

## MARTIN S. FULLENBAUM

**Dr. Fullenbaum** is a senior consultant at Exeter Associates, Inc., with over 35 years of experience in utility regulation and energy economics. His expertise is in the area of electric utility regulation and ratemaking, including cost-of-service, rate design, utility accounting, antitrust and municipal profitability and financial analysis. Dr. Fullenbaum has also addressed transmission concerns related to the adoption of NERC's mandatory, reliability standards and has evaluated power supply requirements of DOE's northern California energy laboratories. He has testified on cost of service studies, municipal profitability, the significance of differences in load characteristics and long-run marginal cost before the Federal Energy Regulatory Commission and the Massachusetts Department of Public Utilities. He has also testified on planning studies before the Maryland Public Service Commission. Dr. Fullenbaum holds a B.A. in physics from the University of Pennsylvania, a Ph. D. in physics from the University of Maryland, and an MBA in Business and Finance from Lehigh University.

### Education:

B.A. (Physics) - University of Pennsylvania, 1962.

Ph.D. (Physics) - University of Maryland, 1968.

M.B.A. (Finance and Business) - Lehigh University, 1974.

### Previous Employment:

1978-1990 - Senior Analyst, National Economic Research Associates, Inc., Washington, D.C.

1973-1978 - Consultant, Gilbert Associates, Inc., Reading, Pennsylvania

1970-1973 - Assistant Professor of Physics, Lafayette College, Easton, Pennsylvania.

### Professional Work:

Analysis of request by Nevada Power Company to recover deferred fuel and purchased power costs and extend prior period's deferred fuel cost recovery. Assisted counsel in framing cross-examination associated with Company's gas procurement hedging strategy. On behalf of Federal Executive Agencies, 2004-2005.

Responsible for power supply cost simulations for the US Department of Energy's (DOE) California Energy Laboratories. Designed rebilling rates to the Labs for cost allocation purposes and evaluated potential obligation of Laboratories to pay Competitive Transition Charges

(CTCs). Also responsible for *Strategist* simulation modeling to identify least cost resource additions for DOE's northern California Laboratories. Participated in contract negotiations with Western Area Power Administration in connection with new power supply arrangements. Prepared for DOE, Office of Science, Berkeley Site Office, 1996 - present.

Assisted in the evaluation of electric utility cost allocation studies and rate design proposals, 2003-2004, on behalf of the U.S. Air Force.

Prepared justification for the continued classification of a 138 kV transmission line serving DOE's Nevada Test Site (NTS) as transmission. This was in connection with a proceeding before the Public Utilities Commission of Nevada to separate transmission from distribution facilities pursuant to FERC Order Nos. 888 et. al. Also prepared rate options analysis for Request for Proposal issued by the NTS. Prepared for DOE Headquarters. 1998.

Co-authored a study of the transmission system grid used by Maryland utilities. Prepared for the Power Plant Research Program of the Maryland Department of Natural Resources. 1997 - 1998.

Assisted in evaluation of stranded cost claims of Pennsylvania and New Jersey utilities. Prepared for the Pennsylvania Office of the Consumer Advocate and the New Jersey Department of Rate Payer Advocate. 1997.

Participated in evaluation of the impact of restructuring on electric power costs for DOD facilities within the continental U.S. Prepared for the Defense Fuels Supply Center. 1997.

Participated in study of the utility requirements of the Rocky Flats Environmental Technical Site during its cleanup and shutdown. Prepared for DOE Headquarters. 1996.

Evaluation of profitability analysis associated with the formation of a municipal utility system. Prepared for the Pennsylvania offices of the Consumer Advocate, 1995.

Evaluation of the stranded investment exit fee sought by El Paso Electric Company in connection with a competitive power solicitation by Holloman Air Force Base. Prepared for the U.S. Air Force, 1995.

Analysis of Amendments to power purchase agreement between Atlantic Electric Company and Pedricktown Cogeneration Limited Partnerships. Prepared for the New Jersey Division of the Ratepayer Advocate, 1995.

