

## Paul R. Peterson, Principal Associate

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### PROFESSIONAL EXPERIENCE

**Synapse Energy Economics Inc.**, Cambridge, MA. *Principal Associate*, March 2001 – present.

Provide consulting services on a variety of energy and electricity related studies. Represent New England consumer advocate and environmental concerns in NEPOOL and ISO New England working groups. Monitor reliability and markets issues in RTOs and ISOs. Champion better integration of demand resources in bulk power systems. Current focus on resource adequacy for transmission planning and FERC Order 1000 issues. Participate in FERC proceedings on system planning and market design issues.

**ISO New England Inc.**, Holyoke, MA.

*Coordinator of Regulatory Affairs*, 2000 – 2001.

Coordinate regulatory activities with individual state public utility commissions, the New England Conference of Public Utilities Commissioners (NECPUC), and the Federal Energy Regulatory Commission (FERC). Assist the General Counsel on a variety of specific tasks and documents; draft letters and reports for the Chief Executive Officer.

*Public Information and Government Affairs*, 1998 – 1999.

Worked with all ISO-NE constituencies including NEPOOL Participants, regulatory agencies, and stakeholder groups in large-group and small-group formats. Developed and presented materials that described ISO-NE's functions, special projects (including Year 2000 rollover issues), and future evolution.

**Vermont Public Service Board**, Montpelier, VT.

*Policy Analyst*, 1997 – 1998.

Monitored House and Senate legislation on electric restructuring; helped coordinate the passage of Senate Bill S.62 in 1997. Coordinated the New England Conference of Public Utilities Commissioners (NECPUC) activities regarding NEPOOL restructuring; assisted in drafting documents to create an Independent System Operator (ISO) for New England. Worked on New England task forces to develop a model rule for electric disclosure projects for consumer information and regulatory compliance.

*Utilities Analyst*, 1990 – 1997.

Reviewed regulated utility filings for changes in rates; judicial Hearing Officer for contested cases on a wide range of topics; wrote all decisions regarding annual utility applications for Weatherization Tax Credits. Focused on integrated resource planning and electric industry restructuring; initial Hearing Officer for the Energy Efficiency Utility docket. Chaired the Staff Energy Committee of NECPUC.

**Energy Analysis**, Burlington, VT. *Consultant*, 1990.

Energy-efficiency program design and evaluation.

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**UVM Extension Service**, Burlington, VT.

*Area Energy Agent*, 1985 – 1990.

Performed tasks pursuant to an annual contract with Vermont Department of Public Service to conduct energy research, design energy efficiency programs and provide public education (see attached list of publications).

*Home Energy Audit Team (H.E.A.T.)*, 1978 – 1985.

Home energy audits; energy surveys for commercial, municipal, and non-profit buildings; energy education and information.

**The Close-Up Foundation**, Washington, D.C. *Program Administrator*, 1975 – 1978.

Directed weekly government studies program for 200 high school students and teachers; supervised a staff of fifteen; coordinated curriculum and logistical aspects of program.

## **UNIVERSITY OF VERMONT EXTENSION SERVICE**

**Residential Construction Survey**, 1986, 1989. Survey of Vermont new home construction for construction techniques, energy-efficient design, appliance loads, etc.

**Vermont Vacation Home Energy Study**, 1989. Survey of vacation home energy consumption and impact on Vermont statewide electrical demand.

**Dairy Farm Energy Project**, 1989. Implemented \$400,000 grant from Vermont Department of Agriculture for installation of milk-cooling equipment that also produced hot water.

**Dairy Farm Energy Use**, 1987. A detailed examination of electrical energy consumption on forty Vermont dairy farms to identify opportunities for improving energy-efficiency.

**Mobile Home Booklet**, 1987. A fresh look at energy saving opportunities for mobile homeowners. Specific problems of cold climates are addressed.

**Vocational Building Trades Instructors**, 1986 – 1989. Annual workshops on energy-efficient construction practices for the teachers of Vermont building trades students. Classroom presentations on selected topics.

**Brattleboro Community Energy Education Project**, 1985. Coordinated a Central Vermont Public Service Company funded project to promote energy-efficiency awareness through community programs.

