

ROMKAEW P. BROEHM

Founder and Principal

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Dr. Romkaew Broehm is an economist whose practice is focused on the electric utility industry. She has over two decades of experience specializing in the areas of market deregulation and oversight, competitiveness analyses in RTOs and non-RTOs markets, market designs of bulk power markets, trading and risk management of power procurements, evaluation of demand-side management, and utility cost structures. She has led numerous Brattle studies in competitive impact analyses for M&A, market-based rate, price forecasting, network transmission simulation, strategic bidding behavior, and generation and transmission asset valuations. Dr. Broehm has testified and submitted comments before the Federal Energy Regulatory Commission (FERC) on market-based rates (MBR), merger and acquisition (M&A), market manipulations, and impacts of market design matters. She also has in-depth experience in analyzing potential market manipulation allegations. She co-authored *Market Power and Market Manipulation in Energy Markets from the California Crisis to the Present*.

Additionally, Dr. Broehm provides to her clients analyses, consulting, and litigation support on the prudence of particular investment decisions and power procurement decisions, as well as the valuation of energy storage and distributed energy resources (DERs). Her experience in pricing and ratemaking includes designing and evaluating dynamic pricing programs, such as a real-time pricing programs and block rate designs. She has implemented demand simulation models to analyze changes in net economic benefits due to changes in rate design. Dr. Broehm has spoken at events throughout the United States and Asia on wholesale market structures, impacts of regulations, and electric storage.

Before founding RPB Energy Economics, Dr. Broehm was a partner and principal at the Brattle Group from 1996-2018. She had worked at Christenson Associates as an Economist from 1995-1996 and taught economics and statistics at the University of Wisconsin-Milwaukee and Cardinal Stritch College during her graduate program. She has been a Lecturer of Department of Economics, Boston University.

AREAS OF EXPERTISE

- *M&A, Competitiveness Evaluation, Market Design and Market Monitoring*
- *Valuation of Generation Assets/Contracts and Price Forecasting*
- *Resource Planning and Industry Restructuring*
- *Demand Response Bidding Strategy*
- *Pricing and Ratemaking*

EDUCATION

- B.S. in Economics, Chulalongkorn University, (1983).

ROMKAEW P. BROEHM

Founder and Principal

- Ph.D. in Economics with an Industrial Organization major, University of Wisconsin-Milwaukee, (1994).

TEACHING POSITION

Boston University, Department of Economics, Lecturer

2018-present

EXPERIENCE

Market Design, Market Monitoring, Competitiveness Evaluation and M&A

- Designed an electricity market for Electricity Generating Authority of Thailand's uncontracted capacity that incorporated the key tenets of sound market design, synthesize lessons learned from international experiences, and tailored to Thailand's unique electricity industry structure and policy objectives. With Petroleum Institute of Thailand, Dr. Broehm has led workshops and focused groups with key stakeholders and developed a roadmap for actions and implementation plans.
- Testified in market-based rate (MBR) proceedings before the Federal Energy Regulatory Commission (FERC) on behalf of electric utility clients in the eastern and western United States. Her understanding of transmission networks has allowed her to work closely with the client's transmission team in preparing simultaneous import limits and determining relevant market product definitions, including the Energy Imbalance Market.
- Advised the Alberta Electric System Operator in redesigning its market power screens and mitigation process. Brattle is assisting Alberta Energy Power Pool in market design, which is expected to change from the energy-only market to the energy, ancillary services, and capacity markets. Dr. Broehm's responsibility is to lead Brattle's team in assessing Alberta Power Pool's existing market oversight programs and providing recommendations on market monitoring metrics that will be suitable for the Alberta Electric System Operator's new market design.
- Testified and evaluated potential competitive impacts of utility mergers on wholesale power and gas markets in various regions, including ISO-NE, NYISO, PJM, SERC, FRCC, SPP, Entergy System, and WSCC. Dr. Broehm led the development of The Brattle Group's Delivered Price Test (DPT) model, as well as its strategic behavioral model used for analyzing potential horizontal and vertical (electricity and natural gas; and generation and transmission) market

ROMKAEW P. BROEHM
Founder and Principal

power. She led a team in examining whether a transaction potentially created any short-term incentive to exercise vertical wholesale market power using a locational-marginal pricing simulation model. She has conducted analyses in support of an M&A application as well as provided critical studies for opposing an M&A case.