Evaluation of the impact of the merger between the Entergy Corporation and Gulf States Utilities on transmission lines loadings of the merged companies. Prepared for the Louisiana Public Service Commission Staff, 1994.

Evaluation of a proposal to sell the Department of Energy's (DOE) gas pipeline providing a source of the supply for Los Alamos National Laboratory. Prepared for DOE Headquarters, 1994.

Analysis of potential peak reduction measures available at selected Department of Energy Laboratories. Prepared for DOE Headquarters, 1993.

Preparation of electric utility cost of service study reflecting revisions to methodologies prepared by Tacoma City Light Department. Prepared for the U.S. Air Force, 1995.

Preparation of position paper on backup rates for cogeneration facilities. Prepared on behalf of the Maine Public Service Commission staff, 1995.

Preparation of gas cost of service studies and rate design of Indiana Gas Company. Prepared for Indiana Utility Consumer Counselor in Cause No. 39353.

Evaluation of the importance of the bulk transmission network to Maryland electric utilities. Prepared for Maryland Department of Natural Resources, Power Plant Research Program, 1992.

Evaluation of PEPCO planning methods and cogeneration contracts proposed by Patowmack Power Partners and Potomac Brandywine. Prepared for Maryland Department of Natural Resources, Power Plant and Environmental Research Division, before the Maryland Public Service Commission in Case No. 8413.

Analysis of expansion planning studies presented by Delmarva Power & Light Company in connection with a request to implement a competitive bidding program. Prepared for Maryland Department of Natural Resources, Power Plant and Environmental Research Division before the Maryland Public Service Commission in Case No. 8201, 1990.

Analysis of expansion planning studies presented by Baltimore Gas & Electric Company in connection with an application for a Certificate of Public Convenience and Necessity to construct the Perryman Power Plant. Also evaluated the contract offer submitted by Cogen Technologies, Inc. in that case. Prepared for Maryland Department of Natural Resources, Power Plant and Environmental Research Division before the Maryland Public Service Commission in Case No. 8241, Phase II, 1991.

Prepared forecast of electric rates of Dayton Power & Light Company for the U.S. Air Force, 1991.

Analysis of extent to which SDG&E could use its Southwest Power Link to offset oil and gas generation; computation of elasticity of supply of economy energy in the Southwest/California market. Prepared for Southern California Edison Company in connection with its merger application before the FERC in Docket EC89-5 and before the California Public Utilities Commission in application 88-12-035, 1990.

Analysis of damages alleged to have resulted from the refusal of a self-service wheeling request. Prepared for Florida Power and Light Company in connection with a proceeding before the U.S. District Court for the Southern District of Florida, Case No. 88-2145 CIV-ATKINS, 1990.

Analysis of intra-wholesale class diversity differences and extent to which those differences would justify separate wholesale rates. Appraisal of extent to which foreclosure damage claim was affected by wholesale refunds. Analysis of extent to which wholesale customer passed-on power supply costs to their retail ratepayers. Survey of power supply sales in Southwest during the 1980s; analysis of percentage of the benefits of low-cost economy energy purchases that were shared with wholesale customers. Prepared for Southern California Edison Company in connection with proceeding before the U.S. District Court for the Central District of California, Civil Action No. CV 83-8137 MRP, 1987-1990.

Comparisons of wholesale and retail rates and rates of return; Municipal profitability studies. Prepared for Boston Edison Company for use in U.S. District Court for the District of Massachusetts, Civil Action No. 87-1881-C, 1988-1989.

Comparison of optimum power supply costs for a municipal system; Development of transfer price test to measure discrimination; Comparison of load characteristics (coincidence and load factor) of retail and wholesale customers; Municipal profitability studies. Prepared for Union Electric Company in connection with proceedings before the Federal Energy Regulatory Commission in Docket ER77-614 (Remand) and before the U.S. District Court for the Eastern District of Missouri, Civil Action Nos. 83-2756C (c) and 83-2533-C, 1982-1988.

