

RICHARD D. TABORS
Vice President

Ph.D. Geography and Economics,
The Maxwell School,
Syracuse University

M.S. Social Sciences,
Syracuse University

B.S. Biology,
Dartmouth College

Richard D. Tabors, Vice President, is an economist and scientist with 35 years of domestic and international experience in energy markets, planning and pricing. He is a member of the group at MIT that developed the theory of spot pricing upon which locational marginal pricing (LMP) of electricity and transmission rights markets (such as FTRs) are based. Prior to joining Charles River Associates, Dr. Tabors was a president and founder of Tabors Caramanis & Associates. Dr. Tabors is working on the restructuring of the U.S. and international electric supply industry, where he provides expert testimony and works with clients on restructuring efforts at the state, provincial, regional, and federal levels in the United States and Canada, as well as in the United Kingdom. He has spent 30 years on the faculty and research staff of MIT where until 2006 he a senior lecturer in technology and policy and Assistant Director of the Laboratory for Electromagnetic and Electronic Systems (MIT's Power Systems group) He is also a visiting professor of electrical engineering at the University of Strathclyde, Glasgow, Scotland.

EXPERIENCE

- 2004–Present *Vice President*, Charles River Associates
- 2004-2007 *Co-Head, Energy & Environment Practice*, Charles River Associates
- 2004–Present *Visiting Professor of Electrical Engineering*, University of Strathclyde, Glasgow, Scotland
- 1986–2006 *Senior Lecturer*, Technology and Policy Program, Massachusetts Institute of Technology (MIT)
- 1988–2004 *Founder and Principal*, Tabors Caramanis & Associates, Inc.
- 1989–1998 *Lecturer*, Department of Electrical Engineering and Computer Science, MIT
- “Introduction to Power Systems Operations and Planning.”
- 1992–1998 *Senior Research Engineer*, Laboratory for Electromagnetic and Electronic Systems, MIT

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- 1985–1998 *Assistant Director*, Laboratory for Electromagnetic and Electronic Systems, MIT
- Responsible for laboratory administration and research in power systems economics and planning, research on power systems monitoring and control, principal investigator on research program in performance based monitoring and control.
- 1990–1993 *Principal Research Associate*, MIT
- Co-Faculty “Planning for Water and Sewerage” and “Dealing with the Complete System,” MIT Summer Session.
- 1984–1989 Co-Faculty “Power Systems Planning & Operation: Methodologies for Dealing with an Uncertain Future”, MIT Summer Session.
- 1978-1988 *Lecturer*, Department of Urban Studies and Planning, MIT
- 1973-1988 *Principal*, Meta Systems
- Head, utilities group in power systems planning, pricing and systems analysis
- 1985–1987 *Faculty*, Course 11.944, Department of Urban Studies and Planning (co-taught as KSG S115 with P. Rogers) “Energy Sector Planning in Developing Countries.”
- 1971–1976 *Research Associate and Member*, Center for Population Studies, Harvard University
- Research on resource and environmental planning in developing nations of South Asia and Africa.
- 1978–1984 *Program Manager*, Utility Systems, MIT Energy Laboratory
- Economic and systems research and development in electric and gas utility systems; including the integration of new generation systems (photovoltaics) into the grid.
- 1979-1983 *Project Manager and Principal Investigator*, Electric Generation Expansion Analysis System (EGEAS) Project, under contract to EPRI, MIT Energy Laboratory.
- 1977-1982 *Project Manager and Principal Investigator*, Photovoltaics Project, under contract to U. S. Department of Energy, MIT Energy Lab.
- 1976-1977 *Economist*, Photovoltaics Project, MIT Energy Laboratory and Lincoln Laboratory.
- 1976-1977 *Energy Economist*, New England Energy Management Information Systems (NEEMIS), Energy Laboratory, MIT.

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- 1974-1976 *Assistant Professor of City and Regional Planning*, Harvard University.
- 1973-1976 *Research Fellow*, Environmental Systems Program, Division of Engineering and Applied Physics, Harvard University.
- 1971–1977 *Co-Faculty*, with Professor R. Revelle, Natural Science 118, & 119, Human Population and Natural Resources, and Population & Environment and in Urban Setting, Harvard University.
- 1973-1974 *Lecturer on City and Regional Planning*, Graduate School of Design, Harvard University.
- 1971 *Resident Representative*, Harvard University, East Pakistan (Bangladesh) Land, Water and Power System Study, Dacca, East Pakistan.
- 1970 *Graduate Administrative and Teaching Assistant* to A. K. Campbell, Dean, Maxwell Graduate School of Citizenship and Public Affairs, Syracuse University.
- 1969–1970 *Syracuse University Intern*, Economic Division, USAID Pakistan.
- Informal advisor on Regional Economic Planning to the Urban Development Directorate, Planning Department, Government of East Pakistan (Bangladesh).

