

ROBERT J. MICHAELS

Professor of Economics
California State University
Fullerton, California 92834
Tel 657/278-2588
Fax 657/278-1258
rmichaels@fullerton.edu

Consultant
1440 N. Harbor Blvd., Suite 900
Fullerton, California 92835
Tel 714/449-3331
Fax 714/278-1258
energy.ace@att.net

AREAS OF QUALIFICATION

Industrial organization; antitrust analysis; regulation, deregulation, and competition in the electricity and gas industries

EMPLOYMENT HISTORY

- Professor of Economics, Mihaylo College of Business and Economics, California State University, Fullerton, 1978-present
- Daniel P. Hann Distinguished Scholar in Law and Economics, California State University, Fullerton, 2008-present
- Affiliate, Tabors, Caramanis & Associates, Cambridge, MA, 2001-2004
- Special Consultant, Econ One Research & Consulting, Inc., Los Angeles, 1999-present
- Senior Advisor, Hagler Bailly Consulting, Arlington, VA, 1996-1998
- Consultant in Economics and Finance, JurEcon, Inc., Los Angeles, CA, 1992-1996
- Lecturer, Graduate School of Business Administration, University of Southern California, Irvine Campus, 1993
- Lecturer in Economics, Claremont Graduate School, Claremont, CA, 1992
- Associate Professor of Economics, California State University, Fullerton, 1975-1978
- Research Staff Member, Program Analysis Division, Institute for Defense Analyses, Arlington, VA, 1973-1975

EDUCATION

University of California, Los Angeles, PhD, Economics, 1972
University of Chicago, AB, Economics, 1965

PROFESSIONAL EXPERIENCE

Electric Industry Experience

2010: Retained by Texas Public Policy Foundation to produce study of mandatory energy efficiency programs under the Public Utility Commission of Texas (Project No. 37623). Co-authored summary of study filed at the Commission and expect to testify.

2009: Retained by Mississippi Public Service Commission Staff (Docket 09-UA-19) to produce written and oral testimony on need for and alternatives to lignite-fired powerplant with carbon sequestration proposed by Mississippi Power Company. Co-authored written testimony and testified at hearings.

2008: Retained by attorneys for landowners' association to testify before Vermont Public Service Board (Docket No. 7250) on consistency of proposed wind energy project with utility planning procedures. Prepared written testimony and testified at hearing.

2006-7: Retained by Texas Public Policy Foundation to prepare report on effectiveness of retail electricity competition in Texas and evaluate proposed legislation.

2006: Retained by agents for merging parties to perform market analyses in proposed merger of Constellation Energy and FPL Group.

2004-6: Retained by Tokyo Electric Power Company and Japan Electric Power Information Center, Inc. as consultant on regulation and industry restructuring in Japan.

2002-4: Retained by Southern California Edison as expert on power supplies and fuel price forecasting in connection with potential municipal utility formations.

2002: Retained by counsel in for surety bond issuer as expert on trading policies and market monitoring in connection with bankruptcy of the California Power Exchange.

2001: Retained by Duke Energy to analyze California electricity market data in connection with Federal Energy Regulatory Commission [FERC] proceedings and related litigation.

2001: Retained by Japan External Trade Relations Organization. Produced study document on lessons of U.S. state electricity restructurings for Japan.

1999: Retained by Alliance for Retail Markets, consisting of five of the largest retail power marketers operating in California, to testify on post-transition ratemaking and the effects of proposed rules governing default suppliers on future competition. Testimony included evaluation of utilities potential market power in the California Power Exchange [PX], the effects of proposals to modify PX buy/sell rules in effect during the transition, and the effects of post-transition performance-based ratemaking for utilities as default suppliers. Filed testimony in California Public Utilities Commission Dockets A.99-01-019 and 99-02-029 and appeared for cross-examination at hearing.

1999: Retained by independent power producer and marketer Dynegy, Inc. to analyze reports by Market Monitoring Committee of California Power Exchange and Market Surveillance Committee of California Independent System Operator on competition in the states electricity markets and restructuring of Reliability Must-Run [RMR] generator contracts. Filed affidavits in Federal Energy Regulatory Commission Docket Nos. ER98-2843-006 *et al* [two affidavits] and ER98-2843-007 *et al* commenting on these reports, and on consequences of certain RMR-related proposals for future competition.

