

**EXHIBIT NO. \_\_\_\_\_ (PFP-2)**  
**DOCKET NO. \_\_\_\_\_**  
**2001 PSE RATE CASE**  
**WITNESS: P. FOX-PENNER**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY, INC.**

**Respondent.**

**PROFESSIONAL QUALIFICATIONS OF PETER FOX-PENNER  
ON BEHALF OF PUGET SOUND ENERGY, INC.**

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**PUGET SOUND ENERGY, INC.**

**PROFESSIONAL QUALIFICATIONS OF PETER FOX-PENNER**

**Q: Please state your name and business address.**

A: My name is Peter Fox-Penner. My address is 1133 20<sup>th</sup> Street, NW, Washington, DC.

**Q: Please describe your educational and professional experience.**

A: I am an economist specializing in electric utility regulation and energy policy and Chairman and a Principal of *The Brattle Group*. My qualifications are detailed below.

\* \* \*

Peter Fox-Penner is an economist with an engineering background and more than twenty years of experience in regulated industries, energy policy, and environmental issues. In a career that has spanned consulting, senior government service, and academia, he has assisted numerous public and private clients in settings that include expert testimony, publications and speeches, and advice to senior management and boards. He is the author of numerous publications and books and a frequent speaker at conferences and meetings.

Dr. Fox-Penner has a long involvement in utility deregulation economics and policy. He is the author of the acclaimed *Electric Utility Restructuring: A Guide to The Competitive Era*, a best-selling work on the subject, and participated in extensive energy and network industry policy activities within the U.S. government. A former vice president at Charles River Associates, Dr. Fox-Penner joined the U.S. Department of Energy in 1993 as the Principal Deputy Assistant Secretary for Energy Efficiency and

1 Renewable Energy, where he held COO responsibilities for a unit of the Department with  
2 a budget of approximately \$1 billion. He later served as a senior advisor in the White  
3 House Office of Science and Technology Policy and an assistant to the Deputy Secretary  
4 of Energy. In 1996, he joined *The Brattle Group* as a Principal and Director of the  
5 Washington, DC office.

7 Dr. Fox-Penner received his B.S. in Electrical Engineering and his M.S. in  
8 Mechanical Engineering (Energy Policy) from the University of Illinois, and his Ph.D. in  
9 Economics from the Graduate School of Business, University of Chicago.

## 11 **REPRESENTATIVE EXPERIENCE**

### 13 *Regulated Industries and Electric Restructuring*

- 14 • Electric utility restructuring
- 15 • Performance-based and price cap regulation
- 16 • Antitrust, market power, and merger-related issues in regulated industries
- 17 • Network and transmission pricing, access rules, and governance
- 18 • Utility convergence and retail utility strategic issues
- 19 • Economic and policy issues in public interest utility programs
- 20 • Load and sales forecasting, pricing, and new product analysis
- Utility telecommunications regulatory issues and strategy

### 21 *Energy, Environmental, and Technology Policy*

- 22 • Energy taxes
- 23 • Pollution permits and trading schemes
- 24 • Technology and Market Evaluations
- 25 • Public Policies Towards New Technologies and R& D
- 26 • Energy conservation—economics and policy
- Energy externalities

- Nuclear power: economics, litigation, and regulation
- Energy security policies and the strategic petroleum reserve

### **EMPLOYMENT HISTORY**

2001-Present: Chairman, *The Brattle Group*, Washington, DC

1996-Present: Principal and Director, *The Brattle Group*, Washington, DC

1993-1996: Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, United States Department of Energy

Senior Advisor for Technology Policy, Office of Science and Technology Policy, Executive Office of the President

Assistant to the Deputy Secretary of Energy

1989-1993: Vice President, Charles River Associates, Boston, MA

1991-1993: Professorial Lecturer, Center for Energy and Environmental Studies, Boston University

1987-1989: Senior Associate, Charles River Associates

1980-1983: Research Engineer and Chief Research Engineer, Illinois Governor's Office of Consumer Service, Chicago, IL