- Evaluated whether a supplier’s bidding behavior in the wholesale organized power market had adverse impacts on the ICE markets. Dr. Broehm assisted a regulator investigating the alleged exercise of market power by a supplier that simultaneously held related derivatives contracts that could benefit from higher prices.
- Testified on market manipulation in the Pacific Northwest bilateral power market during 2001. Dr. Broehm analyzed transmission data on major interfaces of the California ISO to assess whether a supplier manipulated transmission dominance to strengthen its bargaining power and demanded high power prices.
- Evaluated the competitiveness of ERCOT in 2011. Dr. Broehm utilized a structural-based test such as Residual Demand Index to examine competitiveness of the ERCOT zonal energy markets. The result was used to draw inferences of market conditions within defined geographic and product markets to form an understanding about the ERCOT energy markets
- Led Brattle Team to monitor Southern Company’s Energy Auction. The Brattle Group was selected as the Independent Auction Monitor (IAM) for the Southern Company Energy Auction. As part of its mitigation for prospective market power, Southern Company has offered a must-offer, bid-based energy auction for day-ahead and hour-ahead “Into SoCo” products for at least three years. The auction began on April 23, 2009. Dr. Broehm developed, designed, and managed the implementation of protocols used in monitoring the auction and Southern Company’s compliance to its tariff. Brattle’s first report as IAM was filed at FERC on April 23, 2010.
- Evaluated the potential impacts of the National Grid USA (NG) and KeySpan Corporation (KS) merger on competition in wholesale power market and transmission in NYISO. Before the NYPSC, she led Brattle team to examine whether the transaction potentially created any short-term incentive to exercise vertical wholesale market power. The analysis employed a detailed simulation model of the NYISO wholesale power marketplace and examined whether outages associated with Niagara Mohawk Power Corporation transmission assets significantly affected KeySpan’s generation profits.

ROMKAEW P. BROEHM

Founder and Principal

- Examination of market conditions of the Southwest Power Pool (SPP) wholesale power markets, including day-ahead and energy imbalance markets and transmission congestion management in SPP. Dr. Broehm testified that the SPP wholesale power markets did not provide Qualifying Facilities (QFs), particularly wind QFs, to have a meaningful opportunity to sell to third parties.
- Analysis for California investor-owned utilities in the competitiveness of wholesale power markets at major trading hubs in WECC. She examined liquidity of the day-ahead power markets, the CAISO real-time power market, the CAISO ancillary services markets, and the effectiveness of the CAISO market power mitigation measures.
- Investigation and evaluation of the California electric power crisis. She coordinated an extensive discovery effort and the in-depth analysis of market data and other evidence, such as trading records and compliance logs. She supervised the evaluation of numerous trading strategies and the extent to which individual market participants used those strategies to game market rules and manipulate the spot energy and ancillary service markets in California. She also provided a detailed analysis of market participants' bidding strategies, the extent of economic and physical withholding by suppliers, the potential for coordinated interaction and collusion, and the relationship between market fundamentals, market rules, and the behavior of market participants.
- Evaluation of the impacts of the California power crisis on the western forward markets. She developed the methodology to estimate artificial price inflation in forward contracts transacted during the crisis period, based on estimated implied heat rates during outside crisis periods.

Valuation of Generation Assets/Contracts/ Transmission Needs/ and Price Forecasting

- Advisor to Transmission Owners in valuation of transmission needs in WestConnect. Dr. Broehm participates in WestConnect Planning Subcommittee and Cost Allocation Committees. She has provided comments and recommendations on how to improve the LMP model runs that used for transmission needs evaluation.
- Advisor to an investment firm in the valuation of the generation assets in the southeastern part of the U.S. This task involved reviewing the work done by third parties as well as the preparation of Brattle's own evaluation of the assets. She unpacked the key drivers of the assets' value and provided insights into how different variables (such as fuel prices, heat rates, early retirement option, and load growth) affect the underlying valuation. As part of the valuation,

ROMKAEW P. BROEHM
Founder and Principal

she also examined the transmission system surrounding the plants and market rules to determine whether they could diminish the value of these plants.