CONSULTING EXPERIENCE

- Provided expert testimony and case strategy support to international energy supplier in area of market operations and market manipulation before the US 9th Circuit in California (2008 – Present)
- Provided expert testimony to major international independent power producer in arbitration on cost responsibility for station power (2009 – Present)
- In cooperation with Merrill Energy, provide expert advice on implementation of legislation to recover capital cost of transmission investment in Peru.
- Direct and provide consulting advice to the Federal Electricity & Water Authority in the United Arab Emirates on corporate reorganization. (2007-Present)
- Provide expert testimony to major US independent power producer in arbitration with steam host. (2007 – 2009)
- Direct and provide expert services and consulting advice to Electricite du Liban on revenue recovery through development of AMI systems. (2006 – Present)
- Direct and provide consulting services to Electricite du Liban on restructuring of distribution services. (2006 – Present)

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- Provide expert testimony in multiple contract disputes between bankrupt Independent Power Producer and power marketer. (2004 – 2006)
 - Provide expert analytic assistance to Private Equity Fund on purchase of generation assets within the United States (2006- 2007).
 - Member, Board of Directors, NeuCo Corporation.
 - Direct and provide consulting services to Abu Dhabi Water and Electricity Authority on distribution system performance. (2003–2005)
 - Direct and provide expert testimony on the development of the MidWest Independent System Operator. (2002–Present)
 - Direct and provide expert testimony on long-term contract market in California. (2002–Present)
 - Direct and provide expert testimony in purchase, contracting and regulatory approval of Midwestern transmission system. (2002–2003)
 - Direct and provide expert testimony in 9-billion dollar California Electric refund case (2001–Present)
 - Direct and provide expert testimony and consulting to major U.S. market and generator in the redesign of the California electricity market. (2002–Present)
 - Member of the Blue Ribbon Task Force on design of electricity auctions of the California Power Exchange with Alfred Kahn, Peter Cramton and Robert Porter. (2000–2001)
 - Member, Board of Directors of Dynamic Knowledge Corporation, Glasgow, Scotland. (2001–Present)
 - Consultant to more than 20 power development companies for evaluation of locational value of new generation and transmission. (1999–Present)
 - Consultant to and member of Technology Advisory Board, Excelergy Corporation, development of utility billing and system auction software. (1999–Present)
 - Consultant to a Midwest utility for development of transmission congestion pricing structure. (1999–2001)
 - Consultant to transmission asset development team of major U.S. corporation. (1999–2000)
 - Consultant to and member of advisory board of Altra Energy Systems, electronic trading software and platform development company for electronic trading of electricity. (1998–2001)
 - Consultant to major U.S. paper manufacturer for federal regulatory change required to interconnect a new co-generation facility. (1998–2000)

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- Consultant to major Midwest utility in the development of an independent transmission company and the required tariffs. (1998–2002)
 - Consultant with Enron Capital and Trade Resources on U.S. electricity restructuring with specific assignments in California, New York, Massachusetts and New England. Includes testimony in California “Blue Book” en banc hearings and participation in California Competitive Power Market Working Group. (1994–2001)
 - Consultant to the Office of the Attorney General, Commonwealth of Massachusetts for Electric Utility Industry Restructuring. (1995–1998)
 - Consultant with Sithe Energy on electricity pricing and electric industry restructuring. (1995–1998)
 - Consultant with Independent Power Producers of New York (IPPNY) on restructuring of electric sector in New York. (1995–1998)
 - Consultant to the Department of the Attorney General, State of Rhode Island and Providence Plantations for electric utility industry restructuring. (1996–1997)
 - Consultant to the New England Competitive Power Coalition providing support for development of a blueprint for restructuring the New England Power Pool. (1995–1997)
 - Consultant to ABB/Systems Control on transmission pricing and power systems operations. (1994–1997)
 - Consultant to a major western utility for the development of transmission pricing strategies. (1994–1996)
 - Development of real-time pricing strategies and rates for Oglethorpe Power Company, Atlanta, GA. (1995–1996)
 - Consultant on the background to electric industry restructuring to Central Vermont Public Service. (1995)
 - Development of real-time pricing rate response experiments for NYSERDA, EPRI and ESSERCo in ConEd and NYSEG service territories: Response to real-time pricing. (1989–1994)
 - Development of marginal, cost-based, transmission system pricing system for the National Grid Company (NGC) of the United Kingdom. (1991–1993)
 - Development of real-time rate structure and evaluation of customer impacts for Central Maine Power Company. (1990–1991)

