The Energy Bar Association is committed to the goals of fostering an inclusive and diverse membership and increasing diversity across all levels of the Association, so as to reflect the diversity of the energy industry and the Nation as a whole. Attorneys, non-attorney professionals in the energy field and law students are welcome to join our ranks regardless of race, creed, color, gender, ethnic origin, religion, sexual preference, age, or physical disability and are encouraged to become active participants in the Association’s activities.

These program materials are presented with the understanding that the speakers, including panel members and other participants, and the CLE program do not render any legal, accounting or other professional service. Due to the rapidly changing nature of the law, information contained in these program materials may become outdated. As a result, any individual using these program materials and the information presented during the program must always research original sources of authority to ensure accuracy when dealing with specific clients' legal matters.
October 23, 2013

Dear Colleagues and Friends:

On behalf of the Board of Directors and Staff of the Energy Bar Association, I welcome you to the 2013 Mid-Year Meeting & Conference. The Mid-Year Meeting & Conference will focus on the evolution of our industries, including the legal issues that are developing as a result. EBA is honored to feature several distinguished speakers and guests, and we greatly appreciate each of your contributions to the success of our programs. The Mid-Year Meeting & Conference will also include the presentation of the Association's State Regulatory Practitioner Award and announcement of the recipient of the Paul E. Nordstrom Award. Our congratulations to both awardees.

Over the past year, the EBA Board has continued with implementation of the 2013-2015 Strategic Plan which includes specific goals to further our objectives with regard to educational programming, networking opportunities, information resources and membership growth. The Mid-Year Meeting is one example of our Strategic Plan implementation. In addition to the high-quality programs we strive to provide at both the national and chapter levels, the Association has focused also on the networking opportunities that our members cite as a key benefit to EBA membership. To that end, we hope that you plan to attend our first-ever networking luncheon during the Mid-Year Meeting on October 24. The luncheon will offer an opportunity to reacquaint with existing friends and also make new connections, without the time constraints of our program breaks!

We have also undertaken initiatives to improve upon information technology and other services to the membership. In addition to our weekly EBA E-News, the EBA website has been redesigned to provide improved communication with the membership. In the coming months, we will update and enhance the content of the website so that it serves as a key source of current information to our membership. The Association also now has an EBA Book Club, with membership and discussion available both online and through quarterly meetings of the Book Club. I encourage each of you to participate in these initiatives. Information is available on the EBA website, www.eba-net.org.

The seven regional Chapters and twenty subject-matter Committees of the EBA have played a key role in the Association's success in its mission to promote the professional excellence and ethical integrity of its members in the practice, administration, and development of energy laws, regulations and policies. Our members have played a key role as well by responding to our call for topics for the Mid-Year Meeting, participating in the Committees and programs, and providing feedback on how the Association might better serve your needs. We greatly appreciate your participation and welcome your input. For those who are not members, we encourage you to consider membership in the EBA so that you can enjoy the full benefits of membership.

Finally, we have appreciated the achievements of the Charitable Foundation of the EBA and the Foundation of the Energy Law Journal. Their contributions are yet another testament to our dedication to the membership, the legal community, and the community at-large.

Thank you for attending the Mid-Year Meeting. We hope that the programs and networking opportunities provide you with an exceptional experience. We look forward to seeing you at our further programs.

Sincerely,

Adrienne E. Clair
EBA President
What was once unconventional now drives the energy sector. The Energy Bar Association's 2013 Mid-Year Meeting & Conference will provide two full days of discussions focused on the legal issues that are encouraging or responding to this evolution. The first morning will focus on the Obama Administration's efforts to develop its Climate Action Plan to regulate greenhouse gas emissions and explore the geopolitical implications of new energy discoveries across the Globe by unconventional energy players. The second day will kick off with a panel of former FERC Chairs providing advice for the next generation of industry leaders based on the changing landscape, followed by the increasingly controversial issue of how state regulatory agencies should address the growth of distributed generation and its impact on traditional rate recovery mechanisms for electric utilities, plus how the increase in formerly unconventional natural gas production technologies has led to increased U.S. natural gas production and changing flow patterns, thereby impacting the nations natural gas pipeline rate structures. Breakout sessions will focus on some of the legal issues having the largest impact on the energy sector today, including Order No. 1000's transmission planning requirements, the integration of intermittent resources, development of new natural gas pipeline infrastructure to serve increased demand and to bring new production sites to market, and the challenges utilities face to protect customer data from an increase in cyber security threats. The conference also includes numerous networking and social events. We look forward to seeing you!
12:30-2:00pm Luncheon with Guest Speaker
Matthew Wald, The New York Times

Matthew Wald, long-time energy correspondent for the New York Times, may address several topics of interest to EBA members, including the need for changes to the structure of the electric transmission system, new technologies, and where we our country stands with regard to nuclear power.

2:00 pm CONCURRENT SESSIONS I

Session A: Revisiting Variable Energy Resources Integration

FERC issued its first Notice of Inquiry on integration of Variable Energy Resources (VER) in 2010. This panel will explore what have we learned about reliability and economic impacts of VER integration and some of the practical challenges transmission operators and resource owners are facing. How much are the changes required by FERC’s final rule on Integration of Variable Energy Resources likely to help? What additional tariff changes should transmission operators pursue? Panelists will discuss how system operators have to deal with both reliability and economics issues in a way “traditional” practices did not, and some of the surprising lessons learned through real-world experiences.

Moderator: N. Beth Emery, Partner, Husch Blackwell LLP
Panelists:
Sandi A. Snodgrass, Partner, Holland & Hart LLP
Jeff Wright, Director, Office of Energy Projects, Federal Energy Regulatory Commission
Sharon Buccino, Director, Land and Wildlife Program, Natural Resources Defense Council
Patrick Hester, Associate General Counsel, Spectra Energy Corp.

3:30 – 3:45pm Networking Break

3:45-5:00 pm CONCURRENT SESSIONS II

Session A: Financing New Electric Generation and Transmission Infrastructure – Key Issues for Today’s Market

The financing of new energy infrastructure is a growing challenge, particular on the debt side. Some believe that capacity payments in today’s RTOs do not provide a sufficient signal to incentivize new generation when needed, and that energy price signals that could do so are either too fleeting or being masked until it’s too late. Do markets need tweaking to support getting projects financed (if so, how), or do we need to return to a PPA auction or traditional model? Is there middle ground? In electric transmission, FERC incentives are harder to come by and the days of ROEs in the teens appear to be a memory. Even though they were given the right to
compete under the ROFR provisions of Order 1000, and encouraged to develop transmission to access renewables, how can merchant transmission developers finance their projects? What are the best examples of recent generation and transmission financings? Finally, what about financial institutions – is there a checklist or minimum set of conditions they seek in order for a project to find favor with their credit committees these days?

**Moderator:** Jacob (Jay) Worenklein, Partner, Akin Gump Strauss Hauer & Feld, LLP

**Panelists:**
- Clark Bruno, Senior Vice President, Anbaric Transmission
- Steve Schleimer, VP, Government and Regulatory Affairs, Calpine Corp.
- Stuart Murray, Director-Infrastructure & Energy Finance, Citigroup
- Steve Herman, Managing Director, Energy Capital Partners

**Session B: Big Data and Cyber Security Concerns – Industry Best Practices**

A discussion about how to develop cyber security best practices in the energy industry that will also work with best practices across industries. Learn about considerations for managing large data systems, confidential information and the risks employees pose to your company's data security. This panel will provide you with crucial information as companies and industries deemed part of the United States' critical infrastructure prepare to meet more stringent cybersecurity regulatory requirements.

**Moderator:** Amy S. Mushahwar, Of Counsel, Ballard Spahr

**Panelists:**
- Russ Mundy, Principal Networking Scientist, Sparta, Inc. A Parsons Company
- Christopher Glier, Technical Director, MANDIANT
- Jeffrey M. Taylor, Associate General Counsel, Pepco Holdings, Inc.

**5:30 - 8:00 pm Special Event**: Charitable Foundation of EBA Gala and Silent Auction

*This event is open to all and requires a separate registration fee. See details on page 3.*
Panelists:
Bob Curry, Managing Director, Curry Energy
David Shuford, Vice President - Policy & Business Evaluation, Alternative Energy Solutions, Dominion Resources Services, Inc.
Will Agate, Senior Vice President, Navy Yard Management & Development, Philadelphia Industrial Development Corp (PIDC)

12:15 -1:45 p.m. Networking Luncheon: “Trending Topics in Energy Law”

Announcement of the Paul E. Nordstrom Award recipient.

We listened to your feedback. This first-ever networking luncheon will allow more time for networking and interaction between conference attendees. Foster old relationships and build new ones with your tablemates while participating in a facilitated discussion regarding trending topics in energy law. Table facilitators will be introduced and each table will have a list of topics and questions to draw from, but feel free to go off topic and bring your own ideas and questions to share with the group. Enjoy!

1:45-2:45 pm General Session III: Ethical Pitfalls for Attorneys Appearing Before State Regulators

The ABA Model Rules of Professional Conduct, as they are implemented in each state, reveal a multitude of ethical issues that confront attorneys in their representation of energy companies. Add in the regulatory compliance challenges faced by the industry, and it is obvious that attorneys need to be aware of a multitude of rules, regulations and policies that constantly affect their ethical representation of their clients. How should an attorney handle the investigation of their company’s products and consumer advertising? How should an attorney ethically handle multiple simultaneous investigations? The panelists will share their experiences representing energy companies before State Commissions, State Attorneys General, Inspectors General. The panelist will discuss how to avoid ethical pitfalls during these investigations and the policies and plans that your clients should have in place before the state regulators come knocking.

Panelists:
John A. Roscher, Director, Rates & Tariffs, TransCanada U.S. Pipelines
Leonard Crook, Vice President, ICF International
Janice Radel, Energy Industry Analyst, Office of Administration Litigation, Federal Energy Regulatory Commission
Geoffrey B. Inge, President, KTM

2:45 – 4:00 PM Concurrent Sessions I

Session A: Gas Pipeline Rates Issues

The influx in new infrastructure and nationwide availability of natural gas from unconventional sources near end-use markets has changed the flow of gas on the interstate natural gas pipeline system and, in some cases, has placed considerable downward pressure on transportation rates. How are these dynamics shaping natural gas rate making today? Learn from a panel of industry participants and regulators as they discuss their perspectives on the latest trends in pipeline ratemaking.

Moderator: A. Gregory Junge, Partner, Van Ness Feldman, LLP
Panelists:
John A. Roscher, Director, Rates & Tariffs, TransCanada U.S. Pipelines
Leonard Crook, Vice President, ICF International
Janice Radel, Energy Industry Analyst, Office of Administration Litigation, Federal Energy Regulatory Commission
Geoffrey B. Inge, President, KTM

2:45 – 4:00 PM Concurrent Sessions I

Session B: A PURPA Renaissance?

This panel will provide a high-level overview of the history and goals of Public Utility Regulatory Policies Act (PURPA) and of the rights and obligations it establishes for developers and “host” utilities. It will cover recent developments in the area of PURPA enforcement. Also, the panelists will discuss ways in which utilities can partner with their customers to leverage their customers' capital and interest in distributed generation for the benefit of the entire system. Is PURPA experiencing a resurgence? Can projects rely on PURPA to get built? How is PURPA working in the new market environment? This panel will address these and other questions with a view toward stimulating thinking about how PURPA fits into an energy landscape that is vastly different from one that sparked PURPA's passage back in 1978.

Moderator: Donna M. Attanasio, Senior Advisor for Energy Law Programs, The George Washington University Law School
Panelists:
Carolyn Elefant, Law Offices of Carolyn Elefant PLLC
Robert S. Mudge, Principal, The Brattle Group
Carrie Simpson, Manager, Real-Time Markets, Southwest Power Pool
Holly Rachel Smith, Assistant General Counsel, National Association of Regulatory Utility Commissioners

4:00 – 4:15 pm Networking Break

4:15 – 5:15 PM Concurrent Sessions II


Many state statutes and regulations emulate the U.S. Constitution 5th Amendment's prohibition on the taking of private property for public use without just compensation. Traditionally, states have granted eminent domain rights to incumbent utilities servicing in-state consumers and intrastate pipelines transporting energy commodities such as oil and gas. New infrastructure projects, however, are turning the “public use” concept on its head. State public utility commissions are being asked to evaluate siting requests from non-traditional merchant transmission lines that will not serve load in the state, but further national renewable energy interests. In the pipeline world, the shale gas boom has resulted in a number of natural gas liquids and crude oil pipeline projects that may not meet the state's “public use” definition. Hear from practitioners that are working to get these projects built, the legal hurdles they face, a state regulator's perspective, and a scholarly perspective on the state of the law.
Panelists:
Mercy Carrasco, Assistant General Counsel, Boardwalk Pipeline Partners, LP
The Honorable Tom Wright, Commissioner, Kansas Corporation Commission
Peter J. Byrne, Professor, Georgetown University Law Center
Cary Kottler, General Counsel, Clean Line Energy Partners

Session B: Order No. 1000 Update

Initial regional compliance filings had just been made when this topic was addressed at the 2012 EBA Mid-Year Meeting. Since then, FERC has issued numerous orders on those filings, responsive filings were made, interregional filings were made in July 2013, and petitions for review of Order No. 1000 continue before the D.C. Circuit Court of Appeals. Panelists will offer their perspectives on the current state of law and regulation on transmission planning and cost allocation under Order 1000, including: (1) elimination of contractual right of first refusal (ROFR) rights (or failure to do so); (2) continued assertion that the Mobile-Sierra doctrine precludes the FERC from imposing various Order No. 1000 requirements, and disagreement among the Commissioners on Mobile-Sierra protection; (3) questions about what constitutes a planning region for purposes of planning/cost allocation in areas where there is no organized market; (4) implications of pending rehearing requests and DC Circuit litigation; (5) the role of the states in determining project selection and cost allocation for solutions to transmission needs driven by Public Policy Requirements and (6) interregional cost allocation filings.

Moderator: Robin M. Nuschler, Sole Proprietor
Panelists:
The Honorable Edward S. Finley, Jr., Chairman, North Carolina Utilities Commission
Pauline Foley, Assistant General Counsel, PJM Interconnection, LLC
John Lucas, General Manager, Transmission Policy & Services, Southern Company Transmission
Dr. Terry S. Harvill, Vice President, ITC Grid Development

5:30 pm Conference Concludes

Please submit your evaluation and CLE attendance forms.
2014

Western Chapter Annual Meeting
San Francisco, CA
February 20-21, 2014

Mid-West Chapter Annual Meeting
St. Louis, MO
March 10-11, 2014

2014 EBA Annual Meeting & Conference
Renaissance Washington
Washington, D.C.
April 8-9, 2014

2014 EBA Mid-Year Meeting & Conference
Renaissance Washington
*November 4-5, 2014
*tentative date

For information on EBA, regional programs, activities and publications, visit our online calendar at:
http://www.eba-net.org/calendar or call 202/223-5625
EBA
2013 Mid-Year Meeting & Conference
Sponsors

EBA wishes to thank the following companies for their sponsorship of this event:

**Bag Sponsor**

![Bag Sponsor Logo]

**Coffee Break Sponsors**

![Coffee Break Sponsor Logos]
EBA wishes to thank the following organizations for serving as marketing co-sponsors of this event:

- DC Bar
- MDV-SEIA
- GW Law
- WCEE
- National Association of Regulatory Utility Commissioners
EBA Invites You to Get Involved!

A great way to get involved and set direction for the Energy Bar Association is to get involved in a committee.

What are the benefits of joining a committee?

- Keep up on the latest developments within a substantive area of interest
- Help shape programs of interest to you and your colleagues
- Share with, and learn from, colleagues with different points of view
- Meet and network with EBA members
- Committee membership is open only to EBA members. Get involved today!

2013-2014 EBA COMMITTEES

ALTERNATIVE DISPUTE RESOLUTION
COMPETITION & ANTITRUST
COMPLIANCE & ENFORCEMENT
 DEMAND-SIDE RESOURCES & SMART GRID
ELECTRICITY REGULATION
ENVIRONMENTAL REGULATION
FERC PRACTICE & ADMINISTRATIVE LAW JUDGES
FINANCE & TRANSACTIONS
INTERNATIONAL ENERGY LAW & TRANSACTIONS
JUDICIAL REVIEW
LEGISLATION
NATURAL GAS REGULATION
NUCLEAR REGULATION
OIL & LIQUIDS PIPELINE REGULATION
POWER GENERATION & MARKETING
PROFESSIONAL DEVELOPMENT, EDUCATION & ETHICS
PROGRAMS & MEETINGS
RENEWABLE ENERGY
STATE COMMISSION PRACTICE & REGULATION
SYSTEM RELIABILITY & PLANNING
YOUNG LAWYERS

For committee contact information visit:
http://www.eba-net.org/get-involved/eba-committees
or call EBA at 202.223.5625
Distributed Resources and Challenges to the Electric Utility Model

EBA’s Mid-Year Meeting & Conference

October 23-23, 2013
THE NAVY YARD
THE CAMPUS. THE ENERGY. THE OPPORTUNITY.

PIDC
PHILADELPHIA’S ECONOMIC DEVELOPMENT CORPORATION SINCE 1958
THE NAVY YARD BACKGROUND

- 125 years as an active military base & shipyard
- Regional economic hub
- 1,000 acres acquired in 2000
- Growth capacity
- Access to:
  - Airport
  - Universities
  - Regional Highways
  - Labor Force
- Historic waterfront campus
THE NAVY YARD TODAY

- 130 companies and 3 Navy activities
- More than 10,000 employees
- In excess of 6.5 million SF occupied
- $700+ million of private investment
- Office, R&D, and industrial/manufacturing campus
THE NAVY YARD’S UNREGULATED GRID

• Unregulated electric microgrid
  – Currently delivering 130 million KWH/27 megawatt peak to 65 customers of varying size
  – Eight large customers account for 92% of load
  – Ageing infrastructure back to 1930’s
  – Diverse customer base
  – PJM → PECO → 13.2KV Supply
  – Two primary substations
  – About 100 miles underground cable

• Need to plan in advance for continuing growth
  – 10-year real estate projections – doubling existing real estate “in-service”

• Defensive motivations in addition to the positive
  – How to fund the required infrastructure needs?
A SUSTAINABLE COMMUNITY

- Building design – LEED & design review
- Open space network
- Stormwater management initiatives
- Site operations
- Smart grid & renewable power
- Business development opportunity
CONSIDERING ENERGY IN OUR STRATEGIES FOR ECONOMIC DEVELOPMENT AT THE NAVY YARD

Three important factors:

• Developing The Navy Yard unregulated electric microgrid as a unique resource for research, test bedding, growth, and scalable distributive generation deployment

• Demonstrating how to provide energy choices to all stakeholders

• Continue developing real estate strategies to attract energy-related new businesses and stakeholders (i.e.: research, education, associations, etc.)
THE NAVY YARD’S SMART ENERGY CAMPUS

• Building 100 and 101 Innovation Center
  – Headquarters to BFTP/SEP, satellite for PIDC and DVIRC, and smart energy startups
• EEB Hub
  – $129M DOE Innovation Hub solving energy efficiency challenges – 20% reduction in commercial buildings by 2020
  – Renovating Building 661, constructing Building 7R
• Mid-Atlantic Clean Energy Consortium
• Solar “Train the Trainer” Program
• Energy Master Plan
• GridSTAR Smart Grid Experience Center
  – Deploying Smart Grid technologies; workforce development
• Unregulated electric microgrid
  – Unique platform for research, testing, and deployment of innovative energy solutions
## ENERGY MASTER PLAN TEAM

<table>
<thead>
<tr>
<th>Focus Area 1</th>
<th>Focus Area 2</th>
<th>Focus Area 3</th>
<th>Focus Area 4</th>
<th>Focus Area 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure/Operations/Smart Grid</td>
<td>Business Plan</td>
<td>Customer Efficiency, DG and Demand Reduction</td>
<td>Innovative Technologies and Test Bedding</td>
<td>Carbon Footprint Baseline</td>
</tr>
</tbody>
</table>

---

**Technical Advisor:**
REDUCING DEMAND & USAGE
ADDING SUPPLY INDEPENDENCE

**Business as Usual – 100% Utility Fed**
- All PECO supply
- No On-site generation (DG)
- No proactive EE or DR effort

Utility Demand - 82 MW

**On-Site DG**

Grid Programs:
- Natural gas DG
  - 6 MW Peak Reduction
  - 3 MW CHP (data center)
- 1 MW Solar PV
- 600 KW Fuel Cell

Utility Demand - 72 MW

**Demand Response & Energy Efficiency**

Customer programs:
- 20% EE goal by 2022
- Navy DOD mandates
- B-T-M Demand Reduction

Utility Demand - 60 MW

Cumulative usage decrease – over 61,000 MWh
## CONTEXT: SIMILAR SIZE DISTRIBUTION SYSTEMS & MICOGRIDS

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Utility Company</th>
<th>Peak Demand (MW)</th>
<th>Annual GWH</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Navy Yard</td>
<td>Philadelphia, PA</td>
<td>PECO</td>
<td>26.6</td>
<td>134</td>
</tr>
<tr>
<td>Beach Cities Microgrid</td>
<td>Borrego Springs, CA</td>
<td>San Diego Gas &amp; Electricity</td>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td>NYU Washington Square(^{ii})</td>
<td>New York City, NY</td>
<td>Consolidated Edison</td>
<td>17.5</td>
<td>180</td>
</tr>
<tr>
<td>Cornell University(^{ii})</td>
<td>Ithaca, NY</td>
<td>NYSEG</td>
<td>34</td>
<td>201</td>
</tr>
<tr>
<td>University of California</td>
<td>San Diego, CA</td>
<td>San Diego Gas &amp; Electricity</td>
<td>42</td>
<td>-</td>
</tr>
<tr>
<td>Mesa del Sol</td>
<td>Albuquerque, NM</td>
<td>PNM Resources</td>
<td>60</td>
<td>325</td>
</tr>
<tr>
<td>Los Alamos</td>
<td>Los Alamos, NM</td>
<td>PNM Resources</td>
<td>90</td>
<td>550</td>
</tr>
<tr>
<td>Fort Bragg</td>
<td>Fort Bragg, NC</td>
<td>Carolina Power &amp; Light</td>
<td>130</td>
<td>700</td>
</tr>
<tr>
<td>White Oaks Research Facility</td>
<td>Silver Spring, MD</td>
<td>PEPCO</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>Temple University</td>
<td>Philadelphia, PA</td>
<td>PECO</td>
<td>27</td>
<td>250</td>
</tr>
<tr>
<td>PHL Airport</td>
<td>Philadelphia, PA</td>
<td>PECO</td>
<td>36</td>
<td>170</td>
</tr>
<tr>
<td>University of Pennsylvania</td>
<td>Philadelphia, PA</td>
<td>PECO</td>
<td>70</td>
<td>420</td>
</tr>
</tbody>
</table>
THE MICROGRID BUSINESS CASE

• For The Navy Yard = Reduced demand from 82 to 60 MW
• Provides choice to energy customers at The Navy Yard that is not offered in other competing markets
• Pushes some of the required investment from grid owner to 3rd investment based on ROI criteria
• Represents a shared cost strategy to improve reliability, grid stability, increased capacity, in addition to consumer choice
• Hurricane Sandy Effect – calling FERC and State PUCs to ask about the role of microgrids in better management of climate adoption
• Offers platform for utilities and their significant customers to innovate new business opportunities
• “the Train has left the station”
Will Agate, Senior Vice President
PIDC
wagate@pidc-pa.org
The only rule universally observed in the electric power industry is the law of unintended consequences. There are so many different entities with an interest in, and in some cases control over, the power sector that it’s often difficult to align policy with practicality. In the case of technological developments in distributed generation and net metering, a new regulatory scheme will be necessary to ensure the recovery of utilities’ costs for maintaining the system that delivers electricity today.

Failing to adopt a regulatory strategy to manage the transition to new technologies can have a dramatic effect on cost allocation to consumers—and the reliability of their energy supplies. The evolution of telephone service provides an excellent example. The lack of coordination between the costs of wireless and the costs of legacy networks that still provide landline service across the United States has resulted in a heavy burden on non-participants in wireless, and threatens their system’s reliability.

The opportunity was there. Twenty years ago state regulators exercised control over all telephone services and their costs. Today, in New York State, one telecommunications company is a dominant provider of both copper wire and wireless telephone service. Yet by virtue of a regulatory scheme that didn’t factor in the success of a new technology, revenues from the moneymaking wireless services aren’t available to support the money-losing landline business, whose customer service metrics are in free fall. As a result, wireless users today contribute nothing to the cost of providing telephone service over landlines, and landline customers contribute nothing to the cost of providing wireless service. As the copper wire customer base rapidly shrinks, only its users—not all telephone customers—bear the cost of maintaining a system that’s easy to opt out of. However, many of the users of landlines who are unable or unwilling to switch to wireless also receive government support for living expenses,
including landline telephone service, so taxpayers ultimately bear the cost of maintaining an obsolete technology.