1977-1980: Research Assistant and Research Engineer, Office of Vice Chancellor for Energy Research, University of Illinois, Urbana, IL

### **REFEREED PUBLICATIONS**

With Gregory N. Basheda, Darrell B. Chodorow, Jason A. Hicks, Eric Hirst, James K. Mitchell, Dean M. Murphy and Joseph B. Wharton. "The FERC, Stranded Cost Recovery, and Municipalization." *Energy Law Journal* 19 (1998): 351-386

"Efficiency and the Public Interest: QF Transmission and the Energy Policy Act of 1992." *Energy Law Journal* 14 (1993): 51-73.

With Karen Palmer, David Simpson, and Michael Toman. "Electricity Fuel Contracting: Relationships with Coal and Gas Suppliers." *Energy Policy*, October, 1993: 1045-1054.

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With Franklin M. Fisher, Joen Greenwood, William G. Moss, and Almarin Phillips. "Due Diligence and the Demand for Electricity: A Cautionary Tale." *Journal of Industrial Organization*, 1992.

"Cogeneration After PURPA: Energy Conservation and Industry Structure." *Journal of Law and Economics* 33 (October 1990): 517-552.

"Regulating Independent Power Producers: Lessons of the PURPA Approach." *Resources and Energy* 12 (1990): 117-141.

"A Dynamic Input-Output Analysis of Net Energy Effects in Single Fuel Economics." *Energy Systems and Policy* 5, no. 2 (1981).

With Bruce M. Hannon and Robert Herendeen. "An Energy Conservation Tax: Impacts and Policy Implications." *Energy Systems and Policy* 5, no. 2 (1981).

With R.S. Chambers, R.A. Herendeen, and J.J. Joyce. "Gasohol: Does It or Doesn't It . . . Produce Positive Net Energy?" *Science* 206, no. 4420 (November 1979): 789-795.

"Considerations of Energy Cost and Versatility in Choosing Optimal Stockpile Forms." *Resources Policy* 5, no. 2 (June 1979): 414-448.

"The Acoustic Specification and Design of a Modern Recording Studio." *Journal of the Audio Engineering Society* (June 1979).

With R.A. Herendeen and T. Milke. "New Hybrid 1971 Energy Intensities." *Energy* 4 (1979): 469-473.

"Cynics, Martyrs, and the Value of Energy Conservation." *Science and Public Policy* 5 (1978): 105-110.

With Clark Bullard and David Pilati. "Energy Analysis: Handbook for Combining Process and Input-Output Analysis." *Resources and Energy* (June 1979). Also published by the Energy Research and Development Administration, Washington, DC, ERDA 77-61).

"Energy Intensity of Electric Commuter Railways." Center for Advanced Computation Technical Memo 24, June 1974. Reprinted as "Total Energy and Labor Requirements for an Electric Commuter Railroad." *Energy* 3 (1978): 539-542.

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**MONOGRAPHS AND BOOKS**

With Karen Palmer, David Simpson, and Michael Toman. "Power Plant Fuel Supply Contracts: The Changing Nature of the Long-Term Supply Relationship." Arlington, VA: Public Utility Reports, 1992.

*Electric Power Transmission and Wheeling: A Technical Primer.* Washington, DC: The Edison Electric Institute, 1990.

*Electric Utility Restructuring: A Guide to the New Era.* Vienna, VA: Public Utility Reports, 1997

**BOOK CHAPTERS**

With Romkaew Broehm. "Price-Responsive Electric Demand: A National Necessity, Not an Option," forthcoming in *Towards Market Based Pricing of Electricity*, Faruqui Ahmad, ed. 2002.

"Energy Policy: Today's View from the Federal Government," in *The Energy Crisis: Unresolved Issues and Enduring Legacies*, David Feldman, ed., Johns Hopkins University Press, 1996.

"What Role Should the Federal Government Play in Energy Efficiency?" in *Policy Evolution: Energy Conservation to Energy Efficiency.* Douglas A. Decker and Alan Berolzheimer, eds. Liburn, GA: The Fairmount Press, 1997.