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- Development of purchase and transmission strategy for major U.S. independent power producer. (1990)
 - Conservation and load management analysis and testimony for Boston Gas Company. (1987–1988)
 - Development of Electric Power Systems Consulting Group, Meta Systems Inc. (1985–1988)
 - Variable energy cost/spot pricing studies under contract to Integrated Communications Systems of Atlanta. Utilities included Mid-South and Pacific Gas and Electric, Southern California Edison, Central and South West. (1984-1987)
 - Metcalf & Eddy Engineering, analysis of economic benefits of cogeneration/district heating for Columbia Point housing, Boston Redevelopment Authority. (1984–1985)
 - Value of reliability study for Public Service of New Mexico. (1984)
 - With East-West Center, Honolulu, Hawaii, study of electric futures of northeast Asia, Japan, Korea and Taiwan. (1983–1984)
 - Independent variable energy cost spot pricing studies for Georgia Power, Florida Power and Light, Florida Power Corp., Tampa Electric and Gulf Power. (1983–1984)
 - Petroleum pricing study, Philippines for IBRD. (1983–1984)
 - Lignite pricing for electric power generation, Thailand. For IBRD (1982–1983)
 - Independent, review of electric power futures for combustion engineering. (1982)
 - Consultant, Microwave Associates, Inc., on electric load management and control. (1980-1981)
 - Urban energy impact statement for HUD. (1979–1980)
 - Consultant, Urban Systems Research and Engineering. Projects included: Analysis of Boston wastewater management plan for C.E.Q.; definition of 'modal' urban areas for environmental impact analysis using the EPA developed SPACE/SEAS model; Interceptor project to evaluate the impact of EPA interceptor grants program or land use patterns in suburban and rural areas of EPA Regions 2, 4, 6; Rural growth project analyzing regional development in non-metropolitan multi-county areas in the United States. (1971–1977)
 - Urban systems research and engineering analysis of Boston wastewater management plan for C.E.Q. (1977)
 - Bangladesh energy study for Asian Development Bank and UNDP. (1975–1976)
 - Urban systems research and engineering, definition of model urban areas for environmental impact analysis using the EPA developed SPACE/SEAS model. (1975–1976)

- Land use and environmental quality modeling and case study analysis of land use impacts on water and air quality. Case studies focused on the Mill River basin in the New Haven SMSA. (1974–1975)
- Member, Technical Advisory Panel for Educational Evaluation in Massachusetts, Office of the Commissioner in Education, Commonwealth of Massachusetts. (1973–1974)
- Lake Chad polder development study of agricultural development with low-lift irrigation pumping in the area immediately surrounding Lake Chad. (1974)
- Urban systems research and engineering, interceptor sewer project to evaluate the impact of EPA interceptor grants program on land use patterns in suburban and rural areas of EPA Regions, 2,4,6. (1974)
- Decision-making and flood plain management in the Connecticut River valley, study for New England River Basin Commission. (1973)

FIELDS OF EXPERTISE

- Energy economics / energy pricing
- Power systems operations and planning
- Asset valuation: Generation, Transmission and Generation
- Water and wastewater management
- Corporate strategic planning and analysis
- Corporate reorganization and management

PROFESSIONAL AFFILIATIONS

- Institute of Electrical and Electronic Engineers
- American Waterworks Association
- International Association of Energy Economists
- Energy Bar Association

PUBLICATIONS

Books, Book Chapters, and Monographs

The Definition of Multifunctional Planning Regions: A Case Study of East Pakistan. A report to the East Pakistan Land, Power and Water Study, Harvard University Center for Population Studies, May 1971.

“Preferences for Municipal Services of Citizens and Political Leaders: Somerville, MA, 1971.” With M.A. Vinovskis. *Population Policymaking in the American States: Issues and Processes*, D.C. Heath and Co., May 1974.

