

Qualifications of
SUSAN C. GELLER

Resource Insight, Inc.
5 Water Street
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SUMMARY OF PROFESSIONAL EXPERIENCE

1992–Present **Senior Research Associate, Resource Insight.** Reviews cost-allocation, rate-design, and marginal-cost methodologies. Determines avoided costs for screening of conservation and distributed-generation investments. Assesses prudence of generation-plant investment, power purchases, and power-procurement decision processes. Reviews performance-based ratemaking proposals. Evaluates utilities' least-cost resource planning and long-range demand forecasts.

1978–91 **Utility Rate Analyst, Utilities Division, Massachusetts Department of the Attorney General.** Presented expert testimony before the Massachusetts Department of Public Utilities, the Massachusetts Energy Facilities Siting Council, and the Atomic Safety and Licensing Board, on economic issues in electric and gas utility regulation. Included testimony on reliability and reviewability of load forecasting methodologies, proposals for embedded cost allocation methodologies, measurement of marginal cost of gas and electric supply, evaluation and design of utility retail rate structure, financial incentives for utility funding of conservation programs, evaluation of need for and economics of new electric generation plant, and design of gas transportation tariffs.

Formulated strategy and litigation issues in cases concerning economic and econometric questions, including efficiency and equity of gas and electric rate design proposals; financial incentives and program development for utility-funded conservation and load management; validity of long range demand forecasts; implementation of least cost supply planning and methods of cost recovery; economics of new plant construction; design of resource bidding systems. Formulated and advocated policy positions for the Utilities Division in the areas of least cost supply planning, resource bidding and deregulation, rate treatment of costs of future supply and demand resources, and rate design.

Prepared discovery and briefs. Developed lines of cross-examination and provided technical assistance to attorneys in their preparation of cross-examination. Participated in negotiations with utilities. Acted as information resource for the Utilities Division on utility planning, operations and regulatory history.

PROFESSIONAL AFFILIATIONS

Member, International Association for Energy Economics

EDUCATION

MA, Public Policy Program, Harvard University Kennedy School of Government, June, 1978.

BA, Economics, magna cum laude, Harvard University, June, 1974.

REPORTS

“Avoided Energy Supply Costs for Demand-Side Management in Massachusetts” (with Rachel Brailove, Paul Chernick, Bruce Biewald, and David White). 1999. Northborough, Mass.: Avoided-Energy-Supply-Component Study Group, c/o New England Power Supply Company.

“Performance-based Regulation in a Restructured Utility Industry” (with Bruce Biewald, Tim Woolf, Peter Bradford, Paul Chernick, and Jerrold Oppenheim). 1997. Washington: NARUC.

“Restructuring the Electric Utilities of Maryland: Protecting and Advancing Consumer Interests” (with Paul Chernick, Jonathan Wallach, John Plunkett, Roger Colton, Peter Bradford, Bruce Biewald, and David Wise). 1997. Baltimore, Maryland: Maryland Office of People’s Counsel.

“Estimation of Market Value, Stranded Investment, and Restructuring Gains for Major Massachusetts Utilities” (with Paul Chernick, Jonathan Wallach, Rachel Brailove, and Adam Auster). 1996. On behalf of the Massachusetts Attorney General (Boston).

“Review of the Elizabethtown Gas Company’s 1992 DSM Plan and the Demand-Side Management Rules” (with Jonathan Wallach, Paul Chernick, John Plunkett, James Peters, Blair Hamilton, and A. Shapiro). 1992. Report to the New Jersey Department of Public Advocate.

“Review of Jersey Central Power & Light’s 1992 DSM Plan and the Demand-Side Management Rules” (with Jonathan Wallach, et al.); Report to the New Jersey Department of Public Advocate, June 1992.

PRESENTATIONS

“Cost Allocation for Utility Ratemaking.” With Paul Chernick. Day-long workshop for the staff of the Connecticut Department of Public Utility Control, October, 1993.

EXPERT TESTIMONY

1. **EFSC 78-12/DPU 19494**, Phase I; Boston Edison Company’s 1978 Demand and Energy Forecast; June 12, 1978.