**SELECTED ADDITIONAL PUBLICATIONS**

With Ellen Craig and Adam Schumacher. "Value Drivers in the Utility Industry of 2002." Forthcoming *PUR Analysis of The Nation's Largest Investor-Owned Electric and Gas Utilities*, 2001 Edition, Public Utilities Reports.

"Easing Gridlock on the Grid: Electric Planning and Siting Compacts." Forthcoming in *The Electricity Journal*, November 2001.

"Clean Growth: A Balanced Energy Policy for the 21<sup>st</sup> Century." Progressive Policy Institute's Policy Report, October 2001.

With Greg Basheda. "A Short Honeymoon for Utility Deregulation." *Issues in Science and Technology*, Spring 2001.

"What not to learn from the Calif. crisis." (Op-ed) *The Providence Journal*, March 3, 2001.

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“Epitaph for Electric Deregulation.” Prepared for the National Council on Competition and the Electric Industry, December 2000 meeting, October 2000.

With Frank Graves. “Monopoly Power After Reform? A Time for Soul-Searching.” *Public Utilities Fortnightly*, May 2000.

“Federal Restructuring Legislation: Any Chance in This Congressional Session?” *Energy Efficiency Journal*, March 2000.

“Electric Power Deregulation: Blessings and Blemishes, A Non-Technical Review of the Issues Associated with Competition in Today’s Electric Power Industry.” Prepared for the National Council on Competition and the Electric Industry, March 14, 2000.

With Johannes P. Pfeifenberger. “Transmission Access, Episode II: FERC’s Journey.” *Public Utilities Fortnightly*, August 1999.

With J.P. Pfeifenberger, P.Q Hanser, and G.N. Basheda. “In What Shape is Your ISO?” *The Electricity Journal*, July 1998.

“Transco vs. ISO: A Sideshow?” *Public Utilities Fortnightly*, June 1, 1998.

With Matt O’Loughlin. “Fostering Market Center Development and Integration of the Natural Gas Grid Through Improved Pipeline Ratemaking.” Prepared for NorAm Gas Transmission Company, May 1998.

“An Open Letter to the President” *The Electricity Journal*, March 1997.

With Philip Q Hanser and Joseph B. Wharton. “Real-Time Pricing: Restructuring’s Big Bang?” *Public Utilities Fortnightly*, March 1997.

“Critical Trends in State Utility Regulation.” *Natural Resources and Environment* 8 (Winter 1994): 17-20.

“Electricity in A Competitive Environment: The Real Issue is Not Retail Wheeling.” *Edison Times IRP Quarterly*, Fall 1994.

With Chris Fitzgerald. “A Proposal for Design-Based Auto Industry Environmental Regulation.” *Total Quality Environmental Management* 2 (Spring 1993): 323-327.

“The Private DSM Industry - A Gleam in Whose Eye?” *The Electricity Journal* 4 (December 1991): 21-25.

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With Paul D. O'Rourke and Peter J. Spinney. *Competitive Procurement of Electric Utility Resources* (EPRI CU-6898s). Palo Alto, CA: Electric Power Research Institute, July 1990.

With Mark Horton and Peter Spinney. "Bidding Update." *Cogeneration & Resource Recovery* 9, no. 7 (November/December 1990): 6–11.

With Edward Kee. "Bid Policies Overhauled." *Cogeneration & Resource Recovery* 9, no. 7 (November/December 1990): 14–15.

Comments on Notice of Proposed Rulemaking Concerning Avoided Costs. Before the Federal Energy Regulatory Commission, Docket RM88-4, June, 1988.

"Allowing for Regulation in Forecasting Load and Financial Performance." *Public Utilities Fortnightly* (January 7, 1988).

"Price Formula Issues Associated with SPR Release Programs." Prepared for the Office of Energy Emergencies, U.S. Department of Energy, 1988.

"The Immediate Consequences of an Oil Supply Emergency for the Financial Markets and Major User Groups." Prepared for the Office of Energy Emergencies, U.S. Department of Energy, 1988.