The same regulatory standard that states apply to the telephone industry, “safe and adequate service at just and reasonable rates,” has always applied to utility services throughout the United States. Yet telephone service is an ongoing example of a new technology disrupting regulators’ ability to honor this standard and to treat all ratepayers fairly—whether they’re wireless participants or not. Had state regulators acted more thoughtfully, and then aggressively, this misalignment of interests could’ve been dealt with appropriately from the beginning.

In the electric sector, an analogous technological change is underway, and its long-term consequences have yet to be considered in depth by regulators. The effects of encouraging distributed generation (DG) behind the meter, through various subsidies and incentives, has gone largely unaddressed in regulatory proceedings. Everyone in the field seems to acknowledge that the effort to expand DG is a positive development, but without a national energy policy to guide them, state regulators are left to grapple with the rate consequences of policies such as net metering, which are used to promote DG.

With the best of intentions, regulators and lawmakers alike have encouraged DG through both tax and rate-related benefits, and required, through renewable generation mandates, the development of alternatives to large, fixed generating stations powered by nuclear, hydro, or fossil fuels. The trend toward DG, starting in earnest at the beginning of this century, is accelerating at a troubling rate. If it isn’t properly analyzed and addressed, it could trigger disruption and confusion in the provision of “safe and adequate service at just and reasonable rates.”

Perverse Incentives?

Among the financial inducements provided to sponsors of DG, the principal incentive, together with tax advantages, is net metering. Once a DG unit has served its sponsor’s needs, it sends onto the grid any unused electrons, with payment to the sponsor for this energy. In most cases, this payment comes in the form of net metering—in which the
meter effectively runs backwards, compensating the DG owner at retail rates for each kilowatt-hour fed onto the grid.

Most DG is located behind the meter, on the customer’s premises and not in the utility domain. The reason for this can be summarized in two words: “tax benefits.” The federal tax credit for the installation of distributed wind and solar electric systems, like photovoltaic (PV) panels, is 30 percent; for combined heat and power, 10 percent. Additional federal tax benefits are available from accelerated recovery of tax depreciation that can provide substantial additional savings. At the state level, North Carolina currently provides a most generous state tax benefit: 35 percent of the cost of the installation of PV, up to $2.5 million. Other states have similar plans with lesser or greater benefits. For instance, Louisiana enables the homeowner to claim tax credits arising out of net metering for up to 50 percent of the cost of the installation of PV.

So for an individual with an appetite for a tax credit in North Carolina, the costs of installing PV can be shared with the federal and state governments; with depreciation included, governments provide at least 70 percent of the installed cost, and the sponsor less than 30 percent—and that’s before factoring in payments for any electrons sent into the grid via net metering. The sponsors of DG—in many instances customers with significant financial resources—see their actions, enabled by tax and other incentives, as reducing the demand on the electric grid. This reduction in demand, they assert, merits a dramatic decrease in what they must pay for utility service—to compensate the wholesale generators, transmission providers, and local distribution companies. Yet the requirement of safe and adequate service means that prudently installed utility infrastructure and the costs of running and maintaining it must continue to be shared in an appropriate fashion with all customers, including those sponsoring DG.

While state regulators usually have no direct involvement in tax-related subsidies, they often do in the non-tax arena. But invariably they have to deal with the unintended consequence of such policies on electric utilities and their ratepayers. An example of this misalignment of interests is the interconnection and integration of renewables, often required by a state’s renewable portfolio standard. These processes result in additional costs that are unique to the renewable generator, but often not borne
exclusively by its sponsor; rather, they’re socialized among all ratepayers. A case in point: when a specific DG site must incur costs to connect its unneeded electrons to the grid, or to make the grid accept electrons going in two directions, its regulators must deal with the question of who bears these costs. Currently, in most jurisdictions, they’re paid by all ratepayers, perhaps unfairly.

Yet DG is new generation of electricity. The costs of providing this same location with the electricity it utilized before DG—the old electricity—still endure in the regulatory world for the financial life of the relevant assets.

This is particularly true for DG using variable resources, such as wind or solar, whose output might not be available to its sponsor at times of peak demand. At those times energy must be supplied by the existing utility system—the old electricity. These costs must, in some fashion, continue to be borne by all customers, both the sponsors of DG, as well as those not participating in DG (non-participants). If not, the sponsor would be deriving a windfall by not paying its fair share of the cost of the old electricity and the non-participants would thereby be subsidizing the DG sponsor. Unless the sponsor had determined to disconnect from the grid completely and run the risk of its facility not having access to electricity if its new installation fails or needs maintenance, the utility has to charge a fee to be available to deliver electricity (including generation, distribution, and commodity services) on an as-needed basis (a standby charge).

On the other hand, sponsors point out, quite correctly, that since DG is relieving certain demands on the provision of electric service—reducing the peak demand, the need for new transmission or distribution networks, etc.—then DG sponsors should be compensated for taking the risk of funding a new technology and any related cost benefits. They are right to seek regulatory focus on quantifying the benefit of their initiatives to the entire electricity system and, once the benefits are clearly identified, to receive compensation for their risk-taking through appropriate rate design.

However, the savings provided by DG to the utility system can be very case-specific, and could depend on the site of the DG facility, the periods it actually produces power, the demand profile of the DG sponsor, and other characteristics. Subsidies and rate programs that treat all DG the
The Law of Unintended Consequences

Managing the Transition

Whatever the benefits of DG, there are unintended consequences for granting rate incentives for mandating DG system-wide, and as DG proliferates, so do these unintended consequences. While we transition to a new, technology-enhanced distribution system, we also need to revisit and update a number of key retail rate policies as part of a long-term strategy for handling the effects of new technologies. Five policies, in particular, need to be addressed:

- **Retail rate design**: The current regulatory model provides recovery of most fixed costs through volumetric (kWh) rates for residential and small business customers. Fixed costs are part of allowed revenue requirements, which are spread over the average per-customer kWh sales established in the test year for mass-market customers. Commercial and industrial customers have separate demand charges that recover fixed costs. This traditional approach worked well when per-customer energy use was growing. It produced incremental revenues that helped utilities fund new investments. In the future, however, as customers opt to deploy DG and other kinds of similar energy resources, per-customer kWh use likely will fall below levels assumed in the electric utility’s most recent rate case. This will cause the utility to under-recover some of its allowed fixed costs. As DG grows, such under-recovery has the potential to materially weaken the utility’s financial integrity and its ability to attract investor capital, which in turn can lead to higher rates. To avoid this unintended outcome, we need to move, over time, toward rates that recover fixed network costs through fixed charges to all ratepayers.

- **Net metering**: Forty three states and the District of Columbia have net-metering policies, which are intended to encourage DG by compensating DG sponsors for whatever power they actually supply to the grid. In most jurisdictions, this means running the meter backward at the full, bundled retail rate. This presents a problem...
because the bundled rate includes costs that the utility continues to incur even if the DG sponsor supplies power—such as costs for customer care, transmission, and distribution. The unintended consequence of net metering is that DG sponsors avoid some portion of their fair share of fixed costs. These costs must be paid by other customers or utility shareholders, and neither of these approaches is sustainable over the long term. One solution is to unbundle the retail rate so the DG sponsor is only credited for the value of generation, as well as the other measurable benefits it supplies to the utility. A further refinement is to take into account the time-of-use value of generation and transmission resources the DG sponsor needs to use.

- **Backup and standby rates**: Backup and standby rates are the terms and conditions under which the utility supplies the sponsor with electricity when its DG is off-line, either because it has failed, or because it’s down for scheduled maintenance. If DG sponsors pay only for the use of the network when they need it, they again won’t pay their fair share of the generation, transmission, and distribution that they continually rely on. This occurs because, as noted above, regulators have usually designed rates to keep fixed charges low, and instead to rely on volumetric (kWh) charges to recover fixed costs. Also as noted, this volumetric approach increases the probability that the utility won’t recover all of its DG support costs. A possible remedy is to implement fixed charges for DG sponsors to recover not only the costs needed to reserve backup generating and transmission capacity—so that it isn’t used for other purposes and is available when called upon—but also the fixed cost of these services when actually used, as well as the cost of fuel.

- **Interconnection costs**: Interconnection costs are incurred to link DG to the existing distribution system in a way that ensures safety and reliability. These include capital costs related to service connections for DG projects; circuit breakers to disconnect DG when needed to protect utility workers and first responders; distribution circuits and substation upgrades; as well as metering, sensors, controls, and communication infrastructure needed to accommodate the increasing amount of two-way power flows on the distribution network. As the use of DG increases, so does the cost of its interconnection. In addition to the capital costs, the utility bears operating and
maintenance expenses related to the required incremental distribution infrastructure. Demonstrated interconnection costs need to be recovered from the DG sponsor.

- **Integration of Various DG Resources**: Where the DG is derived from a variable resource such as wind or solar, additional costs are incurred to provide the continuous balancing of power, thereby ensuring that demand is satisfied on a moment-to-moment basis, and reliability is maintained. This involves things like operating reserves, regulation, and load-following resources to maintain grid stability. To the extent integration costs can be demonstrated and are prudently incurred, they need to be recovered. A major regulatory question is in what proportion DG sponsors and all other customers should bear these costs. In some parts of the country, this is the responsibility of independent system operators or regional transmission operators; in others the state utility regulator has this task. In all events, allocation of costs and benefits should be transparent to whoever is paying for these services.

**Modernizing Regulation**

Today we stand at a crossroads in the electric utility industry, comparable in some ways to the crossroads we passed 20 years ago in telecom. In telecom we failed to anticipate and manage the introduction of disruptive new technologies, and we’re continuing to pay the price because of our inability to provide to all customers safe and adequate service at just and reasonable rates. Let’s not repeat this mistake in electricity. At a time when we’re embarking on the construction of a fundamentally new kind of distribution system, let’s seize the moment, and update rate policies to put electricity on a sustainable basis for the future—for all.

We have the insight necessary to address the unintended consequence of policies that force non-participants in a new technology to bear some of the costs without directly receiving any of the benefits. In so doing, three goals should guide us: fairness to ratepayers; appropriate allocation of fixed costs; and encouragement of efficient development.

To provide fairness, we need to cure the tendency under current rate policies to shift costs from DG sponsors to non-DG ratepayers. This
change is needed to comport with utility regulation’s fundamental mandate to ensure that rates are just. It also would prevent a misalignment akin to what landline customers are experiencing because wireless customers of the same vendor are exempt from supporting its copper wire system, with the result that non-wireless service metrics are sorely deficient. At the same time, the real benefits that DG sponsors bring to the electricity system should be taken into account in ratemaking.

With regard to appropriate cost allocation, all the fixed costs incurred to preserve and modernize the grid must be recovered in rates. This is essential to preserve the financial health of utilities, and thereby, the long-term reliability of the system on which the public depends—and for which it pays.

Finally, to encourage efficient development, accurate price signals should be embedded in rates to allow both customers and utilities to make efficient investment decisions. Rate policies that encourage DG investments by shifting costs to others might not be the best or the least-cost way for society to explore this new technology. Incentives that might have been appropriate when DG was a fledgling business, with insignificant market penetration, now threaten consequences that, if not addressed by regulators, will harm the public interest.

As technologies continue to improve and incentives are enhanced—all with the best of intentions—ignoring the need for change will make such unintended consequences inevitable. The time to revisit and rationalize retail rate policies is now. This opportunity might not come again.

Source URL: http://www.fortnightly.com/fortnightly/2013/03/law-unintended-consequences
Distributed Resources and Challenges to the Electric Utility Model: A Utility Perspective

David G. Shuford
Vice President-Policy and Business Evaluation
Alternative Energy Solutions
Dominion Resources Services, Inc.
Dominion Profile
Overview

Dominion (NYSE:D), headquartered in Richmond, VA, is one of the nation’s largest producers and transporters of energy, with a portfolio of approximately:

- ~23,500* megawatts of electricity generation
- 11,000 miles of natural gas transmission, gathering and storage pipeline and
- 6,400 miles of electric transmission lines.

Dominion operates the nation’s largest natural gas storage system with 947 billion cubic feet of storage capacity and serves retail energy customers in 15 states.
Dominion Profile
Power and Natural Gas Infrastructure

Leading provider of energy and energy services in the Midwest, Northeast and Mid-Atlantic regions of the U.S.

- ~23,500 MW of electric generation
- 6,400 miles of electric transmission
- 11,000 miles of natural gas transmission, gathering and storage pipeline
- 947 billion cubic feet of natural gas storage operated
- Cove Point LNG Facility
- 2.5 million electric customers in VA and NC
- 1.3 million natural gas customers in OH & WV
- 2.1 million non-regulated retail customers in 15 states (not shown)
• Can the Utility Industry Survive the Energy Transition? Chris Nelder, April 9, 2013, Edison Electric Institute, *Greentech Media*

• Why the U.S. Power Grid’s Days Are Numbered, Chris Martin, Mark Chediak, and Ken Wells, August 22, 2013, *Business Week*

• Companies Unplug From the Electric Grid, Delivering a Jolt to Utilities, Rebecca Smith and Cassandra Sweet, *The Wall Street Journal*, September 17, 2013

• Utilities Shocked to Find They Are Already Dead, John Farrell, September 17, 2013, reneweconomy.com
DEATH OF BIG LAW FIRMS?

• The Death Spiral of America’s Big Law Firms, Jordan Weissman, April 19, 2012, *The Atlantic*

• The Death of Big Law, Larry E. Ribstein, Wisconsin Law Review, Vol. 2010, No. 3, August 1, 2010


• The Change Agenda: Is Mega Law a Dead Man Walking?, *The AmLaw Daily*, March 22, 2010
WHY DOES DISTRIBUTED GENERATION THREATEN ELECTRIC UTILITIES?

• For over 100 years, the electric utility industry has been premised upon a *centralized model*, including large power plants capable of powering hundreds of thousands of homes and businesses.

• Electric utilities are businesses that must grow in order to reward their stockholders and keep borrowing costs low. To do that, they construct *very expensive infrastructure* on which they earn a regulated return.

• Utilities’ *planning horizons* are as much as 40 years into the future because that’s how long the infrastructure will last.
WILL DISTRIBUTED GENERATION AND ENERGY STORAGE UNDERMINE THE ELECTRIC UTILITY BUSINESS MODEL?

Whether DG and battery storage ultimately harm the electric utility model will depend upon:

- Technological advances;
- Continued decline in costs of solar panels and related infrastructure;
- Decline in costs of other types of DG, such as fuel cells which are dispatchable;
- Natural gas prices;
- Legal and regulatory limitations on DG and net metering;
- Financing options available to customers;
- Public policy (tax credits, mandates, renewable carve-outs, etc.)
- Solar equipment problems
- Customer sentiment
UTILITIES’ OPTIONS IN THE FACE OF DG THREAT

• Ignore the threat (trends come and go, energy efficiency was a trend that fizzled in the ‘90s)
  - If utilities guess wrong, they will over-build infrastructure with fewer customers to pay for it
  - Cost of borrowing and raising equity capital will increase dramatically

• Assume that the threat is substantial and stop building new power infrastructure
  - Regulators would likely not allow this
  - Shareholders will not like this
  - Customers will not appreciate this when utilities lack sufficient power supply when needed
MEASURES UTILITIES MAY TAKE TO ADDRESS THE DG THREAT

• Try to increase their own supply of renewable generation

• Spend more on reliability and resiliency of the grid

• Adopt a decoupling regulatory model

• Change rate design
  - Increase fixed charges and reduce variable charges to all customers
  - Impose standby charges or demand charges on net metering customers
  - Impose exit fees or charges for customers leaving the system through DG

• Try to change net metering laws and to eliminate tax and other incentives for rooftop solar

• Offer distributed generation to franchise customers
Ethical Pitfalls for Attorneys Appearing Before State Regulators
EBA’s Mid-Year Meeting & Conference
October 23-23, 2013
Ethical Issues In State Utility Commission Proceedings

Richard J. Johnson
Moss & Barnett
Summary

• Purpose: to present a reminder of basics

• Topics
  – Conflicts
  – Ex parte contacts
  – Contacts with represented intervenors

• Key points
  – Complying with rules vs. client relations
  – Consents are needed and cure most conflicts
  – Local practice is key to managing contacts
Conflicts

• ABA Model Rule 1.7
  – Consent is key
  – Addresses rules and client relations

• Situations that are not a conflict
  – Utility law firm represents utility customers in other matters
    • Applies to virtually all firms
    • Analysis similar to large class actions
Possible Direct Conflicts

• Utility law firm represents intervening utility customers in other matters
  – Conflict may depend on identity of intervenor
  – Size of group and role of customer-client

• Attorney for customer group whose members have conflicting interests
  – Cost allocations
Positional or Issue Conflicts

• Advocating for different sides of an issue
  – Representing customer groups and utilities.
  – Representing different customer groups
  – Representing different utilities

• Comment 24 criteria
  – Same or different forums and times
  – Degree of difference in positions
  – Significance of issue
“Imposed” Conflicts

• Utility attorney with customer clients who intervene unexpectedly
  – Scope of intervention re adversity

• Utility attorney with other utility clients who may intervene
  – Degree of adversity, consent

• Significance of unforeseeable changes
  – Restrictions may be lessened
Ex parte and other restrictions

• ABA Model Rule 3.5, Agency ex parte rules
  – Disclosure as a typical remedy

• Agency codes of conduct, ethical codes
  – Personal financial interests

• “Routine” ex parte issues during advocacy
  – Advocacy vs. advisory functions
  – Procedural vs. substantive topics
  – Hearings directly before commissioners
Ex parte and other restrictions

• ABA Model Rule 4.2
  – Advocacy policy makers vs. witnesses
  – Limits on attorneys vs. regulatory department personnel

• Attorney-directed contacts prohibited
  – ABA Model Rule 8.4(a) and Rule 4.2, comment 4
Pitfalls for Attorneys Appearing Before State Regulators in Parallel Investigations

Joan P. Sullivan
HARRIS BEACH PLLC
jsullivan@harrisbeach.com
677 Broadway, Suite 1101
Albany, New York 12207
(518)701-2732
www.harrisbeach.com
Know Your Regulators

- Know your regulators in **and** outside the industry sector

- For example, in New York:
  - N.Y.S. Public Service Commission (Primary Regulator)
  - N.Y.S. Attorney General
  - N.Y.S. Inspector General
  - Industry-specific temporary commissions
Know the Trends

- What are the hot investigative trends right now?

- In New York . . .
  - Retail / Energy service companies ("ESCOs")
    - NYS PSC and NYS OAG have turned attention to practices and business models of ESCOs
  - Storm hardening by utilities (i.e. Superstorm Sandy)
Protecting the House

- Importance of protecting proprietary and confidential information:
  - Negotiate scope of broadly drafted subpoenas
    - Limits potential liability and expensive ESI costs
    - Careful redactions
  - Objections: Trade secrets; proprietary information
  - State and federal freedom of information laws
  - Be wary of waiver
Stay Ahead of the Tide

- Prophylactic measure to avoid or reduce your risk of investigation:
  - Importance of self-reporting
  - Hotline(s) for reporting of wrongdoing
  - Training
  - Keeping current with changes to rules and regulations
  - Maintaining a good working relationship with your primary regulator
Questions?

Joan P. Sullivan
jsullivan@harrisbeach.com

677 Broadway, Suite 1101
Albany, New York 12207
(518)701-2732

100 Wall Street
New York, New York 10005
(212)687-0100
EMAIL AND THE OBLIGATION TO PROTECT CONFIDENTIAL INFORMATION

Wendy K. Tatro, Corporate Counsel

October 24, 2013
Rule 1.6 – Confidential Information

• 1.6(a) - A lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent, the disclosure is impliedly authorized in order to carry out the representation or the disclosure is permitted by paragraph (b).

• 1.6(c) - A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized access to, information relating to the representation of a client.

Rule 1.1 – Competence

• 1.1 - A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.
WHAT CONFIDENTIAL INFORMATION DO ATTORNEYS TRANSMIT VIA EMAIL?

• Highly Confidential/Proprietary
• Customer Specific Information
• Third Party Information
FOR EXAMPLE…

How Power Use can Reveal Personal Activities
IS UNENCRYPTED EMAIL THE EQUIVALENT OF LEAVING A BRIEFCASE IN AN UNLOCKED CAR?
PREVIOUS ETHICS OPINIONS

• ABA 99-413
  Email encryption generally not necessary to protect client confidence

• California 2010-179
  Six factors attorneys must assess the level of security afforded by the technology
  Duty to seek a basic understanding of the electronic protections afforded by the technology they use

• ABA 11-459
  Must consider whether there is a significant risk that third parties will have access to the communications
WHAT CONSTITUTES “REASONABLE EFFORT”

• Other Methods to Convey Information
• Email Encryption
• Future Technologies
Gas Pipeline Rates Issues
EBA’s Mid-Year Meeting & Conference
October 23-23, 2013
Gas Pipeline Rates Issues

Panelists:

Leonard Crook, Vice President, ICF International

John A. Roscher, Director, Rates & Tariffs, TransCanada U.S. Pipelines

Geoffrey B. Inge, President, KTM

Janice Radel, Energy Industry Analyst, Office of Administration Litigation, Federal Energy Regulatory Commission

Moderator:

Greg Junge, Partner, Van Ness Feldman, LLP
The Disruptive Effects of Shale on Gas Markets

Presentation to

Energy Bar Association
Mid-year Meeting and Conference
Renaissance Hotel
Washington, D.C.

October 24, 2013

Leonard Crook,
VP Natural Gas
703 934 3000
Leonard.Crook@icfi.com
Disclaimer

This presentation presents the views of ICF International. The presentation includes forward-looking statements and projections. ICF has made every reasonable effort to ensure that the information and assumptions on which these statements and projections are based are current, reasonable, and complete. However, a variety of factors could cause actual market results to differ materially from the projections, anticipated results or other expectations expressed in this presentation.

All of the material presented, unless otherwise identified, is derived from the ICF July Base Case. The information in this presentation is proprietary and confidential. It should not be distributed to third parties.
Shale has been a Positive yet Disruptive Force in Gas Markets in Three Ways

- The size of the economically recoverable resources
- The robustness of the shale production
- The location of the shale gas resources
## The North American Natural Gas Resource Base is Huge

<table>
<thead>
<tr>
<th>Region</th>
<th>Proven Reserves</th>
<th>Unproved Plus Discovered Undeveloped</th>
<th>Total Remaining Resource</th>
<th>Shale Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>9.4</td>
<td>153.6</td>
<td>163.0</td>
<td>0.0</td>
</tr>
<tr>
<td>West Coast Onshore</td>
<td>2.9</td>
<td>24.6</td>
<td>27.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Rockies &amp; Great Basin</td>
<td>81.8</td>
<td>388.3</td>
<td>470.1</td>
<td>37.9</td>
</tr>
<tr>
<td>West Texas</td>
<td>20.4</td>
<td>47.7</td>
<td>68.1</td>
<td>17.5</td>
</tr>
<tr>
<td>Gulf Coast Onshore</td>
<td>97.6</td>
<td>684.7</td>
<td>782.3</td>
<td>476.9</td>
</tr>
<tr>
<td>Mid-continent</td>
<td>65.3</td>
<td>205.0</td>
<td>270.3</td>
<td>133.9</td>
</tr>
<tr>
<td><strong>Eastern Interior</strong></td>
<td>45.2</td>
<td>1,053.7</td>
<td>1,098.9</td>
<td>986.1</td>
</tr>
<tr>
<td>Gulf of Mexico</td>
<td>10.7</td>
<td>238.6</td>
<td>249.3</td>
<td>0.0</td>
</tr>
<tr>
<td>U.S. Atlantic Offshore</td>
<td>0.0</td>
<td>32.8</td>
<td>32.8</td>
<td>0.0</td>
</tr>
<tr>
<td>U.S. Pacific Offshore</td>
<td>0.8</td>
<td>31.7</td>
<td>32.5</td>
<td>0.0</td>
</tr>
<tr>
<td>WCSB</td>
<td>68.8</td>
<td>664.0</td>
<td>732.8</td>
<td>508.8</td>
</tr>
<tr>
<td>Arctic Canada</td>
<td>0.0</td>
<td>45.0</td>
<td>45.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Eastern Canada Onshore</td>
<td>0.8</td>
<td>15.9</td>
<td>16.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Eastern Canada Offshore</td>
<td>0.3</td>
<td>71.8</td>
<td>72.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Western British Columbia</td>
<td>0.5</td>
<td>10.9</td>
<td>11.4</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>US Total</strong></td>
<td><strong>334.1</strong></td>
<td><strong>2,860.6</strong></td>
<td><strong>3,194.7</strong></td>
<td><strong>1,652.5</strong></td>
</tr>
<tr>
<td><strong>Canada Total</strong></td>
<td><strong>70.4</strong></td>
<td><strong>807.6</strong></td>
<td><strong>878.0</strong></td>
<td><strong>519.1</strong></td>
</tr>
<tr>
<td><strong>US and Canada Total</strong></td>
<td><strong>404.5</strong></td>
<td><strong>3,668.1</strong></td>
<td><strong>4,072.6</strong></td>
<td><strong>2,171.6</strong></td>
</tr>
</tbody>
</table>
Much of the Resource is Available at Low Cost

North American Gas Supply Curves

© 2013 ICF International. All rights reserved.
Shale Formations of North America are Widespread

Source: NEB, “Understanding Canadian Shale Gas,” 2009
This has Led to Oversupply and Soft Prices Near-Term, Moderate Long Term Prices

Annual Average Henry Hub Price (2010$/MMBtu)

Perfect Storm Leads to Unsustainably Low Gas Prices

Supply Rationalization

Demand Surge

Stable Prices – Market Growth and Supply Growth in Lockstep

Nuclear Retirements

© 2013 ICF International. All rights reserved.
Lower Gas Prices Drive Gas Demand Growth Across the Country . . .

