

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS PUBLIC
UTILITIES COMMISSION**

IN RE: REVIEW OF AMENDED
POWER PURCHASE AGREEMENT
BETWEEN NARRAGANSETT
ELECTRIC COMPANY D/B/A
NATIONAL GRID AND
DEEPWATER WIND BLOCK
ISLAND, LLC PURSUANT TO R.I.
GEN.LAWS § 39-26.1-7

DOCKET NO. 4185

**FILING OF OCEAN STATE POLICY RESEARCH INSTITUTE IN
REGARD TO THE COMMISSION'S REQUIREMENT FOR THE
IDENTIFICATION OF WITNESSES, THE SUPPLY OF CVs, AND THE
PROVISION OF A SHORT STATEMENT OF THE SCOPE AND
SUBJECT OF THE WITNESS' TESTIMONY, REFERRING TO THE
PORTION OF THE LAW TO WHICH THE TESTIMONY APPLIES**

Pursuant to the Procedural Schedule issued July 9, 2010, in this proceeding, Ocean State Policy Research Institute and its Founders Project ("OSPRI" hereinafter) respectfully submits that its witness will be Mark B. Lively, a registered Professional Engineer in the District of Columbia. His CV is attached as OSPRI Exhibit 1.

Mr. Lively will testify on the issues raised in Section 1 (c) (iii) of Section 39-26.1-7 of the General Laws entitled "Long- Term Contracting Standard for Renewable Energy" as amended by an act RELATING TO PUBLIC UTILITIES AND CARRIERS -- CONTRACTING STANDARD FOR RENEWABLE ENERGY, introduced by Senators Sosnowski, Miller, Felag, Ruggerio, and McCaffrey on April 28, 2010, which reads

(iii) The amended agreement is likely to provide economic development benefits, including: facilitating new and existing business expansion and the creation of new renewable energy jobs; the further development of Quonset Business Park; and, increasing the training and preparedness of the Rhode Island workforce to support renewable energy projects

R.I. Gen. Laws §39-26.1-7 (amended)

Mr. Lively will testify that the amended agreement is likely to stifle long term economic development in the State of Rhode Island, including a stifling of new and existing business expansion. The amended agreement will lead to an overall job erosion in the whole State of Rhode Island that will more than offset any local benefits that might be associated with the Quonset Business Park or the training of the Rhode Island workforce in regard to its support of renewable energy projects.

Mr. Lively's testimony will be based on the excessive cost of the amended agreement relative to other sources of power that are available to Narragansett Electric Company and the effect that such excessive cost will have on the Rhode Island economy, taking out of the economy money that would otherwise be able to provide economic development benefits in the future. The excessive cost of the amended agreement will take money out of the economy causing a loss of jobs in the future that will be much greater than any transitory job creation that might occur as the result of building the Block Island project.

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CAREER SUMMARY

A leading consultant in innovative rate design for independent power producers and the real-time pricing of electricity, with 30 years of experience in the electric and gas arenas. Extensive experience in traditional rate design and class cost of service analysis.

PROFESSIONAL EXPERIENCE

1992 **INDEPENDENT CONSULTANT, Gaithersburg, Md.**
to Services include investigating financial issues involving electric, gas, and steam utilities, and designing
Current methods that appropriately address the relevant issues

The Alberta Utility Consumer Advocate-2006-2009

Analyzed utility pricing issues, generally in regard to regulatory proceedings. Testified before on the allocation of electrical losses in the 2006 Fortis Alberta proceeding and on the allocation of costs and design of rates in the 2007 rate cases of AltaGas Utilities and of Atco Electric. This work was in support of Energy Group, Inc.

U.S. Department of Energy

Reviewed grant applications under the American Recovery & Reinvestment Act in regard to investments to further the concept of the Smart Grid.

The McGraw-Hill Companies -1995 to 1996, 2006 to 2007

Analyzed materials filed in Postal Rate Commission dockets in which the U.S. Postal Service sought to change the relative prices paid by its various classes of customers. This work was in support of the law firms of Squire, Sanders, & Dempsey (1995 to 1996) and of Hall, Estill, Hardwick, Gable, Golden & Nelson (2006 to 2007).