With others. "Independent Load Forecast for the Commonwealth Edison Service Territory." Governor's Office of Consumer Services, Chicago, June 1981. ICC Docket No. 80-0706.

"The Norwegian Power Planning Process." Institute for Environmental Studies, University of Oslo, Norway, 1981.

With R. Herendeen.. "A 1972 Energy and Labor Commodity-Commodity Input-Output Model." Energy Research Group, University of Illinois, Urbana, IL, March 1980.

"Correspondence Between the EDIO Input-Output Model and the ERG-90 and 360-Order Input-Output Model." Energy Research Group, University of Illinois, Urbana, IL, March 1980.

With J. Kurish. "Energy and Labor Cost of Alternative Coal-Electric Fuel Cycles." Energy Research Group, University of Illinois, Urbana, IL, February 1980.

"Handbook of Research Techniques." Energy Research Group Technical Memo 123. Revised December 1979.



- 1 "A Structure of the Electric Utility Industry, 1990." Energy Research Group Technical  
2 Memo 121, November 1979.
- 3 With B. Hannon and R. Herendeen. "Calculation of Alpha in the Determination of  
4 Primary Energy." Energy Research Group, University of Illinois, Urbana, IL,  
November 1979.
- 5 "Notes of the Bechtel ESPM/ERG I/O Bridge for Operating (Annual) and Capital  
6 (Investment) Costs, Purchasers Prices, 1978." Energy Research Group Technical  
Memo 119, August 1979.
- 7 "Transformation of Brookhaven National Laboratories 110-Order I/O Data into ERG-  
8 Usable Form." Energy Research Group Technical Memo 118, July 1979.
- 9 "1967-1977 Price Indices for Use with the Energy Research Group Energy Input-Output  
10 Policy Models." Energy Research Group Technical Memo 117, June 1979.
- 11 "Direct Energy Transactions Matrix for 1971." Energy Research Group, University of  
12 Illinois, Urbana, IL, June 1979.
- 13 With Jack Joyce. "Background Energy Cost Calculations for ACR Gasohol Production."  
Report to ACR Processes, Inc., November 1977.
- 14 With Clark Bullard and Donna Amado. "Net Energy Effects and Resource Depletion: An  
15 All-Nuclear Economy." Center for Advanced Computation Document 238,  
September 1977.
- 16 "Taking Appropriate Technology to Task." *WIN* 13:(April 7, 1977):8-10.
- 17 With Donna Amado. "Net Energy Effects and Resource Depletion: An All-Oil  
18 Economy." Center for Advanced Computation Document 231, April 1977.
- 19 "Standardization of Energy Accounting Techniques." Center for Advanced Computation  
20 Technical Memo 83, January 1977.
- 21 With Jaap Spek. "Stockpile Optimization and Versatility Consideration for Strategic and  
22 Critical Materials." Center for Advanced Computation Document 217, May 1976.
- 23 "Energy Requirements and Aerosol and Alternative Packaging: A Case Study." Center  
24 for Advanced Computation Document 204, February 1976. 2nd revision, July  
1976.
- 25 With Bruce Hannon. "The Energy Research Group Resource Energy-Employment Model  
26 and Its Uses in Stockpile Policymaking." Report to the Office of Preparedness,  
General Services Administration, July 1975.

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“The Coal Future: Capital and Fuel Cycle Energy Costs of a 1000 MW Nuclear Reactor.” Appendix B to Michael Rieber's Center for Advanced Computation Document 163, May 1975.

“Summary of Techniques Used for Calculating the Energy Costs of Constructing a Commercial Nuclear Reactor.” Center for Advanced Computation Technical Memo, April 1975.

“The Dollar, Energy and Labor Impact of 1971 Regular Route Intercity Bus Transportation.” Center for Advanced Computation Technical Memo 31, July 1974.

“Energy Intensity of Motorcycle Travel.” Center for Advanced Computation Technical Memo 30, July 1974.