The Syracuse Metropolitan Regions: A Background for Paretian Environmental Analysis. Environmental Systems Program, Harvard University (ESP Monograph), September 1974.

Population Policymaking in the American States: Issues and Processes. With Bergman, Elihu, D. Carter, R. Cook, and D. Weir. D.C. Heath and Co., May 1974.

“Framework for the Analysis of State and Local Population Policy.” *Population Policymaking in the American States: Issues and Processes*, D.C. Heath and Co., May 1974.

Interceptor Sewers and Urban Sewers. With Binkley, Collins, Kanter. D.C. Heath and Co., October 1975.

Land Use and the Pipe: Planning for Sewerage. With M. Shapiro and P.P. Rogers. D.C. Heath and Co., November 1976.

“Infrastructure Planning.” In ASPO, *Rural and Small Town Planning*, The Old West Regional Commission, 1978.

“Utility Services.” In So, Stollman, Beal, and Arnold, eds., *The Practice of Local Government Planning*, International City Management Assoc., December 1979.

“Energy Demand Estimation.” With R. deLucia, In Jacoby and deLucia, eds., *Energy Planning in Developing Countries: The Case of Bangladesh*, John Hopkins Press, 1982.

“Traditional/Renewable Energy Sources.” With R. DeLucia. In Jacoby and deLucia, eds., *Energy Planning in Developing Countries: The Case of Bangladesh*, Johns Hopkins Press, 1982.

“Utility Spot Pricing to Coordinate Deregulated Utilities, Customers and Generators.” With R. Bohn and F. Scheppe. In Plummer, Ferrar and Hughes, eds., *Electric Power Strategic Issues: Deregulation and Diversification*, Johns Hopkins Press, 1982.

Electric Generation Expansion Analysis System, Vols. 1 & 2. With M. Caramanis and F.C. Scheppe. With Stone & Webster Engineering, Vols. 3, 4 & 5, EPRI, Palo Alto, CA, Report No. EL-2561, 1983.

“Electrical Utility Load Management Systems.” A.H. El-Abiad ed., *Power Systems Analysis and Planning*, McGraw-Hill, 1983.

“Cogeneration: Ownership and Operating Economics.” A.H. El-Abiad ed., *Power Systems Analysis and Planning*, McGraw-Hill, 1983.

“The New (Alternative) Electric Generation Technologies: An Evaluation of Their Potential.” A.H. El-Abiad ed., *Power Systems Analysis and Planning*, McGraw-Hill, 1983.

“Using Spot Pricing to Coordinate Deregulated Utilities, Customers and Generators.” With R. Bohn, and F. Schewepe. In Plummer, Ferrar and Hughes, eds., *Electric Power Strategic Issues*, Public Utilities Reports Inc., 1983.

“An Approach to Deregulating the Generation of Electricity.” With R. Bohn, B. Golub, and F.C. Schewepe. In Plummer, Ferrar and Hughes, eds., *Electric Power Strategic Issues: Deregulation and Diversification*, Public Utility Reports, 1984.

“Utility Finance and Planning in Japan, Korea and Taiwan.” With M. Castillo-Bonet. In Kim, Smith and Rose, eds., *Electric Futures of Asia and the Pacific*, East West Press Center, Honolulu, 1986.

Electricity in Northeast Asia: The Experiences of Japan, Korea, and Taiwan. Greenwood Press, Westport, CT, 1987.

Spot Pricing of Electricity. With F.C. Schewepe, M.C. Caramanis, and R. Bohn. Kluwer Academic Press, 1988.

Energy Aftermath: How We Can Learn from the Blunders of the Past to Develop our Energy Future. With T.H. Lee and B.C. Ball. Harvard Business School Press, Boston, 1989.

“Transitional Strategies for Emissions Reduction in the Electric Power Sector.” With B. L. Monroe, III. In J. Tester and N. Ferraro, eds., *Energy and Environment in the 21st Century*, MIT Press, 1991.

“Engineering Economic Analysis: Applications to Electric Utility Investment Planning.” In M. Baughman ed., *Engineering Economic Analysis: Overview and Current Applications*, IEEE Tutorial, 1992.

“Unbundling the U.S. Electric Power Industry: A Blueprint for Change.” With Fernando, Kleindorfer, Pickel, and Robinson. Tabors Caramanis & Associates, March, 1995.