U.S. Regional Natural Gas Consumption (Tcf)

© 2013 ICF International. All rights reserved.
... Altering Pipeline Flows across North America

Flow Change from 2010 to 2025 (MMcfd)

Gray lines indicate increased pipeline flows.
Red lines indicate decreased pipeline flows.
Blue lines indicate changes in LNG flows.

Source: ICF International

© 2013 ICF International. All rights reserved.
What does the Future Hold?

- Expiring long term contracts and integrity management regulations exacerbate the challenges for pipeline operators.

- Strategies for protecting value include
  - Reversing and implementing bi-directional flows
  - Abandonment and conversion to oil or NGL service.
  - Segmentation to match capacity to markets
  - Discounting in areas of basis contraction

- Big questions are open ended
  - Is basis still a good measure of pipeline value or are receipt and delivery point capacity the key factors?
  - What does this mean for cost allocation and rate design
EBA Presentation

Marcellus/Utica
Marcellus Shifts Market Dynamics

Natural Gas Flows

- **Traditional**
- **Marcellus Gas**

**NE Production**
- Utica
- Marcellus

**NE Demand**
- New England
- Mid Atlantic

Privileged and confidential. Reflects preliminary data that may be superseded or become obsolete as more or better sources of data are accessed or the data are updated.
Changing Flow Patterns on Great Lakes

**Emerson Flows by Year**

- Emerson W-E
- Emerson E-W

**Farwell Flows by Year**

- Farwell W-E
- Farwell E-W

**St. Clair Flows by Year**

- St. Clair W-E
- St. Clair E-W

*2013 values through 6/23
Historic Great Lakes Rate Design

- **Gas the pipeline at Emerson (Westernmost point)**
  - Three main hauls: West-West, West-Central, West-East
  - Allocation of costs to zone of delivery using Dth-Mi

- **Zone-of-Delivery rates are not additive**
  - East-East haul would be calculated by subtracting West-Central mileage costs from West-East rate
Issues Arising from GLGT Rate Design

- **Matrix rates do not accurately reflect associated costs**
  - Based on rate design, East-East hauls should be charged at West-East rates

- **Under-collection of revenue**
  - Shortfall reflected in 2009 section 5 proceeding ~ $20 million
  - Shortfall currently estimated to exceed $74 million
Possible GLGT Rate Design Remedies

- Adjust Current Rate Design
  - Postage Stamp
  - Dth-Mile (based on zones traversed)
Interstate Natural Gas Pipeline Cost Allocation and Rate Design Issues Related to Marcellus Shale Production

Geoffrey B. Inge
President – KTM

EBA Mid-Year Meeting
October 24, 2013
Washington, D.C.
U.S. Natural Gas Pipeline Network

Legend
- Interstate Pipelines
- Intrastate Pipelines
Figure 3. Marketed production of natural gas in the United States and the Gulf of Mexico, 2011 (million cubic feet)

IGUA Proposal

- Eliminate Assets No Longer Used and Useful From Rate Base
- Corresponding Capital Reduction
- Fund 50% of the Capital Reduction With a Contribution From TCPL
- Fund the Remaining 50% With Proceeds From a Government-Sponsored Debt to be Repaid via a Volumetric Rate Rider Charged to all Shippers.
TCPL Arguments

- Regulatory Compact
- Prudence Trumps Used & Useful
- Cost Disallowance Equals Confiscation
- Accounting Rules Rule
NEB Response to TCPL Arguments

- Regulatory Compact
  “We are not prepared to endorse the concept of the regulatory compact, as a concept that compels the Board to set just and reasonable tolls in a particular manner. In our view, the concept is ill defined. TransCanada’s interpretation of the regulatory compact would have the effect of protecting the Mainline from the impact of competition. “

- Prudence Trumps Used & Useful
  “The proposition that only prudence determines the opportunity for cost recovery fails to recognize that tolls and tolling methodology may need to change as the circumstances faced by the pipeline change. “

“In our view, a regulatory rule that compels the Board to set tolls that allow the return of and on investment, irrespective of whether assets associated with that investment are used and useful for providing service, erodes management’s responsibility for its investment decisions and management’s responsibility to keep depreciation rates current.”
NEB Response to TCPL Arguments

- **Cost Disallowance Equals Confiscation**
  “Given the foregoing, we are of the view that it would not be confiscatory to disallow costs in appropriate circumstances. In our view, this conclusion is consistent with the principles set out in *Stores Block*. That case places the ultimate risk of asset ownership on the pipeline company and not its customers.”

- **Accounting Rules Rule**
  “However, it does not follow that the accounting regulations compel the Board to provide for recovery of certain costs through tolls if to do so would result in tolls that are not just and reasonable.
  As a result, our opinion is that the GPUAR do not constrain the Board’s authority under the NEB Act to set just and reasonable tolls.”
“It is not just and reasonable for all of the costs of, and the risk associated with, competition to be borne by shippers on the system who do not have access to competing sources of supply for their energy needs.”

- National Energy Board
Reasons for Decision – RH-003-2011
The opinions and views offered here are my own and not necessarily those of the United States, the Federal Energy Regulatory Commission, individual Commissioners or members of the Commission staff.
## Comparison of Two Rate Cases

<table>
<thead>
<tr>
<th>Tennessee Gas Pipeline Co.</th>
<th>Transco Gas Pipe Line Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Docket No. RP11-1566</strong></td>
<td><strong>Docket No. RP12-993</strong></td>
</tr>
<tr>
<td>• 13,900 miles of pipe</td>
<td>• 10,200 miles of pipe</td>
</tr>
<tr>
<td>• 7.9 bcf/day capacity</td>
<td>• 9.7 bcf/day capacity</td>
</tr>
<tr>
<td>• Seven zones</td>
<td>• Six zones</td>
</tr>
<tr>
<td>• Fully subscribed in the North</td>
<td>• Fully subscribed in the North</td>
</tr>
<tr>
<td>• Very few volumes flowing through the middle of the pipe</td>
<td>• Running at a high load factor through entire pipe</td>
</tr>
<tr>
<td>• Settlement</td>
<td>• Settlement</td>
</tr>
<tr>
<td>– MFV allocation for zones 4-6</td>
<td>– No rate design changes</td>
</tr>
<tr>
<td>– SFV allocation for zones 0-3</td>
<td></td>
</tr>
</tbody>
</table>
Columbia Gulf Transmission Co
Docket Nos. RP11-1435 and RP11-24

- 3,300 miles of pipeline through Louisiana, Mississippi, Tennessee and Kentucky with a capacity of approximately 2.2 Bcf/day
- 2 zones: Mainline and Onshore
- In 2010 approximately 92 percent of the nominations on Columbia Gulf’s Mainline Zone were at receipt points near Delhi. Because Delhi is approximately 400 miles north of Rayne (the start of the Mainline Zone), this has resulted in a decrease in demand for the portion of the Columbia Gulf system south of Delhi (the Onshore Zone).

Settlement
- 1 zone, postage stamp rate
- A rate cap (subject to certain conditions) to avoid rate shock for existing Onshore Zone shippers
- Credit Market Zone firm max rate shippers any revenues above the rate cap received from existing FTS-2 shippers use of points outside the Onshore Zone.
Gas Supply

- Hz Drilling + Fracking = 100+ years of gas supply at current production rates
- Regional differences based on resource and demand dynamics
- Gas Supply+Demand+Competition=Estimated Useful Life
  - Traditionally 35 years (Kern River)
  - With new supplies, Staff is conservatively filing 40 years where applicable, despite higher supply life
  - (EIA Proved+PGC Probable+PGC Possible)/Current Production = Supply Life
A PURPA Renaissance?
EBA’s Mid-Year Meeting & Conference
October 23-23, 2013
A PURPA Renaissance?

Donna M. Attanasio
Senior Advisor for Energy Law Programs

October 24, 2013
Same Rules, More and Different Players

- Small Power Production Facilities:
  - Fuel & Size Limited
  - Benefits vary
    - 80 MW or smaller
    - 30 MW or smaller
    - 20 MW or smaller
    - Less than 1 MW
- Co-gen Units:
  - Any size
  - Need a thermal host
  - PURPA-Put rights for new co-gen limited
- QFs of 1 MW or smaller need not even file for QF status to qualify
“It is expected that by the end of 2013, a solar project will have been installed, on average, every four minutes in the U.S.”

- SEIA

“The average cost of a completed PV system dropped by 11 percent over the past year to $3.05/W. The average price of a solar panel has declined by 60 percent since the beginning of 2011.”

- SEIA
PURPA Avoided Cost Rates

- QF **may** sell; non-exempt electric utility **must** buy:
  - Capacity and/or energy
  - **At avoided cost, determined after considering:**
    - Availability during peaks
    - Dispatch and reliability
    - Scheduled outage coordination
    - Usefulness in emergencies; ability to separate its load from its generation
    - Smaller capacity increments; shorter lead times
    - Other terms and conditions
    - Individual and aggregate value to the system
Obligation of Utilities

- Sell to QFs supplementary, back-up maintenance and interruptible power at non-discriminatory rates based on:
  - Accurate data & consistent costing principles
  - Applicable to similarly situated customers
  - Factual underpinning for outage assumptions
- Interconnect & wheel
Regulatory Exemptions

• FPA 205/206 (rate regulation) exemption available to:
  • All QFs of 20 MWs or smaller
  • Certain QFs that sell pursuant to PURPA-Put, including all QF-SPPs of 30 MWs or smaller
  • A QF may also apply for market-based rate authority

• With limited exceptions, QFs also exempt from certain other FPA provisions, PUHCA and state rate, financial and organizational regulation applicable to utilities
QF Options

Net Metering
- Retail / Not FERC-jurisdictional
- Credit to customer

PURPA-Put
- Avoided [Wholesale] Cost Rate
- Implemented by state or non-regulated utility

Negotiated Sale
- Wholesale sale at competitive rate
- FERC-jurisdictional, if seller is not exempt
SPP Markets and PURPA

Carrie Simpson
Manager, Real-Time Markets
csimpson@spp.org
Southwest Power Pool

- Southwest Power Pool was formed in 1941 by eleven utilities to pool resources for the WWII defense effort
  - Located in Little Rock, Arkansas
  - FERC approved Regional Transmission Organization
  - SPP provides services to members in 8 states
    - Reliability Coordination
    - Tariff Administration
    - Regional Scheduling
    - Market Operations
    - Transmission Planning
    - NERC Training
SPP EIS Market

• SPP currently manages an Energy Imbalance Service (EIS) Market

  – All Market Participants (MPs) settle in the Market based on the difference between the MP’s actual production and schedules, at the respective Locational Imbalance Prices

  ▪ SPP dispatches resources economically with respect to transmission congestion, every 5 minutes
    – Security Constrained Economic Dispatch

  ▪ SPP curtails MPs schedules during congestion management events based on transmission service priority
    – Uses NERC Interchange Distribution calculator (IDC) and SPP Curtailment Adjustment Tool (CAT)
SPP EIS Market and QFs

- Qualifying Facilities (QFs) exercising rights under PURPA to deliver all net output to its host utility are not required to participate in the EIS Market or be subject to EIS charges.
  - QFs are treated as “Non-Dispatchable” in the Market because they do not offer economically and many are not capable of following a systematic instruction.
    - Other “Non-Dispatchable” Resources (NDRs) in the EIS Market include Intermittent Resources, and any resource in a testing or transition mode.
      - Prior to 2013, all NDRs were curtailed (or dispatched down) via manual phone call.
SPP EIS Market and QFs

- In 2012, SPP gained FERC approval for a market design change to allow curtailment of NDRs systematically
  - SPP assigns a transmission service priority for any output of a NDR beyond its schedule to be used by CAT/NERC IDC for determining congestion relief obligations
  - SPP stakeholders raised the question: based on PURPA rules, what transmission priority is appropriate for SPP to assign QFs selling output under PURPA?
    - Emergency conditions equivalent to load shed?
    - Emergency conditions equivalent to Firm (F-7) Transmission Loading Relief? (TLR 5)
    - Is any level of TLR, an emergency?
SPP EIS Market and QFs

• FERC determined in SPP’s filing in docket ER12-2292-000, that QFs output sold under PURPA can be curtailed on an equivalent basis as a TLR Level 5.

• “Our regulations implementing PURPA state that QF sales can be curtailed in a system emergency, which is defined as “a condition on a utility’s system which is likely to result in imminent significant disruption of service to customers or imminently likely to endanger life or property.” These regulations justify reference to a TLR level 5 event in identifying the appropriate curtailment priority for QF output sold under PURPA. We, therefore, conditionally accept SPP’s proposed curtailment of unscheduled output at TLR level 5 on an equivalent basis with firm transmission service, for the output of QFs sold under PURPA.” – Paragraph 51, September 20, 2012 order
Integrated Marketplace and QFs

- SPP will be implementing the Integrated Marketplace in March 1, 2014
  - Includes Day-Ahead Market, Transmission Congestion Rights, Reliability Unit Commitment, Real-Time Balancing Market, and the consolidation of SPP’s 16 existing member Balancing Authorities
  - QFs exercising rights under PURPA to deliver all of its net output to its host utility are not required to participate or responsible for any charges or payments related to the Energy and Operating Reserve Markets.
Integrated Marketplace and QFs

- Resources (including QFs) participating in the Marketplace are dispatched economically unless permitted to register as a Non-Dispatchable Variable Energy Resource (NDVER) based on commercial operation date and interconnection agreement
  - SPP stakeholders are currently reviewing proposal to permit Qualifying Facilities to register as a NDVER, regardless of commercial operation date or interconnection agreement
    - Not filed yet by SPP
Can PURPA Legacy Help Utilities Manage DG Concerns?

EBA 2013 Mid-Year Meeting and Conference

Bob Mudge

October 24, 2013
DG resources in the U.S. not a new phenomenon

EIA Estimate of Total Distributed Generation in 2012: 35 GW

- **Renewables**: 12.49 GW
- **Natural Gas**: 15.81 GW
- **Coal**: 3.59 GW
- **Petroleum**: 1.00 GW
- **Other Gas**: 1.99 GW
- **Other**: 0.42 GW

But DG Growth Forecast to be Robust

EIA Estimated Growth in Distributed Energy Resources Through 2025

Net Metering Capacity is Also Growing

- Historically state initiated
- 43 states now have NEM policies
- ~0.4% nationally
- Some states targeting higher levels

**In Concept, NEM Increases Revenue Requirements**

- *The Brattle Group* illustrated earnings impact of NEM in 2006*

- Today’s greater penetration would erode earnings further

<table>
<thead>
<tr>
<th>NEM @ 0.1% of Peak Load @ 25% Capacity Factor</th>
<th>Before NEM</th>
<th>NEM Impact</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Retail Rate $/kWh</td>
<td>0.10</td>
<td>0.03</td>
<td>-0.10%</td>
</tr>
<tr>
<td>2 Displaced Energy Value $/kWh</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Peak Load MW</td>
<td>5,000</td>
<td>(5)</td>
<td>-0.10%</td>
</tr>
<tr>
<td>4 Sales $M</td>
<td>2,000.0</td>
<td>(1.1)</td>
<td>-0.05%</td>
</tr>
<tr>
<td>5 Costs $M</td>
<td>1,800.0</td>
<td>(0.3)</td>
<td>-0.02%</td>
</tr>
<tr>
<td>6 Net Income $M</td>
<td>200.0</td>
<td>(0.8)</td>
<td>-0.38%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEM @ 1% of Peak Load @ 40% Capacity Factor</th>
<th>Before NEM</th>
<th>NEM Impact</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Retail Rate $/kWh</td>
<td>0.10</td>
<td>0.03</td>
<td>-1.00%</td>
</tr>
<tr>
<td>2 Displaced Energy Value $/kWh</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Peak Load MW</td>
<td>5,000</td>
<td>(50)</td>
<td>-1.00%</td>
</tr>
<tr>
<td>4 Sales $M</td>
<td>2,000.0</td>
<td>(17.5)</td>
<td>-0.88%</td>
</tr>
<tr>
<td>5 Costs $M</td>
<td>1,800.0</td>
<td>(5.3)</td>
<td>-0.29%</td>
</tr>
<tr>
<td>6 Net Income $M</td>
<td>200.0</td>
<td>(12.3)</td>
<td>-6.13%</td>
</tr>
</tbody>
</table>

* Edison Electric Institute, “PURPA: Making the Sequel Better than the Original”, December 2006
Can PURPA Legacy Help?

- Notwithstanding NEM provisions in EPACT 2005, PURPA theory and practice historically focused on determining avoided costs.

- As DG/NEM penetration increases, PURPA may offer guidelines to “graduate” NEM to more sustainable formulations:
  1. More appropriate “proxies” for DG value
  2. Broader and/or more granular formulations of avoided cost
  3. Alternative “netting” to effectively track avoided cost
Recent Developments in Key States

Arizona:
- July 2013: APS proposed:
  - Ongoing retail NEM + surcharge, or
  - Avoided cost based on market wholesale electricity prices
- September 2013: ACC staff recommend deferral of proposals for future rate cases

California:
- September 2013: AB 327 passes CA legislature:
  - Current restrictions on NEM lifted
  - Mandate for standard DG contracts based on the costs and benefits of the renewable energy facility
- October 2013: AB 327 signed into law
Resolution Regarding the Enforcement of PURPA Standards and Regulations

WHEREAS, The National Association of Regulatory Utility Commissioners is a national, non-profit organization representing State Commissions statutorily responsible for regulating utilities that provide energy services; and

WHEREAS, Section 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA) requires electric utilities to purchase power at wholesale from “qualifying facilities” or “QFs” which include some co-generators and small power producers using renewable technologies; and

WHEREAS, A primary goal of PURPA is to encourage the use of renewable energy resources and cogeneration for wholesale power supply; and

WHEREAS, Section 210 authorizes the Federal Energy Regulatory Commission (FERC) to promulgate rules to implement this QF purchase requirement and also directs States to implement such rules within one year of FERC promulgation; and

WHEREAS, PURPA requires power from QFs to be sold to utilities at “avoided cost rates” that are just and reasonable to a utility’s ratepayers and in the public interest; and

WHEREAS, PURPA created a broad and flexible framework for the sale of QF power to utilities by leaving the details to be worked out by State commissions; and

WHEREAS, NARUC and its members have a long history of successfully implementing PURPA and encouraging renewable development that is consistent with FERC regulations and in the public interest; and

WHEREAS, Section 210 purports to provide FERC with authority to enforce its rules, including allowing the agency to directly sue a State commission in federal court; and

WHEREAS, Section 210 does not require FERC to sue and does not limit FERC from utilizing other enforcement mechanisms that more appropriately reflect the joint interests and comity between FERC and States to implement PURPA in a manner that best serves the public interest; and

WHEREAS, States implement Section 210 through routine rulemakings that ensure just and reasonable retail electricity rates through processes subject to State administrative and court appeal processes; and

WHEREAS, Until recently, FERC never sued a State commission under PURPA section 210(h); and

WHEREAS, Subsequent to FERC’s recent notice of its intent to file an enforcement action in federal district court against a State commission, there has been a significant increase in the number of PURPA complaints filed at FERC against State commissions; and
WHEREAS, FERC recently issued several orders finding some State commissions in violation of its PURPA regulations, apparently without giving weight to (i) whether the underlying applicant had exhausted other available State remedies, (ii) whether that applicant effectively “sat” on its concerns, allowing existing State appeal/rehearing options and often months, if not years, to lapse before seeking FERC enforcement action, (iii) the impact of related State contract law, and (iv) whether, as part of the required public interest determination under Section 210(b)(1), the subject action results in just and reasonable retail rates to the customers of the electric utility; and

WHEREAS, Some of these FERC decisions (i) undermine State PURPA procedures, and (ii) conflict with State contract law, State policies regarding management of renewable development, and federal law regarding the impact on retail rates to customers of the electric utility; and

WHEREAS, Congress reserved to States the authority to set avoided cost rates and order utilities to enter into obligations for the purchase of energy under PURPA, while implementing FERC regulations; and

WHEREAS, Several recent FERC PURPA decisions are inconsistent with that reservation of authority; now, therefore, be it

RESOLVED, That the Board of Directors of the National Association of Regulatory Utility Commissioners, convened at its 2013 Summer Committee Meeting in Denver, Colorado, urges FERC, when responding to future complaints, to also consider (i) whether the applicant exhausted other available State remedies, (ii) whether the applicant allowed existing State appeal/rehearing options to lapse unexercised before seeking FERC enforcement, (iii) the impact of contract and other pertinent State law, and (iv) whether, as part of the required Section 210(b)(1) public interest determination, the subject action results in just and reasonable retail rates; and be it further

RESOLVED, That FERC should proceed cautiously with any determination or action that overrides State public interest, contract, terms of service and other State policy determinations, and only after careful consideration of the public interest elements reflected, supra, should FERC exercise authority to directly sue State commissions on behalf of an industry stakeholder.

Sponsored by the Committee on Electricity
Adopted by the NARUC Board of Directors, July 24, 2013
PURPA BY THE NUMBERS

Termination of the Mandatory Purchase Obligation

- 28 requests since EPAct 2005
- 24 requests granted (QFs > 20 MW)
- 2 requests granted part/denied in part
- 1 request rejected
PURPA BY THE NUMBERS

Enforcement Activity 2012-2013

- 20 Enforcement Petitions
- 3 Notices of Intent to Act (unprecedented!)
- 6 PURPA Violations
- 7 Findings of No Violation
- 3 Pending Petitions
- 2 Federal Court rulings (split)
KEY PURPA ISSUES:

• What is the relationship between PURPA rates and net metering?

• Does PURPA or state law determine QF ownership of renewable energy credits?

• When is a legally enforceable obligation to purchase created under PURPA and which law governs?

• When can utility curtail QFs?

• What is the relationship between PURPA and QFs rights under OATT?
THANK YOU

Contact Information:
Carolyn Elefant
Law Offices of Carolyn Elefant
Washington D.C. 20037
202-297-6100
Carolyn@carolynelefant.com
A PURPA RENAISSANCE?