## **EDUCATION**

**Western New England College School of Law**, Springfield, MA

Juris Doctor degree, cum laude, May 1990. American Jurisprudence Award: Remedies, 1989. Merit Scholarship recipient and Student Bar Association Representative

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**Williams College**, Williamstown, MA

Bachelor of Arts in Political Science and Environmental Studies, June 1974. *Cum laude*, Tyng Scholarship recipient.

## **LAW EDUCATION AND ASSOCIATIONS**

**American Inns of Court**, Northern Vermont Chapter

- Member, 1995 – 1996
- Member, 1996 – 1997

**National Judicial College**, Reno, NV

- Administrative Hearings, Sept., 1994
- Civil Mediation, March, 1996
- Civil Mediation, July, 1997 (faculty assistant)

**Admitted to Vermont Bar**, February 1992

**Continuing Legal Education**, Vermont Bar Association

- Americans with Disabilities Act, April 1992
- Ethical Issues/Governmental Agencies, October 1992
- Advance Medical Directives, May 1993
- Family Law Workshop, September 1993
- Negotiating Settlements, May 1994
- Physician Assisted Suicide Symposium, October 1996
- Electric Industry Restructuring, March 1999
- Advance Medical Directives, May 1999
- International Law Update, June 2000

**UVM Continuing Education**, Brattleboro, VT

- Small Computer Course, Spring 1983
- Communications Workshops, Spring 1983 & Spring 1984

## **CONFERENCES**

- Federal Energy Regulatory Commission Technical Conferences, since 2001
- National Association of Regulatory Utility Commissioners, annually since 2000
- New England Conference of Public Utilities Commissioners, numerous since 1994
- ACEEE Summer Study, 1992 & 1994

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## RECENT PUBLICATIONS

Fields, S. and P. Peterson. 2018. "Comments on 2018 Draft Energy Efficiency Forecast." Memo prepared by Synapse Energy Economics to the Energy Efficiency Forecast Working Group. March 6, 2018.

Peterson, P., D. Hurley, P. Knight. 2018. *Understanding ISO New England's Operational Fuel Security Analysis*. Prepared for Conservation Law Foundation, Acadia Center, New Hampshire Office of the Consumer Advocate, PowerOptions, RENEW Northeast, Vermont Energy Investment Corporation.

Horowitz, A., A. Allison, N. Peluso, B. Fagan, M. Chang, D. Hurley, P. Peterson. 2017. *Comments on the United States Department of Energy's Proposed Grid Resiliency Pricing Rules (FERC Docket RM18-1-000)*. Prepared for Earthjustice.

Peterson, P., S. Fields. 2017. *2017 Update: Challenges for Electric System Planning: Reasonable Alternative to ISO-NE's Discounts for Uncertainty*. Synapse Energy Economics for New Hampshire Office of Consumer Advocate.

Jackson, S., P. Luckow, E.A. Stanton, A. Horowitz, P. Peterson, T. Comings, J. Daniel, and T. Vitolo. 2016. *Reimagining Brayton Point: A Guide to Assessing Reuse Options for the Somerset Community*. Prepared by Synapse Energy Economics for Coalition for Clean Air South Coast, Clean Water Action, and Toxics Action Center.

Raab, J., P. Peterson. 2015. *New England Overview: A Guide to Large-Scale Energy Infrastructure Issues in 2015*. Raab Associates, Ltd. and Synapse Energy Economics for Boston Green Ribbon Commission.

Peterson, P., S. Fields. 2015. *Challenges for Electric System Planning: Reasonable Alternatives to ISO-NE's Discounts for Uncertainty*. Synapse Energy Economics for E4 Group.

Stanton, E. A., P. Knight, J. Daniel, B. Fagan, D. Hurley, J. Kallay, E. Karaca, G. Keith, E. Malone, W. Ong, P. Peterson, L. Silvestrini, K. Takahashi, R. Wilson. 2015. *Massachusetts Low Gas Demand Analysis: Final Report*. Synapse Energy Economics for the Massachusetts Department of Energy Resources.

Peterson, P., S. Fields, M. Whited. 2014. *Balancing Market Opportunities in the West: How participation in an expanded balancing market could save customers hundreds of millions of dollars*. Synapse Energy Economics for the Western Grid Group.