Oklahoma State University-2006

Developed and gave a presentation on "The Economics of Reliability" at the *37th Energy Information Dissemination Program: Electric Utility Economics And Markets*.

New Zealand Center for Advanced Engineering-2006

Developed and gave a presentation to the New Zealand Association of Electricity Engineers on the topic of "DG and the Consequences for New Zealand's Power System."

New Zealand Electricity Commission-2006

Developed and gave a presentation for the Commission staff, commission consultants, and the TransPower control room personnel on "Innovative Rate Design & Real-Time Pricing as Applied to Frequency Keeping Services."

City of Calgary, Alberta, Canada - 2001 to 2004

Collected data to support the positions advocated by the City of Calgary and its witnesses in rate cases involving utilities serving the City and its citizens. Most recently developed alternative class cost of service study and stood for cross examination in May 2004 in Alb. EUB Application 1315997, ATCO Pipelines, GRA Phase II. This work was in support of Energy Group, Inc.

Joint Supporters – 2002 to 2004

Assisted this ad hoc group of distributed generation developers and owners in their intervention in rates cases in New York (ConEd/Orange&Rockland, NYSEG, and RG&E) and Massachusetts (NSTAR Electric companies) presenting testimony on real time pricing of standby services and of reactive power. Most recently stood for cross examination in Mass. DTE 03-121 in May 2004.

Real Time Pricing of Electricity and Natural Gas - Continuing Research

Invented the dynamic, market clearing pricing mechanism **WOLF** (**W**ide **O**pen **L**oad **F**ollowing). WOLF dynamically changes prices in response to the current imbalance between supply and demand as indicated by the calculus of system frequency. Arctic WOLF dynamically changes prices in response to the imbalances as indicated by conditions such as pressure. (See list of papers in the Bibliography at the end of this document.)

Enbridge Gas Distribution - 1992 to 2004

Developed economic analysis of the employment effect associated with the cost of moving Enbridge affiliate Niagara Gas Pipeline from existing Three Nations Bridge, as reported in *Watertown Daily Times*, 2003 December 17 and 2004 May 25. Produced class cost of service studies and advised on rate design in regard to a series of rate case filings with the New York Public Service Commission on behalf of Enbridge affiliate St. Lawrence Gas. For the February 1997 filing, prepared and defended on cross examination testimony on the separation of costs between utility and non-utility operations and attacked the New York presumption that non-utility operations should be charged a royalty.

Insulation Contractors Association of America – 2003

Produced a report on the economic effect of proposed Federal Trade Commission rule on blown insulation for filing with the FTC.

Sultan Qaboos University, Muscat, Oman -- 2003

Was the principle presenter at a workshop on electric industry restructuring for managers at the Oman Water and Power Authority.

Columbia Gas System - 1986 to 2002

Assisted Columbia Gas of Virginia and its predecessors Commonwealth Gas Services and Lynchburg Gas Company in a series of rate cases. Services included

- Development of Synthetic Load Research, a concept that uses historic monthly meter readings to estimate daily consumption for each retail gas consumer as part of daily balancing requirements.
- Analysis of Performance Based Regulation under new state statute.
- Service survey of customers and employees to determine implications for rate design and terms and conditions of service when three subsidiaries were being consolidated.
- Prepared and defended cost of service and rate design testimony for Lynchburg Gas Company (prior to its purchase by Columbia.)

IEEE Venezuela/University Simon Bolivar -- 2001

Presented a three-day seminar on electricity deregulation and the creation of a competitive market for electricity, with emphasis on the issues identified in the California experience of 1999-2001.

Midwest Independent System Operator – 2000 to 2001

Created and analyzed methods to allocate transmission wheeling revenue among transmission owning members of an ISO, including ways to use inadvertent interchange as a means to create a more nearly competitive market for participants.

Washington Gas Light - 1998 to 1999

Developed compliance plan for filing with the Virginia State Corporation Commission to meet the requirement for daily balancing under the Company's retail choice plan. The plan was a modification of the plan previously accepted by the Virginia SCC as presented by another gas utility.