Holly Rachel Smith*
Assistant General Counsel, NARUC
October 24, 2013

* Views expressed are those of the speaker and do not necessarily represent the views of NARUC
The Commission may enforce the requirements of subsection (f) of this section against any State regulatory authority ... No enforcement action may be brought by the Commission under this section other than—(i) an action against the State regulatory authority or nonregulated electric utility for failure to comply with the requirements of subsection (f) of this section . . .
NARUC Resolution

Urges FERC, when responding to future complaints, to also consider: (i) whether the applicant exhausted other available State remedies, (ii) whether the applicant allowed existing State appeal/rehearing options to lapse unexercised before seeking FERC enforcement, (iii) the impact of State contract law, and (iv) whether, as part of the required Section 210(b)(1) public interest determination, the subject action results in just and reasonable retail rates;

FERC should proceed cautiously with any determination or action that overrides state public interest, contract, terms of service and other State policy determinations, and only after careful consideration of the public interest elements above, should FERC exercise authority to directly sue State commissions on behalf of an industry stakeholder.
PURPA Section 210(b)

Rates for purchases by electric utilities shall be *just and reasonable to the electric consumers of the electric utility* and in the public interest.
PURPA Section 210(b)

No such rule prescribed under subsection (a) of this section shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy.
FERC RULE
292.101(b)(6)

Avoided Cost is the incremental cost to an electric utility of electric energy or capacity or both which, but for the purchase from the QF, such utility would generate itself or purchase from another source
Factors to be considered *to the extent practicable* in setting avoided cost-Rule 292.304(e):

- Ability of the utility to dispatch the QF;
- Expected or demonstrated reliability of the QF;
- Terms of any contract, including the duration of the obligation, termination notice requirements and sanctions for non-compliance;
- Extent to which scheduled outages of the QF coordinate with the utility’s scheduled outages;
- Usefulness of energy and capacity supplied by the QF during system emergencies;
- Smaller capacity increments and shorter lead times available with QF additions of capacity;
- Relationship between a QF’s production and the utility’s ability to actually avoid costs; and
- Costs or savings from changes in line losses as a result of purchases from QFs
States Appropriately and Expertly Set Avoided Cost Rates for QFs under PURPA

- FERC granted states broad flexibility to determine the appropriate avoided cost calculation methodology

- Differing state law, policy and administrative considerations have led to various methodologies that differ from state to state and sometimes within jurisdictions

- In general, Avoided Cost is inextricably tied to integrated resource planning; States determine what a utility can generate itself or procure from another source;

- State specific avoided cost permits the calculation of rates paid to QFs to be consistent with how the utility recovers its own costs;

- **Avoided Cost Methods (each state varies)**
  - Proxy Unit
  - Peaker Unit
  - Difference in Revenue Requirement (DRR)
  - Market-Based Rates/Pricing
  - Competitive Bidding
A PURPA RENAISSANCE?

Holly Rachel Smith*
Assistant General Counsel, NARUC
hsmith@naruc.org

* Views expressed are those of the speaker and do not necessarily represent the views of NARUC
<table>
<thead>
<tr>
<th>Docket No.</th>
<th>Case Name</th>
<th>Citation</th>
<th>Issue</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL13-43</td>
<td>Council of City of New Orleans et. al.</td>
<td>145 FERC ¶61,057 (10/17/2013)</td>
<td>Whether Entergy’s proposal to use MISO’s locational marginal pricing (LMP) as avoided cost for available QF sales is consistent with PURPA?</td>
<td>FERC defers judgment because state commission has not yet acted on whether LMP is acceptable mechanism and state has authority under PURPA to set avoided cost rates.</td>
</tr>
<tr>
<td>N/A</td>
<td>Pioneer Wind Park</td>
<td>Filed October 2, 2013</td>
<td>Petition for Declaratory Action: Whether a utility's refusal to sign a PPA with a wind QF unless the QF agrees to a provision allowing the utility to curtail the QF before other sources of generation is inconsistent with PURPA?</td>
<td>Pending</td>
</tr>
<tr>
<td>N/A</td>
<td>Clearwater Paper Corporation</td>
<td>Filed 9/20/2013</td>
<td>Whether Idaho PUC order holding that utility avoided payments to QFs include RECs and allocating 50 percent ownership of RECs to utilities is inconsistent with PURPA?</td>
<td>Pending. See further discussion in accompanying text.</td>
</tr>
<tr>
<td>EL13-71</td>
<td>Winding Creek Solar</td>
<td>144 FERC ¶61122 (8/12/2013)</td>
<td>Whether California's renewable market adjusting tariff is inconsistent with PURPA</td>
<td>No declaratory ruling or discussion; notice of intent not to act.</td>
</tr>
<tr>
<td>EL12-41</td>
<td>Rainbow Ranch Wind, LLC</td>
<td>144 FERC ¶61,005 (7/2/2013); see also 139 FERC ¶61,077 2012)(earlier version)</td>
<td>Whether contract executed by QF but not utility created legally enforceable obligation (LEO) under PURPA and therefore, Idaho PUC erred in rejecting the agreement?</td>
<td>FERC finds LEO forms where QF indicates commitment to sell by executing contract and rules Idaho PUC’s contrary ruling inconsistent with PURPA. FERC issues notice of intent to act issued followed by lawsuit in Idaho district court.</td>
</tr>
<tr>
<td>Docket No.</td>
<td>Case Name</td>
<td>Citation</td>
<td>Issue</td>
<td>Result</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------</td>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>EL 12-41</td>
<td>Otter Creek Solar, LLC</td>
<td>143 FERC ¶61,282</td>
<td>Whether Vermont's SPEED program, a type of optional feed-in tariff program for small QFs which bases rates on avoided costs of other renewables is inconsistent with PURPA?</td>
<td>FERC finds SPEED program is not inconsistent PURPA because (1) QFs are not precluded from seeking service under Vermont's standard PURPA program and (2) QF participation in SPEED program and is voluntary and nothing in PURPA prevents utilities and QFs from voluntarily agreeing to rates that deviate from avoided costs.</td>
</tr>
<tr>
<td>EL13-59</td>
<td>Kootenai Electric Cooperative</td>
<td>143 FERC ¶61,232</td>
<td>Whether an Oregon PUC order finding that an Idaho QF delivering power to a utility in Oregon did not qualify for avoided cost rates in Oregon because the point of delivery (i.e., where power is deemed to change ownership) under the OATT was out of state violates PURPA?</td>
<td>FERC says yes, but declines to enforce. FERC found that Oregon erred in using the Idaho POD to determine eligibility for Oregon avoided cost rates. Irrespective of POD, the OATT gave the QF the right to deliver power across the entire physical transmission system from Idaho into Oregon. FERC reasoned that if the Oregon order were upheld, the QF would be paying for transmission service under the OATT into Oregon but denied the benefit of receiving Oregon avoided cost rates. Thus, FERC concluded that the Oregon order was inconsistent with PURPA.</td>
</tr>
<tr>
<td>EL13-73</td>
<td>Hydrodynamics et al.</td>
<td>Filed 6/14/2013</td>
<td>Whether Montana’s implementation of PURPA, which requires QFs larger than 10 MW to compete for contracts through capacity auctions is unduly discriminatory because other large generators are not limited to competitive bidding or violates PURPA when Montana has not held an auction in 12 years?</td>
<td>Pending. In response, Montana PUC points out that Hydrodynamics’ complaint boils down to an argument that Montana must make standard offer avoided cost rates available to QFs under 10 MW. FERC only requires standard offers for QFs of 100 kw or less so Montana’s program complies with PURPA.</td>
</tr>
<tr>
<td>Docket No.</td>
<td>Case Name</td>
<td>Citation</td>
<td>Issue</td>
<td>Result</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>EL13-51</td>
<td>Interconnect Solar Development LLC</td>
<td>143 FERC ¶61,112 (5/10/2013)</td>
<td>Whether Idaho Commission's cancellation of QF's energy sales contract violated PURPA when agreement required QF to pay $900,000 liquid security deposit that it was destined to forfeit, thereby resulting in contract payments below avoided costs?</td>
<td>FERC declines to bring enforcement action with no explanation provided.</td>
</tr>
<tr>
<td>EL13-50</td>
<td>Welch Motel Inc.</td>
<td>143 FERC ¶61,093 (5/3/2013)</td>
<td>Motel brings action asking FERC to bring enforcement action to require coop to provide net metering for motel's behind-the-meter use of wind generation pursuant to PURPA, noting that it does not wish to pursue its own enforcement action.</td>
<td>FERC issues notice of intent not to enforce with no explanation provided.</td>
</tr>
<tr>
<td>EL11-39</td>
<td>Swecker v. Midland Power Coop. and State of Idaho</td>
<td>Order Denying Rehearing, 142 FERC ¶61,207 (3/21/2013)</td>
<td>Whether FERC erred in finding that cooperative's disconnection of QF violates PURPA?</td>
<td>FERC affirms initial order finding PURPA violation but declines to bring enforcement action. FERC holds that coop's disconnection of the QF from its system &quot;effectively ceased purchases from the QF&quot; and justification for cessation of purchases does not fall within any of the exemptions to the purchase obligation (e.g., termination of mandatory purchase obligation or curtailment of obligation for emergency reasons).</td>
</tr>
<tr>
<td>EL13-39</td>
<td>Grouse Creek Wind Park</td>
<td>142 FERC ¶61,187 (3/15/2013)</td>
<td>Same issue as Rainbow Ranch, supra: Whether contract executed by QF but not utility created legally enforceable obligation (LEO) under PURPA and therefore, Idaho PUC erred in rejecting the agreement?</td>
<td>Same result as Rainbow Ranch: FERC finds Idaho PUC violated PURPA in finding no LEO formed and rejecting contract. Notice of intent to act issued, followed by suit in Idaho district court.</td>
</tr>
<tr>
<td>Docket No.</td>
<td>Case Name</td>
<td>Citation</td>
<td>Issue</td>
<td>Result</td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>----------</td>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>EL12-108</td>
<td>Murphy Flat Power</td>
<td>141 FERC ¶61,145 (11/20/2012)</td>
<td>Same issue as <em>Rainbow Ranch</em>: Whether contract executed by QF but not utility created legally enforceable obligation (LEO) under PURPA and therefore, Idaho PUC erred in rejecting the agreement?</td>
<td>Same result as Rainbow Ranch: FERC finds Idaho PUC violated PURPA in finding no LEO formed and rejecting contract. Notice of intent to act issued, followed by suit in Idaho district court.</td>
</tr>
<tr>
<td>EL12-100</td>
<td>Benjamin Riggs v. Rhode Island PUC</td>
<td>141 FERC 61,033 (10/12/2012)</td>
<td>Unspecified PURPA violations alleged against Rhode Island PUC in connection with its approval of long term offshore wind contracts.</td>
<td>Notice of intent not to act.</td>
</tr>
<tr>
<td>EL12-74</td>
<td>Idaho Wind Partners</td>
<td>140 FERC ¶61,219 (2012)</td>
<td>Whether utility’s Schedule 74, which allows unilateral curtailment of QFs with long term power agreements if due to operational circumstances, utility would have to dispatch higher cost resources to serve load violates PURPA?</td>
<td>FERC finds that utility’s curtailment practices are inconsistent with PURPA because they enable utility to avoid contractual obligations under long-term fixed avoided cost rate PPAs. FERC declines to pursue enforcement.</td>
</tr>
<tr>
<td>EL12-82</td>
<td>CARE v. California CPUC et. al.</td>
<td>140 FERC ¶61,154 (8/29/2012)</td>
<td>Unspecified allegations that CPUC actions are inconsistent with PURPA.</td>
<td>Notice of intent not to act.</td>
</tr>
<tr>
<td>EL12-80</td>
<td>Exelon Wind LLC et. al.</td>
<td>140 FERC ¶61,152 (8/28/2012)</td>
<td>Whether utility’s curtailment practices and avoided cost rates are inconsistent with PURPA?</td>
<td>On curtailment issue, FERC finds no PURPA violation in light of utility’s clarification of curtailment practices. But FERC rules that avoided cost pricing based on locational imbalance pricing (LIP) violates PURPA because it reflects price QFs are paid for energy sales into market which is not necessarily the same cost that utility would have paid had it self-supplied or purchased energy but for presence of QFs in the market.</td>
</tr>
<tr>
<td>Docket No.</td>
<td>Case Name</td>
<td>Citation</td>
<td>Issue</td>
<td>Result</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------</td>
<td>-------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>EL12-78</td>
<td>Gerry Greenfield</td>
<td>140 FERC ¶61,133 (8/2/2012)</td>
<td>Whether county zoning rules that interfered with wind QF's operation violate PURPA?</td>
<td>FERC finds no PURPA violation, holding that PURPA does not relieve QF from complying with applicable state and local siting requirements. Accordingly, FERC declines to bring enforcement action.</td>
</tr>
<tr>
<td>EL12-36</td>
<td>Morgantown Energy Associates</td>
<td>139 FERC ¶61,066, reh’g denied 140 FERC ¶61,223 (2012)</td>
<td>Whether West Virginia order holding that utility is entitled to ownership of RECs under terms of power purchase agreement (PPA) with QF is inconsistent with PURPA?</td>
<td>FERC holds that states create RECs and therefore state law governs REC ownership. Thus, to the extent that the West Virginia PUC relied on state law to find that the PPA entitles utility to ownership of RECs, the order is inconsistent with PURPA. However, in addition to relying on state law, the West Virginia PUC also reasoned that requiring the utility to compensate a QF for RECs and avoided costs would result in rates in excess of avoided cost in violation of PURPA. FERC found that to the extent that the West Virginia Order found that avoided-cost rates under PURPA also compensate for RECs, the West Virginia Commission is inconsistent with PURPA.</td>
</tr>
</tbody>
</table>
SUMMARY OF PURPA LEGAL CONCEPTS & DEVELOPMENTS

PART I: STATISTICAL OVERVIEW

A. QF Applications/Self-Certification

Notwithstanding EPAct 2005’s provision allowing utilities to terminate their mandatory purchase obligation under PURPA, QF applications have been steadily on the rise over the past decade, from 550 in 2004 to 900 in 2012, and 828 self-certifications filed as of October 2013. These figures are based on QF Form 556 certification filings at FERC. Note, the number of QF filings for 2010 and beyond do not necessarily reflect total number of QFs overall. In May 2010, FERC Order No. 732 exempted QFs of 1 MW or smaller from filing notice of self-certification and therefore, many of these smaller QFs would not be fully represented in a count of Form 556 filings.

B. Termination of Mandatory Purchase Requirement

Under EPAct 2005, FERC may, upon request by a utility, terminate its obligation to enter into a new contracts to purchase power from QFs if the Commission finds that the QFs have nondiscriminatory access to competitive markets. In Order 688, FERC established a rebuttable presumption that the statutory standard for termination of the obligation is met where QFs of 20MW or more have access to organized markets or are eligible for service under a FERC-approved open access tariff or a reciprocity tariff filed by a non-jurisdictional entity.

Since 2005, FERC has acted on 28 requests by utilities to terminate the mandatory purchase obligation. Of these, FERC granted 24 requests and terminated the utility’s mandatory purchase obligation for QFs larger than 20 MW and partially granted three
Finally, FERC rejected one request without prejudice, because the utility failed to include in its application a complete list of potentially impacted QFs as required by FERC’s regulations) Public Service Company of New Mexico, 139 FERC ¶61,128 (2012).

C. Enforcement Petitions

Under PURPA, QFs can petition FERC to use its enforcement authority in federal district court to remedy statutory violations, or alternatively (or simultaneously) can seek declaratory relief that a state commission or utility is in violation of PURPA. If FERC finds no violation or fails to act within 60 days, the petitioner bring an action in federal district court seeking relief. Moreover, even if FERC finds a violation of PURPA, FERC may decline to bring an enforcement action in federal court, leaving petitioners free to do on their own.

Between 2012 and 2013, FERC gave notice of intent to pursue an enforcement action in three cases where it found PURPA violations, and moved forward with a lawsuit in federal court. FERC’s issuances of three notices of intent and initiation of a PURPA lawsuit is unprecedented; prior to 2012, FERC had issued just three notices of intent to bring enforcement actions (two against the same entity) which were eventually withdrawn or settled.

In addition to the FERC-initiated enforcement cases, between 2012 and 2013, federal courts ruled on two other enforcement actions brought by QFs (rather than the Commission). One case involved a Texas condition to creation of a legally enforceable obligation; the other involved REC ownership. Id.

---

1 See PSNH, 131 FERC ¶61,207 (2011), rehearing den’d 134 FERC ¶61,041 (2012)(granting request to terminate except for one QF deemed grandfathered), New York State Electric & Gas, 130 FERC ¶61,216 (2010)(granting request, except for mandatory purchases from Cornell University which rebutted presumption of market access); Xcel Energy Services et. al., 122 FERC ¶61,048, rehearing den’d, 124 FERC ¶61,073 (2008)(granting Xcel’s requests on behalf of OG&E and AEP but not SPS because no evidence that QFs have non-discriminatory access to markets in SPS control area).


4 Swecker v. Midland Power Cooperative, 114 FERC ¶61,205 (2006) at n.25 (noting that Commission initiated enforcement actions on only three occasions, one which was later vacated and others eventually settled).

5 Exelon Wind v. Smitherman in his capacity as Chairman of Texas Public Utilities Commission, 2012 US LEXIS 136803 (September 25, 2012)(finding Texas rule requiring QFs to provide firm
Overall, between 2012 and 2013, QFs filed 20 PURPA enforcement actions. A summary of results is shown below:\(^6\)

<table>
<thead>
<tr>
<th>Total FERC PURPA Enforcement Actions</th>
<th>PURPA violation found, Notice of Intent to Act</th>
<th>PURPA violation found, Notice of Intent NOT to Act</th>
<th>No PURPA Violation</th>
<th>Case pending/action deferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

Utilities were entitled to REC\(s\) produced by the Morgantown facility under the 1989 contract, and that no additional compensation must be paid.

**PART II: PURPA PRIMER: HOT TOPICS**

This Part discusses two main categories of PURPA legal developments of relevance to practitioners: (1) PURPA’s relationship to renewable energy policy, including renewable energy credits, net-metering and feed-in tariffs and (2) declaratory and enforcement proceedings under PURPA at the Commission and the courts. The discussion below assumes that readers are familiar with the basic PURPA concepts such as the mandatory purchase obligation by utilities, avoided cost pricing and eligibility factors for qualifying facility (QF) status. Additional background on PURPA basics may be found on the FERC website, (http://www.ferc.gov/industries/electric/gen-info/qual-fac.asp) or this report, *Reviving PURPA’s Purpose* prepared for the for the Southern Alliance for Clean Energy (online at http://www.cleanenergy.org/wp-content/uploads/Elefant_Reviving_PURPA_Avoided_Costs_2011.pdf).

A. PURPA: Renewables and Net-Metering Developments

Because many renewable energy facilities have, or are eligible for qualifying facility (QF) status, not surprisingly, many PURPA cases involve questions related to renewables, such as appropriate pricing for net-metering transactions involving QFs, QF ownership of renewable energy credits (REC) and the interrelationship between feed-in tariffs and PURPA avoided cost pricing. Key cases and concepts are discussed below.

---

\(^6\) A summary of all of the PURPA enforcement cases for 2012-2013 is attached.
1. **PURPA and Renewable Energy Credits**

A renewable energy credit or certificate (REC) is a tradable commodity representing proof that a unit of electricity (e.g., 1 MWh) was generated from an Eligible renewable energy resource. Because RECs reflect a project’s environmental attributes, they have value independent of project power and can potentially provide an added stream of revenue for renewable developers.

FERC holds that RECs are not part of PURPA-mandated compensation from utility to QF because the utility’s avoided cost rate compensates the QF for capacity and energy, but not for renewable attributes associated with the RECs. In addition, because RECs are created by state law, states also have the power to determine who owns the REC in the initial instance and how RECs may be sold or traded; it is not an issue controlled by PURPA.7

Last year, FERC revisited the issue of the relationship of RECs and avoided cost payments in the context of a petition for declaratory ruling and enforcement action brought by two QFs in *Morgantown Energy Associates*, 139 FERC ¶61,066 (2012), rehearing denied, 140 FERC ¶61,223 (2012). The QFs argued that a West Virginia Commission ruling finding that the utility purchasing the power and not the QFs owned the RECs under the terms of the PPA was inconsistent with PURPA. Applying *Am-Ref Fuels*, FERC held that West Virginia had full authority to assign ownership of QF RECs and to the extent that the West Virginia Commission relied on state law in holding that the utilities owned the RECs, the ruling was consistent with PURPA.

But FERC went on to express concern about certain statements in the West Virginia Commission’s order suggesting that a utility’s avoided cost payments compensate QFs for both project power and RECs. FERC reiterated that under PURPA payments reflect only the cost of project power and other project benefits are outside the scope of PURPA.

Ultimately, FERC declined to seek enforcement against the West Virginia Commission and the QFs went forward with an action in federal court for the Southern District of West Virginia. On September 30, 3013, the court found that as a matter of state law, the utility was entitled to ownership under the contract and that the West Virginia Commission’s (which was ultimately affirmed by a West Virginia court)8 ruling did not conflict with PURPA or FERC’s decision. *Morgantown Energy Associates v. PSC*, 2013 US Dist. LEXIS 140220 (September 30, 2012).

---


8 *New Martinsville MEA*, 229 W. Va. 353, 729 S.E. 2d. 188 (W. Va. 2012)(affirming West Virginia PSC finding that public interest of the state favors utility ownership of RECs under PPA with QFs)
Another case on RECs and PURPA is currently percolating before FERC. On September 20, 2013, the Clearwater Paper Corporation, an Idaho-based QF petitioned FERC for a declaration that Idaho PUC’s decision to allocate utilities a 50 percent of ownership of RECs violates PURPA. The Idaho case differs from the West Virginia case because Idaho does not have a REC program. Thus, the QFs contend that Idaho has no basis in state law for allocating ownership of RECs.

2. PURPA and Net Metering

For lawyers representing renewable energy clients, understanding the nexus between PURPA and net metering is critical given the pervasiveness of net-metering as a policy driver for renewables, especially solar. As of 2011, forty-three states plus the District of Columbia, Puerto Rico and the Virgin Islands have adopted net metering policies as of 2011, and a 93 percent of grid-connected solar installations in the United States are net-metered.\(^9\)

Under a traditional net metering arrangement, a retail customer (such as a homeowner, farmer or small business) that owns a generation system receives a credit from the utility for all electricity self-supplied. With respect to jurisdiction, FERC holds that the netting transaction (i.e., the crediting of self-supplied power against the overall utility bill) between a customer-owned system and the utility is not a sale at all. FERC’s rationale applies whether a customer directly owns a system, or participates in one of the now-common third party finance arrangements for solar PV, where a third party owns and installs the power system.\(^10\) However, if there is a net sale to the utility (i.e., where the system owner sells more power than it uses) over the course of the billing period and the generation source is a QF, “the net sale must be at an avoided cost consistent with PURPA.” Id.

3. PURPA and Feed-In Tariffs

Feed-in tariffs are a policy mechanism used throughout Europe to incentivize renewable energy development through guaranteed, long-term preferential rates for wind, solar, marine hydrokinetic and other green technologies. In the United States, however, development of feed-in tariffs on the state level has been stymied by the Federal Power Act which preempts states from setting rates for wholesale power


transactions.\textsuperscript{11} That’s where PURPA comes in, because it creates an exemption to the otherwise preemptive effect of the Federal Power Act by allowing states to set avoided cost rates for sales by QFs.

Even so, feed-in tariffs based on PURPA cannot exceed avoided cost, as FERC concluded in \textit{California Public Utility Commission}, which involved a challenge to the CPUC’s feed-in tariff program under PURPA and the FPA. However, FERC went on to offer guidance on how states might permissibly use the avoided cost mechanism to offer incentive rates or feed-in tariffs to encourage renewable development. For example, states may set technology-specific avoided cost rates, rather than linked avoided costs to all of the utility’s potential sources of supply – a prior restriction\textsuperscript{12} that FERC expressly overruled in \textit{California PUC}. States could also include the avoided cost of transmission or verifiable environmental compliance costs (such as a carbon tax) in PURPA rates for renewables.

More recently, in \textit{Otter Creek Solar}, 143 FERC ¶61,282 (2013), FERC addressed an enforcement action initiated by a QF, charging that the Vermont Commission’s feed-in tariff program (available to QFs smaller than 2.2 MW) known as the Sustainably Priced Energy Enterprise Development (SPEED) program was inconsistent with PURPA and the FPA. FERC bypassed the FPA issues, but concluded that Vermont’s program did not violate PURPA because it was optional – and nothing in PURPA prevented utilities and QFs from voluntarily agreeing to rates that differ from avoided cost pricing. In addition, FERC found that the SPEED program did not supplant Vermont’s existing PURPA program which remained available for QFs seeking traditional avoided cost QF rates.

\section*{B. \textit{PURPA And Enforcement Cases}}

As noted in the attached table, between 2012 and 2013, twenty petitions for enforcement were filed at FERC. In addition to issues related to REC ownership and feed-in tariffs, discussed supra, other key issues raised in the enforcement include (a) creation of a legally enforceable obligation (LEO), (b) curtailment practices and (c) relationship between point of delivery (POD) under an open access tariff and PURPA rights. Discussion follows.

\textsuperscript{11} \textit{California Public Utilities Commission}, 132 FERC ¶61,047, rehearing dismissed, 133 FERC ¶61,059 (2010) (finding that California’s feed-in tariff for CHP sets wholesale rates for QF sales and thus is preempted by the FPA.

\textsuperscript{12} In \textit{Southern California Edison}, 70 FERC ¶61,125 (1995), FERC invalidated California’s bidding program as a basis for establishing avoided cost because only QFs were eligible to bid. FERC held that excluding all sources (including lower priced non-QF power) from the bidding program would result in prices higher than the utility’s true avoided costs and therefore was inconsistent with PURPA.
1. Legally enforceable obligations

The three enforcement cases that FERC is currently pursuing in federal court raise the issue of whether the Idaho Commission’s interpretation of when a utility’s legally enforceable obligation (LEO) to purchase from a QF is triggered conflicts with PURPA. 13 By way of background, on December 3, 2010, the Idaho Commission gave notice of intent to investigate possibly reducing the eligibility cap for published avoided cost standard offer rates from 10 MW to 100 kw. In February 2011, the Idaho Commission reduced the cap to 100 kw, effective retroactively to the date of notice.