1997: Retained by attorneys for group of consumers and potential competitors to analyze competitive effects of Long Island Power Authority's acquisition of assets of Long Island Lighting Company, Federal Energy Regulatory Commission (FERC) Docket No. EC97-45-000. Filed affidavit defining markets and identifying new barriers to competition that the acquisition will put in place. Docket concluded without further testimony.

1997: Retained by staff of Illinois Commerce Commission to analyze effects of merger between Union Electric Company and Central Illinois Public Service company on future retail competition in Illinois. Performed innovative market analysis of the merger's effect on the prospects for retail competition in Illinois, in conjunction with Mr. Steven Mitnick using Hagler Bailly's RAMP UP™ data on power generation in the area. Parties to the docket reached settlement prior to formal hearing.

1997: Presentation at annual retreat of Board of Directors of major electric-gas utility, The Convergence of Energy Markets.

1994-1996: Consultant on electricity competition in California, testified in California Public Utilities Commission restructuring proceeding (for Coalition for Choice in Electricity) and California Energy Commission Biennial Resource Plan Docket (for Enron Corporation). [See below for docket details.]

1979-1990: Consultant to defendant in federal antitrust cases *Cities of Anaheim et al v. Southern California Edison* and *City of Vernon v. Southern California Edison*. Performed

work in market definition, analysis of competition, and economics of access to essential transmission facilities. Also performed work in competitive analysis in FERC price squeeze dockets, including competition between investor-owned utilities and municipal systems for location of industrial loads.

1988-1989: Appointed Consultant to New Zealand Treasury to analyze competitive implications of the creation of State-Owned Enterprise selling and wheeling power to local distributors under that country's antitrust law. Research included travel to New Zealand and production of a report.

Gas and Oil Industry Experience

2008-9: Retained by American Petroleum Institute to perform study on changes in structure of oil industry that have produced changes in allocation of funds for exploration and development by major producers. A research report is currently in process.

2001: Retained by Department of Law, City of Chicago to testify before Illinois Commerce Commission in Peoples Gas, Light and Coke Company annual Reconciliation docket. Testified on prudence of company's gas purchase and hedging practices. Filed written testimony, rebuttal testimony, and appeared for cross-examination.

1987: Consultant to Natural Gas Supply Association (producer trade group), co-author of report on feasibility of unrestricted capacity repackaging and retrading for interstate pipelines, used by client as input to testimonies filed at FERC.

Other Relevant Experience

1996: Retained by Attorney General of California to analyze the effect of merger between Union Pacific and Southern Pacific Railroads on competition in California. Prepared reports used as input to Attorney General's intervention at the U.S. Surface Transportation Board.

TESTIMONY

U.S. House of Representatives, Committee on Science and Technology, presented and submitted invited testimony and supplemental testimony on Real-Time Forecasting for Renewable Energy Development and the Value of Improved Short-Term Wind Forecasts, June 16, 2010.

Mississippi Public Service Commission, Docket No. 09-UA-14, on need for new generation facility proposed by Mississippi Power Company, Testimony on behalf of Mississippi Public Service Commission Staff, Oct. 5 – 7, 2009.

U.S. House of Representatives, Subcommittee on Energy and Environment, Invited Testimony on Allocation Standards for Carbon Emissions Allowances, April 23, 2009.

Federal Energy Regulatory Commission, Docket No. AD07-8-000, Rulemaking on Market Monitoring Policies, Invited Testimony before Commissioners, April 5, 2008.

California State Board of Equalization, Hearings on Proposed tax Increase for Flavored Malt Beverages. Presented written and oral testimony on behalf of Distilled Spirits Council of the United States and Diageo PLC, evaluating intervenor studies of taxation and underage drinking, Sacramento, Oct. 13, 2007.

Texas House of Representatives, Committee on Regulated Industries, Testimony on behalf of Texas Public Policy Foundation re electricity markets, Austin, Mar. 27, 2007.

Illinois Commerce Commission v. Peoples Gas, Light, and Coke Company, Docket 00-720, Reconciliation of Revenues Collected under Gas Adjustment Charges with Actual Costs Prudently Incurred, testified on behalf of City of Chicago, Aug. 28, 2001.