Articles and Reviews

“A Preliminary View of Economic Change and Urbanization: Bangladesh 2000.” In Thomas and Lavan, eds., *West Bengal and Bangladesh: Perspectives from 1972*, Asian Studies Center, Michigan State University, South Asia Series No. 21, 1973.

“Urbanization and War: Inertia in Urban Migration in Bangladesh.” Presented to the XXVI Annual Meeting of the Association for Asian Studies, Boston, MA, April 1974.

“Land Values and Public Investment in Urban Fringe Areas: A Case Study of Clay, New York.” With M. Shapiro. Papers and Proceedings of the Northeast Regional Science Association, 1975.

Review of Greenberg et al., “Solid Waste Planning in Metropolitan Regions” in *Annual of Regional Science*, June 1978.

“A Louisiana Case Study: Towards a Single System of Substrate Regions.” With C. S. Binkley. *Growth and Change*, January 1980.

“Homeostatic Utility Control.” With F. C. Schweppe, J. L. Kirtley, H. R. Outhred, F. H. Pickel, and A. J. Cox. *IEEE Transactions on Power Apparatus and Systems*, Vol. PAS-99, No. 3, May/June 1980.

“Rate and Penetration Analysis, the Impact of Distributed Photovoltaic Power Systems within the Utility Grid System.” With A. Cox, S. Finger, and A. Burns. *IEEE Transactions, IEEE 14th Photovoltaic Specialists Conference*, 1980.

“Economic Integration of New Energy Technologies into the Grid Using Homeostatic Control.” Invited paper, IEA Conference on New Energy Conversion Technologies, April 1981.

“Economic Operation of Distributed Power Systems within an Electric Utility.” With S. Finger and A. Cox. *IEEE Transactions on Power Apparatus and Systems*, Vol. PAS-100, No. 9, September 1981.

“Solar Energy/Utility Interface: The Technical Issues.” With D.C. White. *Energy, The International Journal*, January 1982.

“Homeostatic Control for Electric Power Usage.” With F. C. Schweppe and J. L. Kirtley. *IEEE Spectrum*, Vol. 19, No. 7, pp. 44–48, July 1982.

“The Introduction of Non-Dispatchable Technologies as Decision Variables in Long-Term Generation Expansion Models.” With M. C. Caramanis, K. S. Nochur, and F. C. Schweppe. *IEEE Transaction on Power Apparatus and Systems*, Vol. PAS-101, No. 8, August 1982.

“Wisconsin Study Shows Homeostatic Control has High Potential for Industrial Loads.” With F. C. Schweppe. *Modern Power Systems*, Vol. 3, No. 1, pp. 43-46, January 1983.

“Homeostatic Control: The Utility Customer Marketplace for Electric Power.” With F. C. Schweppe and J. L. Kirtley. In *Local Heat and Power Generation: A New Opportunity for British Industry*, Interscience Enterprise, U.K., 1983.

“Deregulating the Electric Utility Industry.” With F. C. Schweppe and R. Bohn. *The Energy Journal*, January 1984.

“Electricity Spot Prices in Developing Countries.” *National Development*, November 1984.

“Evaluation of Spot Price Based Electricity Rates.” With F.C. Schweppe and M. C. Caramanis. *IEEE Transactions on Power Apparatus and Systems*, Vol. PAS-104, no. 7 July 1985.

“Natural Gas Fired Combined Cycle Generators: Dominant Solutions in Capacity Planning.” With D. Flagg. *IEEE Transactions on Power Apparatus and Systems*, No. 85 SM 492-4, 1985.

Review of Munasinghe, “Energy Pricing and Demand Management” in *The Energy Journal*, 1987.

“Utility Experience with Real Time Rates.” With F. C. Schweppe and M. C. Caramanis. *IEEE Transactions on Power Systems*, Vol. 4, No. 2, May 1989.

“Coal to Natural Gas Seasonal Fuel Switching: An Option for Acid Rain Control.” *IEEE Transactions on Power Systems*, Vol. 4, No. 2, May 1989.

“Algorithms for a Spot Price Responding Residential Load Controller.” With B. Daryanian and F. C. Schweppe. *IEEE Transactions on Power Systems*, Vol. 4, No. 2, May 1989.

“Energy Systems for the Twenty-First Century.” With B. C. Ball and T. H. Lee. *International Journal of Global Energy Issues*, Vol. 1, Nos. 1/2, 1989.