Meanwhile, in anticipation of the reduction, in December 2010, the QFs – all larger than 100 kw – completed negotiations and executed firm energy sales agreements with the utility and submitted them to the Idaho Commission. In all three cases, the Idaho Commission rejected the agreements, finding that because they had been executed only by the QF and not the utility, they were not “legally enforceable” and could not be approved. With the agreements rejected, the QFs could no longer qualify for standard offer contracts because of the change in policy.

FERC found that Idaho’s decision conflicted with existing caselaw under PURPA. FERC explained that:

In addition, we found that the Idaho Commission’s orders’ limitation on the conditions for legally enforceable obligation formation overlooked "the fact that a legally enforceable obligation may be incurred before the formal memorialization of a contract to writing." Indeed, we stressed that:

[T]he phrase legally enforceable obligation is broader than simply a contract between an electric utility and a QF and that the phrase is used to prevent an electric utility from avoiding its PURPA obligations by refusing to sign a contract, or as here, delaying the signing of a contract, so that a later and lower avoided cost is applicable. 14

Accordingly, in all three cases, FERC gave notice of intent to bring suit to enforce PURPA, and has since filed an action in the federal district court in Idaho. 15


15 See also n.5 supra, re: federal district court case finding Texas requirement that QF supply firm power as a prerequisite to creation of LEO is inconsistent with PURPA.
2. Curtailment

Utilities’ curtailment practices may raise concerns under PURPA since utilities might attempt to discriminatorily curtail QF power to circumvent their mandatory purchase obligation. In Idaho Wind Partners, 140 FERC ¶61,219 (2012), FERC found that a utility’s curtailment schedule was inconsistent with PURPA because it allowed the utility in certain operational circumstances, to unilaterally curtail QF power to avoid dispatch of higher cost resources to serve load. The Commission explained that under PURPA, utilities may curtail dispatch only in narrow emergency situations and the utility schedule at issue did not fit within those exceptions. Though FERC found a PURPA violation, it declined to pursue an enforcement action.

A more recent petition filed at FERC by Pioneer Wind Park on October 2, 2013 raises another curtailment-related issue. Specifically, the QF challenges the utility’s requirement that the QF sign a PPA that includes a provision allowing the utility to curtail the QF before other sources of generation. The QF argues that the proposed requirements violate PURPA.

3. Point of Delivery/Open Access Tariffs

QFs have the right to transmission service under open access tariffs. Thus, the terms of the OATT must be interpreted so as to facilitate rather than obstruct PURPA. That was the lesson of Kootenai Electric, 143 FERC ¶61,232 (2013), where FERC found that the Oregon Commission’s overly restrictive interpretation of the point of delivery (POD) provisions of an open access tariff had the effect of depriving a QF of its right to make sales out of state.

In Kootenai, an Idaho-based QF entered into a power purchase agreement with an Oregon utility and sought avoided cost rates. The QF was to supply the power to the Oregon utility under the terms of an OATT which established a substation in Idaho as the point where the utility would take title to the power, even though physically, the power was delivered all the way through to Oregon. The Oregon Commission found that because the POD was in Idaho, the QF could not qualify for Oregon’s avoided cost rates. FERC disagreed, and found the Oregon ruling inconsistent with PURPA. FERC reasoned that if the Oregon order were upheld, the QF would be paying for transmission service under the OATT into Oregon but denied the benefit of receiving Oregon avoided cost rates.

This summary was prepared by Carolyn Elefant, Law Offices of Carolyn Elefant, Washington D.C. For additional information on PURPA, Carolyn may be contacted at 202-297-6100 or at Carolyn@CarolynElefant.com.
EBA’s Mid-Year Meeting & Conference
October 23-23, 2013
-Applicable to electric utilities who own, control, operate or manage any equipment for the production, transmission, delivery or furnishing of electricity or electric power. K.S.A. 66-1,177.

-In Kansas, if you transmit heat, light, water or power, you are a public utility by definition and are therefore jurisdictional to the KCC. K.S.A. 66-104. However, depending on whether you serve retail or wholesale load, you may not be regulated, particularly for rate setting purposes. The Kansas Siting Act does not distinguish between retail electric providers or wholesale electric providers.

-Applicable to transmission lines that are at least 5 miles in length and 230 kV or more.

-Highly prescriptive with regard to notice and timing provisions. The Act ensures that landowners of record have adequate notice of the proposed location of the transmission line.

-The utility is required to send a copy of the application, plus other information as directed by the Commission, to landowners of record within 660 feet of the center line of the easement where the line is proposed to be located. K.S.A. 66-1,178.

-A public hearing on a siting application is required to be held within 90 days of the filing of the application in one of the counties through which the electric line traverses. K.S.A. 66-1,178.

-Notice of the public hearing is required to be published in newspapers of general circulation in every county through which the line traverses, once each week for 2 consecutive weeks. The last publication has to occur not less than 5 days prior the public hearing. K.S.A. 66-1,179.

-An evidentiary hearing is discretionary, not mandatory. K.S.A. 66-1,178.

-An order must be issued within 120 days after the application was filed. K.S.A. 66-1,178.
-The statutory standard in Kansas is:

(1) the necessity for the line; and
(2) the reasonableness of the location of the line, taking into consideration the benefit to both consumers in Kansas and consumers outside the state and economic development benefits in Kansas. K.S.A. 66-1,180.

-The Commission shall issue or withhold a siting permit; and may condition the permit as it deems just and reasonable in order to best protect the rights of all interested parties and those of the general public. K.S.A. 66-1,180. Jurisdiction is narrow; public interest is broad. The public interest could encompass other state and federal agencies, environmental groups, military, etc.

II. Additional "Requirements" in Kansas that Have Evolved
-Public participation workshops / public meetings / public open houses (choose your vernacular) prior to filing. This practice originated in the early-mid 1990s (1993-94 timeframe) as a result of siting applications filed by Kansas City Power & Light. At the time, KCPL was the only electric public utility in the state experiencing any significant load growth. KCPL filed 2 siting applications in the early-mid '90s. The first siting application was hotly contested -- not in the siting docket itself but in a complaint proceeding. One of the lessons learned by KCPL in the complaint docket was to do a better job (1) informing affected customers and (2) building consensus prior to filing a siting application to the extent possible. For its second siting application, KCPL held public participation workshops and invited members of the public in and around the area where the line was proposed to be built. KCPL set up "stations." One station, for example, showed several routes for which members of the public could vote; and station addressed real estate issues; another station had an EMF reader and several small household appliances so members of the public could test their own personal EMF exposure; etc. This open house/informational format set a new standard that was followed several years later by Westar and ITC Great Plains, and more recently by Grain Belt Express Clean Line.

-Additional filing requirements by utilities. Since Westar's and ITC Great Plains' siting applications filed in the mid 2000s to the present, the Commission has been requiring additional rounds of testimony to be filed by the utilities within the 120-day timeframe. Prior to this time, the Commission would require "standard" testimony: direct by the utility, response by Staff/interveners, rebuttal by the utility. Now the Commission requires the utility to file testimony in response to all the comments made at the public hearing(s) and in response to written, email or phone comments made directly to the Commission. Staff and interveners also have the right/obligation to file this type of responsive testimony, and then another round by the utility. This is in addition the "standard" testimony. In this testimony in response to public comments, the Commission is looking for both a substantive response to concerns and an analysis of any reroutes proposed by the public.

-Holding additional public hearings/providing additional notice, as required by the Commission.

-Multiple public hearings. Although the statute requires that only 1 public hearing be held in one of the counties affected by the line, it has become common place to have more than 1 depending on the length of the line. (ITC Great Plains' 120-mile line - 2 public hearings; GBE 380-mile line - 4 public hearings.)

-The statute requires that property owners within 660 feet of the center line of the easement be notified of the line. Since KCPL in the early-mid '90s, utilities have been providing notice to landowners within 1,000 feet of the center line of the easement, exceeding the statutory requirement. This allows the utility (and Commission) some flexibility in allowing minor reroute modifications without running into a notice issue.

-Contact other state and federal agencies (e.g., U.S. Department of the Interior - Fish and Wildlife Service, U.S. Department of Agriculture's Natural Resources Conservation Services, U.S. Army Corps of Engineers, state health and environment agencies, historical societies, Sierra Club, etc.).

III. Lessons Learned

(1) There should be an explanation of how to propose an alternative route. Property owners who have vague or general concerns (NIMBY-type concerns -- property value, impact on farming or other business operations, health and safety, etc.) tend to get little or no relief by either the utility or the
Commission. However, the utility (and Commission) can work with a property owner who actually proposes an alternative for the utility/Commission to consider. Best case scenario is when a property owner asks for the line to be relocated on his/her property and does not impact neighboring landowners (who may or may not have had notice of the line). The utilities in Kansas have demonstrated their willingness to work with landowners to relocate the line in such a way that allows the landowner to better use and enjoy his/her property.

(2) Everyone in the Regulatory Commission, or Applicant's office should generally know where the basic route is, what the installation will look like and/or the name of the authority with knowledge. Many times, affected landowners just want information. Make sure that someone is able to answer questions/concerns.

(3) Learn how to discuss an “energy corridor”. Learn to discuss various federal siting options (in addition to or in replacement of state siting requirements).

(4) Don’t wait for environmental groups to come to you.

(5) Don’t wait for industry groups to come to you.

(6) Don’t surprise the public. (See above discussion on public meetings or open houses.)

(7) Really think about what goes on at open houses and make sure that the representatives are nice, well dressed, informed, cooperative and resourceful. Don’t mislead about the ability to move the line if doing so is not feasible (geographically, economically, legally).

(8) Don’t surprise the Government at any level.

(9) If you have a website make sure it is EASY!

(10) Monitor groups since they can be a plus or a minus and their social media impact can be huge.

(11) Organized landowners tend to fare better than pro se litigants, and landowners should help themselves by working together, coordinating efforts, making reasonable accommodations to the utility and not just expecting the utility to make all the accommodations. For utilities/utility lawyers, be willing to accommodate individual landowner concerns where possible. The Commission recognizes that moving the line to appease one landowner only causes problems for another landowner, and so on. The Commission also recognizes that there is no such thing as a perfect route, but there could be several reasonable routes. As stated above, the quickest way to incent a utility to move a line (and the Commission to approve) is when the landowner is reasonable and merely requests that the line be moved elsewhere on his/her property to allow better use of his/her property. This also works well for neighboring property owners. Adjacent landowners should be encouraged to work together to route the line in such a way that new landowners aren't impacted but that nonetheless the affected landowners have some control over the placement. For landowners/landowner attorneys, organize early in the process and take your concerns to the utility. Also, by getting involved early, you are able to avail yourselves of many opportunities to be heard.

IV. Easement Acquisition Statistics
Here are numbers for transmission line easements only (i.e. does not include tracts where only access roads or temporary work space easements were required).

Kansas portion for KETA I and II was 185 miles. ITCGP western segment of V-Plan is 122 miles.

KETA I: 172 total tracts. 143 (83%) acquired through voluntary acquisition, 29 acquired through eminent domain
KETA II: 220 total tracts. 215 (98%) acquired through voluntary acquisition, 5 acquired through eminent domain
Combined KETA 91.3% acquired through voluntary acquisitions.

V-Plan: 268 total tracts. 256 (95%) acquired through voluntary acquisitions, 12 acquired through eminent domain.

One thing to keep in mind is that not every tract acquired through eminent domain is the result of a money dispute. This is an estimate, but approximately 20% of the tracts acquired through eminent domain involved title or other issues which made it impossible to acquire those tracts voluntarily.
• KSA 66-1,178(b) Commission determines the necessity for and the reasonableness of the location of the proposed electric transmission line. The following are some of the lessons learned in a number of hearings:

• Public resistance is:
  • 1. Lowest on lines purportedly needed for reliability (reduced outages).
  • 2. Next lowest for lines purportedly needed for economics (cheaper power) and;
  • 3. Most resistant to public policy (renewables). Public allegiance to renewables is easily trumped by NIMBY. The public is confused about subsidies.
• An Applicant should not wait for environmental groups to come to them. Sierra Club, Nature Conservancy, US Fish and Wildlife, State Fish and Game, Parks and Recreation can and will, if they see it necessary, shut you down.

• An Applicant should not wait for Livestock, Logging, Mining Industries to come to you. See them and the environmentalists first. You may decide you want a different route if there are Greater or Lesser Prairie Chickens in the path.
• Most importantly do not surprise the Public. Meet with County, City, Township and State officials as soon as possible. Legislators who generally oppose Eminent Domain delight in questioning the “Public Interest” in Transmission lines that have no retail customers in the state.

• Hold as many public hearings in likely path area as you can to see how many Eminent Domain proceedings are likely. Well dressed, well informed, pleasant employees can save your project.
Consider what policy to follow when the issue of "corridors" comes up. If you run lines parallel to existing lines the magic limit is two lines. If you need four then use two circuits and two poles but never three or four lines on the same property. Pipelines count as another transmission line. Be prepared to talk Myth/Fact on EMF.
• Make certain that your routing study is presentable to the public. It must take into consideration all possible land uses with a weighting system. Make certain that all who answer your phones have an understanding of what the lines look like, where the lines go in general and who can they talk to about the lines.

• Above all, make certain everyone knows and can communicate how to propose an alternate route.

• Last Monitor the Social Media.
Clean Line Energy
Clean Energy. Delivered.

Energy Bar Association
October 2013
Clean Line’s projects connect the best wind resources to interregional load centers
There are several challenges to effectively siting multi-state transmission lines

**Varying Requirements by State**
- One-step v. two-step process
- Eligibility requirements to construct, own and operate
- Definition of “public interest”
- Various route filing requirements

**Environmental Issues**
- Environmental:
  - What triggers NEPA reviews?
  - What types of environmental studies are required if NEPA is not triggered?
- Endangered species

**Federal and Tribal Land Issues**
- Federal lands
  - How does one coordinate working with different federal agencies?
  - How does this affect the time frame?
- Tribal lands
Order No. 1000 Update
EBA’s Mid-Year Meeting & Conference
October 23-23, 2013
Order 1000 Update

EBA Mid-Year Meeting
October 24, 2013

Southern Company TRANSMISSION

John Lucas
The New Order 1000 Process:

- It will take longer and slow down transmission construction
- It will cost more and drive up construction costs
- Increases uncertainty. Plans will be unworkable (likely very contentious and constantly litigated!)
- Law degree required to be a regional planner!
Key Themes in Compliance Orders

(For Industry as a Whole)

• FERC Interests: “Selection” in Plan for Cost Allocation and ”blank check formula” for cost allocation
• Little regard for Workable Process
• Little regard for participation by Non-jurisdictional Providers or regulatory authority of State Commissions
• Many approval/consensus steps considered “implementation”
  – Creates “friction” points for litigation
• Lacking in commitment to provide significant regional flexibility and to respect bottom-up and IRP planning
Inconsistent with Non-RTO Market Structure

- Economic and Public Policy Planning Already addressed in IRP processes (Speculative expansion vs. need)
- Forcing decisions/analysis transmission planners not empowered to make that is inconsistent with often State-regulated IRP Planning
- States bristling at encroachment into planning, siting and cost recovery – Seeking to be more than ordinary stakeholder
  - Major potential for clashes between FERC’s planning and State siting and IRP processes
- Overall, compliance requires more than just “modest” changes as held in Order 1000
Little Consideration for Customer Impacts

- Little regard for how process may disrupt “duty to serve” obligations
- Moving regulation of the planning and decision process further from end-use Customer
- In the end, Customers pay for the inefficiencies caused by Order 1000 and any new transmission
Concluding Observations

- Developing compliance proposals has been a distraction for industry resources over past two years
  - FERC guidance largely missing during long lead time for compliance; Orders not consistent with rule or guidance
- Most compliance orders include a “one-size-fits-all” theme resulting in a rewrite of many processes
- Requiring inter-regional filings before regional procedures were finalized has been inefficient and costly for industry
Changes to PJM’s RTEP Process

FERC Order No. 1000
Regional Update
How Much Did PJM Need to Change to Comply?

• Compliance with Order No. 890 Planning Principles

• Consideration of Public Policy Requirements:
  • Removed Bright-Line Test
  • Added Scenario Analyses at Assumptions Stage
  • Added State Agreement Approach

• Right of First Refusal: PJM adopted a time-based exception v. solution-based exception process using three new categories of projects:
  • Immediate-need Reliability Projects
  • Short-term Projects
  • Long-lead Projects

• Non-incumbent Developers: PJM adopted a project proposal window process

How Much Did PJM Need to Change to Comply?
• Independent State Agencies Committee (ISAC):
  • Advisory body – Independent of PJM Board of Managers
  • Membership (voluntary) -- State regulatory agencies in PJM region
  • Forum to provide input and recommendations to PJM regarding:
    • assumptions for performing evaluation and analysis of potential transmission needs
    • regulatory initiatives and their potential impact
    • alternative sensitivity studies, modeling assumptions and scenario analyses.

• State Agreement Approach:
  • State-sponsored public policy project – voluntarily proposed by one or more states
  • Sponsoring State(s) must agree to pay for the project -- costs of the public policy project may not be allocated to non-sponsoring states.
Greater opportunities for transmission development: The three new project categories provide opportunity for non-incumbent developers to submit a project proposal through a proposal window.

If project is included in RTEP, proposing party could be designated to build.

The three new project categories include:

- **Long-lead projects**: reliability/market efficiency driven upgrades needed in year six or beyond – 120 day window.
- **Short-term projects**: reliability driven upgrades needed in years four or five – 30 day window.
- **Immediate-need Reliability projects**: reliability driven upgrades needed in three years or less - window if possible, likely less than 30 days, nominally.
Competitive Alternatives Process: Proposal Window

Window participants prepare and submit project packages

- Proposal window ~30 to ~120 days

PJM reviews the constructability and company evaluation information

PJM evaluates project proposal packages

Project(s) presented at TEAC

Window participants prepare and submit supplemental constructability package

~60 days

Designated Entity selected

Project selected

A
Proposal Window Evaluation and Selection
(process subject to further development)

1. Window Announcement
   - Announce window and anticipated timeline
   - Anticipated participants
   - Request Designated Entity Pre-Qualification

2. Coordinate Quality Assessment of Analysis
   - Expected typical duration ~ 7 Days
   - Coordinate with TO, GO, and impacted neighboring entities

3. Formally Open Window
   (Define Duration Upon Opening)
   - Open the RTEP Proposal Window to Participants
   - Make results & analytical files available

4. Coordinate with Window Participants and Receive Solution Proposals
   - Coordination VIA www.pjm.com
   - Data, Information
   - Questions & Answers

5. Proposal Window Closes

6. PJM Evaluates Solution Proposals
   - Next Steps

PJM Staff Completes body of Analytical RTEP Analysis
Artificial Island Proposal Window:

- Artificial Island refers to Salem #1, Salem #2, and Hope Creek #1 nuclear generation facilities located in the PSEG Zone in south New Jersey.
- PJM opened a proposal window to seek technical solution alternatives ("Proposals") to:
  - improve PJM Operational Performance in the Artificial Island area under a range of anticipated system conditions; and
  - eliminate potential planning criteria (PJM, NERC, RFC, and Local Transmission Owner criteria) violations in the Artificial Island area.
- PJM received 26 individual projects proposals by seven entities
- Project proposal cost estimates range from just over $100M to just under $1.5B
Artificial Island Window Proposal

Announcement
- Announce window and potential timeline
- Request CEII/NDA submittals from anticipated participants
- Request Designated Entity Pre-Qualification

PSS/E v32 Case Development
Initial PSS/E v32 case created
- Benchmarking in Progress
- Develop and benchmark critical system condition cases

Window Opened
(4/29/2013 - 60 Day Duration)
- Open the “Artificial Island” RTEP Proposal Window
- Complete problem statement available
- Analytical files available

Coordinate with Window Participants and Receive Solution Proposals
- Coordination via www.pjm.com
- Data, Information
- Questions & Answers

Proposal Window Closed on 6/28/2013

PJM Evaluates Solution Proposals
ENERGY BAR ASSOCIATION
2013 MID-YEAR MEETING AND CONFERENCE

ORDER 1000 UPDATE

OCTOBER 23-24, 2013
March 2003  Established as ITC *Transmission* with the purchase of Detroit Edison’s transmission assets

July 2005  ITC Holdings goes public with an initial offering of stock (NYSE: ITC)

July 2006  ITC Great Plains established, headquartered in Topeka, KS

October 2006  Acquired Michigan Electric Transmission Company (METC) from Consumers Energy

December 2007  Formed ITC Midwest by acquiring the transmission assets of Interstate Power and Light from Alliant

December 2011  Announced proposed transaction to spin-off and merge transmission business of Entergy Corporation into ITC

March 2013  ITC’s 10-year Anniversary
ITC Holdings Corp.

- Largest independent transmission company in the country
  - Over 15,000 miles of transmission
  - Seven States
  - Over 26,000 MW of load served
- 500+ direct employees; 500+ contract employees
- Develop transmission with the goals of providing customers:
  - Best in class transmission system – top decile reliability
  - Providing access to the most efficient generation available; reduce congestion and facilitate markets
  - Support public policy needs
ITC Holdings Corp.
Proposed Transaction with Entergy

<table>
<thead>
<tr>
<th></th>
<th>ITC Holdings Corp.</th>
<th>Entergy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Peak Load</strong></td>
<td>26,100 MW</td>
<td>28,000 MW</td>
</tr>
<tr>
<td><strong>Service Area</strong></td>
<td>Seven States</td>
<td>Four States*</td>
</tr>
<tr>
<td><strong>Total Transmission Miles</strong></td>
<td>15,100 miles</td>
<td>15,700 miles</td>
</tr>
<tr>
<td><strong>Service Area Square Miles</strong></td>
<td>89,850</td>
<td>114,669</td>
</tr>
<tr>
<td><strong>RTO Membership</strong></td>
<td>MISO/SPP</td>
<td>Anticipated MISO membership by 12/2013</td>
</tr>
</tbody>
</table>

*Entergy also owns limited assets in Missouri.*
There is little dispute around the following issues:

- The nation’s transmission systems need to be upgraded and modernized
- Public policy should be aimed at improving the grid to support a competitive wholesale energy market
- Without significant regional transmission expansion renewable energy will be limited

Major barriers include:

- The lack of a collective industry vision
- Parochialism associated with vertically integrated utilities and state regulation (e.g., siting and approval processes that differ widely from state-to-state)
- The tension between the particular interests of generator owners and improvements in the overall efficiency of the transmission grid (i.e., the influence of market participants)
- Cost allocation for “reliability projects” as opposed to “economic projects” as opposed to “public policy” projects
- Transmission financing is not a barrier to transmission expansion

What’s not on the list?
What does it say?

- Right of First Refusal ("ROFR") provisions must be removed from FERC-jurisdictional tariffs for facilities selected in a regional plan for cost allocation purposes.
- Incumbent Transmission Provider retains ROFR for:
  - A facility that is not selected in a regional plan for purposes of cost allocation;
  - Upgrades;
  - Projects on existing right of way (retention, modification, or transfer of rights-of-way remain subject to relevant law or regulation granting such rights).
- In addition, a Transmission Provider can use competitive bidding to solicit transmission projects, or project developers and state or local laws/regulations (e.g., siting, permitting) are not modified.
- The rule does not require removal of ROFR from jurisdictional tariffs applicable to a local transmission facility.
- The rule does not assign any ongoing rights of sponsorship for transmission projects.
What does it mean?

- Rule promotes competition in regional transmission planning processes to support efficient and cost effective transmission development

- Rule requires the development of a not unduly discriminatory regional process for transmission project submission, evaluation and selection

- Rule removes any federal right of first refusal from Commission approved tariffs and agreements with respect to new transmission facilities selected in a regional transmission plan for purposes of cost allocation, subject to limitations:
  - This does not apply to a transmission facility that is not selected in a regional transmission plan for purposes of cost allocation
  - This does not apply to upgrades to transmission facilities, such as tower change outs or reconductoring
  - This allows, but does not require, the use of competitive bidding to solicit transmission projects or project developers

- Nothing in this requirement affects state or local laws or regulations regarding the construction of transmission facilities, including but not limited to, authority over siting or permitting of transmission facilities
Key Questions

- Why was the Right of First Refusal eliminated?
- Are historical transmission costs unjust and unreasonable?
- Will elimination of the ROFR facilitate grid expansion or will the uncertainty associated with the new paradigm delay the development of new regional transmission?
- Did Order 1000 advance or impede inter-RTO transmission development (i.e., seams projects)?
- Can a non-discriminatory regime be constructed?
- Will compensation for incumbents and non-incumbent transmission owners be identical?
- Is a competitively bid project’s rate, by definition, just and reasonable?
- How will barriers such as state siting and condemnation laws, which bestow powers on incumbents not available to other market participants, be addressed?
- Will reliability standards be affected by the new entrants?
- How will the entrance of new actors into the market affect the use of alternatives to building new transmission, such as locational demand reduction or strategic location of new generation?
- With the change in FERC administration, how firm is this new policy?
The lack of a collective industry vision
– “It’s hard to get there if we don’t know where we are going.”