Peterson, P., M. Whited, S. Fields. 2014. *Synapse Comments on FAST Proposals in ERCOT*. Synapse Energy Economics for Sierra Club.

Peterson, P., M. Whited, S. Fields. 2014. *Demonstrating Resource Adequacy in ERCOT: Revisiting the ERCOT Capacity, Demand and Reserves Forecasts*. Synapse Energy Economics for Sierra Club.

Jackson, S., Peterson, P., D. Hurley, T. Woolf. 2013. *Forecasting Distributed Generation Resources in New England: Distributed Generation Must Be Properly Accounted for in Regional System Planning*. Synapse Energy Economics for E4 Group.

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Hurley, D., P. Peterson, M. Whited. 2013. *Demand Response as a Power System Resource: Program Designs, Performance, and Lessons Learned in the United States*. Synapse Energy Economics for Regulatory Assistance Project.

Peterson, P., D. Hurley, S. Jackson, M. Schultz. 2012. *The Road to Better System Planning: ISO-New England's Revised Energy Efficiency Forecast*. Synapse Energy Economics for Connecticut Office of Consumer Counsel.

Peterson, P., M. Wittenstein, J. Ramey. 2011. *Resource Incentives: Valuing Resources in PJM's Wholesale Markets*. Synapse Energy Economics for American Clean Skies Foundation.

Peterson, P., V. Sabodash, M. Wittenstein, D. Hurley. 2011. *PJM System Planning: Enhancements for the 21<sup>st</sup> Century*. Synapse Energy Economics for Sierra Club.

Peterson, P., V. Sabodash, R. Wilson, D. Hurley. 2010. *Public Policy Impacts on Transmission Planning*. Synapse Energy Economics for Earthjustice.

Peterson, P., D. Hurley, V. Sabodash. 2010. *Demand Response Potential in ISO New England's Day-Ahead Energy Market*. Synapse Energy Economics for Massachusetts Office of the Attorney General.

Peterson, P., V. Sabodash, K. Takahashi. 2010. *Demand Side Resource Potential: A Review of Global Energy Partners' Report for Midwest ISO*. Synapse Energy Economics for Project for Sustainable FERC Energy Policy.

Peterson, P., V. Sabodash. 2009. *Energy Market Savings from Price Responsive Demand Participation*. Synapse Energy Economics for NEPOOL Clients in Alternative Resources and End User Sectors.

Peterson, P., D. Hurley, V. Sabodash. 2009. *Impact of PRD Participation in Day-Ahead Energy Market*. Synapse Energy Economics for NEPOOL Clients in Alternative Resources and End User Sectors.

Peterson, P. 2009. *Energy Efficiency in the PJM Capacity Market*. Synapse Energy Economics comments before the Federal Energy Regulatory Commission (FERC).

Peterson, P., E. Hausman, R. Fagan, V. Sabodash. 2009. *Synapse Report and Ohio Comments in Case No. 09-09-EL-COI, "The Value of Continued Participation in RTOs."* Synapse Energy Economics for Ohio Consumers' Counsel.

Assisted in the preparation of the following affidavit: Ezra Hausman, submitted to Federal Energy Regulatory Commission (Docket No. ER05-1410-000 and EL05-148-000) regarding the FERC Technical Conference on RPM. On behalf of Coalition of Consumers for Reliability. February 3, 2006.

Hausman, E., P. Peterson, D. White, B. Biewald. 2005. *An RPM Case Study: Higher Costs for Consumers, Windfall Profits for Exelon: A study of the impacts of PJM's Reliability Pricing Model*. Synapse Energy Economics for Illinois Citizens Utility Board.

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Peterson, P., D. White, B. Biewald. 2005. *Capacity Revenues for Existing, Base Load Generation in the PJM Interconnection: A Pennsylvania Case Study: A report on the impacts of PJM's Reliability Pricing Model*. Synapse Energy Economics for the Pennsylvania Office of Consumer Advocate.

Peterson, P., D. White, A. Roschelle, B. Biewald. 2004. *Capacity for the Future: Kinky Curves and Other Reliability Options*. Synapse Energy Economics for Northeast Consumer Advocate Offices.

