brainstorm on how the best practices could be applied in a real world context.

**2:30 – 3:00 pm**

**Communications Workshop Networking Break** (Hemisphere Foyer)

**3:00 – 5:00 pm**

**Communications Workshop Part 4:**

**Design Thinking Exercise: Leveraging Tools to Talk About Smart Grid and Climate Change** (Hemisphere)

Each breakout team, supported by communication experts, will be assigned a specific service territory and given a toolkit of components to use in the exercise that will draw out the necessary distinctions. The toolkit will include a segmentation model matched with a % breakdown for that territory, customer-centric web and mobile schematics and apps that allow customers to self-select. Each team will devise a strategy, points of emphasis, and outline for their integrated communication plan. Teams will share their ideas with the rest of the group.