- Provision of a market-based revenue forecast for energy and capacity for a valuation of a power plant in a property tax dispute to a cogeneration plant in the northeastern part of the U.S., The report prepared by The Brattle Group was used to negotiate a settlement of the plant's assessed value.
- Development of a multiple-factor price and load model which could estimate an optimal hedging strategy while recognizing limitations of the liquidity and competitiveness of the market for a utility seeking to demonstrate prudence of its forward contracts, which were used to hedge against spot market price volatility.
- Analysis and support to demonstrate a utility's prudence in procuring forward purchased contracts for both power and gas during the western crisis, even though those contract prices were high relative to actual spot prices. During the course of the project, she estimated the market-based credit-risk premium embedded on forward prices. The results of her analyses were presented before the Nevada Public Utility Commission.
- Valuation of profitability of power plants in New York City and on Long Island. Developed and simulated the New York Independent System Operator (NYISO) wholesale power market conditions in order to obtain forecasting Locational-Based Marginal Prices (LMBPs) using DAYZER, a commercial, state-of-the-art LBMP simulation model.
- Identification of components of short-run avoided costs for qualifying facilities (QFs) and assessed whether day-ahead power prices and "out-of-market" costs were a reasonable measure of the true short-run avoided costs, given QFs' attributes.
- Estimation of damages resulting from a breach of a land purchase contract on behalf of a plaintiff in a bankruptcy matter. Her work involved assessment of ability to build and finance a power plant, preparing energy price forecasts for the New York City market, and estimating associated capacity prices in accordance with the NYISO downward sloping demand curve requirement.

Resource Planning and Industry Restructuring

- Advised Thai Energy Regulatory Commission on economic and regulatory issues surrounding Third Party Open Access of Natural Gas Pipeline Industry. She established the Best Practices of assessing TPA Code for natural gas pipelines and LNG Terminals that are appropriate for

ROMKAEW P. BROEHM
Founder and Principal

Thailand. Additionally, she evaluated and provided comments on proposed TPA Codes of natural gas pipeline and LNG Terminal submitted by PTT (Thailand), PPL and PTT LNG Company Limited. She also assisted in preparing TPA codes assessment manual for future suppliers.

- Advised Thai Energy Regulatory Commission on the structure of Thai wholesale electricity market. As part of the project, Dr. Broehm assisted the regulator in issuing reporting requirements to the electric utilities.
- Advised electric power utilities on corporate strategy and structure issues in the areas of stranded costs, market power, and deregulated markets. Her project work has included development of methodology for market price forecasts, including modeling of scarcity premiums and volatility under alternative restructuring scenarios.
- Developed a resource and procurement plan for an investor-owned utility in the West. She particularly focused on the development of a set of scenarios on key issues such as potential federal climate legislation, natural gas prices, electricity demand and demand side management strategies, and the complex interplay between these factors.
- Conducted a series of studies for an EPRI/GRI joint research venture on the impact of electric utility restructuring on fuel use. Developed a new market condition that examined impacts of simultaneous changes in market conditions (such as new generation expansion risks and changes in transmission flow patterns) on various types of fuel consumption. These assumptions were then used in a price forecasting model. The results allowed her to examine power plants' viability (particularly nuclear and old power plants) for each of the nine NERC sub-regions, their interaction with each other, and how restructuring was likely to play out in each region.
- Construction of a model that calculated the option value of offering price-capped services, given uncertainty in the prices and quantities of power needed to cover the obligation. Additionally, a logit model was applied to simulate the impact of customer switching behavior on the option value. In response to utility clients seeking to demonstrate the costs of their potential exposure associated with being the Provider of Last Resort for non-switching customers, Construction of a model that calculated the option value of offering price-capped services, given uncertainty in the prices and quantities of power needed to cover the obligation. Additionally, a logit model was applied to simulate the impact of customer switching behavior on the option value.