**SELECTED CONFERENCE/WORKSHOP PARTICIPATION**

“What Does the California Experience Tell Us About Fixing the Rest of America’s Power Markets?” By Peter Fox-Penner and Joseph B. Wharton. Presented at the National Association Business Economics Regional/Utility Roundtable, April 24, 2001.

“Taming the Lions in America’s Electric Markets: Five Major Challenge.” Presented at National Governors’ Association Center for Best Practices, Executive Policy Forum on Energy, “*Is Electricity Restructuring in Jeopardy?*” Washington, DC, April 5, 2001.

“The Challenge to Co-operatives in the Electric Power Industry of the 21<sup>st</sup> Century.” NRECA’s 30<sup>th</sup> Annual CEO Leadership Conference. Keystone, CO, August 2, 2000.

“Price-Responsive Electric Demand: A National Priority.” The Electric Power Research Institute’s International Energy Pricing Conference. Washington, DC, July 26, 2000.

“Incentives, Regulation and Transmission Companies: One Practioner’s View.” Presented to The Federal Energy Regulatory Commission’s RTO Staff. Washington, DC, July 16, 1999.

“ISOs, Transcos, Gridcos, and Long-Run Power Industry Efficiency.” Federal Energy Bar Association’s Mid-Year Meeting. Washington, DC, December 4, 1998.

- 1 “Market Power Issues in Restructured Electric Power Markets.” American Bar  
2 Association’s Satellite Seminar, “Critical Federal and State Practice Issues in  
Electricity Deregulation.” Washington, DC, December 3, 1998
- 3 “SAVIOR OR BUREAUCRAT? ISOs, Competition, and Independent Transmission  
4 Companies.” Winning with Retail Competition, 2<sup>nd</sup> Annual PUR Conference,  
Arlington, VA, June 22, 1998.
- 5  
6 “The Evolution of the Energy Services Industry.” *Have it Your Way: Buying and Saving*  
*Energy in the Age of Customer Choice*, Annual Meeting of Energy Management  
7 Consortium and the Northeast Energy Efficiency Council, Boston, MA,  
September 18, 1997.
- 8  
9 “Volatility and Stability in the Deregulated Generation Marketplace.” Restructuring and  
Convergence, Successful Strategies in the Energy Services Marketplace,  
10 Arlington, VA, May 22, 1997.
- 11 “Progress and Promise: The Clinton Administration’s Efforts in Fostering Sustainable  
Development.” Global Accords for Sustainable Development: Enabling  
12 Technologies and Links to Finance and Legal Institutions Conference, M.I.T.,  
Cambridge, MA, September 5, 1996.
- 13 Invited Speaker, Fourth Biennial Conference of the International Society for Ecological  
14 Economics, Boston, MA, August 7, 1996.
- 15 “Linking Energy, Environment, and Technology to the Economy.” Globalcon Energy and  
Environment Exposition, April 3, 1996.
- 16  
17 21st Annual Illinois Energy Conference, November 1996.
- 18  
19 Civil Engineering Research Foundation, Washington meeting, October 12, 1995.
- 20 “Technology and Economic Growth: The Government’s Role.” M.I.T. Club of  
Washington, DC, October 10, 1995.
- 21 “The Impact of Government Budget Changes and Restructuring on Engineering.” ASME  
and the Public Lecture Series, Washington, DC, September 21, 1995.
- 22 “Energy - Environment - Technology: Two Visions, Two Directions.” *Proceedings of the*  
23 *1995 International Energy and Environment Congress*. Association of Energy  
Engineers, Richmond, VA, 1995.
- 24  
25 “The Federal Role in Energy Efficiency.” Eighth Biannual DSM Evaluation Conference,  
Chicago, IL, August 24, 1995.
- 26