“Planning for Future Uncertainties in Electric Power Generation: An Analysis of Transitional Strategies for Reduction of Carbon and Sulfur Emissions.” With B. L. Monroe, III. *IEEE Transactions on Power Systems*, 1991.

“Real Time Pricing as a Component of Least-Cost Power Strategies.” With M.C. Caramanis and B. Daryanian. *Proceedings of the American Power Conference*, 1991.

“An Experiment in Real Time Pricing for Control of Electric Thermal Storage Systems.” With B. Daryanian and R. E. Bohn, *IEEE Transactions on Power Systems*, 1991.

“A Computer Design Assistant for Induction Motors, Using Monte-Carlo Design Synthesis to Augment a Design Database.” With J. A. Moses, J. L. Kirtley, J. H. Lang and F. Cuadra. *Conference Record of the 1991 IEEE IAS Annual Meeting*, 1991.

“A Simulator of the Manufacturing of Induction Motors.” With C. L. Tucci, J. H. Lang, and J. L. Kirtley. *Conference Record of the 1991 IEEE IAS Annual Meeting*, 1991.

“A Framework for Integrated Resource Planning: The Role of Natural Gas Fired Generation in New England.” With S. R. Connors, C. G. Bespolka, D. C. White, and C. J. Andrews. *IEEE Transactions on Power Systems*, 1992.

“Optimal Demand-Side Response to Electricity Spot Prices for Storage-Type Customers.” With B. Daryanian and R. E. Bohn. *IEEE Transactions on Power Systems*, 1992.

“RTP-Based Energy Management Systems: Monitoring, Communication, and Control Requirements for Buildings under Real Time Pricing.” With B. Daryanian and L. K. Norford. *ASHRAE Transactions*, 1992.

“Benefit Optimization of Centralized and Decentralized Power systems in a Multi-Utility Environment.” With F. Nishimura, M. D. Ilic, and J. R. Lacalle-Melero. *IEEE Transactions on Power Systems*, 1993.

“Transmission System Management and Pricing: New Paradigms and International Comparisons.” Invited Paper, IEEE Power Systems Winter Meeting, February 1993, *IEEE Transactions on Power Systems*, 1993.

“Competitive Electric Market will Tailor Services to Everyone.” With D. J. Parquet. *California Manufacturer*, May 1995, pp 7-10.

“Smart Hardware: Large Power Transformer Monitoring.” With J. Kirtley, B. Lesieutre, W. Hagman, P. Warren, M. J. Boyd, and H.P. Chou IEEE. *Computer Applications in Power*, November 1995.

“The Electric Car Unplugged.” With R. deNeufville, S. R. Connors, F. R. Field III, D. Marks, and D. S. Sadoway. *Technology Review*, January 1996, Vol. 99, No. 1, pp.30–36.

“Lessons from the U.K. and Norway.” *IEEE Spectrum*, August 1996.

“Zonal Transmission Pricing: A Methodology and Preliminary Results from the WSCC.” *Proceedings of the Conference on Innovative Pricing*, San Diego, March, 1996 and *The Electricity Journal*, November 1996.

“A Market-Based Proposal for Transmission Pricing.” *The Electricity Journal*, November 1996.

“Zonal Transmission Pricing: Preliminary Results from the WSCC.” With S. Walton. *The Electricity Journal*, November 1996.

“The Regulatory Contract and Restructuring: A Modest Proposal.” With R. S. Hartman. *The Electricity Journal*, December 1996.

“Optimal Operating Arrangements in a Restructured World: Economic Issues.” With R. S. Hartman. *Energy Policy*, Vol. 26, No. 2, February 1998.

“Reliability: Reality or the Power Engineers' Last Gasp.” *Proceedings of the Thirty-First Annual Hawaii International Conference on System Sciences*, January 1998.

“Unbundling of Transmission: The Operation and Economics of a for-Profit Transmission Company.” *Proceedings of the Thirty-Third Annual Hawaii International Conference on System Sciences*, January 2000

“Transmission Markets: Stretching the Rules for Fun and Profit.” With N. Rao. *Electricity Journal*, June 2000.

“Forward Markets for Transmission that Clear at LMP: A Hybrid Proposal.” *Proceedings of the Thirty-Fourth Annual Hawaii International Conference on System Sciences*, January 2001.