Review of and adjustments to Boston Edison’s end-use and econometric forecast, including effect on projections of electric price increases. Joint testimony with P. Chernick.

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2. **EFSC 78-4**; 1978 Long Range Forecast of New England Gas and Electric Association (“NEGEA”); November 10, 1978.

Reviewability and reliability of judgmental forecasts; shortcomings of simple time-trending, and important factors to consider in forecasting electric sales.

3. **EFSC 78-1**; 1978 Long Range Forecast of Massachusetts Municipal Wholesale Electric Company (“MMWEC”); September 1, 1978.

Evaluation of judgmental forecasting, simple time-trending, and modeling of “conservation.”

4. **MDPU 19494**, Phase II; Boston Edison’s Construction Program and Capacity Needs; April 1, 1979.

Evaluation of the 1978 forecasts of ten New England utilities which constituted 92% of projected NEPOOL demand. Joint testimony with P. Chernick.

5. **ASLB, NRC 50-471**; Boston Edison Company, Pilgrim Nuclear Generating Station, Unit No. 2; June 29, 1979.

Evaluation of two New England regional demand forecasts, an Oak Ridge National Laboratory econometric forecast and the NEPOOL end-use and econometric forecast, and cost-effectiveness of investment in a nuclear generating unit. Joint testimony with P. Chernick.

6. **MDPU 19845**; Boston Edison Company’s Time-Of-Use Rates; December 4, 1979.

Formulation of marginal cost pricing principles; analysis of BECo rate design proposals and marginal cost study; development of alternative costing methodology and rate design proposals. Joint testimony with P. Chernick.

7. **MDPU 20055**; Petition of Eastern Utilities Associates, New England Gas and Electric, and Fitchburg Gas and Electric to Purchase Additional Shares of Seabrook Nuclear Plant; January 23, 1980.

Evaluation of New Bedford Gas and Electric forecast as a basis for the Company’s “need for power” argument.

8. **MDPU 20248**; Petition of MMWEC to Purchase Additional Shares of Seabrook Nuclear Plant; June 2, 1980.

Evaluation of reviewability and reliability of 29 demand forecasts (for the 29 members of MMWEC), the basis for the Company’s “need for power” argument. Focused on the use of subjective data, interviews as a basis for forecasting, simple time-trending, and specific modeling assumptions.

9. **EFSC 79-4**; 1979 NEGEA Long Range Forecast; July 16, 1980.

Evaluation of judgmental forecasting approach; recommended standards for use of subjective data; evaluated specific data input and modeling assumptions.

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- 10. EFSC 80-4; 1979 Long Range Forecast and Supply Plan of New England Electric System; November 5, 1980.**

Review of end-use and econometric forecast. Presented general principles of econometric forecasting and documentation. More specific issues include space heating penetration projections, conservation, and commercial model specification.

- 11. MDPU 81-12; 1981 Long Range Forecast of Boston Edison Company; May 15, 1981.**

Review of end-use and econometric forecast. General principles of econometric forecasting and documentation, including model specification, use of statistical tests, subjective adjustments to econometric results, and role of judgment. Specific issues include demographic projection, appliance penetration and usage projections, and impact of appliance efficiency improvements and price increases.

- 12. MDPU 702; Nantucket Electric Company Request for General Rate Increase; October 2, 1981.**

Proposal of change in method of adjusting existing rate structures to collect allowed rate increase.

- 13. MDPU 800; Massachusetts Electric Company Request for General Rate Relief; October 9, 1981.**

Efficiency and equity of declining block rate structures, customer charges, demand charges and ratchets. Development of alternative rate design proposals.

- 14. MDPU 906; Boston Edison Company Request for General Rate Relief; December 31, 1981.**

Statement of general principles of cost allocation and rate design; efficiency and equity of Company's proposed declining block rate structures and demand charges; estimation of marginal cost; development of alternative rate design proposals.

- 15. MDPU 1015; Cambridge Electric Light Company Request for General Rate Relief; May 18, 1982.**

Economic efficiency of Company's proposed declining block rate structures and demand charges; development of alternative rate design proposals.

