# Agenda

## Wednesday, February 8, 2012

### Opening Keynote Session

Grand Ballroom South/Central

8:00 am – 8:15 am **Welcome from the 2012 National Electricity Forum Co-Chairs**

***David Meyer***, *Senior Advisor, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy*
***Honorable Cheryl Roberto***, *Commissioner, Public Utilities Commission of Ohio*
***Honorable Greg White***, *Commissioner, Michigan Public Service Commission*

8:15 am – 8:45 am **Keynote Discussion: Visualizing the 21st Century Electricity Industry**

***Honorable Steven Chu***, *Secretary, U.S. Department of Energy*
***Honorable Patricia Hoffman***, *Assistant Secretary for Electricity Delivery and Energy Reliability, U.S. Department of Energy*
***Honorable David Wright***, *President, National Association of Regulatory Utility Commissioners and Vice Chair, South Carolina Public Service Commission*

8:45 am – 9:50 am **Keynote Panel with Futurists: What will Humankind Need in 2035?**

As we contemplate the 21st Century electricity industry in 2035, several significant factors will emerge: 1) technology; 2) demographics; 3) markets; 4) federal and state policies; and 5) climate. Outcomes in these five areas will have lasting impacts for the future of the industry, including in the areas of: research and development (R&D) investments, 'game-changing' innovations, business models, and regulatory oversight. By the mid-point of the 21st Century, demographers project that Americans will be living in increasingly urban communities that will reach densities never before seen. At the same time, lifestyles and the economy will become increasingly dependent upon technology and electricity, including the electrification of transportation. The keynote panel will discuss broad future projections of what the United States and its global competitors will look like and what technology innovations are likely and what requirements for them are likely.

The panel may consider the following questions:

- Will the movement of manufacturing to China and other countries continue? What will be the implications of that shift to the United States? Will the shift of manufacturing away from the United States be replaced with other industries with high electricity needs?
- What population changes will occur by 2035 that will impact the United States?
- What changes in society, culture, the economy, technology, policy, demographics, among other factors will significantly shape the requirements for and structure of the 2035 energy system? How will they affect it?
- What will be the electricity challenges and opportunities for urban communities? Rural communities?
- How will consumers interact with the 21st Century electricity industry?
- What action is needed to set the stage now for the electricity industry of 2035 from an economic perspective? From a technology perspective? From an environmental perspective?

**Panelists**

- ***Thomas Frey****, Executive Director, The DaVinci Institute*
- ***Marina Gorbis****, Executive Director, Institute for the Future*
- ***John Petersen****, President and Founder, The Arlington Institute*

**Moderator:** ***Matthew Wald****, Senior Washington Bureau Correspondent, The New York Times*

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Grand Ballroom Foyer
9:50 am – 10:00 am **NETWORKING BREAK**

## Visioning Panel

Grand Ballroom South/Central
10:00 am – 11:30 am **Visioning the 21st Century Electricity Industry: Outcomes and Strategies for America**

Changes to the electricity industry require an intricate balance of technologies, markets, and policies and will also require collaboration between the public and private sectors. As the 21st Century electricity industry continues to evolve, the U.S. Department of Energy (DOE) is championing an effort to begin a national dialogue on the requirements needed to achieve a new paradigm for the electricity industry. Several offices and programs within the DOE have been working together over the last year to develop a straw man vision of the 21st Century electricity industry that contemplates major changes to electric power service, including technology and institutional changes. The DOE straw man vision is meant as a vehicle to engage all stakeholders in a national discussion that will provide guidance to policy makers, technologists and market participants as they plan for the changes needed to provide continued reliable, affordable electric power to the nation's consumers. To begin discussion, this panel will first hear from Lauren Azar, Senior Advisor to the Secretary of Energy, who will present DOE's straw man vision. Industry representatives and regulators will then respond to the straw man vision and the panel will discuss whether the vision achieves agreed upon desired results.

The panel may consider the following questions:

- What do you see as the critical requirements of a vision for the 21st Century electricity industry? Does the vision presented by DOE have the potential to achieve those requirements?
- Are there major concerns and gaps that the vision does not address?
- How do policy makers and regulators stay flexible and make timely decisions for the near-, mid-, and long-term in the face of uncertainty?
- What actions are needed to bring the best vision of the 21st Century electricity industry to reality and by whom?