“Uniform Pricing or Pay-as-Bid Pricing: A Dilemma for California and Beyond.” With A. E. Kahn, P. C. Cramton, and R. H. Porter. *The Electricity Journal*, July 2001.

“Ex Ante and Ex Post Designs for Electric Market Mitigation: Past and Present Experience and Lessons from California.” With J. B. Cardell. *Proceedings of the Thirty-Sixth Annual Hawaii International Conference on System Sciences*, January 2003.

“The Role of Demand Underscheduling in the California Energy Crisis.” With E.D. Hausman. *Proceedings of the Thirty-Seventh Annual Hawaii International Conference on System Sciences*, January 2004.

“Evaluating the Benefits of Independently-Owned Transmission Companies.” *Journal of Structured Project Finance*, winter 2004.

“The use of Multi-Attribute Trade-Off Analysis in Strategic Planning For an Electric Distribution utility: An Analysis of Abu Dhabi Distribution Company” With Rick Hornby, *Proceedings of the Thirty-Fifth Annual Hawaii International Conference on System Sciences*, January 2005.

“Loss Hedging Rights: A Final Piece in the LMP Puzzle.” *Proceedings of the Thirty-Fourth Annual Hawaii International Conference on System Sciences*, with Aleksandr Rudkevich , Ezra Hausman , Jan Bagnall and Christopher Kopel, January 2005.

“Price Discrimination in Organized/Centralized Electric Power Markets.” With Seabron Adamson, *Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Sciences*, January 2006.

“Identification and Congestion Analysis of Transmission Corridors of the Eastern Interconnection.” With Aleksandr Rudkevich , Kaan Egilmez , Minghai Liu , Prashant Murti , Poonsaeng Visudhiphan , and Thomas J. Overbye, *Proceedings of the Fortieth Annual Hawaii International Conference on System Sciences*, January 2007

“Transmission Tariffs by Use of System and Economic Benefits.” With Daniel J. Camac , Raul C. Bastidas , Wilfredo Sifeuentes , and Hyde M. Merrill *Proceedings of the Fourty-Second Annual Hawaii International Conference on System Sciences*, January 2009

“Interconnection in the GCC Grid: The Economics of Change.” *Proceedings of the Fourty- Second Annual Hawaii International Conference on System Sciences*, January 2009

Technical Reports

“U.S. Electrical Energy Demand and the Potential for Photovoltaics.” With M. Pope and R. Matlin. Technical Note, Lincoln Laboratory, MIT, November 1976 (TN 76-2).

“The Cost of a Cold Winter.” With S. Raskin. *The NEEMIS Newsletter*, Energy Laboratory, MIT, No. 6, Vol. I, January 1977.

“Impacts of Dispersed Solar Space and Hot Water Heating on New England Electric Service.” With S. Law and A. Burns. MIT Energy Laboratory, June 1978.

“A Uniform Economic Valuation Methodology for Solar Photovoltaic Applications Competing in a Utility Environment.” With P. R. Carpenter. MIT Energy Laboratory Report No. MIT-EL 78-010, June 1978.

“SERI Venture Analysis.” With S. Finger MIT Energy Laboratory Technical Report No. MIT-EL 78-032, July 1978.

“Methodology and Definition of Solar Photovoltaic Planning Regions.” With P. R. Carpenter. MIT Energy Laboratory Report No. MIT-EL 78-034, July 1978.

“The Economics of Water Lifting for Small-Scale Irrigation in the Third World: Tradition and Photovoltaic Technologies.” MIT Energy Laboratory Technical Report No. MIT-EL 79-011, May 1979.

“Homeostatic Control: Economic Integration of Solar Technologies into Electric Power Operations and Planning.” MIT Energy Laboratory Report, No. MIT-EL-81-028, July 1981.

“Boston Harbor Management Study.” With J. T. Kildow, principal investigator. MIT Sea Grant College Program, Report No. MITSG81-15, November 1981.

“Utility Spot Pricing Study: Wisconsin.” With M.C. Caramanis and R. Stevenson. MIT Energy Laboratory Technical Report No. MIT-EL 82-025, June 1982.

“Market and Economic Analysis of Residential Photovoltaic Systems: Final Report.” MIT Energy Laboratory Technical Report No. MIT-EL 82-024, June 1982.

“Industrial Interfuel Substitution Phase I Report: Model Development and Case Study.” With G. Russo. MIT Energy Laboratory Technical Report No. MIT-EL 82-035, June 1982.