- 16. MDPU 955; Massachusetts Electric Light Company Proposals for Load Management and Conservation Rates; June 7, 1982.**

Evaluation of cost-effectiveness of storage heating as a load management measure; comparison of bill reductions versus system cost savings under the Company's rate design proposals. Evaluation of Company's marginal cost estimates; specific issues include average versus marginal loss factors, externalities, marginal distribution capacity costs of off-peak loads.

- 17. MDPU 1133; Massachusetts Electric Light Company Request for General Rate Increase; August 6, 1982.**

Economic efficiency of Company's proposed declining block rate structures and demand charges; development of alternative rate design proposals.

- 18. MDPU 1350;** Boston Edison Company Request for General Rate Increase; February 1, 1983.

Evaluation of Company's marginal cost estimates; development of rate design proposals based on revised estimate of marginal cost.

- 19. MDPU 1530;** Nantucket Electric Company Request for General Rate Increase; July 22, 1983.

Development of marginal cost estimate and rate design proposals for Nantucket system. Evaluation of Company's plans to install a new diesel unit; specific issues include reliability value of smaller generation units and of demand-side management alternatives to new generation, in particular resetting of water heater time clock controls. Contribution of winter, spring and fall loads as well as summer loads to need for capacity and implications for rate design. Evaluation of effectiveness of Company's rate design proposals in controlling summer peak load growth.

- 20. MDPU 84-25;** Western Massachusetts Electric Company Request For General Rate Increase; April 11, 1984.

Development of long run marginal cost estimate. Evaluation of Company's short run marginal energy cost estimates. Marginal cost issues also addressed are Company's exclusion of marginal transmission and distribution capacity costs and marginal loss factors. Economic efficiency of demand charges and ratchets.

No-loser's test as a standard for evaluating conservation programs. Critique of Company's cost-benefit analysis of conservation. Recommendations for program design and cost allocation.

- 21. MDPU 84-145;** Fitchburg Gas and Electric Light Company Request for General Rate Increase; September 28, 1984

Evaluation of embedded cost of service study. Specific issues include reliability of borrowed load data; validity of class maximum demand as allocator for demand-related distribution plant, of allocation of revenue losses associated with water heater rentals to residential classes, and of allocation of low-income subsidy entirely to residential classes.

- 22. MDPU 84-145;** Fitchburg Gas and Electric Light Company Request for General Rate Increase; October 1984

Evaluation of marginal cost study.

- 23. MDPU 84-55/EFSC 83-28;** Nantucket Electric Company Long Range Forecast and Supply Plan; March 15, 1985

Evaluation of forecast methodology (including plausibility of regression models, failure to distinguish seasonal from annual customers, failure to reflect future C&LM, and error on definition of customer number variables) and plausibility of forecast results.

- 24. MDPU 84-276; Rules Governing Rates and Conditions for Utility Purchases of Power from Qualifying Facilities; April 1, 1985.**

Long run versus short run marginal cost as the basis for payments to small power producers; distortions in proposed production target formula.

- 25. MDPU 84-276; Rules Governing Rates and Conditions for Utility Purchases of Power from Qualifying Facilities; October 18, 1985.**

Evaluation of ratepayer risk associated with long term fixed price contracts; long run versus short run marginal cost as the basis for the long term contract price.

- 26. MDPU 85-271; Boston Edison Company Request For General Rate Increase; March 7, 1986**

Examination of long run versus short run costs as basis for setting retail energy rates; evaluation of demand charges as an effective and appropriate rate design mechanism.

- 27. MDPU 85-270; Western Massachusetts Electric Company Request For General Rate Increase; March 26, 1986.**

Examination of long run versus short run costs as basis for setting retail energy rates; evaluation of demand charges as an effective and appropriate rate design mechanism.

- 28. MDPU 86-27; Colonial Gas Company Partial Requirements and Cogeneration Rate Proposals; April 18, 1986.**

Economic efficiency and equity of using marginal cost rather than embedded cost to set class revenue requirement solely for these special rates; cost justification of proposed end-use rate classification; evaluation of Company's marginal cost estimates (including issues involving interruptible sales, cost of liquefaction of LNG, use of simulation model which assumes perfect foresight, effect of design year reliability standard on normal year costs, and marginal distribution cost estimates).