**Panelists**

- ***Lauren Azar****, Senior Advisor to Steven Chu, Secretary of Energy*
- ***Mark Brownstein****, Chief Counsel, Energy Program, Environmental Defense Fund*
- ***Ralph Izzo****, Chairman, President, and Chief Executive Officer, Public Service Enterprise Group Inc.*
- ***Honorable Erin O'Connell-Diaz****, Commissioner, Illinois Commerce Commission and Chair, NARUC Electricity Committee*

**Moderator:** ***Susan Tierney****, Managing Principal, Analysis Group*

Grand Ballroom Foyer
11:30 am – 11:40 am **NETWORKING BREAK**

## Business Perspective

Grand Ballroom South/Central
11:40 am – 12:45 pm **Visualizing the 21st Century Electricity Industry from the Business Perspective**

Transforming the electricity industry will require major investments. However, with a sluggish economy, investment dollars are limited. Some have argued that the main forces of change in the electricity industry will be: unprecedented consolidation (mergers); shift in supply-demand balance; imminent tipping point of smart grid implementation; decentralization of generation and other resources; and increasing downward pressure on returns on capital. This panel of business leaders will examine what the 21st Century electricity industry needs to achieve, what challenges must be overcome to fund the transformation to the 21st Century electricity industry, how electricity services will be provided—and by whom—as well as what the role of industry will be to make transformational changes to the electricity industry that benefit consumers. The panelists will also respond to what they have heard from the futurists and from DOE's straw man vision of the 21st Century electricity industry.

The panel may consider the following questions:

- How do business leaders perceive the long-term vision for the 21st Century electricity industry? How can it be successfully executed?
- What are the successful business models that can help achieve the transformed electricity industry?
- What are the elements of an investment climate necessary for this innovation to occur? Will investors be willing to put capital at risk?
- Are the wholesale electricity markets properly structured to incent new investments—including energy efficiency—that are economically justified and needed to meet demand?
- How do the industry and federal/state decision-makers engage customers as enthusiastic partners in the enterprise?
- Will industry be able to find sufficient investment capital on its own, or will government investment or other assistance or intervention be required?

**Panelists**

- ***Doyle Beneby****, President and Chief Executive Officer, CPS Energy*
- ***David Crane****, President and Chief Executive Officer, NRG Energy, Inc.*
- ***Theodore Craver****, Chairman, President, and Chief Executive Officer, Edison International and Chairman, Electric Power Research Institute*
- ***Thomas Farrell****, Chairman, President, and Chief Executive Officer, Dominion and Chairman, Edison Electric Institute*
- ***LeRoy Nosbaum****, President and Chief Executive Officer, Itron*

**Moderator:** ***Susan Tomasky****, Independent Director, Tesoro Corporation Board of Directors and Retired President of Transmission, American Electric Power*

## LUNCH: Beyond Technology: Strengthening Energy Policy Through Social Science

Renaissance Ballroom
12:45 pm – 2:00 pm **American Academy of Arts and Sciences' Alternative Energy Future Study**

***Kelly Sims Gallagher****, Member of the American Academy of Arts and Sciences and Associate Professor of Energy and Environmental Policy, The Fletcher School, Tufts University*

## Technology Frontiers

Grand Ballroom South/Central

2:00 pm – 3:00 pm **Technology Frontiers: "Transformational" Technologies to Securely Meet the 21st Century Electricity Industry Vision**

Successful development and implementation of transformational technologies will require a great deal of collaboration and cooperation among vendors, owners, operators, and regulators of the 21st Century grid, and those who approve R&D funding necessary to support these investments. In addition, the growing integration of intelligence and communications into the electricity delivery infrastructure will enhance its resilience and interactive capabilities for facilitating markets and serving consumers, but will also produce new concerns and challenges. The advanced technologies being contemplated, developed, and deployed could significantly change the nature of the 21st Century electricity industry from both a physical and cyber security perspective. Infrastructure systems, structures, and components are beginning to be designed to be more inherently resilient to physical and cyber threats by reducing their "attack surfaces." The panel discussion will focus on what new technologies and new applications are needed to meet the challenges of the transformed electricity industry by 2035. The discussion will also include what R&D is necessary to expand technology frontiers and who should be responsible for such R&D. This session will also address questions technology developers, grid owners, and regulators will face in their efforts to realize a future electricity industry that is affordable, adequate, reliable, and secure.