California Public Utilities Commission, Dockets A.99-01-019 and A.99-02-029, investigation and rulemaking on post-transition ratemaking, testified for the Alliance for Retail Markets, San Francisco, Sept. 1, 1999.

Federal Energy Regulatory Commission, Dockets No. ER98-2871-008 et al, testimony on behalf of Dynegy Corporation California generation LLCs evaluating reports on competition filed at FERC by the California Power Exchange and California Independent System Operator Market Monitoring units. Testified on their treatment of generation withholding, indicators of competitive bidding, and possible redesign of Reliability Must-Run (RMR) contracts with generators, various dates 1999.

Federal Energy Regulatory Commission, Docket No. 97-45-000, testimony on behalf of large consumers and potential competitors adversely affected by the State of New York's (Long Island Power Authority) takeover of Long Island Lighting Co, June 1997.

Illinois Commerce Commission, Docket No. 95-0551, testimony on behalf of the Commission regarding the potential effects on future retail competition of Union Electric Company's (later Ameren Energy) merger with Central Illinois Public Service Company, April 27, 1997.

U.S. House of Representatives, Subcommittee on Energy and Power, invited testimony on "Financial Aspects of Electrical Restructuring," Washington, D.C., Mar. 28, 1996.

California Public Utilities Commission, Docket R-94-04-031, Rulemaking on California Retail Electricity Competition, expert testimonies for Coalition for Choice in Electricity, June 15, 1994; July 1, 1994; Sept. 16, 1994; and one later date.

California Energy Commission, Docket 93-ER-4, Preparation of the 1994 Electricity Report, expert testimony for Enron Corporation, Oct. 25, 1994, and Dec. 8, 1994; 1996 Electricity Report, expert testimony for Institute for Energy Research, Feb. 16, 1996.

Superior Court of California (Various cases, none related to electric and gas industries).

SELECTED PUBLICATIONS

California's Climate Policy: The Present and Future of AB 32, Institute for Energy Research, Washington, October 2010

Co-Author (with Bill Peacock, Texas Public Policy Foundation), *Energy Efficiency: Is Texas Getting Its Money's Worth ?* Texas Public Policy Foundation and Institute for Energy Research, June 2010.

Transactions and Strategies: Economics for Management. Mason OH: Cengage Learning, 2010.

The Other Half of Waxman-Markey: An Examination of the Non-Cap-and-Trade Provisions, Monograph, Institute for Energy Research, Washington, D.C., Oct. 2009.

Co-author (with Robert Murphy, Institute for Energy Research), *Green Jobs: Fact or Fiction*, Monograph, Institute for Energy Research, Washington D.C., Jan. 2009.

"The Case Against a Federal Renewable Power Requirement," *Electric Light & Power* 87 (Jan. 2009), 50-53.

"Renewable Portfolio Standards: Still No Good Reasons," *Electricity Journal* 21 (Oct. 2008), 18-31.

"Electricity Market Monitoring and the Economics of Regulation," *Review of Industrial Organization* 32 (No. 2, 2008), 197-216.

"National Renewable Portfolio Standard: Smart Policy or Misguided Gesture?" *Energy Law Journal* 29 (No. 1, 2008), 79-119.

"A National Renewable Portfolio Standard: Politically Correct, Economically Suspect," *Electricity Journal* 21 (April, 2008), 9-28.

"A Primer on Electricity," "Electricity in Texas," and "Competition in Texas Electric Markets," Three Monographs for Texas Public Policy Foundation, Mar. 2007, at www.texaspolicy.org

Co-author (with J. Jolly Hayden, FPL Group), "Merchant Transmission Redux," *Public Utilities Fortnightly*, Sept. 2006, 58-61.

"Electric Utility Regulation" and "Natural Gas Regulation," topic articles in David Henderson (Ed.), *The Concise Encyclopedia of Economics* (Liberty Fund, 2005).

"Vertical Integration: the Economics that Electricity Forgot," *Electricity Journal*, Dec. 2004.

"California's Electricity Policy, Evolving and Retrogressing," *Natural Gas and Electricity*, Oct. 2004, 10-14.

"Watching the Watchers: Can RTO Market Monitors Really be Independent?," *Public Utilities Fortnightly*, July 15, 2003, 35-38.