Peterson, P., D. White, N. Doolittle, A. Roschelle. 2003. *FERC's Transmission Pricing Policy: New England Cost Impacts*. Synapse Energy Economics for New England Consumer Advocate Offices.

Peterson, P., D. White, B. Biewald, C. Chen. 2003. *The New England Experiment: An Evaluation of the Wholesale Electricity Markets*. Synapse Energy Economics for New England Consumer Advocate Offices.

Schlissel, D., P. Peterson, B. Biewald. 2002. *Financial Insecurity: The Increasing Use of Limited Liability Companies and Multi-Tiered Holding Companies to Own Nuclear Power Plants*. Synapse Energy Economics for the STAR Foundation and Riverkeeper.

Peterson, P., B. Biewald, L. Johnston, E. Gonin, J. Wallach. 2001. *Best Practices in Market Monitoring: A Survey of Current ISO Activities and Recommendations for Effective Market Monitoring and Mitigation in Wholesale Electricity Markets*. Synapse Energy Economics and Resource Insight for Maryland Office of People's Counsel, Pennsylvania Office of Consumer Advocate, Delaware Division of the Public Advocate, New Jersey Division of the Ratepayer Advocate, and Office of the People's Counsel for the District of Columbia.

Biewald, B., L. Johnston, J. Ramey, P. Peterson, D. White. 2001. *The Other Side of Competitive Markets: Developing Effective Load Response in New England's Electricity Market*. Synapse Energy Economics for Maine Department of Attorney General and Maine Office of the Public Advocate.

Schlissel, D., L. Johnston, P. Peterson. 2001. *Clean Air and Reliable Power: Connecticut HB 6365 Will Not Jeopardize Electric System Reliability*. Synapse Energy Economics for The Clean Air Task Force on behalf of The Connecticut Coalition for Clean Air.

## TESTIMONY

**Delaware Public Service Commission (Docket No. 14-193):** Direct testimony regarding concentration of ownership, market power, and market manipulation related to the proposed Exelon-PHI merger. On behalf of the Delaware Department of Natural Resources. December 12, 2014.

**Maryland Public Service Commission (Case No. 9361):** Direct and surrebuttal testimony regarding market power issues related to the Exelon-Pepco merger in Maryland. On behalf of the Maryland Office of the People's Counsel. December 8, 2014 and January 21, 2015.

**State of New Jersey Board of Public Utilities (Docket No. EM14060581):** Direct testimony regarding concentration of ownership, market power, and market manipulation related to the proposed Exelon-PHI merger. On behalf of the New Jersey Division of Rate Counsel. November 14, 2014.

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**State of Vermont Public Service Board (Docket No. 7081):** Direct testimony regarding the review of Vermont Transmission Planning Process. On behalf of Conservation Law Foundation. October 26, 2006.

**State of Vermont Public Service Board (Docket No. 6860):** Direct testimony regarding VELCO Northwest Reliability. On behalf of Charlotte, VT. September 20, 2006.

**Arkansas Public Utilities Commission (Docket No. 06-028-R):** Resource Planning Guidelines for Electric Utilities and Consideration of Sec. 111(d)(12) of the Energy Policy Act of 2005

**Public Utilities Commission of Texas (Docket No. 28818):** Direct testimony regarding the petition of Entergy Gulf States for Certification of an Independent Organization for the Entergy Settlement area in Texas. On behalf of Office of Public Utility Counsel. April 26, 2004.

**State of Rhode Island and Providence Plantations Public Utilities Commission (Docket No. SB-2003-1):** Direct testimony regarding the Narragansett Electric Company's Application to Relocate Transmission Lines between Providence and East Providence. On behalf of The Rhode Island Department of the Attorney General. January 20, 2004.

**The Connecticut Siting Council (Docket No. 217):** Testimony regarding the application of the Connecticut Light and Power Company for a Certificate of Environmental Compatibility and Public Need for an Electric Transmission Line Facility between Plumtree Substation, Bethel and Norwalk Substation, Norwalk CL&P Application for a Transmission Facility. On behalf of The Towns of Bethel, Redding, Weston and Wilton, Connecticut. March, 2002, November 2002 and January 2003.

*Resume dated August 2018*