The panel may consider the following questions:

- What "transformational" technologies are likely to be available to help secure the 21st Century electricity industry? What are the R&D needs to ensure their availability? What are the most likely game-changers?
- What information will regulatory bodies need to approve recovery of advanced technologies and technology R&D, given current economic conditions/policy concerns and the importance of protecting utility customers from stranded investments?
- What "business cases" justify investment in "transformational" technologies, especially those that, like storage, provide multiple benefits, in an increasingly complex integrated system? What roles should regulators have in shaping these business cases?
- What changes are needed to ensure more standardized security attributes so as to avoid the need for installation of costly patches? How will the rapid evolution to "cloud" computing impact the security of the electricity industry?
- What cross-cutting attributes (resiliency, redundancy, reparability, etc.) are desired or required in these transformational technologies?

**Panelists**

- ***Terry Boston****, President and Chief Executive Officer, PJM Interconnection*
- ***Dario Gil****, Worldwide Program Director, Smarter Energy, IBM Research*
- ***Arshad Mansoor****, Senior Vice President, Research and Development, Electric Power Research Institute*
- ***Honorable Jackalyne Pfannenstiel****, Assistant Secretary for Energy, Installations and Environment, U.S. Department of the Navy*

**Moderator:** ***Honorable Arun Majumdar****, Acting Under Secretary, U.S. Department of Energy and Director, Advanced Research Projects Agency – Energy*

Grand Ballroom Foyer

3:00 pm – 3:15 pm **NETWORKING BREAK**

## Customers' Vision

Grand Ballroom South/Central
3:15 pm – 4:15 pm **Customers' Vision of the 21st Century Electricity Industry**

What would the 21st Century electricity industry look like if customers designed it? The National Electricity Forum will hear from futurists, business leaders, and technology innovators about their vision for the future. But what do customers think? What do they see as their needs and expectations from a modernized electricity system? Do they coincide with the perspectives of industry and government officials? Does it matter? How will customers be affected? This panel of consumer advocates, industrial customers, and high-tech electricity users will discuss the customer role in the future, and whether and how technological and other changes will provide benefits and meet their needs.

The panel may consider the following questions:

- What will customers *need* from the 21st Century electricity industry? Increased power quality? Infrastructure to support an electric transportation fleet? Redundancy/reliability for power sensitive industries?
- What will customers *want* from the 21st Century electricity industry? Will customers respond to electricity industry innovations and new technologies as they have responded to communications and entertainment innovations?
- Will customers see value in the long-term investments in these modernization efforts if there are higher short-term costs? Do expectations about the length of the economic recovery affect those perceptions of value?
- There always will be risks of obsolescence as innovations and new technologies are introduced. How will customers view the risk of "paying twice" because of rapid changes in the industry if prior investment is "stranded"?
- What is the future relationship of the incumbent utility to its customers in light of the entry of new players and a smarter grid? Will customers still wish to deal with their incumbent utility? Will this have an impact on competitive entry by new providers?

**Panelists**

- ***Paula Carmody****, People's Counsel, Maryland Office of People's Counsel and President, National Association of State Utility Consumer Advocates*
- ***Duane Desiderio****, Vice President and Counsel, The Real Estate Roundtable*
- ***Steve Swinson****, President and Chief Executive Officer, Thermal Energy Corporation*
- ***Lorie Wigle****, General Manager, Eco-Technology Program Office, Intel Corporation*

**Moderator:** ***Jay Hancock****, Business Columnist, The Baltimore Sun*

Grand Ballroom Foyer
4:15 pm – 4:30 pm **NETWORKING BREAK**

## Regulatory Relationships

Grand Ballroom South/Central
4:30 pm – 5:30 pm **The Regulatory Relationships Required for the 21st Century Electricity Industry**

