

# Jonathan A. Lesser, Ph.D. President

## **SUMMARY OF EXPERIENCE**

Dr. Jonathan Lesser is the President of Continental Economics, Inc., and has 35 years of experience working for regulated utilities, governments, and as an economic consultant. He has extensive experience in risk management, cost-benefit analysis, valuation and damages analysis, from estimating the damages associated with breaking commercial leases to valuing nuclear power plants. Dr. Lesser has performed due diligence studies for investment banks, testified on generating plant stranded costs, assessed damages in commercial litigation cases, and performed statistical analysis for class certification. He has also served as an arbiter in commercial damages proceedings.

He has analyzed economic and regulatory issues affecting the energy industry, including risk management strategies for regulated natural gas and electric utilities, cost-benefit analysis of transmission, generation, and distribution investment, gas and electric utility structure and operations, generating asset valuation under uncertainty, mergers and acquisitions, cost allocation and rate design, resource investment decision strategies, utility financing and the cost of capital, depreciation, risk management, incentive regulation, economic impact studies of energy infrastructure development, and general regulatory policy.

Dr. Lesser has prepared expert testimony and reports in cases before utility commissions in numerous US states; before the US Federal Energy Regulatory Commission (FERC); before international regulators in Latin America and the Caribbean; and in commercial litigation cases. He has also testified before the U.S. Congress, and legislative committees in numerous states on energy policy and market issues. Dr. Lesser has also served as an independent arbiter in disputes involving regulatory treatment of utilities and valuation of energy generation assets.

Dr. Lesser is the author of numerous academic and trade press articles. He is the coauthor of *Environmental Economics and Policy* (1997), *Principles of Utility Corporate Finance* (2011), and *Fundamentals of Energy Regulation* (2007; 2d ed., 2013). Dr. Lesser previously served a three-year term as one of the Energy Bar Association "Deans" overseeing education programs on energy regulatory and ratemaking concepts for attorneys. He is currently an Adjunct Fellow with the Manhattan Institute for Policy Research, where he studies energy policy issues.

#### AREAS OF EXPERTISE

- State, federal, and international electric rate regulation—cost of capital, depreciation, cost of service, cost allocation, pricing and rate design, incentive regulation, regulatory policy, wholesale and retail market design, and industry restructuring
- Risk management
- Cost-benefit analysis, asset valuation, and cost-effectiveness analysis of regulatory programs
- Natural gas and oil pipeline rate regulation
- Electricity and natural gas market design and analysis
- Commercial damages estimation and litigation
- Economic impact analysis and input-output studies
- Environmental policy and analysis
- Market power analysis
- Load forecasting and energy market modeling
- Market valuation and due diligence
- Antitrust

#### **EDUCATION**

- PhD, Economics, University of Washington, 1989 (Fields of specialization: Microeconomics, Econometrics, Industrial Organization and Antitrust).
- MA, Economics, University of Washington, 1982.
- BSc, Mathematics and Economics (with honors), University of New Mexico, 1980.

## EMPLOYMENT HISTORY

- 2018 Present: Adjunct Fellow, Manhattan Institute for Policy Research.
- 2016: Adjunct Lecturer, Dept. of Economics, University of New Mexico. [Course: Energy Regulation and Policy].
- 2009–Present: Continental Economics, Inc., President.
- 2004–2009: Bates White, LLC, Partner, Energy Practice.
- 2003–2004: Vermont Dept. of Public Service, Director of Planning.

- 1998–2003: Navigant Consulting, Senior Managing Economist.
- 1996–1998: Adjunct Lecturer, School of Business, University of Vermont. [Courses taught: Business and the Environment, Regulation of Business]
- 1993–1998: Green Mountain Power Corporation, Manager, Economic Analysis.
- 1990–1993: Adjunct Lecturer, Dept. of Business and Economics, Saint Martin's College. [Courses taught: Money and Banking, Microeconomics]
- 1986–1993: Washington State Energy Office, Energy Policy Specialist.
- 1984–1986: Pacific Northwest Utilities Conference Committee, Energy Economist.
- 1983–1984: Idaho Power Corporation, Load Forecasting Analyst.

## SELECTED EXPERT TESTIMONY AND REPORTS ENERGY LITIGATION

## **Eastern New England Consumer-Owned Systems**

• FERC proceeding (*Constellation Mystic Power, LLC*, Docket No. ER18-1639-000)

Subject: Testimony on allowed rate of return, vertical and horizontal market power, associated with a reliability-must-run contract.

## State of New Jersey Board of Public Utilities

• I/M/O the Petition of Public Service Electric and Gas Company for Approval of an Increase in Electric and Gas Rates and for Changes in the Tariffs for Electric and Gas Service, B.P.U.N.J. No. 16 Electric and B.P.U.N.J. No. 16 Gas, and for Changes in Depreciation Rates, Pursuant to N.J.S.A. 48:2-18, N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1, and for Other Appropriate Relief, Docket Nos. ER18010029 and GR18010030

Subject: Testimony on allowed rate of return for PSEG's electric and natural gas operations, and approval of incentive returns.

## **Pipeline Shippers**

• FERC proceeding (*Venice Gathering System*, Docket No. RP16-975-000)

Subject: Testimony on depreciation and rate of return analysis.

## **Kern River Pipeline Company**

• FERC proceeding (*Kern River Pipeline*, Docket No. RP17-248-000)

Subject: Depreciation study prepared for Kern River as part of rate settlement proceeding

## **Kansas City Board of Public Utilities**

- Proceeding before the Kansas Corporation Commission (*In the Matter of the Joint Application of Great Plains Energy Incorporated, Kansas City Power & Light Company, and Westar Energy, Inc for Approval of the Acquisition of Westar Energy, Inc by Great Plains Energy Incorporated*, Docket No. 16-KCPE-593-ACQ).
- FERC proceeding (*Great Plains Energy Corp.*, Docket No. EC16-146-000)

Subject: Financial risk and hold-harmless provisions for the proposed merger between Great Plains Energy and Westar

#### **Eastern Massachusetts Consumer Owned Systems**

• FERC proceeding (Belmont Municipal Light Department, et al, v Central Maine Power, et al. Docket No. EL16-64-002)

Subject: Allowed rate of return for New England Transmission Owners

#### Barrick Mines and Kennecott Copper, Inc.

• FERC proceeding (*Nevada Power Company*, Docket No. EL15-22-000)

Subject: Market-based rate application of Nevada Power Company and response to FERC show-cause order.