Energy Markets and Capacity Values: How Complex Should Pricing Be?," in Ahmad Faruqui and Kelly Eakin (Eds.), *Electricity Pricing in Transition, Topics in Regulatory Economics and Policy Vol. 42*, (Kluwer Academic Publishers), 2002.

Co-Author (with Nguyen Quan, Digital Safetynet), Market Power in California: Misunderstanding the Opportunities, *Electricity Journal* 15 (May, 2002), 30-42.

Venues and Markets: Regulating Competitive Electricity in the West, *Energy Law Journal*, V. 22 (No. 2, 2001), 335-359.

FERC's California Fix: Opportunities Lost and Found," *Public Utilities Fortnightly*, Jan. 1, 2001, 32-34.

Co-Author (with Nguyen Quan, Digital Safetynet), Games or Opportunities: Bidding in the California Markets, *Electricity Journal* 14 (Jan.-Feb. 2001), 99-108.

Can Non-Profit Transmission Be Independent? *Regulation* V. 16 (No. 3, 2000), 61-65.

The Governance of Transmission Operators, *Energy Law Journal*, V. 20 (No. 2, 1999), 233-262.

ISO or Transco? It's Not the Profit, But Who Gets the Reward, *Public Utilities Fortnightly*, August, 1999, 52-54.

Co-author (with Jerry Ellig, George Mason University), Electricity: Price Spikes by Design, *Regulation* V. 15 (No. 2, 1999), 20-22.

Preparing for Gas-Electric Convergence: Mergers or Alliances, in Ahmad Faruqui and J. Robert Malko (Eds.), *Customer Choice: Finding Value in Retail Electricity Markets*, (Public Utilities Reports, Inc.), 1999, 79-94.

Co-Author (with Jerry Ellig, George Mason University). Price Spike Redux: A Market Emerged, Remarkably Rational, *Public Utilities Fortnightly*, Feb. 1, 1999, 40-47.

Co-Author (with Jerry Ellig, George Mason University), *Electricity Passes the Market Test: Price Spikes in the Summer of 1998*, Mercatus Institute Monograph, George Mason University, Nov. 1998.

How Gas-Electric Convergence Mergers Affect Competition, *Natural Gas* V. 15 (Sept. 1998), 13-17.

Securitized Transition Costs: Rethinking Who Wins and Who Loses, *The Electricity Journal* V. 11 (June 1998), 58-65.

MW Gamble: The Missing Market for Capacity, *The Electricity Journal*, V. 10, Dec. 1997, 56-64.

Would Anyone Invent Public Power Today? Can Anyone Reinvent It? *The Electricity Journal*, V. 10, Nov. 1997, 52-58.

Stranded in Sacramento: California Tries Legislating Competitive Electricity, *Regulation*, V. 20, Spring 1997, pp. 52-56.

Co-author (with Steven Isser, Hagler Bailly): Stranded Investment: Utility Estimates or Investor Expectations? *Public Utilities Fortnightly*, June 1, 1997, pp. 26-30.

Electric Utility Mergers: The Answer or the Question? *Public Utilities Fortnightly*, Jan. 1, 1996, pp. 20-23.

Electric Utility Mergers: The Wrong Strategy at the Wrong Time, *The Electricity Journal*, V. 8, Jan. 1996, pp. 28-36.

Reducing Risk, Shifting Risk, and Concealing Risk: Why Are There Long-Term Gas Contracts? in J. Ellig and J. Kalt (eds.), *New Horizons in Natural Gas Deregulation* (Praeger, 1996), pp. 195-208.

Stranded Investments, Stranded Intellectuals, *Regulation*, V. 19 No. 1, 1996, pp. 47-51.

After Stranding Recovery, What? *Public Utilities Fortnightly*, June 1, 1996, pp. 14-18.

Long-Term Capacity Turnbacks: Not a Short-Term Problem, *Natural Gas*, V. 12, June 1996, pp. 7-11.

Markets of the Future, Utilities of the Past, *The Electricity Journal*, V. 9, Oct. 1996, pp. 58-65.

Mergers and Market Power: Should Antitrust Rule? *Public Utilities Fortnightly*, Nov. 15, 1996, pp. 42-44.

Market Power in Electric Utility Mergers: Access, Energy, and the Guidelines, *Energy Law Journal*, V. 17 No. 2, 1996, pp. 401-424.