Current regulatory models, both state and federal, are based on the 20th Century electricity industry. The industry is increasingly operated and planned along regional lines; yet, its regulation continues to be divided between the State Public Utility Commissions and the Federal Energy Regulatory Commission (FERC). And increasingly, regulation by other agencies is impacting the traditional economic regulatory work of FERC and the state commissions. FERC's jurisdiction is limited to wholesale power sales, ancillary services, and

transmission rates and services; it has no authority to oversee resource planning. By contrast, state regulation oversees generation and demand-side resources, as well as retail rates. However, the states' jurisdiction has historically been limited to utility activities within their boundaries. Although there is ongoing collaboration and cooperation among the states, regional entities, and the federal government, there are regulatory gaps, as well as ongoing jurisdictional uncertainty and conflict. Are these relationships well-suited to facilitate the types of systemic changes that will be needed to realize the long-term vision for the 21st Century electricity industry that we have been discussing in today's earlier sessions? Regulators will have an indispensable role to play in helping to realize this vision. How will they work together? Regulatory models need to be flexible and dynamic to respond to emerging issues; yet, there is a need for regulatory certainty and consistency to facilitate the transformation to the 21st Century electricity industry. This session will explore how existing regulatory relationships might be changed or enhanced to better achieve the transformed 21st Century electricity industry.

The panel may consider the following questions:

- Congress has set the ground rules for federal-state responsibilities in the exercise of regulatory authority. What are the optimal roles, respectively, for the states, regional entities, and the federal government in carrying out the public policy and regulatory changes needed to achieve the desired industry transformation?
- What cooperative models would work at the state, regional, and federal levels to facilitate development of a 21st Century infrastructure suitable to a changing society?
- What challenges/barriers to transformation exist as a result of regulatory practices (both state and federal)?
- Would resource planning on a multi-state basis support the optimal flexibility required to meet state and local public policy goals?

**Panelists**

- ***Michael Dworkin****, Director, Institute for Energy and the Environment and Professor of Law, Vermont Law School*
- ***Honorable Gail Gutsche****, Vice Chair, Montana Public Service Commission*
- ***Honorable Douglas R. M. Nazarian****, Chairman, Maryland Public Service Commission and President, Eastern Interconnection States' Planning Council*
- ***Honorable Jon Wellinghoff****, Chairman, Federal Energy Regulatory Commission*

**Moderator:** ***Scott Hempling****, Adjunct Professor of Law, Georgetown University and Immediate Past Executive Director, National Regulatory Research Institute*

## Wrap Up of Day One

Grand Ballroom South/Central
5:30 pm – 5:45 pm **Wrap Up of Day One of the 2012 National Electricity Forum**

## Reception

Renaissance Ballroom
5:45 pm – 7:00 pm **WINE AND CHEESE RECEPTION**

# Thursday, February 9, 2012

Grand Ballroom Foyer
7:15 am – 8:00 am **NETWORKING CONTINENTAL BREAKFAST**

## Welcome to Day Two

Grand Ballroom South/Central
8:00 am – 8:15 am **Welcome to Day Two of the 2012 National Electricity Forum**

## Special Address: The Need for Bipartisanship

Grand Ballroom South/Central
8:15 am – 9:00 am **Special Address on the Importance of Bipartisanship Needed to Modernize the Nation's Electric Infrastructure**

***Honorable Byron Dorgan***, *Senior Fellow, Bipartisan Policy Center and Former U.S. Senator (D-ND)*

***Honorable Don Nickles***, *Chairman and Chief Executive Officer, The Nickles Group, LLC and Former U.S. Senator (R-OK)*

Grand Ballroom Foyer
9:00 am – 9:15 am **NETWORKING BREAK**

## Generation Needs

Congressional A and B
9:15 am – 10:30 am **BREAKOUT SESSION #1:**
**Meeting Generation Needs in the 21st Century Electricity Industry**

Key generation decisions that will impact the 21st Century electricity industry must be made today. As the electricity industry visualizes the transformation, difficult choices regarding generation resources must be made without all the pieces in place. The panel will discuss the role of natural gas, coal, variable energy resources/renewables, hydro, and nuclear energy to meet the vision of the 21st Century resource portfolio, and will examine how emissions regulations will play a role in the determination of future generation options. Discussion will include traditional and non-traditional generation options.