## Industrial Energy Users - Ohio

• Proceeding before the Ohio Public Utilities Commission (*In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement for Inclusion in the Power Purchase Agreement Rider, et al.*, Case No. 14-1693-EL-RDR)

Subject: Reasonableness of nonbypassable rider associated with a long-term proposed purchase power agreement between AEP Generation and AEP Ohio.

#### **Coaltrain Energy**

• FERC proceeding, Office of Enforcement (*Coaltrain Energy, L.P., et al*, Docket No. IN16-4-000)

Subject: Alleged market manipulation in the PJM energy market

#### **Mainline Shippers Group**

FERC proceeding (*Re: Gulf South Pipe Line Company, LP,* Docket No. RP15-65-000
 Subject: Allowed rate of return and capital structure.

#### **Exelon Corporation**

• FERC proceeding (Re: PJM Interconnection, LLC, Docket No. ER15-623-000

Subject: Redesign of PJM forward capacity market to incorporate Capacity Performance resources.

## **Indicated Shippers of California**

Proceedings before the California Public Utilities Commission (*Re: Pacific Gas and Electric Company*, Application No. 13-12-012 and Investigation 14-06-016 (risk management procedures for PG&E's natural gas transmission facilities and reasonableness of revenue requirement)

#### **Summit Metro Parks**

• FERC proceeding (*Re: New Summit Hydro LLC*, Docket No. P-14612-000)

Subject: Application of Summit Hydro LLC for development of a proposed pumpedstorage hydroelectric facility in Norton, Ohio.

#### **Utah Industrial Energy Consumers**

Proceeding before the Utah Public Service Commission (*Re: Rocky Mountain Power Corporation*, Docket Nos. 13-035-184 and 13-034-196 (revenue requirement, cost allocation, and design of back-up service rates)

#### **Paiute Pipeline Company**

• FERC rate proceeding (*Re: Paiute Pipeline Company*, Docket No. RP14-540-000)

Subject: Natural gas supplies and depreciation rates for transmission, storage, and general plant accounts.

## **Energy Michigan**

• Proceeding before the Michigan Public Utilities Commission (*Re: Consumers Energy Corporation*, Case No. U-17429)

Subject: Certificate of Convenience and Necessity for Consumers Power combined-cycle generating plant.

## Constellation New Energy Inc. and Exelon Generation Company, LLC

• Proceeding before the Ohio Public Utilities Commission (*Re: Columbus Southern Power Company and Ohio Power Company*, Case Nos. 12-3254-EL-UNC)

Subject: Design of competitive auction process and rate blending for AEP Ohio.

#### Shell Energy North America, LP

• FERC proceeding regarding natural gas pipeline fuel cost allocation (*Re: Rockies Express Pipeline, LLC,* Docket Nos. RP11-1844-000 & RP12-399-000)

Subject: Economic appropriateness of roll-in treatment of "lost and unaccountable" fuel

#### New York Association of Public Utilities

- FERC proceeding regarding formula transmission rate for Niagara Mohawk Power d/b/a National Grid (*Niagara Mohawk Power Co.*, Docket No. EL14-29-000
- FERC proceeding regarding formula transmission rate for Niagara Mohawk Power d/b/a National Grid (*Niagara Mohawk Power Co.*, Docket No. EL12-101-000)

Subject: Allowed rate of return and capital structure

## Caribbean Utilities Company, Ltd.

• Rebuttal report on weighted average cost of capital methodology and recommendations for Caribbean Utilities Company, Ltd.

## **Utah Industrial Energy Users Coalition**

• Proceeding before the Utah Public Service Commission (*Re: Rocky Mountain Power Corp.*, Case No. U-11035-200)

Subject: Appropriate methodology for embedded cost allocation for Rocky Mountain Power.

## FirstEnergy Solutions Corp.

- Proceeding before the Ohio Public Utilities Commission (Case Nos. 12-2400-EL-UNC)
  - Subject: Just and reasonableness of Duke Energy Ohio cost-recovery mechanism for capacity resources.
- Proceeding before the Ohio Public Utilities Commission (Case Nos. 12-426-EL-SSO)
  - Subject: Dayton Power & Light Co., Electric Security Plan; financial integrity, anticompetitive cross-subsidization and need for structural separation
- Proceeding before the Michigan Public Service Commission (Case No. U-17032)
  - Subject: Indiana & Michigan Power Co. proposed capacity charges for customers taking retail electric service.
- Proceeding before the Ohio Public Utilities Commission (Case Nos. 11-346-EL-SSO and 11-348-EL-SSO)
  - Subject: Revised AEP Ohio energy security plan, benefits of retail market competition.
- Proceeding before the Ohio Public Utilities Commission (Case No. 10-2929-EL-UNC)
  - Subject: Appropriate price for commercial retail electric suppliers to be charged by AEP Ohio for installed capacity under the PJM Fixed Resource Requirement tariff option.

## **Southwestern Electric Cooperative**

- FERC proceeding regarding wholesale distribution rate application of Ameren Illinois (*Re: Midwestern ISO and Ameren Illinois*, Docket No. ER11-2777-002, et al.)
  - Subject: Allowed rate of return and capital structure

#### **Exelon Corporation**

 Proceeding before the New Jersey Board of Public Utilities (Docket No. E0-11050309)

Subject: PJM Capacity Market, Capacity Procurement, and Transmission Planning

## **Industrial Energy Users - Ohio**

• Proceeding before the Ohio Public Utilities Commission (Case No. 08-917-EL-SSO)

Subject: Determination of cost associated with "provider-of-last-resort" (POLR) service and AEP Ohio's use of option pricing models.