- 29. MDPU 85-178; Investigation by the Department Regarding Charges and Service for Transportation of Natural Gas for Industrial End-Users; May 12, 1986.**

Proposed method of calculating transportation rates that credits transporting customers with no more than savings to retail distribution company.

- 30. MDPU 86-82; Berkshire Gas Company Request For General Rate Increase; July 28, 1986.**

Evaluation of marginal cost methodology. Addressed effect on marginal energy cost of load uncertainty, hedging, and hedging; increases in storage volumes as a component of capacity cost; and inclusion of reserve margin in calculation of capacity cost. Identified calculational error in Company translation of marginal capacity cost estimate into rate design. Recommended alternative to use of average daily weather to develop “normal” year. Addressed economic efficiency and equity of lower rates for specific end-uses, namely off-peak transportation, dual fuel and cogeneration customers. Potential conflicts of interest in Company’s proposal to broker gas.

- 31. MDPU 86-280; Western Massachusetts Electric Company Request For General Rate Increase; March 11, 1987.**

Long run versus short run costs as basis for setting retail energy rates.

- 32. MDPU 87-122; Commonwealth Gas Company Request For General Rate Increase; October 6, 1987.**

Evaluation of marginal cost methodology. Addressed and quantified effect on marginal energy cost of load uncertainty, hedging of supplemental gas supplies, and storage. Addressed and quantified effect of interruptible sales on marginal cost. Identified calculational error in Company translation of marginal capacity cost estimate into charges in rate design. Evaluation of Company’s interruptible sales policy, in general, and of pricing of sales to COM/Energy electric generation facilities, in particular.

- 33. MDPU 87-169; Investigation of the Adequacy of Plans to Ensure Reliable Service in the Summer of 1987 and Thereafter; December 4, 1987.**

Long run versus short run costs as basis for setting retail rates. Price setting as a regulatory tool for controlling demand.

- 34. MDPU 87-221; Cambridge Electric Light Company Request for General Rate Increase; February 16, 1988.**

Evaluation of Company’s supply plan and need for new capacity, including use of average rather than seasonal capacity ratings and treatment of availability uncertainties. Validity of the discounted peaker method. Market-clearing price as the basis for short run marginal cost pricing. Other marginal cost issues include effect of summer derating on cost of peaker, appropriateness of discounting transmission costs based on in-service date rather than year of deficiency, payments for transmission by others as a component of marginal cost, and error in translation of marginal cost estimate into rate design.

- 35. MDPU 88-135/151; Commonwealth Electric Company Request For General Rate Increase; October 21, 1988.**

Evaluation of Company's supply plan and need for new capacity, including reliability of load forecast and treatment of uncertainty in plant availability, life extensions, and demand-side versus supply-side resources. Validity of the discounted peaker method. Discussion of a number of marginal costing issues including the accurate use of price indices, lumpiness in marginal transmission capacity cost estimates, effect of uncertainty in plant availability, utility conservation, outage power from the power pool, and unit start-up costs on estimate of marginal energy cost.

- 36. MDPU 89-21;** Massachusetts Electric Company Request For General Rate Increase; July 21, 1989.

Cost-effectiveness of demand-metering; demand charge incentive structure; validity of time-of-use literature as basis for estimate of non-TOU demand charge effects; evaluation of Company use of statistical results and cost-effectiveness methodology.

- 37. MDPU 89-195;** Massachusetts Electric Company; December 22, 1989.

Evaluation of Company's proposed cost recovery and incentives for conservation and load management programs.

- 38. EFSC 90/12/90-12A;** Boston Edison Company Request For Approval Of Long-Range Forecast Of Electric Needs And Requirements and Request For Approval Of Proposal To Construct A 306 MW Natural Gas/Distillate Oil-Fired Combined Cycle Generation Station At Its Edgar Station Site; March 4, 1991.

Evaluation of the need for and the economics of the Company's proposed new generation facility.