ROMKAEW P. BROEHM

Founder and Principal

- Examination of potential for hydroelectric generators, for an EPRI research project, to provide a larger share of operating reserve generating capacity in a restructured electricity market. She conducted interviews with several utilities to discuss strategies that the company wanted to pursue, versus what practices they were following.
- Preparation of a marginal cost study for an integrated electric utility in PJM, studying estimated incremental costs of the utility for serving additional demand and customer by time period, sub-region, and customer class. These costs consist of marginal costs of energy, capacity, transmission, distribution, and customer-related costs. Since the utility is operated in PJM and relies on the PJM markets to serve its customers, the study entailed projections of both the utility's costs and wholesale power prices for energy, congestion, losses and generation capacity. The results of the study were used as a basis for their rate designs.

Demand Response Bidding Strategy

- Examination of a demand response and energy efficiency programs and the ISO-New England market rules in order to develop bidding strategies that maximize the utility's demand responses and energy efficiency programs when participating in the ISO-New England's Forward Capacity Market (FCM), for a utility in the ISO-New England.
- Led a seminar on load management strategies to mid-management executives for a large southeastern utility. Examples were drawn from other utilities' strategies in other restructuring states. Evaluation of the value of the utility's existing load-management program, and advised on appropriate strategic responses to retail competition.
- Development of marginal costing procedures, for a day-ahead and week-ahead two-part real-time pricing program for various utilities, For a Real-Time Pricing Program. Application of econometric techniques to analyze the actual and expected load response of large industrial customers with on-site generation.

Price and Ratemaking

- Estimation of the incremental costs to the utility of serving additional demand and customers by time period, sub-region, and customer class. Assisted an integrated utility in PJM in conducting marginal cost studies for the utility's transmission and distribution sectors.
- Assisted California investor-owned utilities in examining short-run and long-run avoided costs of existing qualifying facility (QF) contracts and the continuing implementation of the program under Public Utility Regulatory Policies Act of 1978 (PURPA).

ROMKAEW P. BROEHM

Founder and Principal

- Assisted in the design of a demand simulation model used to analyze a block rate proposal in support of rate filing. Implemented the Constant Elasticity of Substitution demand model and analyzed changes in net economic benefits due to the change in rate design.
- Revision of the structure of transmission access charges in the context of membership negotiations with non-participating transmission owners for the California Independent System Operator and a working group of stakeholders. The effort involved data collection, cost-benefit analyses of various access charges and membership scenarios, and the presentation of these analyses at monthly stakeholder meetings.
- Redesigned rates of transmission and ancillary services, and drafted testimony on these issues for the rate case as well as for the restructuring plan for a cooperative utility close to bankruptcy.
- Analysis of the strategic considerations associated with various TransCo and ISO membership and design alternatives, and evaluated financial and customer rate impacts of those options.
- Preparation and the development of cost of capital, for a Canadian electric utility, using standard estimation techniques (DCF, CAPM). The project also assessed more customized models specific to the industries or lines of business in question, e.g., based on the structure and risk characteristics of cash flows, or based on multi-factor models that better characterize regulated industries.

PROFESSIONAL AFFILIATIONS

New England Women in Energy and the Environment

BOOKS

Market Power and Market Manipulation in Energy Markets From the California Crisis to the Present, (with Taylor, Ledgerwood, and Fox-Penner), March 2015, Public Utilities Report, Inc., U.S.

“Price Responsive Electric Demand: A National Necessity, Not an Option” (with Peter Fox-Penner), *Electricity Pricing in Transition*, Chapter 10, 2002, Kluwer Academic Publishers (Norwell, MA).

PRESENTATIONS AND PUBLICATIONS

“Economic Framework for Compensating Distributed Energy Resources,” (with Agustin J. Ros, and Philip Q Hanser) *Electricity Journal*, Special Issue on Rate Design, October 2018.