#### **Southwest Gas Corporation**

• FERC proceeding regarding rate application of El Paso Natural Gas Company (Docket No. RP10-1398-000)

Subject: Development of risk-sharing methodology for unsubscribed and discount capacity costs.

## **Portland Natural Gas Shippers**

- FERC rate proceeding regarding the rate application by Northern Border Pipeline Company (Re: Portland Natural Gas Transmission System, Docket No. RP10-729-000)
- FERC rate proceeding regarding the rate application by Northern Border Pipeline Company (Re: Portland Natural Gas Transmission System, Docket No. RP08-306-000)

Subject: Natural gas supplies, economic lifetime, and depreciation rates.

## **Independent Power Producers of New York**

• FERC proceeding (New York Independent System Operator, Inc., Docket No. ER11-2224-000)

Subject: Reasonableness of the proposed installed capacity demand curves and cost of new entry values proposed by the New York Independent System Operator.

## **Maryland Public Service Commission**

 Merger application of FirstEnergy Corporation and Allegheny Energy, Inc. (I/M/O FirstEnergy Corp and Allegheny Energy, Inc., Case No. 9233)

Subject: Proposed merger between FirstEnergy Corporation and Allegheny Energy. Testimony described the structure and results of a cost-benefit analysis to determine whether the proposed merger met the state's positive benefits test, and included analysis of market power and merger synergies.

#### Alliance to Protect Nantucket Sound

 Proceeding before the Massachusetts Department of Public Utilities (Case No. D.P.U. 10-54)

Subject: Approval of Proposed Long-Term Contracts for Renewable Energy With Cape Wind Associates, LLC.

## **Brookfield Energy Marketing, LLC**

• FERC proceeding (New England Power Generators Association, et al. v. ISO New England, Inc., Docket Nos. ER10-787-000, ER10-50-000, and EL10-57-000 (consolidated)).

Subject: Proposed forward capacity market payments for imported capacity into ISO-NE.

## **Public Service Company of New Mexico**

 Proceeding before the New Mexico Public Regulation Commission (Case No. 10-00086-UT)

Subject: Load forecast for future test year, residential price elasticity study.

## M-S-R Public Power Agency

• FERC proceeding (Southern California Edison Co., Docket No. ER09-187-000 and ER10-160-000)

Subject: Allowed rate of return for construction work in progress (CWIP) expenditures for certain transmission facilities.

• FERC proceeding (Southern California Edison Co., Docket No. ER10-160-000)

Subject: Allowed rate of return for construction work in progress (CWIP) expenditures for certain transmission facilities.

#### **Financial Marketers**

• FERC proceeding (*Black Oak Energy, LLC v PJM Interconnection, L.L.C.*, Docket No. EL08-014-002)

Subject: Allocation of surplus transmission line losses under the PJM tariff.

## Southwest Gas Corporation and Salt River Project

 FERC proceeding regarding rate application of El Paso Natural Gas Company (Docket No. RP08-426-000)

Subject: Analysis of proposed capital structure and recommended capital structure adjustments

#### New York Regional Interconnect, Inc.

Proceeding before the New York Public Service Commission (Case No. 06-T-0650)

Subject: Analysis of economic and public policy benefits of a proposed high-voltage transmission line.

#### **Occidental Chemical Corporation**

• FERC Proceeding (Westar Energy, Inc. ER07-1344-000)

Subject: Compliance of wholesale power sales agreement with FERC standards

#### EPIC Merchant Energy, LLC, et al.

• FERC Proceeding (Ameren Services Company v. Midwest Independent System Operator, Inc., Docket Nos. EL07-86-000, EL07-88-000, EL07-92-000 (Consolidated)

Subject: Allocation of revenue sufficiency guarantee costs.

## Cottonwood Energy, LP

 Proceeding before the Public Utility Commission of Texas (Application of Kelson Transmission Company, LLC for a Certificate of Convenience and Necessity for the Amended Proposed Canal to Deweyville 345 kV Transmission Line with Chambers, Hardin, Jasper, Jefferson, Liberty, Newton, and Orange Counties, Docket No. 34611, SOAH Docket No. 473-08-3341)

Subject: Benefits of transmission capacity investments.

## Redbud Energy, LP

 Proceeding before the Oklahoma Corporation Commission (Request of Public Service Company of Oklahoma for the Oklahoma Corporation Commission to Retain an Independent Evaluator, Cause No. PUD 200700418)

Subject: Reasonableness of PSO's 2008 RFP design.

## The NRG Companies

• FERC Proceeding (ISO New England Inc. and New England Power Pool, Docket No. ER08-1209-000)

Subject: Compensation of Rejected De-list Bids Under ISO-NE's Forward Capacity Market Design

## **Dynegy Power Marketing, LLC**

• FERC proceeding, KeySpan-Ravenswood, LLC v. New York Independent System Operator, Inc., Docket No. EL05-17-000

Subject: Estimation of damages accruing to Dynegy arising from a failure by the NYISO to accurately calculate locational installed capacity requirements in NYISO during the summer of 2002.

#### **Constellation Energy Group**

• FERC proceeding (*Maryland Public Utility Commission, et al., v. PJM Interconnection, LLC*, Docket No. EL08-67-000)

Subject: "Just and reasonableness" of PJM's Reliability Pricing Mechanism.

## Government of Belize, Public Utility Commission

 Proceeding before the Belize Public Utility Commission, In the Matter of the Public Utilities Commission Initial Decision in the 2008 Annual Review Proceeding for Belize Electricity Limited. Subject: Arbitration and Independent Expert's report, in dispute between the Belize PUC and Belize Electricity Limited in an annual electric rate tariff review, as required under Belize law.