Pennsylvania Office of Consumer Advocate - 1999

Wrote comments for the agency, which was joined by the Ohio Office of Consumers Counsel, that advocated in RM98-10-000 and RM98-12-000 that the FERC investigate an auction of gas imbalances instead of an auction of available pipeline capacity.

D.C. Office of People's Counsel - 1996 to 1999

Analyzed and prepared comments on the Potomac Electric Power Company restructuring proposal in Formal Case 945. Testified before the D.C. Public Service Commission in Formal Case 951, the merger application between PEPCO and Baltimore Gas & Electric Company. The testimony dealt with the estimated savings that the applicants can achieve as a result of the merger. My adjustments to the savings were the only ones accepted by the Commission.

California Independent System Operator - 1998

Developed a plan to unbundle the Grid Management Charge, the self-funding mechanism for this operator of the California electricity transmission grid.

Tampa Electric Company - 1992 to 1997

Developed rate designs to be used in a retail rate filing, including new proposals for standby sales to cogenerators, for low load-factor commercial customers, and for handling the reactive component of sales to large customers. Provided additional subsequent assistance in the investigation of bulk power contracts and standby rates.

International Law Institute - 1996 to 2001

Prepared and presented portions of courses on innovative electricity rates to a class of 12 Russians and to mixed classes from various countries overseas.

United States Agency for International Development (U.S. Aid) - 1996

As a subcontractor to Hagler Bailly Consulting, Inc., developed a dynamic pricing proposal for a market clearing power pool for the Republic of Kazakhstan (formerly the Kazak Soviet Socialist Republic.) The project included five weeks in Almaty and a review of the extensive interties between Kazakhstan and the other former Soviet republics. The extent of inadvertent interchange and parallel path flow led to the dynamic pricing proposal.

Port of Seattle (Operator of Seattle/Tacoma Airport) - 1994 to 1996

Developed procedures to lower the Port's cost of electricity. In a Puget Sound Power & Light case before the Federal Energy Regulatory Commission, invented alternative cost allocation procedures for use in settlement offers. Settlement amount for the Port of Seattle was an increase of approximately 60% of the increase allocated to other wholesale customers, and was supported by FERC Staff. Created analytic framework for evaluating competitive bids to replace Puget Sound as the principal supplier of electricity.

Air Liquide America Corporation -1995 to 1996

Translated complex electric utility tariffs into linear input for optimization model that will dispatch several air separation units that are interconnected by industrial gas pipelines in Texas and Louisiana. Conventional electric tariffs with time of use pricing, demand charges, blocked energy rates, and nominated amounts needed to be changed into the one-dimensional structure of the dispatch model.

C.C. Pace Resources -1994 to 1995

Provided insights into the growing market for electric power for clients seeking to expand gas sales to existing Independent Power Producers, for foreign governments seeking to increase the competitive forces within their countries, for IPPs seeking to sell excess generation to non-conventional markets, and for industrial consumers seeking lower cost power.

Houston Lighting & Power Company - 1993

Prepared and defended rebuttal testimony relative to the allegations of Destec Energy, Inc., in HL&P's Avoided Cost proceeding. HL&P had proposed updating the data being used in the Committed Unit Basis. (See Texas Study Group on Cogeneration, *infra*.) Destec Energy, Inc. was concerned about the implications for prices relevant to a possible renewal of Dow cogeneration contract. (See Dow Chemical Company, also *infra*.) Mr. Lively successfully rebutted the Destec proposals, including those that were submitted by the co-developers of the Committed Unit Basis.

United States Department of Energy - 1992 to 1993

Created discussion materials on issues affecting the economic viability of the next generation of nuclear power plants in the U.S. Issues included how changing financial, accounting, regulatory, and tax policies could influence the decision to build nuclear power plants versus coal or gas fired power plants. Developed the evaluation concept of determining the effect of an issue on the breakeven load factor of alternative generating technologies.