ROMKAEW P. BROEHM
Founder and Principal

“Market Design Principles for Unlocking Potential of Electric Storage,” Buying and Selling Electricity in New England, Law Seminars International, 15th Annual Advance Conference, October 19, 2018.

“Energy Storage: Opportunities, Challenges, Key Trends and Market Drivers,” 2018 Annual Energy Seminar, White & Case, October 18, 2018.

“Electricity Market Manipulation Oversight and Enforcement: Lesson Learned from the U.S.,” China Institute of Finance and Capital Markets, Beijing, China, November 8, 2017.

“U.S. Federal and State Regulations: Opportunities and Challenges for Electricity Storage,” BIT’s 7th World Congress of Smart Energy, Wuxi, China, November 2, 2017.

“Valuing Electricity Storage: Least-Cost Best Fit Integrated Resource Plan,” Utility Workshop, El Paso, October 2017.

“How to Model Demand-Side Resources in Integrated Resource Planning,” (with Mariko Geronimo), presented at Demand Response Workshop, Boston, July 16, 2014.

“Is It Possible to Charge Market-Based Pricing for Ancillary Services in a Non-ISO Market?,” presented at the 33rd Annual Eastern Conference of Center for Research In Regulated Industry, May 16, 2014.

“Dodd Frank Compliance for Oil and Gas Companies,” (with Julia Sullivan and Cary Oswald) *Oil and Gas Monitor*, February 6, 2012.

“Impacts of Dodd-Frank on Energy Market,” presented at Akin Gump Strauss Hauer & Feld LLP, Houston, February 2012.

Comments on the FERC Notice of Inquiry on Analysis of Horizontal Market Power Under The Federal Power Act, (with Peter Fox-Penner, Oliver Grawe and James Reitzes), Docket No. RM11-14-000, May 24, 2011.

“Losing Money to Increase Profits: A Proposed Framework for Defining Market Manipulation,” (with Shaun Ledgerwood, Gary Taylor, and Daniel Arthur), The Brattle Group Discussion Paper, March 2011.

“Energy Trading Under CFTC’s Expanded Authority” presented at February 10, 2011.

Comments on the Commodity Futures Trading Commission Notice of Proposed Rulemaking on Prohibition of Market Manipulation (with Daniel Arthur, and Gary Taylor), 17 CFR Part 180 Rin No. 3038 AD27, January 3, 2011.

“Is Thailand Ready for Nuclear Power?” *Bangkok Post*, April 5, 2007.

Comments on the FERC Notice of Proposed Rulemaking on Market Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities (with Peter Fox-Penner), Docket No. RM04-7, August 7, 2006. Presented the comments at the FERC MBR Outreach Meeting, FERC, November 30, 2006.

ROMKAEW P. BROEHM

Founder and Principal

“The New Art of Plant Acquisition”, *Public Utilities Fortnightly*, June 2006, pp. 68-72.

Deregulated Electricity Pricing In the U.S. – Dramatic New Rules From the FERC (with Peter Fox-Penner), April 25, 2004.

“Competition in Wholesale Electric Power Markets” (with Peter Fox-Penner, Gary Taylor, and James Bohn), *Energy Law Journal*, 2002, Volume 23, No. 2. pp. 281-348.

“Market Measurement and The Delivered Price Test Under Standard Market Design.” (with Peter Fox-Penner, Gary Taylor, and Metin Celebi), Presented to the Staff of the Federal Energy Regulatory Commission, November 15, 2002.

Impact of Changing Fuel and Power Market Structures on Price Behavior (with F. Graves, L. Borucki, S. Thumb, and M. Schaal), Technical Report, August 2001, EPRI1001197 GTI GRI-01/0163 (Palo Alto, CA: Electric Power Research Institute).

How Competitive Market Dynamics Affect Coal, Nuclear and Gas Generation and Fuel Use — A 10 Year Look Ahead (with F. Graves, L. Borucki, S. Thumb, and M. Schaal), Final Report, May 1999, TR-111506 (Palo Alto, CA: Electric Power Research Institute, 1999).