Stranded Investment: Pay Up or Mark Down? *Public Utilities Fortnightly*, May 15, 1995, pp. 21-25.

PoolCo: Inventing the Wrong Market, *Public Utilities Fortnightly*, July 1, 1995, pp.43-46.

Regulation Meets Competition: Antitrust in the New Gas Distribution Industry, *Natural Gas*, Nov. 1995, pp. 15-19.

Co-author (with Arthur S. De Vany): Market-Based Rates for Interstate Gas Pipelines: The Relevant Market and the Real Market, *Energy Law Journal*, V. 16 No. 2, 1995, pp. 299-346.

Co-author (with Charles G. Stalon): Decontrol of Wellhead Prices and the First Wave of Gas Industry Restructuring, in Arlon Tussing and Bob Tippee, *The Natural Gas Industry, 2nd. Ed.* (PennWell Books), 1995, pp. 185-220.

Wholesale Pooling: The Monopolist's New Clothes, *The Electricity Journal*, V. 7, Dec. 1994, pp. 64-76.

Unused and Useless: The Strange Economics of Stranded Investment, *The Electricity Journal*, V. 7, Oct. 1994, pp. 12-22.

Co-author (with Andrew Kleit): Antitrust, Rent-Seeking, and Regulation: The Past and Future of Otter Tail, *Antitrust Bulletin*, V. 39, Fall 1994, pp. 689-725.

Fuel Adjustment Clauses: An Idea Whose Time Has Gone, *The Electricity Journal*, V. 7, Feb. 1994, pp. 78-85.

Co-author (with Thomas Hazlett): The Cost of Rent-Seeking: Evidence from Cellular Telephone License Lotteries, *Southern Economic Journal*, V. 59, Jan. 1993, pp. 425-435.

The New Age of Natural Gas: How the Regulators Brought Competition, *Regulation*, V. 16, Winter 1993, pp. 68-79.

Not Quite Free Wheeling: The Energy Policy Act of 1992, *Regulation*, V. 16, Winter 1993, pp. 19-23.

Electric Utility Regulation and Natural Gas Regulation, in *Fortune Encyclopedia of Economics* (Warner Books), 1993.

When Captive Customers Bear the Risk, *Public Utilities Fortnightly*, V. 131, Nov. 15, 1993, pp. 13-16.

Reason for Pessimism: Politics and Policy Cloud the Future of Electricity Competition, *Public Utilities Fortnightly*, V. 131, Sept 15, 1993, pp. 16-20.

Co-author (with Andrew Gill): Does Drug Use Decrease Earnings? *Industrial and Labor Relations Review*, V. 45, April 1992, pp. 419-434.

Deregulating Electricity: What Stands in the Way, *Regulation*, V. 15, Winter 1992, pp. 38-47.

What's Legal And What's Not: The Regulation of Opiates in 1912, *Economic Inquiry*, V. 30, Oct. 1992, pp. 696-713.

Comment on Lee and Ellert, *Research in Law and Economics* V. 13 No. 1, 1991, pp. 213-219.

Co-author (with Andrew Gill): The Determinants of Illegal Drug Use, *Contemporary Policy Issues*, Vol. 9, July 1991, pp. 93-105.

Co-author (with Rodney Smith and Arthur DeVany): Defining a Right of Access to Interstate Natural Gas Pipelines, *Contemporary Policy Issues*, Vol. 8, April 1990, pp. 142-158.

Conjectural Variations and the Nature of Equilibrium in Rent-Seeking Models, *Public Choice*, Vol. 60, Jan. 1989, pp. 31-40.

Reorganizing Electricity Supply in New Zealand: Lessons for the United States, *Contemporary Policy Issues*, Vol. 7, Oct. 1989, pp. 73-90.

Addiction, Compulsion, and the Technology of Consumption, *Economic Inquiry*, Vol. 26, Jan. 1988, pp. 75-88.

The Design of Rent-Seeking Competitions, *Public Choice*, Vol. 56 No. 1, 1988, pp. 17-29.

Co-author (with Rodney Smith and Arthur DeVany): An Open Access Rights System for Interstate Natural Gas Pipelines, prepared for Natural Gas Supply Association, Washington, D.C., 1988.