United States Agency for International Development (U.S. Aid) - 1992

As a subcontractor to RCG/Hagler, Bailly, Inc. (now Hagler Bailly Consulting, Inc.), participated in its *Electric Power Contracting and Pricing Program* of 9/10 December 1992 in Riga, Latvia. Prepared three papers including "Dynamic Pricing for Wholesale Power Transactions in the Baltic Countries," which described how to establish a market driven energy oasis in the former Soviet Union.

Maryland Public Service Commission - 1993

Participated in the review of the gas purchasing practices of Delmarva Power & Light on behalf of its electric generation operations. Suggested reformatting of the methods used to project gas volumes that should be purchased under the various options available to Delmarva. Investigated the implications of natural gas pipeline ratable take provisions for a gas peaking turbine.

The World Bank - 1992

Participated in energy sector mission to Ashkhabad, Turkmenistan to gather information on the electricity sector and Turkmenistan's ability to generate sufficient revenue domestically and internationally to finance construction projects.

Arcadian Fertilizer, L.P. - 1985 to 1995

Assisted in the review of Southern Natural Gas Company rate cases for this large producer of ammonia-based fertilizer (including its predecessor Columbia Nitrogen Corporation). Developed theories that supported unbundling the costs of storage and transportation and compression by others. Prepared data necessary to implement the theories in the design of costing programs and rates.

Algonquin Customer Group 1993

Assisted in the review of the volume projects of Algonquin Gas Transmission Company. Work included data development, testimony preparation and response to interrogatories. This work was in support of the law firm of Schiff Hardin & Waite.

1976 **ERNST & YOUNG UTILITIES CONSULTING, Washington, DC**
to Multi-office practice specializing in electric, gas, and telecommunications consulting. Successor to Ernst
1991 & Ernst Washington Utilities Group and Ernst & Whinney Utilities Group.

Texas Study Group on Cogeneration - 1984

Participated in the development of the Committed Unit Basis (CUB) for pricing long-term contracts between independent power producers and electric utilities. Was responsible for achieving recognition of the effects of inflation in the design of annual carrying charge rates.

- CUB adopted by name in the rules of the Public Utilities Commission of Texas.
- CUB formula used in tariffs of Florida Power & Light Company
- CUB used for contracts covering over \$3 Billion worth of electricity.

Arkla, Inc. - 1983 to 1986

Assisted in rate design studies and application for both pipeline and distribution activities. Investigated alternatives available to the pipeline in the area of unbundled services, including the market position that could be achieved by strategic bundling of services. Options presented to management included zonal boundaries and dynamic pricing of gas imbalances based on the concurrent operation of Arkla's storage facilities. Prepared class cost of service testimony for presentation in Kansas, in a case that settled during the hearing process.

Dow Chemical Company - 1984 to 1985

Devised concept that won a 10-year cogeneration contract worth \$140 million annually to supply electricity to Houston Lighting & Power against competitors seeking to supply the same power.

- Monetized Dow's intangible benefits to HL&P at approximately \$12 million per year with no additional expense to Dow.
- Developed real-time mechanism for pricing supplemental power Dow could provide during electric system emergencies.

Procter & Gamble Paper Products Company - 1987 to 1989

Negotiated the first cogeneration sales contract in the State of Wisconsin with Wisconsin Public Service Company. Procter & Gamble subsequently decided not to fund the project.

- Introduced Staff of the Public Service Commission of Wisconsin to CUB and won its conceptual acceptance.
- Led team that analyzed gas transportation proposals to WPS for new line to project.

Texas-New Mexico Power Company - 1986 to 1987

Developed economic analysis that resulted in TNP winning the first Certificate of Convenience and Necessity issued by the PUCT to any utility in the State of Texas.

- Projected the wholesale rates of supplying utilities and stood for cross examination.
- Rebutted effectively the economic analysis prepared and presented by Houston Lighting & Power.
- Defused the issue of competing cogeneration by effective interaction with the PUCT hearing examiner.

Reynolds Metals Company - 1977 to 1982

Analyzed annual rate filings of Arkansas Power & Light Company for cost allocation issues affecting Reynolds. Negotiated with AP&L for adjustments to Reynolds' rates to reflect corrections or filed testimony and stood for cross examination.