## **Federal Energy Regulatory Commission**

Technical hearings on wholesale electric capacity market design.

Subject: Analysis of proposal to revise RTO capacity market design developed by the American Forest and Paper Association.

### **Dogwood Energy, LLC**

• Proceeding before the Missouri Public Service Commission, In the Matter of the Application of Aquila, Inc., d/b/a Aquila Networks - MPS and Aquila Case No. EO-2008-0046, Networks - L&P for Authority to Transfer Operational Control of Certain Transmission Assets to the Midwest Independent Transmission System Operator, Inc., Case No. EO-2008-0046.

Subject: Cost-benefit analysis to determine whether Aquila should join either the Midwest Independent System Operator (MISO) or the Southwest Power Pool (SPP).

## **Independent Power Producers of New York**

• FERC proceeding (*Re: New York Independent System Operator, Inc.*, Docket No. ER08-283-000)

Subject: Revisions to the installed capacity (ICAP) market demand curves in the New York control area, which are designed to provide economic incentives for new generation development.

## Empresa Eléctrica de Guatemala

Rate proceeding before the Comisión Nacional de Energía Eléctrica
 Subject: Rate of return for an electric distribution company

## **Electric Power Supply Association**

• FERC proceeding (*Re: Midwest Independent Transmission System Operator, Inc.,* Docket No. ER07-1182-000)

Subject: Critique of cost-benefit analysis by MISO Independent Market Monitor concluding that permanent establishment of Broad Constrained Area mitigation was appropriate.

## **Constellation Energy Commodities Group, LLC**

- FERC proceeding regarding rate application for ancillary services by Ameren Energy (*Re: Ameren Energy Marketing Company and Ameren Energy, Inc.*, Docket Nos. ER07-169-000 and ER07-170-000)
- Subject: Analysis and testimony on appropriate "opportunity cost" rates for ancillary services, including regulation service and spinning reserve service. Case settled prior to testimony being filed.

## **Suiza Dairy Corporation**

- Rate proceeding before the Office of Milk Industry Regulatory Administration of Puerto Rico.
- Subject: Analysis and testimony on the appropriate rate of return for regulated milk processors in the Commonwealth of Puerto Rico.

### IGI Resources, LLC and BP Canada Energy Marketing Corp.

• FERC proceeding regarding the rate application by Gas Transmission Northwest Corporation (*Re: Gas Transmission Northwest*, Docket No. RP06-407-000)

Subject: Natural gas supplies, economic lifetime, and depreciation rates.

#### Baltimore Gas and Electric Co.

- Maryland Public Service Commission (Case No. 9099)
  - Subject: Standard Offer Service pricing. Testimony focused on factors driving electric price increases since 1999, and estimates of rates under continued regulation
- Maryland Public Service Commission (Case No. 9073)
  - Subject: Stranded costs of generation. Testimony focused on analysis of benefits of competitive wholesale power industry.
- Maryland Public Service Commission (Case No. 9063)
  - Subject: Optimal structure of Maryland's electric industry. Testimony focused on the benefits of competitive wholesale electric markets. Presented independent estimates of the benefits of restructuring since 1999.

## Pemex-Gas y Petroquímica Básica

 Expert report in a rate proceeding. Presented analysis before the Comisión Reguladora de Energía on the appropriate rate of return for the natural gas pipeline industry.

#### **BP Canada Marketing Corp.**

• FERC proceeding regarding the rate application by Northern Border Pipeline Company (*Re: Northern Border Pipeline*, Docket No. RP06-072-000)

Subject: Natural gas supplies, economic lifetime, and depreciation rates.

#### Transmission Agency of Northern California

- FERC rate proceeding (*Re: Pacific Gas & Electric Company*, Docket No. ER09-1521-000)
  - Subject: Analysis of appropriate return on equity, capital structure, and overall cost of capital. Case settled prior to filing expert testimony.
- FERC rate proceeding (*Re: Pacific Gas & Electric Company*, Docket No. ER08-1318-000)
  - Subject: Analysis of appropriate return on equity, capital structure, and overall cost of capital. Case settled prior to filing expert testimony.
- FERC rate proceeding (*Re: Pacific Gas & Electric Company*, Docket No. ER07-1213-000)
  - Subject: Analysis of appropriate return on equity, capital structure, and overall cost of capital. Case settled prior to filing expert testimony.
- FERC rate proceeding (*Re: Pacific Gas & Electric Company*, Docket No. ER06-1325-000)
  - Subject: Analysis of appropriate return on equity, capital structure, and overall cost of capital. Case settled prior to filing expert testimony.
- FERC rate proceeding (*Re: Pacific Gas & Electric Company*, Docket No. ER05-1284-000)
  - Subject: Analysis of appropriate return on equity, capital structure, and overall cost of capital. Case settled prior to filing expert testimony.

• FERC rate proceeding (*Re: Pacific Gas & Electric Company*, Docket Nos. ER03-409-000, ER03-666-000)

Subject: Analysis and development of recommendation for the appropriate return on equity, capital structure, and overall cost of capital.

## State of New Jersey Board of Public Utilities

Merger application of Public Service Enterprise Group and Exelon Corporation
 (I/M/O The Joint Petition Of Public Service Electric And Gas Company And Exelon
 Corporation For Approval Of A Change In Control Of Public Service Electric And Gas
 Company And Related Authorizations, BPU Docket No. EM05020106, OAL Docket No.
 PUC-1874-050)

Subject: Proposed merger between Exelon Corporation and PSEG Corporation. Testimony described the structure and results of a cost-benefit analysis to determine whether the proposed merger met the state's positive benefits test, and included analysis of market power, value of changes in nuclear plant operations, and merger synergies.