Regulatory and Market Options for Electricity in New Zealand, prepared for New Zealand Treasury, 1987.

Reinterpreting the Role of Inflation in Politico-Economic Models, *Public Choice*, Vol. 48 No. 2, 1986, pp. 113-124.

Co-author (with Lionel Kalish): The Incentives of Regulators: Evidence from Banking, *Public Choice*, Vol. 36, 1981, pp. 187-192.

Bureaucrats, Legislators, and the Decline of the State Mental Hospital, *Journal of Economics and Business*, Vol. 32, Spring 1980, pp. 198-205.

Long Term Political Agreements and the Origins of Bureaucratic Power, *Public Choice in New Orleans* (G. Tullock, Ed.), 1980, pp. 37-48.

Hedonic Prices and the Structure of the Digital Computer Industry, *Journal of Industrial Economics*, Vol. 27, March 1979, pp. 263-275.

Co-author (with Robert E. Kuenne et. al): A Proposal to Protect the U.S. from Oil Import Interruptions, *Policy Analysis*, Vol. I, Fall 1975, pp. 572-597.

Explorations in a Two-Sector Vintage Model of Economic Growth, dissertation, University of California, Los Angeles, June 1972.

SELECTED RECENT APPEARANCES

- 6/16/10 U.S. House of Representatives, Committee on Science and Technology, Invited Testimony on Value of Improved Short-Term Wind Forecasts.
- 5/17/10 Heartland Institute, Fourth International Conference on Climate Change, Chicago. Invited Presentation "Renewable Energy Quotas: Wrong Crisis, Wrong Remedy."
- 3/20/10 Pacific Research Institute, Conference on the Politics of Aspiration, Newport Beach, Invited Presentation "Reviving Electricity and Water Markets."
- 4/23/09 U.S. House of Representatives, Subcommittee on Energy and Environment, Invited Testimony on Allocation Standards for Carbon Emissions Allowances.
- 6/21/08 Rutgers University, Center for Research in Regulated Industries, 21st Annual Western Conference, Monterey CA, Invited Presentation "Why So Little Compliance with State Renewable Electricity Requirements?"

- 9/17/07 Institute for Energy Research, National Press Club, Washington D.C., Invited Presentation “A Renewable Portfolio Standard: Does It Benefit Consumers?”
- 6/28/07 Rutgers University, Center for Research in Regulated Industries, 20th Annual Western Conference, Monterey CA, Invited Presentation “State Renewable Electricity Standards: Efficiency or Rent-Seeking?”
- 3/5/07 American Antitrust Institute, 7th Annual Energy Round Table, Arlington VA, Invited Presentation “Electricity Market Monitoring and the Economics of Regulation.”
- 2/8/07 Texas Public Policy Foundation, Annual Policy Orientation for the Texas Legislature, Austin. Invited presentation, “Will Competition Keep the Lights on in Texas?”
- 2/21/06 Louisiana State University Center for Energy Studies, Baton Rouge, LA, Conference on “Rebuilding Utility Infrastructure: Challenges and Opportunities.” Invited presentation “Utilities and Disasters: The Regulatory Compact Meets the Social Contract.”
- 1/23/06 American Antitrust Institute, Sixth Annual Energy Roundtable Forum, Arlington, VA, Invited panelist on “Competition and the Energy Policy Act of 2005.”
- 6/22/05 Rutgers University 18th Annual Western Conference on Regulation, San Diego, CA, Presentation of paper “Rethinking Vertical Integration in Electricity.”
- 1/11/05 American Antitrust Institute, Fifth Annual Energy Roundtable Forum, Arlington, VA, Invited Panelist on “Open Access Revisited.”
- 10/27/04 Marin County Council of Governments, Larkspur CA, Invited Presentation “Energy in California: New Crisis, or Business as Usual?”
- 10/21/04 California State University / McGraw-Hill-Irwin Conference on New Teaching Methods in Economics, Fullerton, Panelist on Internet Applications for Business Students.