Parochialism associated with vertically integrated utilities and state regulation
– “Did the elimination of a Federal ROFR simply trigger new state barriers in the form of State ROFRs?”

The tension between the particular interests of generator owners and improvements in the overall efficiency of the transmission grid (i.e., the influence of market participants)
– “What’s good generally may not be good for everyone.”

Cost allocation for “reliability projects” as opposed to “economic projects” as opposed to “public policy” projects
– “Today’s economic project is tomorrow’s reliability project.”

Transmission financing is not a barrier to transmission expansion
– “But could it be?”

“New paradigms will, necessarily, result in consequences, good or bad, intended or unintended.”
Thank you...
Chairman Edward S. Finley, Jr.

EBA 2013 Mid-Year Meeting & Conference
Oct 23-24, 2013
Washington, DC

FERC Order 1000 Update
Figure ES-1. Scenario 1: Combined Policies – New/Upgraded Transmission
Figure ES-2. Scenario 2: NRPS/IR – New/Upgraded Transmission
Figure ES-3. Scenario 3: Business as Usual – New/Upgraded Transmission
BIOGRAPHY

Will Agate is the Senior Vice President, Navy Yard Management and Development, for the Philadelphia Industrial Development Corporation (PIDC). PIDC is Philadelphia’s citywide economic development corporation, which plans and implements financing and real estate transactions throughout all neighborhoods that attract investment and jobs to Philadelphia. The Navy Yard is a thriving 1,200-acre business campus with more than 10,000 employees and 130 companies occupying more than 6.5 million square feet of office, industrial/manufacturing, and research and development space, making it the most successful Navy base redevelopment in the country.

Will leads the PIDC team that manages all aspects of The Navy Yard’s management and development. Most recently, Will oversaw the completion of the comprehensive Energy Master Plan that allows PIDC to continue to own and operate The Navy Yard’s existing unregulated electric grid, while deploying various smart grid technologies. Will also serves on the Energy Efficient Building Hub’s (EEB Hub) Operating Committee. The EEB Hub, located at The Navy Yard, was established by the U.S. Department of Energy as one of five energy innovation Hubs, which aims to reduce energy consumption in the Greater Philadelphia commercial building sector by 20 percent by 2020.

Will is an avid proponent for incorporating progressive sustainability practices as a core principle driving development. He serves on a number of civic boards in the Greater Philadelphia region, and was recently appointed to the Mayor’s Climate Change Subcommittee. Will grew up in New England, but moved to the Philadelphia area more than 30 years ago after attending Gettysburg College. He lives with his wife of 25 years and two sons in Chestnut Hill, a neighborhood of Philadelphia.
Donna M. Attanasio
Senior Advisor for Energy Law Programs,
Professorial Lecturer in Law
The George Washington University Law School

Donna Attanasio joined the law school in July 2013. From November 2006 until May 2013, she was a partner at White & Case LLP, in its Energy, Infrastructure, Project and Asset Finance practice (Energy Markets and Regulatory Group), with a primary focus on power purchase contract negotiations, advising clients on the regulatory aspects of financings and mergers, and regulatory matters. While at White & Case she served as chair of its renewable energy task force and co-chair of the DC Office’s Women’s Initiative. Previously she was with the firms of Dewey Ballantine LLP (1993-2006) and Sutherland, Asbill & Brennan (1998-1992). Prior to law school, she supervised load management programs and worked on conservation and customer service projects at Potomac Electric Power Company.

Ms. Attanasio is a former President of the Energy Bar Association (EBA), former EBA officer and board member, former co-chair of its Program Committee and previously served by appointment to EBA’s three-person Nominations Committee. She has been recognized as a leading practitioner in the field of electric energy regulatory law by Chambers U.S.A., Chambers Global, Best Lawyers, Legal 500 and Super Lawyer and for customer service by BTI All Stars. In 2013, she received the Euromoney LMG Americas Women in Business Law Award for Energy, Natural Resources and Mining.

**Education:** A.B., Smith College; J.D. Harvard Law School

**Address:** 2000 H Street, N. W., Washington, DC 20052

**Telephone:** 202.994.0859

**Email:** dattanasio@law.gwu.edu
Nora Mead Brownell—

Nora M. Brownell is the co-founder of ESPY Energy Solutions, LLC, a women-owned business providing innovative and highly-skilled consulting services.

Prior to this, Nora Mead Brownell was nominated by President George W. Bush to the Federal Energy Regulatory Commission (FERC) on April 30, 2001. She was confirmed by the United States Senate on May 25, 2001, for a term that expired June 30, 2006.

Ms. Brownell’s tenure at the FERC reflects her longstanding and unwavering commitment to fostering competitive markets to serve the public interest. She championed the development of independent transmission organizations for wholesale power, which now represent the electricity market structure serving two-thirds of the U.S. $10 trillion economy. As a leading advocate of responsive and effective independent board governance at RTOs and corporations, Ms. Brownell is a strong proponent of FERC policies that promote investment in national energy infrastructure development.

Prior to FERC, Ms. Brownell served as a member of the Pennsylvania Public Utility Commission (PUC) from 1997 to 2001. During her time at the PUC, Ms. Brownell took an active role in the rollout of electric choice in Pennsylvania. In addition to her work in establishing the framework for one of the most successful retail electric markets in the country, she actively supported Pennsylvania’s pursuit of competition in the local markets for telecommunications, deployment of advanced services, enhancement of services to rural areas, protection of consumers and advancement of special services. Ms. Brownell has helped craft unique solutions to a number of these industry issues.

Prior to her appointment to the Pennsylvania Commission, she was executive director of the Regional Performing Arts Center in Philadelphia, a $200 million arts and economic development initiative. Additionally, she previously served as the senior vice president for Meridian Bancorp, Inc.’s Corporate Affairs Unit. Prior to joining Meridian in 1987, Ms. Brownell was deputy executive assistant to former Pennsylvania Governor Richard Thornburgh. Ms. Brownell is the former president of the National Association of Regulatory Utility Commissioners (NARUC).

Ms. Brownell serves on the boards of National Grid PLC, ONCOR, Spectra Energy Partners, Tangent Energy, Comverge and TerViva Bioenergy. She also serves on the advisory boards of New World Capital and CleanHatch. Previously, Ms. Brownell served on the boards of Starwood Energy Fund, GridWise Architecture Council, Millennium Bank, Foundation of Architecture, Philadelphia Free Library and the Philadelphia Regional Performing Arts Center. In addition, Ms. Brownell has lectured at the Vermont Law School’s Center for Energy and the Environment, the Michigan State University Institute of Public Utilities, the University of Idaho, and at the Wharton Energy Club, among others.

Ms. Brownell has lectured at the Vermont Law School’s Center for Energy and the Environment, the Michigan State University Institute of Public Utilities, the University of Idaho, and at the Wharton Energy Club, among others.

Ms. Brownell is a native of Erie, Pennsylvania and attended Syracuse University.
Clarke Bruno oversees Anbaric Transmission’s legal affairs and transmission projects in the Mid-Atlantic region. He also is helping launch the company’s district energy business. He has two decades of experience in law, energy and environmental policy, and project development. As counsel to former New Jersey Governor Corzine, he helped craft initiatives to upgrade the grid, spur renewable energy projects, and increase infrastructure investments. During Mayor Bloomberg’s first term in New York City, Mr. Bruno spearheaded the effort that won dismissal of four twenty-year old class action lawsuits. Before entering government, he was a regulatory lawyer and litigator for nine years and clerked for a federal judge for one year. Mr. Bruno chairs the NYC Bar Association’s energy committee for the 2012-2015 term.

Mr. Bruno graduated with honors from Swarthmore College where he won a Thomas J. Watson fellowship and cum laude from New York University School of Law where he was awarded an Arthur Garfield Hays fellowship.
Sharon Buccino  Director, Land & Wildlife Program

Areas of Focus
Wilderness protection, natural resource law, access to government information.

Bio
Sharon Buccino is a senior attorney and director of NRDC’s land and wildlife program. Based in Washington D.C., Sharon has led NRDC’s litigation, challenging oil and gas drilling in Wyoming, Colorado, and Utah. She is also leading NRDC’s fight to stop new coal mining outside Bryce Canyon National Park. Her current work focuses on energy policy and transparent government. Prior to joining NRDC, Sharon practiced environmental and administrative law with a private firm in Washington, D.C. She also served as a law clerk for the Alaska Supreme Court.

Ms. Buccino earned her J.D. from Stanford Law School and her B.A. from Yale University.
Leonard Crook is a Vice President in ICF International’s Natural Gas Practice, with over 30 years’ experience in North American and international natural gas markets. Prior to joining ICF, Mr. Crook served at FERC for 10 years, where he held positions in hydro licensing, Office of Economics, and Pipeline and Producer Regulation. Mr. Crook’s practice at ICF has focused on the economics of gas supply, pipelines, LNG, and gas markets. He has advised distribution companies, independent power producers and electric utilities on gas supply strategies and has served as lenders’ gas expert on over $4 billion in project financed power and natural gas facilities. He recently has advised governments and private clients in Ontario and Nova Scotia on the implications of shale production on future gas supply strategies. Elsewhere internationally, he has participated in ICF projects to design gas markets for Australia and Singapore. In 2012, led an ICF team that developed the gas master plan for Mozambique and currently is advising the Government of Mozambique on gas development issues. In 2010-2011 Mr. Crook directed a conceptual design for a national gas pipeline grid for the Government of India. In this project, ICF developed a fundamentals analysis of potential gas demand in India, across all of the major industries and the potential in over 200 cities. Mr. Crook has an MA in History and a BA in Economics and History from the University of Memphis.
Robert E. Curry, Jr. served for over six years (until 2012) as a Commissioner of the New York State Public Service Commission with jurisdiction over investor-owned utilities and their more than $30 billion in annual charges. He now provides energy-related and legal advice to private clients, as well as to the City of New York. Mr. Curry is also a Senior Consultant to Charles River Associates.

As a member of the U.S. Department of Energy’s Electricity Advisory Committee since 2010, Mr. Curry advises on strategies for the modernization of the nation’s electricity infrastructure. He also is involved in the New York City Energy Planning Board, the Harvard Electricity Policy Group and other power industry and regulatory activities, including those which address the development of the Marcellus shale in New York. In addition, at Columbia University Mr. Curry is a speaker on energy issues at its Earth Institute and was a Member of the Board of Advisors of its Law School’s Center on Corporate Governance.

Mr. Curry has been a corporate counselor and manager, specializing in transactions, financing and corporate governance. His experience includes sitting with boards of directors and related committees of public companies for more than 30 years. He also served as a senior executive and general counsel of a company ranked 148th on the Fortune Industrial 500 while it was transformed to 46th on the Fortune Services 500.
Tim Daniels

Mr. Daniels is a co-founder of Hudson Energy Development, LLC. Hudson is a New York based company focused on the development of projects in the Eastern US that combine utility-scale renewable technologies with advanced dispatchable generation and energy storage. At Hudson, he oversees development of several of Hudson's projects in New York as well as leading its external affairs activities.

Prior to co-founding Hudson, Mr. Daniels served as Senior Vice President of Market Development for Deepwater Wind, LLC, for three years. In addition to managing many aspects of external affairs for the company, he oversaw development activities in the New York, New Jersey and Connecticut markets for Deepwater's 3,000 MW of proposed offshore wind projects in federal waters and two HVDC, multi-terminal submarine transmission networks.

Prior to joining Deepwater Wind, Mr. Daniels served as Vice President of Energy Policy for Constellation Energy, Inc. He represented and supported the company's wholesale and retail commodity businesses, its nuclear group, and its project development group in Delaware, New Jersey, New York, and the six New England states. Mr. Daniels also served as the solar and smart grid "Subject Matter Expert" for policy for Constellation's deregulated businesses across all North American markets.

From 2004 to 2006, Mr. Daniels served as the Assistant Vice President for Energy Policy for the New York City Economic Development Corporation where his primary responsibility was the management of the implementation of Mayor Michael Bloomberg's 2004 "Energy Policy." During that time, he was an active participant in a number of important City and State initiatives including the formation of the New York State Renewable Portfolio Standard, the creation of an innovative $224M three-year targeted load reduction initiative in New York City, and the development of a business plan for the future of Con Edison's $450M/year steam district energy system.

Mr. Daniels previously held senior internal and external positions at several distributed generation development and technology companies including Northern Power Systems, Inc, and RealEnergy, Inc. He played a key role in negotiating favorable standby electric rates for distributed generation technologies in New York State, helped negotiate the first streamlined interconnection standards for small generators in Massachusetts, shaped favorable policies related to distributed generation at both the New York ISO and ISO New England, and contributed to several clean energy federal legislative provisions that were ultimately incorporated into the Energy Policy Act of 2005.

In the mid to late-1990s, Mr. Daniels actively participated in early federal electric industry restructuring and emissions cap-and-trade debates while serving as the Legislative Director of the 130+ member Northeast-Midwest Congressional Coalition and the Congressional Task Force on Manufacturing. Under his leadership, the coalitions introduced several groundbreaking pieces of legislation including "Innovation-Based Electricity Reform Act" and the "Power Marketing Administration Reform Act." He also spearheaded appropriation and authorization initiatives in the US House of Representatives for a number of critical national energy programs including the Environmental Protection Agency's Energy Star program, DOE's Office of Renewable Energy & Energy Efficiency, and the Energy Information Administration.

Mr. Daniels earned a BA in Political Science from Emory University and a MS in Environmental Science and Policy from Johns Hopkins University.
John Dumas is the Director of Wholesale Market Operations where he is responsible for all Day-Ahead, Real-Time and Congestion Revenue Rights market activities.

Prior to this position, Mr. Dumas served as Manager of Operations Planning where he was responsible for wind integration, advanced network applications and load forecasting.

Mr. Dumas has 27 years of experience in the electric power industry beginning as a transmission lineman with TXU Electric in 1986. John transferred to the Texas Utilities System Operations center in 1990 where he supported generation control and power trading after deregulation. He joined ERCOT Operations in 2004.

Mr. Dumas earned his bachelor’s degree in Electrical Engineering from the University of Texas at Arlington.
LAW OFFICES OF CAROLYN ELEFANT

Washington D.C.

Carolyn Elefant is principal attorney with the Law Offices of Carolyn Elefant PLLC in Washington D.C. (www.lawofficesofcarolynelefant.com) Prior to founding her firm, Carolyn worked as an attorney-advisor with the Federal Energy Regulatory Commission and as associate and of counsel to several law firms with national energy practices. Carolyn is also co-founder of and counsel to the Ocean Renewable Energy Coalition (www.oceanrenewable.com), a fifty-member national trade association for the marine and hydrokinetic industry.

Carolyn thrives on matters of first impression and last resort, meaning that she eagerly tackle issues never addressed before or successfully resolve problems where others have tried and failed. Carolyn represents and counsels emerging companies in energy and legal technology sector, and leverages her regulatory knowledge to help innovators penetrate and prosper in transforming markets.

Carolyn's clients include large corporations, demand response providers, state commissions, trade associations, conservation trusts, municipalities and landowners. Carolyn represents clients before FERC, state regulatory commissions and in federal district and appellate courts on a wide range of matters under the Federal Power Act, Natural Gas Act (including eminent domain proceedings) and the Freedom of Information Act (FOIA). Worth noting, Carolyn is one of just a handful of lawyers who has succeeded in overturning FERC on appeal, blocking condemnation under the Natural Gas Act and recovering fees under the Equal Access to Justice Act (EAJA) and the Uniform Relocation and Assistance Act in energy related matters.

An early adopter of social media, Carolyn is author of the book Social Media for Lawyers: the Next Frontier and author of The Power of Social Media, published in the Energy Law Journal (January 2012). You can follow Carolyn on Twitter at @nxtgenenergylaw and @carolynelefant.

Carolyn's firm has been recognized as an Energy and Natural Resources Superlawyer in Washington D.C. for 2011-2013, the only small firm so recognized on a list of large practices. Carolyn was also recognized as an ABA Legal Rebel in 2010. Carolyn's firm has been featured in the Maryland Daily Record, the Washington Legal Times and the ABA Journal and she is regularly quoted as an expert on energy issues in publications such as the Wall Street Journal, Platts, Energy 360 and others.
Beth Emery has been active in electric finance and regulatory issues since 1977. She is a partner in the Washington, DC office of Husch Blackwell, LLP. Since the firm’s July merger with Texas’ Brown McCarroll, LLP, Beth has been splitting her time between the firm’s new Houston and Austin offices. She concentrates on energy finance and regulatory matters, with a substantial amount of her current work relating to development and integration of wind resources and Southwest Power Pool, Inc. and Electric Reliability Council of Texas market and transmission issues.

Beth has served as the initial in-house General Counsel for two utilities. From start-up in 1997 through 1999 she was Vice President, General Counsel, and Secretary of the California Independent System Operator Corporation, where she was responsible for the legal and regulatory, public affairs, board relations, and market monitoring groups. From 2003 through May 2006, she was Senior Vice President, General Counsel, and Secretary to CPS Energy of San Antonio, the nation’s largest municipally-owned electric and gas utility. At CPS Energy she was responsible for legal and claims matters as well as Board activities.

From 1981 until joining CPS in late 2003 (and except for her two years in California), Beth was in private practice in Washington, D.C., focusing on the representation of generation and transmission companies and, in later years, independent system operators. Beth started her legal career upon moving to Washington in 1977, serving as an attorney-advisory to the Rural Electrification Administration, handling electric and telecommunications finance and business matters, and then as legal advisor to one of the initial five Federal Energy Regulatory Commissioners, Matthew Holden, Jr.

She has her B.A. with highest honors in Journalism from the University of Oklahoma (1974) and her J.D. from Harvard Law School (1977). Beth is admitted to practice in Texas and D.C. Until its sale to Johnson Controls, Inc., in June 2011, she served as an independent director of EnergyConnect Group, Campbell, CA, (OTCBB: ECNG), a demand response provider to PJM and Southern California Edison Company. She is active in various professional and community organizations, including serving as President of the Alamo Breast Cancer Foundation, and as a member of San Antonio’s Greater Chamber of Commerce Energy & Sustainability Committee.

Beth lives in Olmos Park, TX and has been married to fellow-Oklahoman Lee M. Emery since 1974. They have two children: Paul, in the Stanford’s Graduate School of Business class of 2014 and Kate, a civil engineer-in-training in the Houston office of HNTB.
Chairman Finley was born in North Wilkesboro, North Carolina. He holds a Bachelor of Arts degree in history from the University of North Carolina at Chapel Hill and a Juris Doctor from the University of North Carolina School of Law.

Between 1974 and 2007 he practiced law in Raleigh, North Carolina, with the firm of Joyner & Howison from 1974 to 1980 and the firm of Hunton & Williams from 1980 to 2007, after a merger of the two firms. His primary area of practice was public utility regulation.

Governor Easley appointed Finley to the Commission on January 23, 2007, to fill a term that expired on June 30, 2011. Governor Perdue reappointed Finley to the Commission effective July 1, 2011, for a term that expires on June 30, 2019.

Governor Easley appointed Finley as Chairman of the Commission on April 10, 2007, to fill a Chair term that expired on June 30, 2009. Governor Perdue reappointed Finley as Chairman effective July 1, 2009, for a Chair term that expired on June 30, 2013. Governor McCrory reappointed Finley as Chairman effective July 1, 2013, for a chair term that expires on June 30, 2017.

Chairman Finley is active in community and civic affairs. He and his wife, Ginger, have two sons.
Ms. Foley, assistant general counsel at PJM Interconnection, L.L.C., is primarily responsible for the legal issues regarding transmission planning and generator/merchant interconnections. Ms. Foley has been involved extensively with the development of PJM’s Order No. 1000 regional and interregional transmission planning and cost allocation initiatives. She also played an active role in PJM’s Net Energy Metering Senior Task Force.

Prior to coming to PJM, Ms. Foley practiced law in several capacities including in-house counsel for Pinnacle West Corporation in Arizona and PSEG Services Corporation in New Jersey. She was an associate with Thelen, Reid & Priest, LLC, where she concentrated her practice in both state and federal electric utility law representing another large New Jersey electric utility and providing guidance throughout the state’s deregulation process. Ms. Foley also served as a Deputy Attorney General at the New Jersey Division of Law where she served as both counselor and prosecuting deputy before the professional boards.

While at Pinnacle West, Ms. Foley served as the Legal Chairperson on the WestConnect Legal Subcommittee. WestConnect is composed of utility companies who collaborate to provide transmission of electricity in the Western Interconnection.

Ms. Foley received her juris doctor degree from Rutgers Law School in Newark, New Jersey. She is admitted to the Pennsylvania and New Jersey Bars. She is a Board Member of the Energy Bar Association, Northeast Chapter.

PJM Interconnection, founded in 1927, ensures the reliability of the high-voltage electric power system serving 61 million customers in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM coordinates and directs the operation of the region’s transmission grid, which includes 65,000 miles of transmission lines; administers a competitive wholesale electricity market; and plans regional transmission expansion improvements to maintain grid reliability and relieve congestion. Visit PJM at www.pjm.com.
Steve Herman
Managing Director

Mr. Herman is a Managing Director at Energy Capital Partners, a private equity firm with over $8 billion in capital commitments. He is involved in all areas of the firm’s investment activities, with a particular emphasis on renewable and fossil power generation, electric transmission, environmental infrastructure and energy field services.

Prior to joining Energy Capital in 2005, Mr. Herman was Senior Energy Counsel for Goldman Sachs’ power asset investment management activities. Prior to that, Mr. Herman was Senior Vice President and General Counsel of PG&E National Energy Group and its predecessor, U.S. Generating Company. Mr. Herman has also been a Partner at Latham & Watkins and Kirkland & Ellis.

Mr. Herman has been President of the Energy Bar Association and Vice-Chair of the Energy Industry Restructuring Finance and Mergers & Acquisitions Committee of the American Bar Association; he has authored the FERC Practice and Procedure Manual and the BNA Natural Gas Handbook; and has also taught at the University of Chicago Law School.

Mr. Herman received a B.S. in Economics from the Wharton School of Finance and Commerce; at the University of Pennsylvania, and an LL.B. from the University of Virginia Law School.
Pat Hester is associate general counsel for Spectra Energy’s U.S. pipelines. He is responsible for commercial, regulatory, environmental and operational legal matters related to the company’s pipelines.

Hester also serves on the board of directors for Spectra Energy’s publicly traded partnership, Spectra Energy Partners.

He joined Spectra Energy’s predecessor company, Algonquin Gas Transmission (AGT) in 1973 as an engineer. After serving in various positions in the legal, marketing and engineering areas of AGT in Boston, Mass., he was named vice president and general counsel for AGT in 1992, and vice president and general counsel for Maritimes & Northeast Pipeline in 1997. In 2003, he was named general counsel of Duke Energy Gas Transmission – East (DEGT) and became vice president, project management and development for DEGT in 2005.

Before joining the company, Hester was employed by Stone & Webster Engineering in Boston, Mass., as a civil engineer.

Hester graduated with distinction from Worcester Polytechnic Institute with a Bachelor of Science degree in civil engineering. He earned a Master of Science degree in civil engineering from Northeastern University and a juris doctor degree, with honors, from Suffolk University Law School in Boston.

Hester is a registered professional engineer and is licensed to practice law in Massachusetts and Federal District Court (Mass.), First Circuit Court of Appeals, D.C. Circuit Court of Appeals and the U.S. Supreme Court. He is a member of the Energy Bar Association, American Bar Association, Massachusetts Bar Association, Guild of Gas Managers and Society of Gas Lighters.