- Identified an allocation error in 1977 that AP&L accepted and adopted in its compliance filing, reducing Reynolds' annual bill by \$4 million.
- Discovered a tax error in 1979, prepared pre-filed testimony, and stood for cross examination. Prior to a commission decision, AP&L filed next rate case using my method and saving Reynolds \$5 million a year.

1971 **AMERICAN ELECTRIC POWER SERVICE CORPORATION, New York City**

to Engineering and management arm for seven electric utilities operating in the U.S. Midwest, from Lake Michigan to Virginia.

Rate Department - 1973 to 1976

Controllers Staff - 1971 to 1973

OTHER EXPERIENCE

Boston Financial Technology Group , Boston, Massachusetts	1971
Louisville & Nashville Railway , Louisville, Kentucky	1970
Kentucky Power Company , Ashland, Kentucky	1969
Ashland Oil & Refining , Ashland, Kentucky	1966

EDUCATION

M.S., Industrial Management, Massachusetts Institute of Technology, 1971.

B.S., Electrical Engineering, Massachusetts Institute of Technology, 1969.

PROFESSIONAL ORGANIZATIONS

Institute of Electrical and Electronics Engineers.

- Member-Energy Policy Committee, 1983-

Sigma Xi, The Scientific Research Society, 1969-

MIT Club of Washington, D.C., Inc.

- Treasurer, 1988-1995, 1999-2000
- Second Vice President, 1995-1998
- First Vice President, 1998-1999

PUBLISHED ARTICLES AND/OR SPEECHES

"Tie Riding Freeloaders--The True Impediment to Transmission Access," *Public Utilities Fortnightly*, 1989 December 21.

"Parallel Path Flow Profiteering -- Is It Justification for Ending the Free Lunch on Unscheduled Power Flows?" *Mid-Continent Area Power Pool Fall Operating Committee Meeting*, Brainerd, Minnesota, 1990 August 29-31; and, *Southeastern Electric Reliability Council Fall Operating Conference*, Asheville, North Carolina, 1990 October 10-11.

"Parallel Flows -- The Contract Not Signed," *Transmission and Wheeling Conference*, Denver, Colorado, 1990 November 8-9.

"The 'WOLF' Howls at Competition," *Public Utilities Fortnightly*, 1991 March 1.

"Paying for Private Power -- Some Alternatives to Public Funding," *International Power Generation Conference*, San Diego, California, 1991 October 6-10.

"Real-Time Pricing of Electricity," *Southeastern Electric Exchange Rate Section Meeting*, Orlando, Florida, 1991 October 23-25.

"The Next Generation of Nuclear Plants: Can Rate Structure Changes Enhance Community Acceptance?" *The American Nuclear Society's Winter Meeting*, San Francisco, California, 1991 November 10-14.

"Inadvertent Interchanges -- A New Way to Price Unscheduled Electricity," *Electrical World*, December 1991.

"Competition for Electric Supply: A True Natural Monopoly or Unfair Competition?" *The Rudden Resource*, Spring 1992.

"Unfair and Incomplete Competition," *The Rudden Resource*, Fall 1992.

"Dynamic Pricing for Wholesale Power Transactions in the Baltic Countries," "Potential Benefits/Methods for Implementing Time of Use Rates for Wholesale Power Transactions in the Baltic Countries," and "Determining the Appropriate Charge for Transmission Services in the Baltic Countries," *Electric Power Contracting and Pricing Program*, RCG/Hagler, Bailly, Inc. & U.S. Agency for International Development, Riga, Latvia, 1992 December 9-10.

"Comments of Mark B. Lively, Utility Economic Engineer," *Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act*, FERC Docket No. RM93-19-000, 1993 November 8.

"Response Comments of Mark B. Lively, Utility Economic Engineer," *Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act*, FERC Docket No. RM93-19-000, 1994 January 24.

"WOLF Pricing," *Public Utilities Fortnightly*, 1994 October 1.

"Electric Transmission Pricing: Are Long-term Contracts Really Futures Contracts?" *Public Utilities Fortnightly*, 1994 October 15.

"Response Comments of Mark B. Lively, Utility Economic Engineer," *Alternative Power Pooling Institutions Under the Federal Power Act*, FERC Docket No. RM94-20-000, 1995 March 31.