- 1 Invited Speaker, Seventh National DOE/EPRI Demand-Side Management Conference,  
2 Dallas, TX, June 28, 1995.
- 3 “Utility Restructuring and Regulatory Reform.” Invited Presentation, National  
4 Association of Regulatory Utility Commissioners Attorneys' Conference, Tucson,  
AZ, May 18, 1995.
- 5 Invited Speaker, Conservation Committee, Semi-Annual Meetings of the National  
6 Association of Regulatory Utility Commissioners, 1994 and 1995.
- 7 Invited Panelist, OECD Seminar on Sustainable Production and Consumption,  
8 Massachusetts Institute of Technology, December 19, 1994.
- 9 “Electric Utilities and the Environment: Restructuring Need Not Mean Retreat.” Invited  
10 Presentation, “Brave New World - Managing Externalities in a Competitive  
Electric Utility Industry.” University of Illinois Center for Regulatory Studies,  
Chicago, IL, November 17, 1994.
- 11 Invited Speaker, International Ground Source Heat Pump Association, Hershey, PA,  
12 October 17, 1994.
- 13 Invited Speaker, “Washington: Business and Public Policy,” Brookings Institution  
14 Seminar, October 18, 1994.
- 15 “Federal Climate Change Management Programs and Climate-Wise,” Businesses for  
16 Social Responsibility 1994 Environment Conference, Boston, MA, October 13,  
1994.
- 17 Invited Speaker, National Association of State Energy Officials, Asheville, NC,  
18 August 31, 1984.
- 19 Invited Speaker, Annual Meeting of the California Institute for Energy Efficiency,  
20 Berkeley, CA, July 25, 1994.
- 21 “Voluntary Greenhouse Gas Reporting Under the Energy Policy Act of 1992.” Invited  
22 Presentation, International Conference on Global Climate Change, Center for  
Environmental Information, Washington, DC, February 1993.
- 23 Panel Moderator, Natural Gas Procurement Strategies, Association of Energy Engineers  
Annual Conference, Boston, MA, June 1992.
- 24 Panel Moderator, Alternative Fuel Vehicles Conference, the Management Exchange,  
25 Washington, DC, April 1992.
- 26

- 1 Invited Presenter, American Water Works Association. Conservation Committee  
2 Workshop, Austin, TX, January 1992.
- 3 “The Future History of DSM.” Plenary presentation, 5th National Demand–Side  
4 Management Conference, Boston, MA, August 1, 1991.
- 5 “Visibility of the Buy Strategy — Bulk Power Transfers: Solution or Fatal Attraction?”  
6 The Management Exchange “The Buy vs. Build Decision” Conference,  
7 Washington, DC, March 22, 1991.
- 8 “Industrials and Electric Utilities: Your Stake in the Future of Power.” Invited Presenter,  
9 McGraw-Hill “Industrial and Utilities” Conference, Chicago, IL, October 22,  
10 1990.
- 11 “Is Deintegrated Electric Generation Efficient? A Proposed Empirical Research  
12 Framework.” *Proceedings of 13th Annual International Conference of the  
13 International Association of Energy Economists*. Copenhagen, Denmark,  
14 June 1990.
- 15 “Competitive Resource Procurement: Where Are We Going?” Invited Presentation,  
16 Edison Electric Institute Interconnection Arrangements Committee, Richmond,  
17 VA, April 20, 1990.
- 18 “Utility Regulation and DSM: Rethinking the Regulatory Boundaries.” Presentation  
19 with Peter Spinney, *DSM Bidding: Challenges and Opportunities*, Albany, NY,  
20 April 12, 1990.
- 21 “An Introduction to Competitive Power Procurement.” University of Illinois Center for  
22 Regulatory Studies, Workshop on Competitive Bidding, Chicago, IL, October 10  
23 and May 9, 1990.
- 24 Invited Presenter, “Is Deintegrated Electricity Efficient?” *Resources for the Future*,  
25 Washington, DC, February 14, 1990.
- 26 Chair, “Cogeneration IPPs — Current Developments,” Association of Energy Engineers,  
12th World Energy Engineering Congress, October 25, 1989.
- Convener, Electric Power Research Institute (EPRI) Workshops on Competitive Resource  
Procurement (“Bidmet”), Chicago, IL, October 18, 1989.
- “IPP Bidding: The View From Today's Utilities.” *Proceedings of the Third Annual  
Conference, American Cogeneration Association*, September 25-27, 1989.
- “Purchasing Independent Generation: The Case for Negotiated Contracts.” With Mary  
Smith. *Utility Opportunities in New Generation* (EPRI CU-6605). Palo Alto,  
CA: Electric Power Research Institute, June 1989.