- 6/28/04 Rutgers University 17th Annual Western Conference on Regulation, San Diego, Invited Presentation “The Economics of Participant-Funded Electricity Transmission.”
- 10/8/03 Center for Business Intelligence, Conference on Transmission Expansion, Alexandria, VA, Invited Presentation “Participant Funding: does Competitive Generation Require Competitive Transmission?”
- 6/25/03 Rutgers University 16th Annual Western Conference on Regulation, San Diego, Invited Presentation “Monitoring Electricity Markets: what Can We Learn from the Economics of Regulation?”
- 6/20/02 Rutgers University 15th Annual Western Conference on Regulation, Lake Tahoe, Invited Presentation “Measuring and Mitigating Market Power in Electricity: is Supply Margin Analysis Superior?”
- 5/14/02 Power Association of Northern California, Spring Meeting, Pleasanton, California. Invited Presentation “Electricity: What California Must Do and What FERC Will Allow.”
- 3/12/02 Western Farm Credit Bank, Stockholders Annual Meeting, Dana Point, California. Invited Presentation “Enron: What Matters and What Doesn’t.”
- 12/1/01 Interviewed as one of several “prominent economists and policy leaders” for “Crawling from the Wreckage: Can California’s Energy Market Be Saved?” joint initiative of the John D. and Catherine MacArthur Foundation, Rockefeller Foundation, and others. Report summarized in *Public Utilities Fortnightly*, April 1, 2002.
- 10/4/01 Intellibridge Corporation, Energy Community Forum, Arlington, Virginia. Panelist on “Alternative Electricity Scenarios after California.”
- 7/24/01 George Washington University National Institute for Governmental Innovation, Conference on Managing Electric Power Through Deregulation, Sacramento. Invited speaker “Managing Electricity Demand: the Roles of Government and the Market.”
- 6/29/01 Rutgers University 14th Annual Western Conference on Regulation, San Diego. Invited Presentation “Competitive Power Markets: What Economics Have Regulators Learned?”

- 6/28/01 National Association of Industrial and Office Properties Energy Forum, Irvine. Invited speaker “California Electricity: What Past, What Future?”
- 6/7/01 Orange County Business Council, Irvine. Invited presentation “Electricity Price Caps: No Theory, No Practice, No Way.”
- 5/31/01 Mercatus Institute (George Mason University) Energy Program for Congressional Staff, “Managing Electrical Demand: Prices or Interventions?” U.S. Capitol, Washington D.C.
- 5/8/01 Orange County, State of the County Conference, Invited Address “Electricity in California: How Did Things Go So Wrong?” Anaheim
- 4/27/01 Canadian Association of Petroleum Landmen Annual Conference, Calgary. Invited presentation “Canadian Gas and the Future of Competitive Power in the U.S.”
- 4/10/01 National Regulatory Research Institute Market Power Conference, Columbus. Invited paper “Market Power In California: Misunderstanding the Opportunities.”
- 3/19/01 Independent Power Producers Society of Alberta Annual Conference, Banff. Keynote address, “California’s Electrical Disaster and the Future of Competitive Power.”
- 3/9/01 Institute for Infrastructure Finance, Roundtable of the Americas, Coral Gables, Florida. Invited presentation “California Energy Crisis, Version 3.0: Same Solution, Same Mistake.”
- 12/1/00 U.S. Department of Energy and National Association of Regulatory Utility Commissioners, North American Summit on Harmonizing Business Practices in Energy Restructuring, Dallas. Invited panelist in Accords Forum to formalize policy proposals.
- 11/17/00 Energy Bar Association Mid-Year Meeting, Washington. Invited panelist, “Retail Markets: Where are We and Why?”