In 2008 and 2012, Hester received Spectra Energy’s Summit Award – the company’s highest recognition award – for his participation on the Northeast Gateway Project and the NJ/NY Expansion Project. In 2002, he received Duke Energy’s Pinnacle Award – the company’s highest award for outstanding contribution to Duke Energy’s business success – for his leadership in the development of the Maritimes & Northeast Pipeline Phase II and Algonquin Hubline pipeline projects in New England. He also received the Boston Harbor Island Alliance Stewardship Award in 2003 for his efforts with the Hubline project, and the Coastal America Special Recognition Award in 2001 for his efforts in establishing the Maine Corporate Wetlands Restoration Partnership.
James J. “Jim” Hoecker

Jim Hoecker is Senior Counsel and Energy Strategist at Husch Blackwell LLP in Washington, D.C., where he focuses on emerging wholesale electric and natural gas markets and assists energy providers, customers, and state and federal policymakers with electric power, natural gas transportation, and related regulatory, environmental, and climate change matters. Dr. Hoecker is also principal Counsel to WIRES, a major national non-profit trade association that advocates increased investment in electric transmission infrastructure and Principal of Hoecker Energy Law & Policy, PLLC (HELP), a law and public policy consulting firm.

Prior to rejoining private practice, Dr. Hoecker served as Chairman of the Federal Energy Regulatory Commission, from 1997-2001 during the Clinton Administration and, before that, as a FERC Commissioner for four years. Among his accomplishments as Chairman, he instituted regional transmission organizations to plan and administer the bulk electric power system and streamlined FERC’s regulatory processes. Dr. Hoecker has practiced energy administrative law for over three decades.

Dr. Hoecker has served on the Boards of a public utility and a private university. He is the recipient of the Distinguished Service Award of the National Energy Resources Organization and the Silver Good Citizenship Award of the Sons of the American Revolution. He speaks and publishes widely on energy and infrastructure issues.

He holds advanced degrees from the University of Wisconsin and the University of Kentucky. For more information, see www.huschblackwell.com or www.helppllc.com.
Charles Hornbrook is a Principal at ICF International and the Director of ICF’s Distributed Energy Resources group. The group provides advisory services and solutions to governments, utilities and commercial customers on distributed energy (e.g. CHP, Solar PV), integrated demand side management and distribution networks. Prior to joining ICF, Charles was at Itron developing products and solutions for the integration of distributed energy resources with Itron’s Smart Grid offerings and part of Itron’s consulting practice managing and delivering projects on the evaluation and impact of solar PV and CHP programs in California and Massachusetts. Prior to joining Itron, Charles ran Pacific Gas and Electric’s Customer Distributed Generation group, the largest in the United States. Charles has an MBA and an MS in environmental policy from the University of Michigan. He and his family live in the city of San Francisco. Internationally, Charles had an opportunity to install a solar PV system and a bio digester in rural Ecuador and provide disaster relief in Indonesia and Mississippi.
KTM is an energy consulting firm specializing in providing information, strategic advice and economic analysis on energy market and regulatory issues related to the natural gas and power consumption of its industrial and large commercial clients. KTM provides its services to clients throughout the United States and Canada.

Mr. Inge holds a Bachelor of Business Administration from the University of Virginia (1976) and a Master of Business Administration from the University of Virginia's Colgate Darden School of Business Administration (1979).

Upon receiving his MBA, Mr. Inge was recruited into CONOCO Inc.’s Management Development Program, where he gained experience in all aspects of the natural gas gathering and processing business. In 1982 Mr. Inge joined Delhi Gas Pipeline’s Gas Acquisition Group as a gas buyer and was promoted to Senior Gas Buyer for the midcontinent region in 1983. He joined KTM in February, 1987 and has served as President of KTM since January, 2000.

During his 26 years with KTM, Mr. Inge has analyzed numerous pipeline and electric rate filings before the Federal Energy Regulatory Commission (FERC) and state public utility commissions, presenting gas valuation, cost allocation and rate design testimony. Drawing on his in-depth experience, Mr. Inge builds analytically-based cost allocation and rate design strategies to support his clients’ litigation and settlement goals, and provides ongoing consulting services on natural gas and power consumption issues to industrial and large commercial clients throughout the U.S. and Canada.

**Testimony before the Federal Energy Regulatory Commission**
Docket No. GP91-8-008 (Jack J. Grynberg v. Rocky Mountain Natural Gas Company)
Docket No. RP96-306-000 (Paiute Pipeline Company)
Docket No. RP08-426 (El Paso Natural Gas Company)
Docket No. RP10-21 (Florida Gas Transmission Company)
Docket No. RP10-1398 (El Paso Natural Gas Company)
Docket No. RP11-1670 (Eastern Shore Natural Gas Company)

**Testimony before the National Energy Board**
Docket No. RH-003-2011 (TransCanada PipeLines Limited)

**Testimony before State Regulatory Commissions**
Public Utilities Commission of Nevada - Docket Nos. 92-4021, 01-11030, 03-12002, 05-12001, 06-12001 and 07-09016
California Public Utilities Commission - Applications A.01-06-041, A.05-06-018, A.08-08-004 and A.12-02-014.

**Client Rate Negotiation Support**
Docket Nos. CP11-303 & CP11-333 (Eastern Shore Natural Gas Company)
Docket No. RP13-185 (Viking)
Docket No. RP11-1566 (Tennessee Gas Pipeline Company)
Docket No. RP13-886 (Southern Natural Gas Company)
Docket Nos. RP09-406 & RP05-163 (Paiute Pipeline Company)
Docket No. CP12-4 (Southern Natural Gas Company)
Paula N. Johnson is a Senior Attorney - Regulatory for Alliant Energy Corporate Services, Inc., representing Alliant Energy Corporation’s wholly-owned utility subsidiaries, Interstate Power and Light Company and Wisconsin Power and Light Company before various administrative agencies. Paula was born in Troy, Kansas, and attended Washburn University as a Garvey Scholar and with vocal performance and English scholarships. Upon graduation, she attended Washburn University School of Law on a Washburn Alumni Scholarship. She was admitted to the Kansas bar in 1998, while working for the Kansas Corporation Commission, where she garnered nearly 10 years of experience from the regulator’s perspective. She began working for Alliant Energy Corporation in 2006, and lives with her husband and two children in Cedar Rapids, Iowa. She was subsequently admitted to the Iowa Bar in 2011 and the Wisconsin Bar in 2012.

Paula’s practice areas have included general natural gas and electric issues including general rate case issues, return on equity and capital structure issues, energy efficiency, renewable energy programming, PURPA, NERC compliance, interconnection agreements, demand side management and appellate practice.

Paula has been involved with the Energy Bar Association, particularly the Midwest Chapter, since her time with the Kansas Corporation Commission, and has served on committees such as the Climate Change Committee, Renewables Committee, System Reliability Committee, State Practice Committee, and the DSM and Smart Grid Committee. Paula served on the Midwest Chapter’s Board of Directors, and ultimate served as its President in 2011-2012).

In her spare time, Paula still enjoys vocal performance and, in 2012, participated in a 300-person choir for a performance at Lincoln Center in New York City. Also in 2012, Paula performed the rockabilly song Inside Out at the Kansas Womens Attorney Association banquet in Lindsborg, Kansas, and performed the alto recitative and aria, “O Thou That Tellest Good Tidings from Zion,” from Handel’s Messiah in Marion, Iowa.
Rick has represented investor-owned utility and telephone companies for over 30 years in multiple regulatory proceedings, including over 20 rate cases and many more earnings and other regulatory investigations. His experience also includes representation, negotiation, and documentation of numerous mergers, sales and acquisitions, and other transactions involving regulated businesses. Issues addressed in regulatory proceedings include:

- Capital structure, including imputed structures
- Cost of debt, including imputed interest rates;
- Return on Common Equity;
- Income taxes, including consolidated income tax issues;
- Overall revenue requirements;
- Pension expenses, including recovery of losses;
- Sales forecasts;
- Compensation;
- Rate base adjustments and prudence;
- Renewable cost recovery;
- Jurisdictional cost allocations
- Earnings reviews;
- Affiliated interest and cost allocations;
- Service rights;
- Tariff disputes;
- Rulemakings

**AREAS OF PRACTICE:**
Regulated Industries
Business Law

**EDUCATION:**
Harvard Law School, Cambridge, Massachusetts, J.D.
University of Minnesota-Twin Cities, B.S., Business Administration

**HONORS AND AWARDS:**
*The Best Lawyers in America*— 1995-present
- “Lawyer of the Year,” Administrative / Regulatory Law, Minneapolis, 2012

**PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS:**
Federal Communications Bar Association
American Bar Association
Minnesota State Bar Association
Hennepin County Bar Association

**BAR ADMISSIONS:**
Minnesota

---

**Richard J. Johnson**

**Phone**
612-877-5275

**Fax**
612-877-5999

**Email**
Rick.Johnson@lawmoss.com
KEITH JOHNSON

Staff Reporter
The Wall Street Journal
Washington, D.C.

Keith Johnson is a reporter for The Wall Street Journal currently based in Washington. He currently covers energy and the environment, including domestic energy policies, environmental rules and regulations, and the economic and geopolitical implications of the shifting global energy landscape.

Mr. Johnson has spent the entirety of his career with The Wall Street Journal, much of that overseas. From 2001 to 2007, based in Spain, he covered primarily energy, airlines, and terrorism. From 2008 to early 2010, he ran the WSJ blog “Environmental Capital,” which covered energy and environmental issues. Between 2010 and 2012, he covered national-security issues and foreign affairs, including Homeland Security and the State Department. He has reported from Europe, Asia, North Africa, and the Middle East.

Born in Atlanta, Mr. Johnson received a B.A. in History and an M.A. in Spanish Literature from the University of Georgia. He taught Spanish and English in the U.S., Spain, and Mexico.

#
A. Gregory Junge
Partner

Greg Junge represents a wide variety of energy companies, including interstate natural gas pipelines, intrastate natural gas pipelines, natural gas marketers, and local distribution companies. Greg’s practice focuses on regulatory counseling and administrative litigation before the U.S. Federal Energy Regulatory Commission (FERC) as well as appellate litigation in federal courts.

Greg works with interstate pipeline clients to develop new service and rate offerings, and to defend pipeline services and rates in administrative proceedings. He has extensive experience representing pipeline clients in rate case litigation under both Section 4 and Section 5 of the Natural Gas Act (NGA), and he represents interstate pipelines regarding certificate and abandonment matters under Section 7 of the NGA.

He serves as co-chair of the firm’s Electric-Gas Coordination Working Group, and he has worked with electric marketers and electric utilities on various regulatory, transactional, and administrative litigation matters. Greg also represents clients in FERC enforcement investigations and audits, and he assists clients with internal compliance audits and developing compliance programs.

Greg is a frequent instructor at the “Pipeline Training Course” sponsored by New Mexico State University’s Center for Public Utilities, the Energy Bar Association, and the Interstate Natural Gas Association of America. He is also a contributing author of the “AGA FERC Manual: A Guide for Local Distribution Companies,” distributed by the American Gas Association.

Professional Background

Prior to joining Van Ness Feldman, Greg was an Associate at Jones Day, where he represented clients in litigation matters in federal and state courts.

Professional and Civic Affiliations

- American Bar Association
- Energy Bar Association

Honors & Distinctions

- Member, The George Washington Law Review

Publications

Hon. Joseph T. Kelliher
Executive Vice President,
Federal Regulatory Affairs

Joseph T. Kelliher is executive vice president – federal regulatory affairs for NextEra Energy, Inc. In this role, he is responsible for managing federal regulatory matters for NextEra Energy and its principal subsidiaries, NextEra Energy Resources and Florida Power & Light Company. He has held this position since May 2009.

Previously, Mr. Kelliher served as Chairman of the Federal Energy Regulatory Commission (FERC) from 2005 to 2009. In that role, he served as the chief executive officer of the agency, managing 1,400 employees and a $260 million annual budget. Among the highlights of his chairmanship was efficient implementation of the Energy Policy Act of 2005, the largest expansion in FERC regulatory authority since the 1930s. This law gave FERC a new mission to assure reliability of the interstate power grid, granted the agency strong enforcement authority for the first time, and expanded FERC authority in other areas. Chairman Kelliher pursued a series of reforms to promote competitive wholesale power and natural gas markets, improve FERC economic regulation, and strengthen the U.S. energy infrastructure.

Mr. Kelliher has spent his entire professional career working on energy policy matters, serving in a variety of roles in both the public and private sectors. These include senior policy advisor to the U.S. Secretary of Energy, majority counsel to the U.S. House Commerce Committee, and positions with private corporations, trade associations, and law firms.

Mr. Kelliher earned a Bachelor of Science degree from Georgetown University, School of Foreign Service, and a Juris Doctor degree, magna cum laude, from The American University Washington College of Law.

NextEra Energy, Inc. (NYSE: NEE) is a leading clean energy company with consolidated revenues of approximately $14.3 billion, more than 42,000 megawatts of generating capacity, and nearly 15,000 employees in 26 states and Canada as of year-end 2012. Headquartered in Juno Beach, Fla., NextEra Energy’s principal subsidiaries are Florida Power & Light Company, which serves approximately 4.6 million customer accounts in Florida and is one of the largest rate-regulated electric utilities in the United States, and NextEra Energy Resources, LLC, which together with its affiliated entities is the largest generator in North America of renewable energy from the wind and sun. Through its subsidiaries, NextEra Energy generates clean, emissions-free electricity from eight commercial nuclear power units in Florida, New Hampshire, Iowa and Wisconsin. For more information about NextEra Energy companies, visit these websites: www.NextEraEnergy.com, www.FPL.com, www.NextEraEnergyResources.com.
As General Counsel, Cary Kottler is responsible for all legal, contractual, regulatory and compliance matters for Clean Line. In addition Cary works on Clean Line’s commercial arrangements and advises on business development opportunities and corporate strategy.

Prior to joining Clean Line, Cary worked as a corporate attorney for Vinson & Elkins in Houston, Texas, specializing in mergers and acquisitions, project development and private equity investments. His completed transactions ranged in value from $5 million to over $4 billion and encompassed many areas of the renewable energy industry, including wind, solar and geothermal energy. Cary's work at V&E involved clients, projects, companies or assets located in more than twenty U.S. states and fifteen countries across North America, Latin America, Europe, Australia, Asia and the Caribbean. Cary earned a Bachelor of Arts in Political Science from Rice University, and a Juris Doctor from UCLA School of Law. Cary is a director and founding member of Empower Nepali Girls, a non-profit foundation that provides educational opportunities to neglected children in Nepal.
Michael Levi is the David M. Rubenstein Senior Fellow for Energy and the Environment at the Council on Foreign Relations (CFR) and Director of the CFR Program on Energy Security and Climate Change. Michael's research focuses primarily on the relationship between energy developments and broader economic, security, and environmental concerns. He is the author of *The Power Surge: Energy, Opportunity, and the Battle for America’s Future* (Oxford University Press, 2013), and co-author of *By All Means Necessary: How China’s Resource Quest is Changing the World*, forthcoming in February 2014. His previous book, *On Nuclear Terrorism* (Harvard University Press), which analyzed strategy for combatting nuclear terrorism, was published in 2007. He is a member of the Advisory Board to Princeton University's Carbon Mitigation Initiative and the Strategic Advisory Board for NewWorld Capital LLC. Previously a fellow at the Brookings Institution, Michael holds a Bachelors of Science in mathematical physics from Queen’s University, an MA in physics from Princeton University and a Ph.D. in war studies from the University of London.
Clyde Loutan is presently a Senior Advisor at the California Independent System Operator Corporation (ISO) focusing on power system operation performance and was the Principal Investigator for the ISO’s renewable resource integration studies published in 2007 and 2010. Mr. Loutan serves on the North American Electric Reliability Corporation (NERC) Frequency Responsive Reserve, and the NERC Reliability Based Control Standards teams developing national operating standards. Mr. Loutan previously worked at the Pacific Gas and Electric Company for 14 years in various capacities such as Real Time System Operations, Transmission Planning and High Voltage Protection.

Mr. Loutan is a licensed professional engineer in the State of California. He holds B.S. and M.S. degrees in Electrical Engineering from Howard University in Washington D.C., and is a senior member of the IEEE.
October, 2013

Biography – John E. Lucas
General Manager, Transmission Policy and Services
Southern Company Transmission

Mr. Lucas joined Southern Company Services, Inc. (SCS) in 1977 and has worked in the areas of System Planning, Bulk Power Markets and Bulk Power Operations. In 1995, as the industry began dealing with the Commission’s initiatives on open access transmission service, John began work in the newly created Transmission Services function. In his current role as General Manager - Transmission Policy and Services, Mr. Lucas has responsibility for overall management, development and implementation of federal transmission and interconnection policy and for the administration of Southern Companies’ Open Access Transmission Tariff (Tariff).

Mr. Lucas participated as a charter member of the Commercial Practices Working Group (CPWG) before the group was established as the NERC Market Interface Committee (MIC). Mr. Lucas served for over two years as the SERC representative on the MIC during which time the MIC developed, filed and implemented the OASIS Business Practices accepted by FERC in Order 638. Mr. Lucas served on the North American Energy Standards Board (NAESB) from June 2005 through December 31, 2010 representing the Transmission IOU segment and has been engaged in the DOE funded Eastern Interconnection Planning Collaborative effort.
Bill Mapes practices at the Law Office of William R. Mapes, Jr., located in Washington D.C. He has represented a number of interstate natural gas pipelines and shippers on such pipelines during his 25+ year energy career on matters involving rates, tariff and certificate issues before the Federal Energy Regulatory Commission (FERC). He has also represented landowners impacted by pipeline construction activity, including matters arising from condemnation proceedings.

Bill counsels clients on the development of internal compliance programs and FERC’s enforcement policies and has provided training on these matters. He also has advised on pipeline Department of Transportation and oil pipeline regulatory matters.

Further, Bill has addressed a broad range of issues in the electric regulatory field, including enforcement, compliance, ratemaking, rulemaking, PURPA and other regulatory matters. This has involved representation of investor owned and municipal utilities, customers, environmental organizations and independent system operators.
Betsy retired from Exelon Corporation in 2010 where she served as Executive Vice President, Government Affairs and Policy. She headed Exelon’s Washington, DC office for 10+ years and was on Exelon’s Executive Committee. During 1999 she was a partner at Vinson & Elkins, a law firm. She is currently a member of the Boards of Directors of the Climate Action Reserve and the Henry M. Jackson Foundation. She previously served on the Boards of Schlumberger Limited, Genon Energy, Inc. (now a part of NRG), and Unicom Corp. (now Exelon).

Betsy is a recognized energy policy expert, with particular emphasis on electricity markets, transmission policy, and climate change.

Betsy had a long career in government service. She was a staff member on Capitol Hill for 20 years. She served as Senior Counsel for the United States Senate Committee on Energy and Natural Resources from 1976 to 1988.

She was appointed by three Presidents and confirmed by the U.S. Senate to serve as a Member of the Federal Energy Regulatory Commission (FERC) from 1988-1997. In 1993, President Clinton designated her as Chair of FERC. Under her leadership FERC adopted a landmark initiative (Order Nos. 888 and 889) to require utilities to open their transmission lines on an equal access basis to their competitors, paving the way for robust wholesale competitive electricity markets.

In 1997 she was appointed by President Clinton and confirmed by the U.S. Senate to serve as the Deputy Secretary, U.S. Department of Energy (DOE) where she served as the Chief Operating Officer. As COO she managed the day-to-day operation of a $16 billion budget with more than 10,000 federal employees and over 100,000 contract employees. She resigned in 1998.

Betsy has a B.A. in International Relations from the American University and a J.D. from George Washington University. She is married to Thomas B. Williams and has two adult children. She is a member of the District of Columbia Bar.

Jonas also teaches courses on the intersection of energy and environmental issues at Duke University’s School of Law and Nicholas School of the Environment. Prior to joining Duke, Jonas worked as an attorney in the Corporate Social Responsibility Practice at Foley Hoag LLP, where he advised clients on emerging legal and reputational risks regarding human rights and the environment. Jonas also served as a congressional fellow for the late Senator Paul Wellstone and as legislative counsel for the Center for Responsible Lending. He earned his law degree from Georgetown University and his B.A. from Appalachian State University.
W. Parker Moore

Parker dedicates his practice to successful project development. He helps clients nationwide from every economic sector navigate issues arising under the Clean Water Act (CWA), the Endangered Species Act (ESA), the National Environmental Policy Act (NEPA), the Migratory Bird Treaty Act (MBTA) and related environmental laws. He also defends clients in agency enforcement actions and citizen suits, applying his substantive knowledge of natural resources law and project development to craft creative, sound and successful legal strategies. He co-chairs B&D’s Environmental Practice Group and its NEPA, Wetlands, and ESA Section.

Parker’s experience includes:

- Defending one of North America’s largest railroad companies against CWA citizen suits alleging unpermitted discharges of coal from railcars to waterbodies and wetlands throughout Washington State.
- Representing members of the oil and gas industry in the development of one of the first ever general conservation plans under the ESA to authorize incidental take of listed species.
- As an appointed special Attorney General, helping state Departments of Transportation build administrative records to support their highway projects and defending them in citizen suits under NEPA.
- Developing unique protocols for oil and gas companies to advance projects without first obtaining incidental take permits under the ESA.
- Negotiating on behalf of a Fortune 200 company the largest CWA settlement in Virginia history.
- Defending a $1.4 billion Kansas intermodal facility and its wetlands permit against a citizen suit challenge under the CWA and NEPA.
- Defending an international wireless telecommunications company against federal criminal investigations for alleged violations of the ESA, MBTA and Bald and Golden Eagle Protection Act.
- Defending a Maryland homebuilder against state enforcement for unpermitted disturbance of wetlands and floodplain.
- Authoring a pivotal amicus brief cited by the U.S. Supreme Court in the controversial wetlands regulation case, Rapanos v. United States.
- Assisting federal lawmakers draft legislation to streamline project development under NEPA and expedite the CWA permitting process.

Before joining Beveridge & Diamond, Parker clerked at the White House Council on Environmental Quality. He also is a professionally-trained wetlands ecologist and has years of experience identifying wetlands, obtaining jurisdictional determinations from the U.S. Army Corps of Engineers, surveying for endangered species and drafting NEPA documents. He holds a B.S. in Natural Resources (Geology and Forestry) from the University of the South, and he graduated magna cum laude from Vermont Law School.
Scott Moore is Vice President of Worldwide Marketing for Anadarko Petroleum Corporation. Anadarko is one of the largest independent oil and natural gas exploration and production companies in the world and a leading domestic producer. Mr. Moore has management responsibility for Anadarko’s U.S. and international marketing of natural gas, crude oil, natural gas liquids, and liquefied natural gas as well as commodity derivatives and market fundamentals. He has been employed in the natural gas industry for 28 years with experience in marketing, trading, logistics, commodity derivatives, economics, risk management, commercial litigation, project finance and engineering. Mr. Moore served as assistant chair of the coordinating subcommittee for the National Petroleum Council’s Prudent Development study for the U.S. Secretary of Energy. He currently serves on the board of directors of the Natural Gas Supply Association, Denver Metro Chamber of Commerce, and Junior Achievement – Rocky Mountain, Inc. He is a member and immediate past chairman of the board of directors of the Colorado Oil and Gas Association.

Mr. Moore holds a B.S. in Chemical Engineering with honors from the University of Colorado (1984) and an M.S. in Mineral Economics from the Colorado School of Mines (1988).
Robert (Bob) S. Mudge
Principal

Robert (Bob) S. Mudge
Principal

Washington
Robert.Mudge@brattle.com
Voice: +1.202.955.5050

Education
University of Chicago Graduate School of Business, M.B.A.
Harvard College, B.A.

Practice Areas
Electric Power
Financial Institutions
Regulatory Finance & Accounting
Utility Regulatory Policy & Ratemaking
Valuation

Biography
Mr. Mudge is an expert in corporate and project finance matters in the energy industry. He has advised energy clients on issues relating to corporate restructuring, contract terminations or amendments, special capital needs, and acquisitions and divestitures. He also has experience in analyzing contractual, regulatory, financing, and tax matters, and projecting effects on cash flows, earnings, and customer rates.

Prior to joining The Brattle Group, Mr. Mudge was a principal at CRA International, where he focused on financial restructuring initiatives for electric utility clients and consulted on matters involving rate design, asset valuation, and project finance structuring and credit requirements. He has provided expert testimony in proceedings before federal and state courts, utility regulators in the U.S. and Canada, and state environmental regulators, as well as in connection with mediation and arbitration proceedings.
As a former investment and commercial banker at Rothschild, ABN AMRO, and Sanwa Bank, he played a central role in developing financeable contract structures for large public and private infrastructure projects, utility mergers and acquisitions, bankruptcy restructuring, and numerous power project financings. He has also served on the advisory board of a start-up venture focused on the acquisition, development, and operation of renewable fuel generation projects and has served as a guest expert for courses on project finance at Georgetown Law School.

**Representative Engagements**

*Power plant valuation*
For an offshore investor in U.S. power markets, provided periodic reviews of capacity, ancillary service, and energy market conditions in diverse regions of the United States to support acquisition and financing due diligence.