The panel may consider the following questions:

- What are the key factors and scenarios addressing future generation needs? (Possible variables are gas and coal prices, carbon emissions prices, economic growth and efficiency, construction cost changes, interest rates, speed of EPA rule implementation, government incentives, and the use of demand response.)
- How do competitive versus rate-base market designs impact selection of generation type? Do both approaches provide the necessary tools to effectively evaluate the advantages of generation options with high capital costs and long time horizons?
- Is an electricity system more reliant on intermittent and distributed generation a sustainable one over the long term? What changes—technological and otherwise—are needed before we can depend on them? Apart from reliability issues, do they cost too much?
- Given the cost and availability of natural gas and gas-fired generation, will that fuel capture the majority of new capacity builds? Are there risks of relying too heavily on natural gas? Have these traditional risks been mitigated as a result of the development of shale gas?
- What will be the role for coal and nuclear resources? Will there be an increase/decrease in building of these forms of generation over time? When?

**Panelists**

- ***Carrie Cullen Hitt****, Vice President of State Affairs, Solar Energy Industries Association*
- ***William Fehrman****, President and Chief Executive Officer, MidAmerican Energy Company*
- ***Benjamin Hobbs****, Chair, California Independent System Operator Market Surveillance Committee and Professor, Geography and Environmental Engineering, Johns Hopkins University*
- ***Mayo Shattuck****, Chairman, President, and Chief Executive Officer, Constellation Energy*

**Moderator:** ***Honorable Timothy Alan Simon****, Commissioner, California Public Utilities Commission and Chair, NARUC Committee on Natural Gas*

## Game Changers

Grand Ballroom North
9:15 am – 10:30 am

**BREAKOUT SESSION #2:**
**Game Changers: How Deployment of Plug-in Electric Vehicles and Grid-Scale Electricity Storage Technologies will Impact the 21st Century Electricity Industry**

"It is quite possible that the man who has taught us to put up electricity in bottles has accomplished greater things than any inventor who has yet appeared," wrote *The New York Times* in 1881. Today, advances in battery technology present us with the opportunity to harness electricity as a transportation fuel, to capture more efficiently the power of the wind and sun, and to envision a more resilient, autonomous electric system. This panel will discuss how the integration of plug-in electric vehicles (PEVs) and energy storage technologies will shape the 21st Century electricity industry, the 21st Century electric utility, and the 21st Century electricity consumer.

The panel may consider the following questions:

- How do PEVs and grid-scale energy storage technologies fit into the "ecosystem" of grid modernization initiatives? How could they be used to enable a smarter, cleaner grid infrastructure?
- How can PEVs change the utility-customer relationship? How might they change the customer's electricity usage?
- How does the potential for wide-scale deployment of grid-scale energy storage devices change the electricity system? What opportunities do energy storage technologies—grid-scale or distribution—present in terms of renewable resource intermittency, substation or transformer backups, and distributed generation?
- What challenges do auto manufacturers face with the development of this next iteration of electric transportation? How can the electricity industry work with auto manufacturers to understand and respond to these challenges?
- What policy changes need to occur to achieve wide-scale deployment of these technologies by 2035?

**Panelists**

- ***Britta Gross****, Director, Global Energy Systems and Infrastructure Commercialization, General Motors*
- ***Willett Kempton****, Research Director, Center for Carbon-Free Power Integration and Professor, University of Delaware*
- ***David Mohre****, Executive Director, Energy and Power Division, National Rural Electric Cooperative Association*
- ***Tom Stepien****, Chief Executive Officer, Primus Power*

**Moderator:** ***Honorable Mark Ferron****, Commissioner, California Public Utilities Commission*

Grand Ballroom Foyer
10:30 am – 10:45 am **NETWORKING BREAK**

## Transmission Planning

Grand Ballroom North
10:45 am – 12:00 pm **BREAKOUT SESSION #3:**
**Transmission Planning Tools and Procedures Needed for the 21st Century Electricity Industry**

Interregional and interconnection-wide analysis can lead to a more global view of the new transmission that will be needed, as well as the generation, demand response, and other system resources that will likely be part of any 21st Century electricity system. This panel will discuss the various activities that have been undertaken and that are expected in the near future to enhance transmission planning. These efforts include: (1) the DOE-funded interconnection-wide planning processes in the Eastern and Western Interconnections and in the Electric Reliability Council of Texas (ERCOT); (2) FERC's Order No. 1000 requiring enhanced regional and interregional transmission planning coordination; (3) DOE's program to remedy persistent transmission congestion through the identification of National Interest Electricity Transmission Corridors; and (4) the coordinated federal effort to identify public lands that are amenable to the future development of energy resources. Finally, the panel will discuss the key role of the states in the planning process at the state, regional, and interconnection-wide level.