#### Sierra Pacific Power Corp.

• FERC proceeding regarding the rate application by Paiute Pipeline Company (*Re Paiute Pipeline Company* Docket No. RP05-163-000)

Subject: Depreciation analysis, negative salvage, and natural gas supplies. Case settled prior to filing expert testimony.

#### Matanuska Electric

 Regulatory Commission of Alaska rate proceeding (In the Matter of the Revision to Current Depreciation Rates Filed by Chugach Electric Association, Inc., Docket No. U-04-102)

Subject: Analysis of the reasonableness of Chugach electric's depreciation study.

## **Duke Energy North America, LLC**

• FERC proceeding (*Re: Devon Power, LLC*, et al., Docket No. ER03-563-030)

Subject: Appropriate market design for locational installed generating capacity in the New England market to ensure system reliability.

## **Keyspan-Ravenswood, LLC**

• FERC proceeding, *KeySpan-Ravenswood*, *LLC v. New York Independent System Operator*, *Inc.*, Docket No. EL05-17-000

Subject: Estimation of damages arising from a failure by the NYISO to accurately calculate locational installed capacity requirements in New York City during the summer of 2002.

## **Electric Power Supply Association**

FERC proceeding (Re: PJM Interconnection, LLC, Docket No. EL03-236-002)
 Subject: Analysis and critique of proposed pivotal supplier tests for market power in PJM identified load pockets.

## **Vermont Department of Public Service**

- Vermont Public Service Board Rate Proceedings
  - Concurrent proceedings: Re: Green Mountain Power Corp., Dockets No. 7175 and 7176. Subject: Cost of capital and allowed return on equity under cost of service regulation, as well as under a proposed alternative regulation proposal.
  - o *Re: Shoreham Telephone Company*, Docket No. 6914. Subject: Analysis and development of recommendations for the appropriate return on equity, capital structure, and overall cost of capital.
  - Re: Vermont Electric Power Company, Docket No. 6860. Subject:
     Development of a least-cost transmission system investment strategy to analyze the prudence of a major high-voltage transmission system upgrade proposed by the Vermont Electric Power Company.
  - o *Re: Central Vermont Public Service Company*, Docket No. 6867. Subject: Analysis and development of recommendations for the appropriate return on equity, capital structure, and overall cost of capital.
  - o *Re: Green Mountain Power Corporation*, Docket No. 6866. Subject: Analysis and development of recommendations for the appropriate return on equity, capital structure, and overall cost of capital.

#### Pipeline shippers

• FERC proceeding regarding the rate application of Northern Natural Gas Company (*Re: Northern Natural Gas Company*, Docket No. RP03-398-000)

Subject: Gas supply analysis to determine pipeline depreciation rates as part of an overall rate proceeding.

## Arkansas Oklahoma Gas Corp.

- Oklahoma Corporation Commission rate proceeding (*Re: Arkansas Oklahoma Gas Corporation*, Docket No. 03-088)
  - Subject: Analysis and development of recommendations for the appropriate return on equity, capital structure, and overall cost of capital.
- Arkansas Public Service Commission rate proceedings
  - o In the Matter of the Application of Arkansas Oklahoma Gas Corporation for a General Change in Rates and Tariffs, Docket No. 05-006-U. Subject: Analysis and development of recommendations for the appropriate return on equity, capital structure, and overall cost of capital.
  - o In the Matter of the Application of Arkansas Oklahoma Gas Corporation for a General Change in Rates and Tariffs, Docket No. 02-24-U. Subject: Analysis and development of recommendations for the appropriate return on equity, capital structure, and overall cost of capital.

#### **Entergy Nuclear Vermont Yankee, LLC**

- Vermont Public Service Board proceeding (*Re: Petition of Entergy Nuclear Vermont Yankee for a Certificate of Public Good*, Docket No. 6812)
  - Subject: Analysis of the economic benefits of nuclear plant generating capacity expansion as required for an application for a Certificate of Public Good.

#### **Central Illinois Lighting Company**

- Illinois Commerce Commission rate proceeding (*Re: Central Illinois Lighting Company*, Docket No. 02-0837)
  - Subject: Analysis and development of recommendations for the appropriate return on equity, capital structure, and overall cost of capital.

## Citizens Utilities Corp.

• Vermont Public Service Board rate proceeding (*Tariff Filing of Citizens Communications Company requesting a rate increase in the amount of 40.02% to take effect December 15, 2001*, Docket No. 6596)

Subject: Analysis of the prudence and economic used-and-usefulness of Citizens' long-term purchase of generation from Hydro Quebec, including the estimated environmental costs and benefits of the purchase.

#### **Dynegy LNG Production, LP**

• FERC proceeding (*Re: Dynegy LNG Production Terminal, LP*, Docket No. CP01-423-000). September 2001

Subject: Analysis of market power impacts of proposed LNG facility development.

### Missouri Gas Energy Corp.

• FERC rate proceeding (*Re: Kansas Pipeline Corporation*, Docket No. RP99-485-000) Subject: Gas supply analysis to determine pipeline depreciation rates as part of an overall rate proceeding.

## **Green Mountain Power Corp.**

- Vermont Public Service Board rate proceedings
  - o In the Matter of Green Mountain Power Corporation requesting a 12.93% Rate Increase to take effect January 22, 1999, Docket No. 6107. Subject: Analysis of the appropriate discount rate, treatment of environmental costs, and the treatment of risk and uncertainty as part of a major power-purchase agreement with Hydro-Quebec.
  - o Investigation into the Department of Public Service's Proposed Energy Efficiency Utility, Docket No. 5980. Subject: Analysis of distributed utility planning methodologies and environmental costs.
  - o Tariff Filing of Green Mountain Power Corporation requesting a 16.7% Rate Increase to take effect 7/31/97, Docket No. 5983. Subject: Analysis of distributed utility planning methodologies and avoided electricity costs.
  - o Tariff Filing of Green Mountain Power Corporation requesting a 16.7% Rate Increase to take effect 7/31/97, Docket No. 5983. Subject: Valuation of a long-term power purchase contract with Hydro-Quebec in the context of a determination of prudence and economic used-and-usefulness.