“Management Decisions for Cogeneration.” With R.R. Radcliffe. MIT Energy Laboratory Technical Report No. MIT-EL 82-084, July 1982.

“Economic Analysis of the Photovoltaic Technology, Final Report.” MIT Energy Laboratory Technical Report Draft, August 1982.

“Utility Spot Pricing: California.” With F. C. Schweppe and M. Caramanis. Prepared for Pacific Gas and Electric and Southern California Edison, MIT Monograph, Cambridge, MA, October 1982.

“Deregulating the Electric Utility Industry.” With R. Bohn, B. Golub and F. C. Schweppe. MIT Energy Laboratory Technical Report No. MIT-EL 82-003, January 1982.

“Management Decisions for Cogeneration: A Survey Analysis.” With R. Radcliffe. MIT Energy Laboratory Report, Report No. MIT-EL 82-025, June 1982.

“Management Decisions for Cogeneration: Discriminating Between Users and Non Users.” With R. Radcliffe. MIT Energy Laboratory Report, Report No. MIT-EL 82-029.

“Spot Pricing and Its Relation to Other Load Management Methods.” With M. Caramanis and F. C. Schweppe. MIT Energy Laboratory Report, MIT-EL 83-001, January 1983.

“Utility Spot Pricing: California II.” With F. C. Schweppe and M. C. Caramanis. Prepared for California Energy Commission, Final Report, January 1984.

“An Assessment of Public Infrastructure in Massachusetts.” Joint Center for Urban Studies, A Case Study prepared for the use of the Subcommittee on Economic Goals and Intergovernmental Policy of the Joint Economic Committee, Congress of the United States, February 25, 1984.

“Ammonia from Bagasse Gasification: A Study of Ethanol Production Systems in Brazil.” With C. Fernando. MIT, Laboratory for Electromagnetic and Electronic Systems, LEES Report No. TR 85-002, April, 1985.

“A Non-LP Prescreening Framework for Integrated Energy Systems.” With C. Fernando. MIT, Laboratory for Electromagnetic and Electronic Systems, LEES Report No. TR 86-001, January 1986.

“Project Report – Phase I: Analysis of Biomass Penetration in the Italian Electricity Market.” With W.W. Schenler, P. Moncada and S.R. Connors. MIT Energy Laboratory, MIT-EL 93-005, November 1993.

“Advanced Motors and Power Electronics.” With E.G. Corbett, S.D. Umans, K.K. Afridi, J.G. Kassakian, L.S. Schwartz, and C.F. Bruce. MIT, Lincoln Laboratory, Project Report VT-2, April 22, 1994.

“Project Report—Phase II: Analysis of Biomass Penetration in the European Electricity Market.” With W.W. Schenler, P. Moncada, and S.R. Connors. MIT Energy Laboratory, MIT-EL 94-002, July 1994.

“Distributed Storage Systems Within the Electric Utility Grid: Technology Assessment and Evaluation of Market Worth.” With J.B. Cardell. MIT School of Engineering Laboratory for Electromagnetic and Electronic Systems, LEES Technical Report TR 95-005, June 1995.

“Integrating Small Scale Distributed Generation into a Deregulated Market: Control Strategies and Price Feedback.” With J. Cardell and M. Ilic. MIT Energy Laboratory, MIT-EL 98-001, April 1998.

“Review of Initial Report on Company-Specific Separate Proceedings and Generic Reevaluations; Published Natural Gas Price Data; and Enron Trading Strategies, August 2002.” With R. Hornby. A report to Powerex Corporation, October 2002.

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Submitted in Response to Formal, Non-Public Investigation
Under 18 C.F.R. § 1b.5
Subject to 18 C.F.R. §§ 1b.9 and 1b.20

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Up-To Congestion Transactions)

Docket No. IN10-5-000

AFFIDAVIT

RICHARD D. TABORS, being duly sworn, deposes and states: that he prepared the Affidavit and Appendices of Richard D. Tabors and that the statements contained therein and the Appendices attached thereto are true and correct to the best of his knowledge and belief.


Richard D. Tabors

Subscribed and sworn to before me
This 21 day of October, 2011



Notary Public

My Commission Expires:

MELANIE DAWN JARVIS
Notary Public in and for the Prov. of Alberta
Appointment expires: December 31, 2011