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Invited speaker, Least-Cost Utility Regulation, National Association of State Utility Consumer Advocates, Columbus, OH, June 15, 1989.

Seminar on electric power transmission, RETSIE Conference, Santa Clara, CA, June 19, 1989.

“Purchasing Independent Generation: The Case for Negotiated Contracts.” Presentation with Mary Smith, EEI/EPRI Utility Opportunities for New Generation, Boston, MA, June 29, 1989.

Invited Speaker, “The Outlook for IPPs in Washington,” the Independent Power Producers of New York (IPPNY) 3rd Annual Meeting, Albany, NY, December 2, 1988.

“Resource Recovery: Evaluating the Development Benefits.” Part of the session: Waste-to-Energy Sales and Economic Development, the National League of Cities Resource Recovery in Transition Conference, Arlington, VA, November 15, 1988.

Co-chair, session on the Canadian Electric Power Trade, the American Cogeneration Association and Cogeneration & Independent Power Coalition of America (ACA/CIPCA) 2nd Annual Meeting and Exposition, Chicago, IL, September 26, 1988.

“An Econometric Analysis of the Impacts of PURPA Enforcement Differentials.” *Proceedings of the Sixth NARUC Biennial Regulatory Information Conference.* National Regulatory Research Institute, September 1988.

**ADVISORY BOARDS AND OTHER PROFESSIONAL ACTIVITIES**

Advisory Board, Center for National Policy, Washington, DC, 1993-1996

Advisory Board, Massachusetts Institute of Technology Energy Laboratory, 1993-1996

Nominator, Heniz Foundation Awards, 1995-1996.

Hearing Official, National Energy Policy Plan Hearings, United States Department of Energy, 1994.

Member, Interagency Climate Change Management Committee, Council on Environmental Quality, 1992-1995.

1 Energy Efficiency and Renewable Energy Group Leader, U.S.-Mexico Energy  
2 Trade Mission, June 1995.

3 Advisor to the Federal Fleet Conversion Task Force, U.S. Department of Energy,  
4 1994.

5 Attendee, U.S.–Japan Energy Policy Consultations, Atlantic Council of the United  
6 States, U.S. State Department, November 6–8, 1990.

7 Member, Illinois Solar Energy Advisory Board, 1980.

### 8 **HONORS AND AWARDS**

9 *Who's Who in the East* (1991, 1992)

10 Fellow, Center for the Study of Economy and the State, University of Chicago,  
11 1986

12 NSF Travel Fellow, Dec. 1981

13 MIT Institute Fellowship, 1978

14 Earle C. Anthony Fellowship, 1978

15 Union Carbide Fellow, 1977-78

16 Michigan Annual Giving Scholarship, 1976

17 Illinois State Scholar, 1976

18 National Merit Scholar, 1976

19 Sigma Tau Beta

20 Phi Kappa Phi

21 Eta Kappa Nu

### 22 **TEACHING AND RESEARCH SUPERVISION**

23 Professorial Lecturer, Center for Energy and Environmental Studies, Boston  
24 University, 1991 and 1992. Designed and taught original course in graduate  
25 environmental economics and policy.

26 Supervisor of 5 student master's theses and member of one Ph.D. committee,  
Boston University Center for Energy and Environmental Studies, Boston, MA.

Teaching Assistant, Pricing Practices, Professor B. Peter Pashigan, University of  
Chicago, 1986.

Guest Lecturer at Massachusetts Institute of Technology and University of  
California, Berkeley.

### 27 **REVIEW WORK**

28 *Energy, Science, Resources and Energy, U.S. Department of Energy.*

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