"Initial Comments of Mark B. Lively, Utility Economic Engineer," *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines*, FERC Docket RM95-6-000, 1995 April 26.

"Real-time Pricing, Not Restructuring," *Public Utilities Fortnightly*, 1995 May 15.

"The FERC's Formula for Transmission Contracts: Using a Good Concept for the Wrong Service," *The National Regulatory Research Institute Quarterly Bulletin*, Winter 1995. This article originally appeared as comments titled "FERC's Formula for Transmission Contracts -- Using a Good Concept for the Wrong Service," *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities*, FERC Docket RM95-8-000, 1995 June 23.

"Pricing Schedule Variances That Kept the Lights On," *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities*, FERC Docket RM95-8-000, 1995 October 6.

"Thirty-One Flavors or Two Flavors Packaged Thirty-One Ways: Unbundling Electricity Service" *The National Regulatory Research Institute Quarterly Bulletin*, Summer 1996. This article originally appeared as comments titled "31 Flavors or Two Flavors Packaged 31 Ways," *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities*, FERC Docket RM95-8-000, 1995 November 2.

"Competition Versus the Good Old Boys' Club," Forum, *IEEE Computer Applications In Power*, January 1997.

"State Regulation of the Coming Competitive Market," *The National Regulatory Research Institute Quarterly Bulletin*, Fall 1997. This paper was developed to summarize remarks made at the Virginia State Corporation Commission restructuring workshop Group on Cost Benefit meeting of 1997 June 17.

“Electric Customer Participation in the Competitive Market: Reliability, Futures Contracts, and Arbitraging,” *The National Regulatory Research Institute Quarterly Bulletin*, Winter 1997. This paper was developed under contract to the Regulatory Flexibility Committee of the Indiana Legislature for its meeting of 1997 September 9-10. The paper was also presented as prepared remarks to the Task Force To Study Retail Electric Competition And The Restructuring Of The Electric Utility Industry of the Maryland General Assembly for its meeting of 1997 November 11.

“Metrics for Operating Reserves,” *The National Regulatory Research Institute Quarterly Bulletin*, Spring 1998. This paper was the prepared remarks at the Secretary of Energy Advisory Board Task Force on Electric System Reliability meeting of 1998 January 13.

“Real-Time Reliability Based Electricity Pricing,” *1998 Proceedings*, Annual Reliability and Maintainability Symposium, Anaheim, California, 1998 January 19-22.

“Comments of Utility Economic Engineers: A Reliability Paradigm for Transmission Pricing,” *Processes for Assuring Nondiscriminatory Transmission Services As New Reliability Rules Are Developed For Using The Transmission System*, FERC Docket No. PL98-3, 1998 February 26.

“Competitive Electricity Prices by Changing Tariffs, Not By Changing Providers,” *The Washington, D.C. Customer Choice and Utility Competition Report*, prepared for the District of Columbia Office of the People’s Counsel Conference *Utility Competition: What Is It And Why Should I Care?* 1998 May 5.

“Pricing Distributed Resources: When Your Customer Can Be Your Supplier,” *EnergyCentral*, 1998 June 9.

“Electricity Is Too Chunky: The Midwest power prices were neither too high nor too low. They were too imprecise,” *Public Utilities Fortnightly*, 1998 September 1.

“Higher Fees Can Ease Web Congestion,” *The Washington Post Business Feedback Letter*, 1998 September 28.

“Capacity Missing From The Futures Market,” *The Electricity Journal*, November 1998.

“FERC’s Mandatory Gas Auctions: Are We Bidding the Right Product? -- Auctioning gas imbalances offers advantages over bidding on available pipeline capacity,” *Public Utilities Fortnightly*, 1999 January 1.

“FERC’s Dialogue on CBM: Reliability Gets Reappraised,” *Public Utilities Fortnightly*, 1999 July 1.

“Daily Cashouts of Gas Imbalances Using A Formulary Auction,” *National Regulatory Research Institute Quarterly Bulletin*, Fall/Winter 1999.