Mechanisms for Evaluating the Role of Hydroelectric Generation in Ancillary Service Markets (with F.C. Graves, R.L. Earle, T.J. Jenkin, and D.M. Murphy), Final Report, November 1998, TR-111707 (Palo Alto, CA: Electric Power Research Institute, 1998).

Energy Market Impacts of Electric Industry Restructuring: Understanding Wholesale Power Transmission and Trading (with S.L. Thumb, A.M. Schaal, F. C. Graves, and L.S. Borucki), Final Report, March 1998, EPRI TR-108999, GRI-97/0289 (Palo Alto, CA: Electric Power Research Institute, 1998).

“Retail Pricing of Reactive Power Service” (with Fernando Alvarado, Laurence Kirsch and Allen Panvini), *Proceedings: 1996 EPRI Conference on Innovative Approaches to Electricity Pricing Managing the Transition to Market-Based Pricing*, Electric Power Research Institute, Palo Alto, California, March 1996.

“The Effects of Imports on Domestic Wages by Unions,” with John Heywood revised for *Cambridge Journal of Economics*, March 1996.

TESTIMONY AND REPORT

Affidavit on behalf of Kentucky Municipalities, Opposing Louisville Gas and Electric Company and Kentucky Utilities Company’s Proposed De-pancaking Termination before the Federal Energy Regulatory Commission, Docket No. ER98-2-001 et.al., October 2018 and December 2018.

Affidavit on behalf of El Paso Electric Company, Triennial Update Market-Based Rate Filing, United States of America before the Federal Energy Regulatory Commission, Docket No. ER99-2416-008, December, 2012, December 2015, and December 2018.

ROMKAEW P. BROEHM
Founder and Principal

Affidavit on behalf of Pacific Gas and Electric Company, Triennial Market-Based Rate Update Filing, United States of America before the Federal Energy Regulatory Commission, Docket Nos. ER10-1107-002, ER03-198-018, ER01-198-018, December 2012, December 2015, and December 2018.

Electricity Market Design Options for Thailand's Small Power Producers, Prepared for Energy Policy and Planning Office and Petroleum Institute of Thailand, July 2018.

Declaration in Support of The California Parties' Motion for Summary Deposition on Hafslund's Tariff Violation and Refund, Docket No. EL00-95-307, February 2018.

Market Power Screens and Mitigation Options for AESO Energy and Ancillary Services Market (with Judy Chang et al.), Prepared for Alberta Electric System Operator, January 2018. Report can be accessed at: <https://www.aeso.ca/assets/Uploads/4.2-Brattle-Paper-Mitigation.pdf>

Shortage Pricing in North American Wholesale Electricity Markets (with Judy Chang et al.), Prepared for Alberta Electric System Operator, January 2018. <https://www.aeso.ca/assets/Uploads/4.3-Brattle-Paper-Shortage-Pricing.pdf>

Affidavit on behalf of Arizona Public Service Company, Market Power Analysis of the Energy Imbalance Market, United States of America before the Federal Energy Regulatory Commission, Docket No. ER10-2437, April 2016.

Market Power Analysis of Proposed Transaction Between Duke Energy Corporation and Piedmont Natural Gas Company, The Brattle Group Report, Prepared for North Carolina Utilities Commission, January 2016.

Affidavit on behalf of Arizona Public Service Company, Triennial Update Market-Based Rate Filing, United States of America before the Federal Energy Regulatory Commission, Docket No. ER10-2437, December 2015

Affidavit on behalf of Arizona Public Service Company, Section 203 Application of Arizona Public Service Company Requesting Authorization for Acquisition of El Paso Electric's Ownership Interest in Four Corners Power Plant under EC15-159, before the Federal Energy Regulatory Commission, Docket No. EC15-159-000, June 26, 2015.