The panel may consider the following questions:

- What lessons have been learned from the DOE-funded interconnection-wide collaborative processes being undertaken in the Eastern, Western, and Texas Interconnections?
- What will be the impact of FERC Order No. 1000 (as well as other related FERC orders and actions) on future transmission planning processes? How should Order 1000's requirement that planners consider public policy directives be implemented in different regions? What level of flexibility among regions is appropriate? How should a lack of consensus on consideration of a specific policy be addressed?
- How should DOE activities focused on the goal of identifying congested transmission corridors be effectively coordinated with other federally supported or mandated transmission planning activities, as well as with transmission planning activities taking place on the state or ISO/RTO levels?
- What are the key challenges that transmission firms—both utilities and independent developers—face in navigating among state, regional, and federal entities to win planning approval to develop their projects. How could the process be improved?
- Do these activities provide a sufficient tool set to point us to the 21st Century electricity system?

**Panelists**

- ***William Ball****, Executive Vice President and Chief Transmission Officer, Southern Company*
- ***Honorable Philip Moeller****, Commissioner, Federal Energy Regulatory Commission*
- ***Honorable John Savage****, Commissioner, Oregon Public Utility Commission and Chair, State-Provincial Steering Committee, Western Governors' Association*
- ***Ed Tatum****, Vice President of Regional Transmission Organizations and Regulatory Affairs, Old Dominion Electric Cooperative*

**Moderator:** ***David Meyer****, Senior Advisor, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy*

## Energy Efficiency and Demand Response

Congressional A and B
10:45 am – 12:00 pm **BREAKOUT SESSION #4:**
**Getting Serious About Energy Efficiency, Demand Response, Distributed Generation, and Micro-Grids for the 21st Century Electricity System**

Energy efficiency and demand response have the potential to offset or delay the need for new generation and transmission infrastructure as the electricity industry evolves. Studies cite a vast reservoir of available energy efficiency that may be tapped to serve our 21st Century economy. As well, studies indicate that there are powerful consumer benefits from even modest amounts of demand response. Energy efficiency and demand response can reduce consumer costs, enhance reliability, stabilize prices, lower costs of environmental compliance, create jobs, and help address climate change concerns. Distributed generation and micro-grids also are expected to play larger roles in the 21st Century electricity industry. The smart grid promises to be a means to integrate all of these demand-side resources and leverage their benefits. The session will discuss the potential for extensive deployment of energy efficiency, demand response, distributed generation, and micro-grids. Additionally, panelists will address the new programs, business models, and regulatory approaches that may be required to position these resources as increasingly important components of the power grid of the future.

The panel may consider the following questions:

- What would the 21st Century electricity system look like if we were to actually acquire the vast potential of energy efficiency, demand response, and widespread adoption of distributed generation and micro-grids? What would be the effect on the broader economy and on job growth?
- Is there a different way to ensure wide-scale deployment of energy efficiency, demand response, distributed generation, and micro-grids than the current model?
- What are the risks to the current utility business model of wide-scale deployment of energy efficiency, demand response, distributed generation, and micro-grids? Is the traditional regulatory approach to pricing electricity to consumers (the "price per kWh sold" paradigm) sustainable in an environment where using less to accomplish the same result is a preferred approach to utility service?

**Panelists**

- ***Honorable Jeanne Fox,*** *Commissioner, New Jersey Board of Public Utilities and Chair, NARUC Committee on Energy Resources and the Environment*
- ***Kimberly Harris****, President and Chief Executive Officer, Puget Sound Energy*
- ***Brett Perlman****, President, Vector Advisors and Former Chair, Public Utility Commission of Texas*
- ***Gordon van Welie****, President and Chief Executive Officer, ISO New England Inc.*

**Moderator:** ***Charles Goldman****, Staff Scientist and Department Head, Energy Analysis and Environmental Impacts, Lawrence Berkeley National Laboratory*

## Picnic with Regulators

Grand Ballroom South/Central
12:00 pm – 1:15 pm **The 21st Century Electricity Industry: Will it be a Picnic or Not?**
(Boxed Lunch Provided)

A panel of regulators will discuss what their states and regions are doing to consider the impacts of transformational efforts to achieve the 21st Century electricity industry.