#### **United Illuminating Company**

• Connecticut Dept. of Public Utility Control proceeding (*Application of the United Illuminating Company for Recovery of Stranded Costs*, Docket No. 99-03-04)

Subject: Development and application of dynamic programming models to estimate nuclear plant stranded costs.

#### COMMERCIAL LITIGATION EXPERIENCE

- Clint Yoby v. City of Cleveland, et al., Cuyahoga County Court of Common Pleas, Case No. CV-15-852708. Expert report demonstrating that the environmental adjustment levied by the City of Cleveland was based on verifiable costs and concluding plaintiffs suffered no damages.
- Allco Renewable Energy, LLC v. Massachusetts Electric Company (d/b/a National Grid, et al., U.S. District Court, District of Massachusetts, Case No. 1:15-cv-13515-PBS. Expert report on compliance of National Grid standard-offer rate with requirements under the US Public Utilities Regulatory Policy Act.
- Winding Creek Solar, LLC v. Michael Peevey, et al., U.S. District Court, Northern California District, Case No. 3:13-04934-JD. Expert report on compliance of California Public Utility Commission renewable energy acquisition programs with requirements under the US Public Utilities Regulatory Policy Act.
- AEP Transmission v. Brutus Leasing, Inc., State of Ohio Court of Common Pleas, Case No. CV20140150. Expert testimony regarding public need for property condemnation to build a high-voltage transmission line.
- Town of Barnstable, et al. v. Ann G. Berwick, as Chair of the Massachusetts Department of Public Utilities, et al., U.S. District Court, District of Massachusetts, Case No. 1:14-cv-10148. Expert report on damages to Town of Barnstable associated with mandated purchases of above-market wind power.
- *Idaho Power Co. v. Glenns Ferry Cogeneration Partners, L.P.*, U.S. District Court, District of Idaho, Case No. 1:11-cv-00565-CWD. Expert report on damages associated with breach of power sales contract.
- Vacqueria Tres Monjitas and Suiza Dairy, Inc. v. Jose O. Laboy, in his Official capacity, as the Secretary of the Department of Agriculture for the Commonwealth of Puerto Rico, and Juan R. Pedro-Gordian, in his official capacity, as Administrator of the Office of the Milk Industry Regulatory Administration for the Commonwealth of Puerto Rico, U.S. District Court, District of Puerto Rico, Civil Case No. 04-1840. Expert testimony and report on country risk and failure to provide adequate compensation to fresh milk processors in Puerto Rico.

- Lorali, Ltd., et al. v. Sempra Energy Solutions, LLC, et al. District Court of Texas, 92<sup>nd</sup> Judicial Court, Hidalgo County, Cause No. C-356-10-A. Expert reports regarding liquidated damages associated with breach of retail electric supply contracts.
- *DPL, Inc. and its subsidiaries v. William W. Wilkins, Tax Commissioner of Ohio,* Case No. 2004-A-1437. Expert report on economic impacts of generation investment and qualification of electric utility investments as "manufacturing" investments for purposes of state investment tax credits.
- IMO Industries v. Transamerica. Estimated the appropriate discount rate to use for
  estimating damages over time associated with a failure of the insurance companies
  to reimburse asbestos-related damage claims and the resulting losses to the firm's
  value.
- *John C. Lincoln Hospital v. Maricopa County.* Performed statistical analysis to determine the value of a class of unpaid hospital insurance claims.
- *Catamount/Brownell, LLC. v. Randy Rowland.* Prepared an expert report on the damages associated with breach of commercial lease.
- Lyubner v. Sizzling Platters, Inc. Performed an econometric analysis of damage claims based on sales impacts associated with advertising.
- *Pietro v. Pietro*. Estimated pension benefits arising from a divorce case.
- Nat'l. Association of Electric Manufacturers v. Sorrell. U.S. District Court for the
  District of Vermont. Expert report and testimony on the costs of labeling
  fluorescent lamps and the impacts of labeling laws on the demand for electricity.

#### **ARBITRATION CASES**

TransCanada Hydro Northeast, Inc. v. Town of Littleton, New Hampshire, (CPR File No. G-09-24).

Subject: dispute regarding valuation for property tax purposes of a hydroelectric facility located on the Connecticut River.

Served as neutral on a three-person arbitration panel.

## Belize Electricity Limited v. Belize Public Utilities Commission (Claim No. 512 of 2008).

Subject: Proceeding before the Supreme Court of Belize alleging that the Final Decision by the Belize Public Utilities Commission setting electric rates and tariffs for the 2008-2009 period were unreasonable and non-compensatory.

Prepared independent report on behalf of the Belize Supreme Court for arbitration of the dispute.

## **SELECTED BUSINESS CONSULTING EXPERIENCE**

- For an alliance of industrial firms and a public ratepayer advocate, developed risk management methodologies for electric and natural gas utilities in California
- For the Manhattan Institute, prepared a comprehensive report on the effects of electric vehicles on air pollution and GHG emissions over the 2018 – 2050 time period.
- For the Manhattan Institute, prepared a comprehensive report on the cost-benefit analysis prepared by the US EPA for its Clean Power Plan.
- For Fortis-TCI, prepared report on the economic impacts of the electric industry in the Turks and Caicos.
- For the COMPETE coalition, prepared a report on the economic impacts of state subsidized electric generating plants.
- For a confidential client, provided analysis on rate of return and capital structure, as well as key business and financial risks, for renegotiation of a long-term power-purchase agreement.
- For the Manhattan Institute, prepared a comprehensive report on the economic impacts of shutdown of the Indian Point Nuclear Facility.
- For Energy Choice Now, prepared a report on the economic benefits of retail electric competition in Michigan.
- For the COMPETE Coalition, prepared a report on how electric competition creates economic growth.
- For an industry group, developed econometric models of the impacts of shale gas production on U.S. natural gas and electric prices.
- For an environmental advocacy group, critically evaluated the financial implications of operating restrictions for an off-shore wind generating facility stemming from requirements under the U.S. Endangered Species Act.