Analysis of increases in power supply costs that would result from providing Colorado River Storage Project preference power to Investor-Owned Utility. Prepared for Utah Power and Light Company, 1987.

Analysis of impact of tax normalization and deferred fuel accounting practices on rate of return comparisons; Comparison of wholesale and retail load characteristics including frequency distributions of load and coincidence factors; Appraisal of impact of including demand charges in energy rate for industrials. Prepared for Southern California Edison Company in connection with proceedings before the FERC in Docket ER76-205 and before the U.S. District Court for the Central District of California, Civil Action No. CV 78-810-MRP, 1980-1986.

Preparation of wholesale compliance cost of service and price squeeze analysis. Prepared for Pennsylvania Power Company and submitted to the FERC in Docket ER81-779, 1984.

Comparison of bulk power supply costs of American Electric Power Company with those of interconnected neighboring systems. Prepared for Appalachian Power Company in connection with testimony presented before the FERC in Docket EL78-13, 1981-1982.

Appraisal of cost of serving typical industrial customer; Municipal profitability studies; comparison of load characteristics (coincidence and load factor) of retail and wholesale customers. Prepared for Pennsylvania Power Company in connection with proceedings before the Federal Energy Regulatory Commission in Docket ER77-277 and before the U.S. District Court for the Western District of Pennsylvania, Civil Action No. 77-1145, 1979-1982.

Long-Run Marginal Cost Study. Prepared for Iowa-Illinois Gas and Electric Company, 1977.

Wholesale cost of service study. Prepared for Central Illinois Light Company in connection with rate request before the FERC in Docket ER 76-819, 1976-1978.

Report on Street Lighting Rates for New York State Electric & Gas, 1976.

Comparison of Energy Consumption in the manufacture of ABS Plastic, Porcelain Enamel, and Painted Steel. Report prepared for the Porcelain Enamel Institute, 1974.

Prior Expert Testimony

of Martin S. Fullenbaum

On Behalf of the Louisiana Public Service Commission Staff, Before the Louisiana Public Service Commission, Docket No. U-19904, March 1993. Testified on transmission capacity changes arising from the proposed merger between Entergy and Gulf States Utilities.

On Behalf of the Power Plant Research Program, Maryland Department of Natural Resources, before the Maryland Public Service Commission, Case No. 8473, November 1992. Testified on evaluation of power purchase agreement with non-utility generator.

On Behalf of the Power Plant and Environmental Review Division, Maryland Department of Natural Resources, before the Maryland Public Service Commission, Case No. 8241, Phase II, 1991. Testified on capacity expansion planning issues. Also presented evaluation of contract offer from a cogenerator.

On Behalf of the Power Plant and Environmental Review Division, Maryland Department of Natural Resources, before the Maryland Public Service Commission, Case No. 8201, October 1990. Testified on capacity expansion planning issues.

On Behalf of Union Electric Company before the Federal Energy Regulatory Commission, Docket No. ER77-614 (Remand), January 1982. Testified on municipal profitability and transfer price test for measuring discrimination.

On Behalf of the Appalachian Power Company before the Federal Energy Regulatory Commission, Docket No. EL78-13, March 1981 and January 1982. Testified on bulk power cost of service.

On Behalf of the Pennsylvania Power Company before the Federal Energy Regulatory Commission, Docket No. ER77-277 (Phase II), May 1979. Testified on municipal profitability, comparative rate of return, and rate comparisons.

On Behalf of the Boston Edison Company before the Federal Energy Regulatory Commission, Docket Nos. E-7738, July 1978, and ER76-90, October 1978. Testified on miscellaneous rate matters.

On Behalf of Central Illinois Light Company before the Federal Energy Regulatory Commission, Docket No. ER76-819, July 1976 and May 1978. Testified on cost of service.

On Behalf of the Boston Edison Company before the Massachusetts Department of Public Utilities, Docket No. 18072, July 1975. Testified on marginal cost of service.