“Distributed Generation: Setting a Fair Price in the Distribution Tariff,” *Public Utilities Fortnightly*, 2000 October 15

“The Need For A True Spot Market,” the *Blue Ribbon Panel of the California Power Exchange*, delivered 2000 November 21, presented and defended 2000 November 28.

“Good Market Segmentation or Bad: An Analysis of the California Electricity Market,” *The National Regulatory Research Institute Quarterly Bulletin*, Autumn 2000.

“Profit-Enhancing Seam Management: A White Paper on Pricing the Unscheduled Flows of Electricity Across the Seams Between Utilities Using a Geographically Differentiated Auction of Inadvertent Interchange,” released 2001 March 25.

“Fungible Distribution Tariffs: Supporting Distributed Generation Without Bankrupting the Utility,” *The National Regulatory Research Institute Quarterly Bulletin*, Winter 2000.

“Saving California With Distributed Generation: A Crash Program To Use Small, Standby Diesel Generators To Keep The Lights On,” *Public Utilities Fortnightly*, 2001 June 15.

“Using A True Spot Market to Measure and to Control Market Power, Especially In California,” *Conference on RTO Interregional Coordination*, FERC Docket PL01-5-000, 2001 June 19.

“Distributed Generation as a Way to Hedge Against the Electricity Energy Market,” *World Energy Engineering Congress 2001*, Atlanta, Georgia, 2001 October 23-26.

“California’s Electricity Experiment: The Rotating Blackouts Could Have Been Avoided with Existing Equipment But Better Pricing,” *Business Energy Solutions Expo*, Orlando, Florida, 2001 November 28-29.

“Keeping the Lights On: An Insurance Industry Model . . . to Stop Manipulation,” *Public Utilities Fortnightly*, 2002 July 1.

"Power Crisis: Revenue Accounting Needed: An Issue Paper on the U.S. Northeastern Blackout, August 14, 2003," *Energy Pulse*, http://www.energypulse.net/centers/article/article_display.cfm?a_id=521, 2003 October 28.

"Pricing Uninstructed Deviations to Improve Reliability," Exhibit NSTAR-JS-1-6(b), *NSTAR Electric*, Massachusetts DTE 03-121, filed 2004 April 4.

"Wide Open Load Following: Mark Lively's Approach to Pricing Reactive Power," *IEEE-USA Energy Policy Committee Presentation to FERC Task Force on Reactive Power*, 2004 October 25.

"Solving The Crisis In Unscheduled Power' Doesn't Because It Can't," Letters to the Editor, *Public Utilities Fortnightly*, 2004 November.

"Wide Open Load Following: Mark Lively's Approach to Pricing Reactive Power," *Carnegie Mellon University Electric Industry Center Luncheon Seminar*, 2004 December 2.

"Peer Relations with Electric Utilities: A White Paper on Utilities and Large Industrials Interacting as Equals," released 2005 March 3.

"Proposal for an Experiment To Test Real Time Pricing Of Distribution Services," released 2005 March 7.

"Comments Of Mark Lively, Utility Economic Engineers, Including Answers And Comments To Questions In Staff Report Of 2005 February 4," filed in *Principles for Efficient and Reliable Reactive Power Supply and Consumption*, FERC Docket No. AD05-1-000, 2005 April 4.

"Re-engineering for More Reliable Power Distribution," *IEEE-USA Today's Engineer*, May 2005, <http://www.todaysengineer.org/2005/May/reliability.asp>

"Getting Value for Your Power Electronics," *2005 Conference on Power Electronics of Distributed and Co-Generation (PEDAC)*, Detroit, Michigan, 2005 June 29.

"Pricing Unscheduled Flows as a Way to Get Competition to Enhance Reliability: A Response to Solicited Issue Papers on Reliability and Competition," *Technical Workshops on Competition and Reliability in North America Energy Markets*, US Department of Energy, Washington, D.C., USA, 2005 September 15; and, Natural Resources Canada, Toronto, Ontario, Canada, 2005 September 28. <http://www.energetics.com/reliability.html>

"Creating an Automatic Market for Unscheduled Electricity Flows," *The National Regulatory Research Institute*, Volume 3, December 2005.