- For a major investor-owned utility in the US, prepared a new system of short-term peak and energy forecasting models.
- For a major wholesale electric generation company, prepared comprehensive economic impact studies for use in FERC hydroelectric relicensing proceedings.
- For a major investor-owned utility in the Southwest US, prepared a detailed econometric model and wrote a comprehensive report on residential price elasticity that was required by regulators.
- For a major investor-owned utility in the Southwest US, developed a methodology to value nuclear plant leases that incorporated future uncertainty regarding greenhouse gas regulations.
- Faculty member, PURC/World Bank International Training Program on Utility Regulation and Strategy, University of Florida, Public Utility Research Center, Gainesville, FL, 2008 2009. Courses taught:
  - Sector Issues: Basic Techniques–Energy
  - Sector Issues in Rate Design: Energy
  - Sector Issues in Rate Design: Energy-Case Studies
  - Transmission Pricing Issues
- For a major solar energy firm, evaluated costs and benefits of alternative solar technologies; assisted with siting and transmission access issues.
- For the South African Department of Minerals and Energy, recommended pricing methods and regulatory accounts to ensure that petroleum product prices appropriately reflected costs and to enhance the incentives for industry investment "Final Report for Task 141."
- For industrial customers in the State of Vermont, prepared a position paper on the impacts of demand side management funding on electric rates and competitiveness.
- For a major New York brokerage firm, performed a fairness opinion valuation of a gas-fired electric generating facility.
- For electric utilities undergoing restructuring, developed comprehensive economic models to value buyer offers associated with nuclear power plant divestitures.
- For a large municipal electric utility in Florida, analyzed real option values of alternative proposed purchased generation contracts whose strike prices were tied to future natural gas and oil prices, and developed contract recommendations.
- For a municipal electric utility in Florida, developed an analytical model to determine risk-return tradeoffs of alternative generation portfolios, identify an

- efficient frontier of generation asset portfolios, and recommended asset purchase and sale strategies.
- For Central Vermont Public Service Corp. and Green Mountain Power Corp., developed analyses of distribution capacity investments accounting for uncertainty over future peak load growth.
- For a major electric utility in Latin America, developed risk management strategies for hedging natural gas supplies with minimal up-front investment; prepared training materials for utility staff; and wrote the utility's risk management Policies and Procedures Manual.
- For a major nuclear plant owner and operator in the U.S., prepared reports of the economic benefits of nuclear plant operation and development.
- For the Electric Power Supply Association, prepared numerous policy papers addressing wholesale electric market design and competition.
- For the California Energy Commission, developed a new policy approach to renewables feed-in tariffs and developed portfolio analysis models to develop an "efficient frontier" of generation portfolios for the state.
- For a major nuclear plant owner and operator, assessed the likelihood of relicensing a specific nuclear plant in New England, given state regulatory concerns over on-site spent fuel storage.
- For a large investor-owned utility in the Southeast, analyzed alternative environmental compliance strategies that directly incorporated uncertainty over future emissions costs, environmental regulations, and alternative pollution control technology effectiveness.
- For a Special Legislative Committee of the Province of New Brunswick, served as an expert advisor on the development of a deregulated electric power market.
- For the Bonneville Power Administration, developed models to assess the economic impacts of local generation resource development in Washington State and Oregon.
- For an electric utility in the Pacific Northwest, assisted in negotiations surrounding relicensing of a large hydroelectric generating facility.
- Served as an expert advisor for the Northwest Power Planning Council regarding future power supplies, load growth, and economic growth.

#### **PROFESSIONAL ACTIVITIES**

- Reviewer, Energy
- Reviewer, The Energy Journal
- Reviewer, Energy Policy
- · Reviewer, Journal of Regulatory Economics
- Editorial Board Member, Natural Gas & Electricity

#### **PROFESSIONAL ASSOCIATIONS**

- · Energy Bar Association
- Society for Benefit-Cost Analysis

## **PUBLICATIONS**

## Peer-reviewed journal articles

- Lesser, J., and G. Briden, "Regulatory Arbitrage and the FERC Rate Settlement Process," *Journal of Regulatory Economics* 51 (April 2017): 184-196.
- Lesser, J., "A Case Study in Damages Estimation: Bolivia's Nationalization of EGSA," *Journal of International Arbitration* 2 (2014), pp. 113-17.
- Lesser, J., "The High Cost of Low-Value Wind Power," *Regulation*, Spring 2013, pp. 22-27.
- Lesser, J., "Gresham's Law of Green Energy," *Regulation*, Winter 2010-2011, pp. 12-18.
- Lesser, J., and E. Nicholson, "Abandon all Hope? FERC's Evolving Standards for Identifying Comparable Firms and Estimating the Rate of Return," *Energy Law Journal* 30 (April 2009): 105-132.
- Lesser, J. and X. Su. "Design of an Economically Efficient Feed-in Tariff Structure for Renewable Energy Development." *Energy Policy* 36 (March 2008) 981–990.
- Lesser, J. "The Economic Used-and-Useful Test: Its Origins and Implications for a Restructured Electric Industry." *Energy Law Journal* 23 (November 2002): 349–82.
- Lesser, J., and C. Feinstein. "Electric Utility Restructuring, Regulation of Distribution Utilities, and the Fallacy of 'Avoided Cost' Rules." *Journal of Regulatory Economics* 15 (January 1999): 93–110.