Affidavit with Dr. Fox-Penner on behalf of the MISO Transmission Owners and the Midcontinent Independent System Operator, Inc., Comment on Exemption of Multi Value Project Usage Charge for Transactions Sinking in PJM Interconnection, United States of America before the Federal Energy Regulatory Commission, Docket No. ER10-1791-003, June 22, 2015

Testimony on behalf of the California Parties, United States of America before the Federal Energy Regulatory Commission, Puget Sound Energy, Inc., Complainant, v. All Jurisdictional Sellers of Energy and/or Capacity at Wholesale into Electric Energy and/or Capacity Markets in the Pacific Northwest,

ROMKAEW P. BROEHM
Founder and Principal

Including Parties to the Western System Power Pool Agreement, Respondents., Docket No. EL01-10-085, September 2012 and March 2013.

Report on Regulatory Data Requirements for Electricity Rates and Monitoring Electricity Activities, Prepared for Thai Energy Regulatory Commission, December 2012.

Independent Auction Monitor, “Annual Report for Southern Companies’ Energy Auction April 23, 2009 to February 10, 2009,” *The Brattle Group*, Federal Energy Regulatory Commission, Docket Nos. 09-88, April, 2010.

Affidavit on behalf of National Grid USA, Triennial Market-Based Rate Update Filing, Federal Energy Regulatory Commission, Docket Nos. ER96-2585-006, ER98-6-011, ER99-2387-004, ER02-1470-004, ER02-1573-004, ER05-1439, EC06-125, December 2013, December 2010 and January, 2008.

Affidavit with Philip Hanser on Behalf of Northeast Utilities Service Company and Select Energy, Inc., Triennial Market-Based Rate Update Filing, Federal Energy Regulatory Commission, Docket Nos. ER96-496-015, ER99-14-012, and ER99-3658-003, December 2010 and January, 2008.

Affidavit on behalf of El Paso Electric Company, Triennial Market-Based Rate Authority Filing, Federal Energy Regulatory Commission, Docket No. ER99-2416, March, 2010.

Affidavit on behalf of Pacific Gas & Electric Company, Triennial Market-Based Rate Authority Filing, Federal Energy Regulatory Commission, Docket No. ER03-198-012, December, 2009.

Affidavit on behalf of Southern California Edison, Triennial Market-Based Rate Authority Filing, Federal Energy Regulatory Commission, Docket Nos. ER09-712, ER06-736, ER02-2263, ER01-2217, ER08-931 and ER08-337, December, 2009.

Affidavit on behalf of NV Energy, Market Power Update to Assess Changes in Status, Federal Energy Regulatory Commission, Docket Nos. ER01-1527-10, ER01-1529, November, 2008.

Affidavit on behalf of Sierra Pacific Power Company and Nevada Power Company, Market Power Update to Assess Changes in Status, Federal Energy Regulatory Commission, Docket Nos. ER01-1527-10, ER01-1529, May, 2008 and June, 2008.

Affidavit on Behalf of Watson Cogeneration Company, Application of Watson Cogeneration Company for Order Accepting Initial Market-Based Tariff, Waving Regulations, and Granting Blanket Approvals, Federal Energy Regulatory Commission, Docket No. ER08-337, December, 2007.

Affidavit with Dr. Fox-Penner on Behalf of American Wind Energy Association, The Wind Coalition, and John Deere Renewables, LLC, Motion to Intervene and Protest Opposing SPP IOU’s Request to Terminate PURPA Purchase Obligations, Federal Energy Regulatory Commission, Docket No. QM07-5, November, 2007.

ROMKAEW P. BROEHM

Founder and Principal

Affidavit, Change In Status Filing on Behalf of El Paso Electric Company, Federal Energy Regulatory Commission, Docket Nos. ER99-2416, July, 2006.

Affidavit with Dr. Fox-Penner, Market Power Analysis for Market-based Rate Application on Behalf of Vandolah Power Company L.L.C., Front Range Power Company, LLC, and Dartmouth Power Associates Limited Partnership, Federal Energy Regulatory Commission, Docket Nos. ER02-1336, ER96-1149, and ER02-1173, July, 2005.

Affidavit with Dr. Fox-Penner, Market Power Analysis for Market-based Rate Application on Behalf of Dartmouth PPA Holdings, LLC and Dartmouth Power Associates, Federal Energy Regulatory Commission, Docket Nos. ER05-598 and ER05-559, February, 2005.