"Constructing a Competitive Distribution Market in Reactive Power: Comments of Mark B. Lively to the Office of Gas and Electricity Markets," 2005 December 15.

"Reply Comments of Mark B. Lively, Utility Economic Engineer, Supporting (1) The Contract Path Method and (2) The Consolidation, Enhancement, and Expansion of Imbalance Pricing," *Preventing Undue Discrimination and Preference in Transmission Services*, FERC Docket No. RM05-25-000, 2005 December 29.

"Reliability Based LMP for Unscheduled Flows of Electricity," *Preventing Undue Discrimination and Preference in Transmission Services*, FERC Docket No. RM05-25-000, 2006 February 1.

"Pricing Intermittency," *Preventing Undue Discrimination and Preference in Transmission Services*, FERC Docket No. RM05-25-000, 2006 March 21.

"The Economics of Reliability," *37th Energy Information Dissemination Program: Electric Utility Economics And Markets*, Advanced Technology Research Center, Oklahoma State University, Stillwater, Oklahoma, 2006 June 1.

"Innovative Rate Design & Real-Time Pricing as Applied to Frequency Keeping Services," invited presentation to the staff of the New Zealand Electricity Commission, their consultants, and the TransPower control room personnel, Wellington, New Zealand, June 12, 2006

"Treating Electric Services as Commodities," invited presentation to Vector, Ltd., Auckland, New Zealand, 2006 June 14.

"Innovative Rate Design & Real-Time Pricing of Intermittent Supply," *Center for Advanced Engineering Workshop on Distributed Generation and the Consequences for New Zealand's Power System*, Electricity Engineers Association annual conference, Auckland, New Zealand, 2006 June 15.

"Comments Of Mark Lively, Utility Economic Engineer," in *Order Reopening The Comment Period Regarding The 2005 Integrated Resource Plan ("IRP") Submitted To The Commission By Northern Indiana Public Service ("NIPSCO")*, Indiana Utility Regulatory Commission Cause No. 43061, 2006 June 27.

“Comments of Mark B. Lively, Utility Economic Engineer, on Staff Paper on ‘Developing a Common Platform for Electricity Trading,’” Central Electricity Regulatory Commission of India, 2006 September 8.

“Reply Comments Of Mark B. Lively In Regard To Using Prices Instead Of Penalties For (1) Regulation And Frequency Response, (2) Energy Imbalance, (3) Generator Imbalance, And (4) Inadvertent Energy,” *Preventing Undue Discrimination and Preference in Transmission Services*, FERC Docket No. RM05-25-000 and RM05-17-000, 2006 September 20.

“Reply Comments Of Mark B. Lively In Regard To Substituting Formulary Markets In Place Of Cost-Based Rate Schedules For Reactive Power,” *Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities*, FERC Docket RM04-7-000, 2006 September 20.

“Prepared Conference Remarks Of Mark B. Lively In Regard To Pricing Conducive To (1) Transmission Planning (2) ATC Reforms And (3) Redispatch,” *Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities*, FERC Docket RM04-7-000, 2006 October 12.

“Supplemental Comments Of Mark B. Lively On Paying For Existing Dispatch,” *Preventing Undue Discrimination and Preference in Transmission Services*, FERC Docket No. RM05-25-000 and RM05-17-000, 2006 December 15.

“Pricing intermittency (and Other Forms of Unscheduled Flows of Electricity),” 2007 February 27, *A Leonardo Energy Web Seminar*, <http://www.leonardo-energy.org/drupal/node/1789>.

“Request For Clarification By Mark B. Lively As To The Need For Utilities To ‘Synchronize Their Watches,’” *Preventing Undue Discrimination and Preference in Transmission Services*, FERC Docket No. RM05-25-000 and RM05-17-000, 2007 March 20.

“Better Pricing Of The Energy Balancing Market,” 27th *USAEE/IAEE North American Conference*, Houston, Texas, 2007 September 16-19.

“Microgrids And Financial Affairs - Creating A Value-Based Real-Time Price For Electricity,” *Cogeneration and On-Site Power Production*, September, 2007.

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