- 11/9/00 International Association of Energy Economists, Houston. Invited presentation at Petroleum Club of Houston, "Electricity Restructuring: Will Texas Be the Next California?"
- 10/12/00 *Energy Market Report* Conference on Volatile Energy Prices, Portland. Invited Presentation "Gas Markets and Power Markets: Half of Them Function Well."
- 7/6/00 Rutgers University 13th Annual Advanced Workshop on Regulation and Competition, Monterey. Invited Presentation "Default Supply in Restructured Electricity Markets."
- 3/15/00 Energy Expo 2000, Houston. Invited Panelist "The Future of the Energy Industry Driven by Technology and Restructuring."
- 7/8/99 Western Economic Association 74th Annual Conference, San Diego. Invited Presentation "ISOs vs. Transcos."
- 7/8/99 Rutgers University 12th Annual Advanced Workshop on Regulation and Competition, San Diego. Invited presentation "Governance: The Unexamined Economics of the ISO."
- 1/21/99 Canadian Institute of Energy Conference on Integration of Regional Energy Markets, Vancouver. Invited Speaker "East and West Take the Market Test: Price Spikes in the Midwestern Energy and California Ancillary Services Markets."
- 12/16/98 Co-Chair, The Energy Institute Conference on Western Wholesale Power Markets, Las Vegas. Invited Opening Address "California's Market: What Works and What Doesn't," and Speaker on "Market Power, Gaming, and Antitrust: What Happened to Ancillary Services?"
- 11/16/98 McGraw-Hill Conference Southeast Power Markets: Strategies for Restructuring, Miami. Invited Speaker on "California's Electrical Restructuring in Retrospect: All Things Considered, Would I Rather Be in Philadelphia?"
- 10/8/98 The Energy Institute Conference on Northeast Wholesale Power Markets, New York. Invited Speaker on "Debating the Transmission Pricing Options: The Case for Exchangeable Physical Rights."

- 9/25/98 Law Seminars International, Seminar on Restructuring Electricity in California, Sacramento. Invited Speaker on “After the Morning After Restructuring: Vision or Myopia?”
- 8/19/98 American Legislative Exchange Council Annual Meeting, Chicago. Invited Speaker on “June 1998: Electricity Markets in Chaos.”
- 7/9/98 Rutgers University 11th Annual Advanced Workshop on Regulation and Competition, Monterey, California. Invited speaker on “Stranded Costs: Theory Meets Practice in California.”
- 6/30/98 Western Economic Association, 73rd Annual Conference, Lake Tahoe. Invited speaker at general session panel on power markets. Invited presentation on “California’s Electrical Restructuring: What Economists Did Well and Poorly.” Other panelists included Richard Bilas [President, Calif. Public Utilities Commission], Kenneth Lay [CEO, Enron Corporation], and Gordon Smith [CEO, Pacific Gas & Electric].
- 6/25/98 Co-Chair, The Energy Institute and National Energy Marketers Association Conference on Buying and Selling Electricity in the Western Wholesale Power Market, Las Vegas. Invited address “California’s First 100 Days: What Has Changed, What Hasn’t, and What Will,” and panelist on “Antitrust and Market Power as Monitored by the PX and ISO.”
- 4/27/98 Alberta Energy and Utilities Board and National Energy Board of Canada [CAMPUT] Annual Conference, Banff, Alberta. Invited speaker on “Visions of Regulatory Renewal: A Reality Check from California.”
- 2/19/98 The Energy Institute and Price Waterhouse Conference New Tax Policies and Your Bottom Line, Washington D.C. Invited presentation “Rate-Reduction Securitization Bonds.”
- 2/18/98 Co-Chairman, The Energy Institute and Hagler Bailly Conference on Antitrust in the New Electric Industry. Also presented opening address “Where Will Competition Happen? Relevant Markets and the New Industry,” and prepared remarks for panel “Forming an Antitrust Strategy: Plaintiffs and Defendants.”
- 1/29/98 Invited Testimony on Competitive Issues in Electricity Restructuring, National Association of Attorneys General Hearings on Utility Deregulation, San Francisco.

1/21/98 Canadian Institute of Energy Annual Conference, Vancouver B.C. Invited presentation on “The Reality and Unreality of Gas-Electric Convergence.”

PROFESSIONAL AFFILIATIONS AND HONORS

- Member, American Economic Association
- Member, Western Economic Association
- Member, Energy Bar Association (non-attorney)
- Named Daniel P. Haan Distinguished Fellow in Economics and Regulation, California State University, Fullerton, 2008-present.
- Resident Scholar, Center for Advancement of Energy Markets, 1999 - 2004
- Co-Editor, *Contemporary Economic Policy*, peer-reviewed journal of the Western Economic Association, 1999 - present
- Adjunct Scholar and Senior Fellow, Institute for Energy Research, 1995 - present
- Adjunct Scholar, Cato Institute, 1995 - present
- Outstanding Professor, School of Business and Economics, 1989
- NSF research award to study financial institutions deregulation, 1979

MISCELLANY

- Author of bi-weekly column “Power Moves,” appearing in *New Power Executive* and *The Desk*
- Numerous appearances in print and broadcast media, and before non-industry groups