- What are the states/regions doing to advance the electricity industry in the 21st Century? What do they think are the biggest barriers to modernizing the industry?

- Having heard the discussion of the last day, do you have any concerns about how regulators may be required to respond to the challenges and opportunities presented by the 21st Century industry? For example, do you foresee a need for a different kind of regulatory model?
- What about your current responsibilities keeps you up at night? What do you think might keep regulators up in 10-20 years?

**Panelists**

- ***Honorable Cheryl LaFleur****, Commissioner, Federal Energy Regulatory Commission*
- ***Honorable Phyllis Reha****, Commissioner, Minnesota Public Utilities Commission and Co-Chair, NARUC–FERC Smart Response Collaborative*
- ***Honorable James Volz****, Chairman, Vermont Public Service Board*
- ***Honorable Rebecca Wagner****, Commissioner, Nevada Public Utilities Commission*
- ***Honorable Stan Wise****, Chairman, Georgia Public Service Commission*

**Moderator:** ***Honorable David Wright****, President, National Association of Regulatory Utility Commissioners and Vice Chair, South Carolina Public Service Commission*

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Grand Ballroom Foyer
1:15 pm – 1:30 pm **NETWORKING BREAK**

## Institutional Solutions

Grand Ballroom South/Central
1:30 pm – 2:30 pm **Institutional Solutions: Achieving the Transformed 21st Century Electricity Industry**

As society adopts and adapts to new technologies, regulatory institutions will have to assess how to achieve the efficient, cost-effective, and reliable electricity system customers deserve. Regulators will be confronted with new business models, promising new technologies, new consumer demands, and environmental challenges. They will grapple with how the 21st Century electricity industry will be funded and how its costs should be allocated. They must be prepared to consider new or different institutional arrangements that will benefit consumers. This panel will synthesize the conference theme of visualizing the 21st Century electricity industry by tying together the discussions of previous panels, exploring how assumptions about the regulatory framework must change to help achieve the desired transformation, and recommending changes to that regulatory framework and appropriate mechanisms to implement that transformation.

The panel may consider the following questions:

- What is the "right" balance between regulation and market structures to incentivize and facilitate the development of the most flexible, environmentally benign and cost-effective electricity system for our future?
- What is the best way to harness the benefits of a free-market enterprise system while maintaining appropriate regulatory and public policy oversight? What new or revised regulatory or market structures are necessary to encourage utilities and their customers to make choices that take full advantage of future opportunities?
- What institutional changes are needed to ensure that the desired transformation takes place without undue hardship on consumers?
- Do current rate structures impede industry transformation and limit customer options?
- To what extent should siting processes be changed and/or streamlined in order to permit the development of the 21st Century electric system?

**Panelists**

- ***Sanford Berg****, Distinguished Service Professor, Economics and Director of Water Studies, Public Utility Research Center, University of Florida*
- ***Jennifer DeCesaro****, Special Advisor for Renewable Energy and Transmission, Office of the Secretary, U.S. Department of Energy*
- ***Honorable Elizabeth Fleming****, Commissioner, Public Service Commission of South Carolina*
- ***Honorable Philip Jones****, Commissioner, Washington Utilities and Transportation Commission and NARUC First Vice President*

**Moderator:** ***Honorable John Norris****, Commissioner, Federal Energy Regulatory Commission*

## Audience Feedback

Grand Ballroom South/Central

2:30 pm – 3:00 pm **Visualizing the 21st Century Electricity Industry from the Audience's Perspective: Interactive Session with 2012 National Electricity Forum Attendees**

The audience will provide its feedback on a series of questions that relate to the issues discussed during the 2012 National Electricity Forum so that DOE and NARUC can benefit from the attendees' input to develop a consensus-based vision for the 21st Century electricity industry.

## Closing Remarks

Grand Ballroom South/Central

3:00 pm – 3:15 pm **Closing Remarks by the 2012 National Electricity Forum Leadership**

***David Meyer****, Senior Advisor, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy*
***Honorable Cheryl Roberto****, Commissioner, Public Utilities Commission of Ohio*
***Honorable Greg White****, Commissioner, Michigan Public Service Commission*

3:15 pm **Adjourn the 2012 National Electricity Forum**