- Lesser, J., and C. Feinstein. "Defining Distributed Utility Planning." *The Energy Journal*, Special Issue, Distributed Resources: Toward a New Paradigm (1998): 41–62.
- Lesser, J., and R. Zerbe. "What Can Economic Analysis Contribute to the Sustainability Debate?" *Contemporary Policy Issues* 13 (July 1995): 88–100.
- Lesser, J., and R. Zerbe. "The Discount Rate for Environmental Projects." *Journal of Policy Analysis and Management* 13 (Winter 1994): 140–56.
- Lesser, J., and D. Dodds. "Can Utility Commissions Improve on Environmental Regulations?" *Land Economics* 70 (February 1994): 63–76.
- Lesser, J. "Estimating the Economic Impacts of Geothermal Resource Development." *Geothermics* 24 (Winter 1994): 52–69.
- Lesser, J. "Application of Stochastic Dominance Tests to Utility Resource Planning Under Uncertainty." *Energy* 15 (December 1990): 949–61.
- Lesser, J. "Resale of the Columbia River Treaty Downstream Power Benefits: One Road From Here to There." *Natural Resources Journal* 30 (July 1990): 609–28.
- Lesser, J., and J. Weber. "The 65 M.P.H. Speed Limit and the Demand for Gasoline: A Case Study for the State of Washington." *Energy Systems and Policy* 13 (July 1989): 191–203.
- Lesser, J. "The Economics of Preference Power." *Research in Law and Economics* 12 (1989): 131–51.

## **Books and contributed chapters**

- Lesser, J., and L.R. Giacchino. *Fundamentals of Energy Regulation*, 2d ed., Vienna, VA: Public Utilities Reports, 2013.
- Lesser, J. and C. Strother, "Natural Gas Storage," in *Energy Law and Transactions*, Lexis/Nexis, 2012-14 eds.
- Lesser, J., and L.R. Giacchino, *Principles of Utility Corporate Finance*, Vienna, VA: Public Utilities Reports, 2011.
- Lesser, J., and R. Zerbe. "A Practitioner's Guide to Benefit-Cost Analysis," in *Handbook of Public Finance*, edited by F. Thompson, 221–68. New York: Rowan and Allenheld, 1998.
- Lesser, J., D. Dodds, and R. Zerbe. *Environmental Economics and Policy*, Reading: MA: Addison Wesley Longman, 1997.

## **Selected Trade press publications**

- Lesser, J. and P. O'Connor, "The Electricity Choice Debate: Conjectures and Refutations," *The Electricity Journal* 27 (Aug./Sep. 2014), pp. 9-22.
- Lesser, J., "Wind Generation Patterns and the Economics of Wind Subsidies," *The Electricity Journal* 26, Jan/Feb. 2013, pp. 8-16.
- Lesser, J., and C. Feinstein, "Opening the Black Box: A New Approach to Utility Asset Management," *Public Utilities Fortnightly*, January 2014, pp. 36-42.
- Lesser, J., "Déjà vu All Over Again: The Grass was not Greener Under Utility Regulation." *The Electricity Journal* 20 (December 2007): 35–39.
- Lesser, J., and G. Israilevich, "The Capacity Market Enigma." *Public Utilities Fortnightly* 143 (December 2005): 38-42.
- Lesser, J., "Regulation by Litigation." *Public Utilities Fortnightly* 142 (October 2004): 24–29.
- Lesser, J., "ROE: The Gorilla is Still at the Door." *Public Utilities Fortnightly* 144 (July 2004): 19–23.
- Lesser, J., and S. Chapel, "Keys to Transmission and Distribution Reliability." *Public Utilities Fortnightly* 142 (April 2004): 58–62.
- Lesser, J. "DCF Utility Valuation: Still the Gold Standard?" *Public Utilities Fortnightly* 141 (February 15, 2003): 14–21.
- Lesser, J., "Welcome to the New Era of Resource Planning: Why Restructuring May Lead to More Complex Regulation, Not Less." *The Electricity Journal* 15 (July 2002): 20–28.
- Lesser, J., and C. Feinstein, "Identifying Applications for Distributed Generation: Hype vs. Hope." *Public Utilities Fortnightly* 140 (June 1, 2002): 20–28.
- Lesser, J., et al., "Utility Resource Planning: The Need for a New Approach." *Public Utilities Fortnightly* 140 (January 15, 2002): 24–27.
- Lesser, J., "Distribution Utilities: Forgotten Orphans of Electric Restructuring?" *Public Utilities Fortnightly* 137 (March 1, 1999): 50–55.

- Lesser, J., "Regulating Distribution Utilities in a Restructured World." *The Electricity Journal* 12 (January/February 1999): 40–48.
- Lesser, J., "Is it How Much or Who Pays? A Response to Rothkopf." *The Electricity Journal* 10 (December 1997): 17–22.
- Lesser, J., and M. Ainspan, "Using Markets to Value Stranded Costs." *The Electricity Journal* (October 1996): 66–74.
- Lesser, J., "Economic Analysis of Distributed Resources: An Introduction."
   Proceedings, First Annual Conference on Distributed Resources, Electric Power Research Institute, Kansas City, MO, July 1995.
- Lesser, J., "Distributed Resources as a Competitive Opportunity: The Small Utility Perspective." *Proceedings*, First Annual Conference on Distributed Resources, Electric Power Research Institute, Kansas City, MO, July 1995.
- Lesser, J., and M. Ainspan, "Retail Wheeling: Deja vu All Over Again?" *The Electricity Journal* 7 (April 1994): 33–49.
- Lesser, J., "An Economically Rational Approach to Least-Cost Planning: Comment." *The Electricity Journal* 4 (October 1991).
- Lesser, J., "Long-Term Utility Planning Under Uncertainty: A New Approach." Paper presented for the Electric Power Research Institute: *Innovations in Pricing and Planning*, May 1990.
- Lesser, J., "Centralized vs. Decentralized Resource Acquisition: Implications for Bidding Strategies." *Public Utilities Fortnightly* (June 1990).
- Lesser, J., "Most Value—The Right Measure for the Wrong Market?" *The Electricity Journal* 2 (December 1989): 47–51.