*Conducted solicitation process for Northern Illinois Municipal Power Agency*
Conducted a solicitation process in connection with a share in the Prairie State Energy Campus coal plant held by the City of Batavia Illinois. The City’s goal was to transfer the risks and benefits associated with their share to minimize risk exposure and maximize present value. Assessed credit characteristics and pricing features associated with multiple bids.

*Testimony regarding competitive bidding process for TransCanada Energy Ltd.*
Analyzed and submitted written testimony in connection with the Competitive Process for Critical Transmission Infrastructure in Alberta, Canada. Constructed an illustrative financial model to show unintended consequences of the original RFP design that could have led to high-cost bid selection. The Alberta Electric System Operator accepted this analysis and revised the RFP rules.

**Testimony**

Stuart Murray is a Managing Director in Citigroup’s Project & Infrastructure Finance group and has over 15 years experience in structured finance, with a focus on power, energy, and renewable energy transactions and clients. Recent transactions include the Topaz Solar Farms 550 MW solar project financing, Desert Sunlight 550 MW solar project financing, the Caithness Shepherds Flat 845 MW wind farm financing and the Terra-Gen Alta Wind II-V 570 MW wind farm financing. Prior to joining Citi’s Infrastructure & Energy Finance group, Stuart was a banker in Citi’s Power & Utilities group, managing a portfolio of North American power & utility clients. Prior to joining Citi, Stuart was the Director of Corporate Finance at The AES Corporation, the global independent power producer based in Arlington, Virginia. Before joining AES, Stuart was a Vice President in Leveraged Finance at JPMorgan Chase & Co., working out of JPMorgan’s New York and London offices where he executed non-investment-grade financings in the leveraged loan and high yield bond markets. Stuart received a BA from Hamilton College in Clinton, New York and an MBA from the Tuck School at Dartmouth College, where he was named an Edward Tuck Scholar.
Amy S. Mushahwar is an experienced data privacy, security, and management attorney with more than 15 years’ experience in the technology industry in both legal and engineering capacities. She defends companies in privacy-related matters, including privacy litigation, breach of security litigation, and advises on regulatory issues involving e-commerce, including social networking sites, the use of mobile platforms in banking transactions, and PCI compliance for payment cards. Amy also assists clients in the development of integrated digital platforms, particularly those using the Internet, cloud computing, emerging payments, database APIs, and mobile technology. Amy is an editor of the American Bar Association’s *Data Security Handbook*, and authored numerous publications that have appeared in titles like *Corporate Counsel* and *Information Security Magazine*, among other publications. Amy is a magna cum laude graduate of the Catholic University, Columbus School of Law. In her spare time, Amy is on the White Hat Gala Committee to benefit Children’s National Medical Center.
Robin Nuschler
Attorney and Sole Proprietor
Robin M. Nuschler, Esq.

Ms. Nuschler is a long-time FERC attorney, with over 25 years in practice before the Federal Energy Regulatory Commission. She has been involved extensively with Order No. 1000 regional compliance efforts in the WestConnect region, and in the development of a single interregional compliance tariff common to all four transmission planning regions within the United States portion of the Western Interconnection: the California ISO, ColumbiaGrid, Northern Tier Transmission Group and WestConnect. Prior to forming her own law office, Ms. Nuschler was a partner at the law firm, Akin, Gump, Strauss, Hauer & Feld. She began her legal career as a trial attorney in the Federal Energy Regulatory Commission Office of the General Counsel. Ms. Nuschler received her law degree from Tulane University School of Law in New Orleans, Louisiana.
David Pumphrey is Co-Director and Senior Fellow in the Energy and National Security Program at the Center for Strategic and International Studies. His work focuses on energy policies and strategies that will address US security and climate change challenges, with a recent focus on the economic and geopolitical implications of unconventional oil and gas developments in the United States. Mr. Pumphrey spent more than 35 years working in the U.S. government on a wide range of domestic and international energy policy issues. In his last position he served Deputy Assistant Secretary for International Energy Cooperation at the Department of Energy. During his career Mr. Pumphrey led the development and implementation of energy policy initiatives with individual countries as well as multilateral energy organizations. He was responsible for policy engagement with numerous key energy producing and consuming countries including China, India, Canada, Mexico, Russia, Saudi Arabia and the European Union. Mr. Pumphrey represented the US Government in various committees of the International Energy Agency and the Energy Working Group of the Asia Pacific Economic Cooperation. Mr. Pumphrey also represented the Department of Energy in the negotiations of the energy related sections of the U.S-Canada Free Trade Agreement and the North American Free Trade Agreement. Mr. Pumphrey received a Bachelor’s Degree in Economics from Duke University and a Master’s Degree in Economics George Mason University. He speaks extensively on energy issues including testifying before Congress.
Janice Radel is an Energy Industry Analyst in the Office of Administrative Litigation at the Federal Energy Regulatory Commission. Ms. Radel received a Bachelor of Science degree in Economics from Frostburg State University in 2002. She has over a decade of experience working on gas pipeline rate cases at the Commission. Ms. Radel has been involved in negotiating and settling over 60 dockets involving natural gas and oil pipeline companies and electric utilities. She prepared and filed written testimony in 18 different hearing proceedings before the FERC and testified as an expert witness in ten formal hearings before an Administrative Law Judge. Ms. Radel’s area of natural gas ratemaking expertise is primarily in allocation and rate design. Specific areas testified to include demand determinants and commodity throughput, fuel tracker methodologies, pipelines at-risk conditions, pipeline capacity level, re-functionalization between gathering and production facilities, revenue credits, discount adjustments and other general rate design issues.
John A. Roscher Bio

John is currently the Director of Rates and Tariffs in TransCanada’s Houston office. John and his department are responsible for nine (9) FERC-jurisdictional pipelines, two (2) FERC-jurisdictional storage facilities, and four (4) existing and planned pipelines in Mexico under the jurisdiction of the CRE. John joined TransCanada in 2004 when TransCanada acquired a number of U.S. pipelines including Gas Transmission Northwest in Portland, OR, where John had been employed since 1995. John started his industry career as a FERC co-op student from Penn State in 1984. While at FERC, John spent the majority of his time working in the Allocation and Rate Design Branch under both Adrian Moorhead and Wayne Guest.

John holds a Master of Business Administration degree from Portland State University and a Bachelor of Science degree in Mineral Economics from Penn State. John is a Program Director with New Mexico State University’s Center for Public Utilities, and instructs a component of The Basics of Natural Gas Pipeline Ratemaking Course held annually in Albuquerque, NM.
Bio Of Steven Schleimer

Mr. Schleimer is currently Vice President of Governmental and Regulatory Affairs for Calpine, and has significant experience in the Mid-Atlantic, Northeast, and Western Markets. From 2010-present, Mr. Schleimer has managed Calpine’s presence in ISO, state regulatory, and legislative efforts on the East Coast. From 2000-2006, Mr. Schleimer managed Calpine’s presence in ISO, state regulatory and legislative efforts on the West Coast.

From 2006-2010, Mr. Schleimer worked in the Governmental Affairs group for Barclays Capital in New York where he was responsible for providing coverage of regulatory and legislative activities associated with energy and emissions market developments in the US.

Mr. Schleimer started his career at Pacific Gas and Electric Company, where he worked for 12 years in various roles related to wholesale market restructuring, including active participation in the design and formation of both the CAISO and CalPX, as well as development and implementation of PG&E’s initial long-term electricity procurement process.

Mr. Schleimer has published numerous articles and provided a significant amount of oral and written testimony before federal and state regulatory agencies, as well as the California state legislature. He received a masters degree in Economics from the University of California at Santa Cruz and a bachelors degree in Economics, with highest honors, also from the University of California at Santa Cruz.
Phil Sharp is president of Resources for the Future. Previously, he served in the US House of Representatives, on the faculty of Harvard University’s Kennedy School of Government, and as director of the university’s Institute of Politics. During his congressional tenure from 1975 to 1995, he was deeply involved in energy and environmental issues, playing a major role in the passage of the 1990 Clean Air Act Amendments and the Energy Policy Act of 1992.

Sharp currently serves on the board of directors of Duke Energy and the Energy Foundation, as well as on the External Advisory Board of the MIT Energy Initiative. He was a member of the Blue Ribbon Commission on America’s Nuclear Future and The National Academies’ Committee on America’s Climate Choices. In addition, he was congressional chair of the National Commission on Energy Policy and vice chair for policy of the National Petroleum Council’s Prudent Development study. Sharp has a PhD in government from Georgetown University.
David G. Shuford
Vice President – Policy and Business Evaluation, Alternative Energy Solutions

David G. Shuford is vice president – Policy and Business Evaluation, Alternative Energy Solutions.

Shuford joined Dominion in 2003 as vice president-Regulation from the Richmond law firm LeClair Ryan, where he was a partner on the Business Litigation and Administrative Law & Government Relations teams. He was named vice president-State Regulation in January 2006, and was named deputy general counsel and executive advisor-State & Federal Affairs in July 2009. He assumed his current position in July 2011.

Before joining LeClair Ryan in 1994, he was a partner at Mays & Valentine (now Troutman Sanders) in Richmond and served as law clerk to U.S. District Judge Robert R. Merhige Jr.

Shuford is a past chairman of the Virginia Bar Association’s Civil Litigation Section; a member of the board of directors of the Richmond Bar Association, and has been recognized by Virginia Business magazine as among Virginia’s “Legal Elite” in the fields of civil litigation and lobbying.

He was a member of the State Council of Higher Education for Virginia from 2000 to 2002, and currently serves on the boards of directors of St. Andrew’s School and The Commonwealth Club.

Born in Richmond, Shuford received his bachelor’s degree from the University of North Carolina at Chapel Hill and his J.D. from the University of Virginia School of Law.

September 2012
Adam Sieminski was sworn in on June 4, 2012, as the eighth administrator of the U.S. Energy Information Administration (EIA). EIA is responsible for collecting, analyzing, and disseminating independent and impartial energy information to promote sound policy-making, efficient markets, and public understanding of energy and its interaction with the economy and the environment. EIA also prepares analyses and special reports on topics of current interest.

From March 2012 to May 2012, while awaiting confirmation as EIA administrator, Mr. Sieminski served as senior director for energy and environment on the staff of the National Security Council. From 1998 until March 2012, he served as a senior energy analyst for Deutsche Bank, working with the Bank’s global research and trading units. Drawing on extensive industry, government, and academic sources, Mr. Sieminski forecasted energy market trends and wrote on a variety of topics involving energy economics, climate change, geopolitics, and commodity prices.

Mr. Sieminski has served in leadership positions for the International Association for Energy Economics and the affiliated U.S. Association for Energy Economics. He also has acted as a senior adviser to the Energy and National Security Program at the Center for Strategic and International Studies, a nonpartisan policy think tank in Washington. In 2006, Secretary of Energy Samuel Bodman appointed Mr. Sieminski as a member of the National Petroleum Council (NPC), an industry-government advisory group to the U.S. Secretary of Energy.

He is a member of the Washington, D.C., investment professional society, and holds the Chartered Financial Analyst (CFA) designation. He received both an undergraduate degree in civil engineering and a master’s degree in public administration from Cornell University.
Carrie Simpson manages operations policy and support for Southwest Power Pool’s (SPP) real-time markets. She provides SPP members, staff, and stakeholders with subject matter expertise on the Energy Imbalance Service (EIS) Market and the new Integrated Marketplace. In her four and a half years at SPP, Simpson has been heavily involved in the development of the Integrated Marketplace rules, system requirements and design, as well as management of the implementation. Currently, Simpson leads a group of engineers and analysts in Operations responsible for validating the Marketplace software, proposing market design enhancements, and integrating new participants into the SPP footprint. In a previous role, as a member of SPP’s Market Design team, Simpson served as the Market Working Group SPP Staff Secretary and facilitated the stakeholder process for Market protocol development and the corresponding FERC Tariff filings.

Simpson earned a Bachelor of Arts degree from Harvard University, where she was also a member of the women’s basketball team. Since joining the electricity industry in 2001, she has developed a diverse skillset. She started as a real-time trader at Enron and then worked for Sempra Energy Trading as an energy marketer focused on the Midwest and non-ISO/RTO trading regions. After a three year hiatus, during which she worked as a public high school social studies teacher and basketball coach, Simpson returned to the energy industry in 2006 at Empire District Electric Company (EDE) where she was responsible for developing revenue and demand forecasts. Also at EDE, Simpson worked in the supply management group managing the company’s resource and load portfolio on a day-ahead basis. Simpson joined SPP in 2009 as an operations trainer, combining her teaching and industry background, focused on developing market curriculum and training NERC standards to operators and SPP members before moving to the Market Design team and later to her current position.
Holly Rachel Smith is the Assistant General Counsel of the National Association of Regulatory Utility Commissioners (“NARUC”). She is responsible for NARUC’s legal relations on energy matters before the Federal Energy Regulatory Commission, the Department of Energy, the Environmental Protection Agency and the federal courts.

Previously, Ms. Smith managed a law firm serving Fortune 100 companies and State government agency clients with regard to energy and telecommunications law and policy. In this role, Ms. Smith assisted clients, including one of the nation’s largest private energy consumers, with development and promotion of policies that enable energy customers to reduce energy costs and maximize investments in renewable, Demand Side Management and Demand Response technologies. She represented clients in more than 50 rate case and energy policy proceedings before 23 State commissions. Ms. Smith also directed State and federal legislative strategies that dovetailed her regulatory advocacy.

Ms. Smith developed extensive experience in federal and State telecommunication and energy regulatory issues while working for six years in Washington, D.C. at several large law firms, including Hogan & Hartson LLP and Preston Gates Ellis & Rouvelas Meeds. Ms. Smith earned her Juris Doctorate from the University of Oregon School of Law in 1999. She also holds a Masters of Public Policy from the College of William and Mary, and a Bachelor of Arts (Economics) from the University of Colorado at Boulder. Ms. Smith currently chairs the State Commission Practice and Regulation Committee of the Energy Bar Association. She also recently served as a State government sector representative to the Membership Representative Committee of the North American Electric Reliability Corporation (NERC).
Sandi Snodgrass is a partner in the Denver office of Holland & Hart LLP. She helps natural resource developers, pipeline companies, traditional and renewable energy companies, and other clients successfully navigate the complex federal environmental review and permitting processes for a variety of proposed projects. Her extensive experience includes National Environmental Policy Act compliance and litigation; Endangered Species Act Section 7 consultation, Section 10 habitat conservation plans and incidental take permits, candidate conservation agreements, species listing issues, and litigation; development of avian and bat protection plans and bird and bat conservation strategies under the Migratory Bird Treaty Act; Bald and Golden Eagle Act permitting issues; Clean Water Act Section 404 permits; National Historic Preservation Act Section 106 consultation; right-of-way grants under the Federal Land Policy and Management Act and Mineral Leasing Act; voluntary conservation agreements; and certificates of public convenience and necessity under the Natural Gas Act. Ms. Snodgrass joined Holland & Hart in 1999 after graduating from Northwestern University School of Law.
Joan P. Sullivan

**Education**
- JD, 1987, St. John’s University School of Law
- BA, 1984, State University of New York at Oswego

**Admissions to Practice**
- New York State Bar
- United States District Court
  - Northern District of New York
  - Southern District of New York

**Legal Practice**
Ms. Sullivan is a member of the law firm of Harris Beach and practices with the Government Compliance and Investigations Practice Group. She also serves on the Energy and Telecommunications Team. Ms. Sullivan advises clients on matters related to corporate compliance, government investigations and federal and state actions. For example, Ms. Sullivan represented a major public utility under investigation by various regulators such as the New York State Public Service Commission, New York Office of Inspector General and New York Office of the Attorney General. Additionally, she has represented clients before a gubernatorial investigative committee on storm preparedness and conducts ethics training to energy clients on topics such as compliance with state ethics and lobbying laws.

Prior to joining Harris Beach, Ms. Sullivan served as associate counsel to the New York State Commission on Public Integrity (formerly the New York State Ethics Commission and New York Temporary State Commission on Lobbying). In this capacity, she authored formal and informal advisory opinions on a range of issues to executive branch public officials and employees interpreting New York State Public Officers Law. Ms. Sullivan also provided legal ethics training to state agency executive level employees, commissioners and other attorneys, and investigated the conduct of elected and appointed public officials and executive branch employees for possible violations of the ethics and integrity laws.

Prior to her service with the New York State Commission on Public Integrity, Ms. Sullivan served as an Assistant District Attorney in the Office of the New York County District Attorney, Robert Morgenthau, in the Special Prosecution Bureau, where she supervised criminal investigations of white collar criminals and presented cases to the grand jury. She also served in the Appeals Bureau, where she prepared briefs and presented oral arguments to the New York State Appellate Division, and the New York State Court of Appeals. Ms. Sullivan began her legal career with Mendes and Mount, a New York City law firm, where she focused on medical malpractice defense and accountants’ liability litigations on behalf of Lloyds’ of London, the international insurance syndicate.

**Professional and Community Activities**
Ms. Sullivan is a member of the New York State Bar Association and a member of the Hogan-Morgenthau Society. Ms. Sullivan is a former member of the Council on Governmental Ethics Laws. She has authored articles on ethics in government for the *New York Law Journal* and the *New York State Bar Association Journal*, and regularly appears as a member of continuing legal education panels.
Wendy K. Tatro

Ms. Tatro is Corporate Counsel for Ameren Corporation, the parent company of Ameren Missouri, Ameren Illinois and related entities. Collectively, Ameren serves 2.4 million electricity and 900,000 natural gas retail customers. Ameren is headquartered in St. Louis, Missouri.

Ms. Tatro has worked for Ameren since 2005 and her legal practice is primarily before the Missouri Public Service Commission, the state agency responsible for the oversight of public utility services and rates. She frequently appears as hearing counsel on a variety of matters related to tariffs, integrated resource planning, compliance issues related to Missouri's renewable energy standard, energy efficiency and rate cases. Recently, Ms. Tatro was lead counsel in a case that was successful in getting Commission approval of the largest energy efficiency program in the state of Missouri under the state's new energy efficiency statute – the Missouri Energy Efficiency Investment Act.

She is a graduate of Washburn University in Topeka, Kansas with a degree in Business Administration and of the University of Kansas School of Law. Ms. Tatro has previously served as Assistant General Counsel for the Kansas Corporation Commission, focusing in electricity and natural gas, and has practiced law privately in Lawrence, Kansas.

Ms. Tatro resides in Webster Groves, Missouri with her husband and two daughters.
Jeffrey M. Taylor

Jeffrey M. Taylor is the Associate General Counsel in the Office of the Corporate Secretary at Pepco Holdings, Inc. (PHI). Headquartered in Washington, D.C., PHI is one of the largest energy delivery companies in the mid-Atlantic region, serving approximately 2 million electricity and natural gas customers in Delaware, the District of Columbia, Maryland and New Jersey. In this role, Mr. Taylor is responsible for all aspects of PHI’s securities and corporate law compliance, including: the preparation of SEC filings and other public disclosures; corporate governance matters; conducting debt and equity financings and loan transactions; executive compensation and employee benefits matters; compliance with New York Stock Exchange requirements; and general corporate law and day-to-day business matters. Mr. Taylor also serves as a counselor and legal advisor to a number of operating and business units within PHI, including the Board of Directors, Accounting, Treasury, Corporate Communications, Human Resources, Investor Relations and Shareholder Services.

Prior to joining PHI in 2011, Mr. Taylor devoted over 17 years of private practice to the representation public and private clients in a wide array of industries, in securities, mergers and acquisitions, corporate finance and capital raising, corporate governance, executive compensation and business and corporate law matters. Most recently, Mr. Taylor was a partner in the Public Companies and Capital Formation practice group in the Philadelphia office of Blank Rome LLP. Prior to joining Blank Rome, Mr. Taylor practiced with “Top 10” law firms in both Atlanta, Georgia and West Palm Beach, Florida.

Mr. Taylor is a member of the advisory board of the Middle Atlantic Chapter of the Society of Corporate Secretaries and Governance Professionals, and served as the chapter’s President from May 2010 to May 2011. Mr. Taylor was also Vice/Co-Chair of the Securities Regulation Committee of the Business Law Section of the Philadelphia Bar Association from May 2009 to July 2011. Mr. Taylor is actively committed to the legal representation of those in need, and has been the recipient of several awards for his significant and longstanding pro bono legal service. Mr. Taylor is a member of the American Bar Association and the Energy Bar Association, and is licensed to practice in the District of Columbia, Florida, Georgia and Pennsylvania.

Mr. Taylor received his Bachelor of Arts degree in Political Science from Northwestern University in Evanston, Illinois, and earned his Juris Doctor, with honors, from the University of Florida College of Law, in Gainesville, Florida.
Matthew Wald  
New York Times

Matthew L. Wald is a reporter in the Washington bureau of The New York Times, where he writes about energy and the environment, and transportation safety. Reporting for The Times since 1976, Mr. Wald has covered some of the most interesting issues facing the energy industry to date. He has written extensively about nuclear power and the manufacture of nuclear weapons materials, and has been particularly interested in civilian nuclear power since the Three Mile Island accident. In the 1980's and 1990's he wrote extensively about the production of materials for nuclear weapons, and the resulting environmental problems. He has also written about oil refining, alternative fuels including biofuels, oil and natural gas production, oil spills including the Exxon Valdez and the oil fires set by the Iraqis in Kuwait at the end of the first gulf war. Mr. Wald also covers cutting edge technologies such as energy storage technologies, smart grid and transmission, wind energy and solar energy. Come hear Mr. Wald’s perspective on how energy reporting contributes to and helps shape public opinion.
Noman L. Williams is vice president, transmission policy for Sunflower Electric Power Corporation. Sunflower operates the generation and transmission systems of Sunflower and Mid-Kansas Electric Company, LLC, serving directly or indirectly approximately 400,000 rural and small municipal consumers in 55 counties in central and western Kansas. Williams is chair of the Southwest Power Pool, Inc., Transmission Working Group; Vice Chair of the SPP Market Operations Policy Committee; on the SPP Members Committee; and is an SPP representative on the NERC Planning Committee. Williams has been active in transmission policy matters for many years, speaking on behalf of rural transmission-owning utilities facing the challenges of interconnecting and integrating the nation’s vast variable energy resources that often locate on such systems. He joined Sunflower as a transmission engineer in 1988 and has served in various engineering, management, and executive positions in the areas of transmission planning, engineering, system operations, transmission operations and maintenance. In 1981, Noman graduated from Washington State University, earning a bachelor of science degree in electrical engineering and a minor in economics. In 2004, he completed a master's degree in business administration from Colorado State University.
Jeff Wright joined the Commission in 1979 and served as project manager on many applications to site natural gas facilities. Currently, he is the Director of the Office of Energy Projects at the Federal Energy Regulatory Commission and has been a member of the Office of Energy Projects since its inception in 2000. This Office is responsible for the processing of applications for the construction and operation of natural gas pipelines and storage facilities; the siting and safety of liquefied natural gas terminals; and the licensing, safety, and administration of non-federal hydroelectric projects. Mr. Wright received a B.A. in Economics from the College of William and Mary and a M.B.A. from the University of Maryland.
Commissioner Thomas E. Wright - Biography

Thomas E. Wright was appointed to the Kansas Corporation Commission by Governor Kathleen Sebelius on May 23, 2007. Wright was appointed for a second term by Governor Mark Parkinson on January 8, 2010.

Wright served as Chair of the Governor's Gaming Committee and of the Consolidation Commission of Topeka-Shawnee County in 2005. He was Chair of the Washburn Board of Regents from 1986 to 1988, beginning as a Board Member in 1982. Throughout his career, he has taught classes at Washburn University Law School and in the NITA program at Loyola Law School in Chicago. He is a member of Regulatory Utility Commissioners (NARUC) Committee on International Relations and Committee on Electricity.

He additionally serves as the Kansas delegate to the Eastern Interconnection States Planning Council and the Southwest Power Pool.

Wright was elected President of the Kansas Bar Association (KBA) beginning June of 2008. He was a member of the Board of Governors for the KBA from 1998 to 2005. He served on the KBA Committee on Prevention of Legal Malpractice and chaired the Legislative Committee. He was on the Civil Justice Reform Advisory Group of the Federal Court from 1992 to 1998 and the Federal Bench/Bar Committee from 1990 to 1998. Wright also served on the Kansas Supreme Court Nominating Committee from 1995 to 2003.

Wright, earned a degree in mathematics from Wichita State University in 1961. He graduated from Washburn University School of Law in 1964 and earned a Bachelor of Arts degree in German from Washburn University in 1979.

Wright and his wife, Carole, have two grown children and five grandchildren. They reside in Topeka.

Commissioner Wright's term will expire March 15, 2014.