

WILLIAM P. ZARAKAS

Principal

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William Zarakas is an expert on economic and regulatory matters in the telecom, media, and energy industries.

Mr. Zarakas holds a leadership role in Brattle's Telecommunications, Internet, and Media practice. He has provided expert reports and testimonies in a range of regulatory proceedings concerning the economic analysis of mergers among telecom carriers and media companies; competition in telecom markets; forbearance from price regulation; infrastructure access, sharing and pricing arrangements; the economics and financial feasibility of deploying broadband networks; analysis and valuation of wireless spectrum bands and holdings; and the distribution of royalties and retransmission fees in the cable and satellite TV industries.

Mr. Zarakas also leads much of Brattle's work related to evolving utility regulatory and business models, including the application of performance-based regulation (PBR) and regulatory reform and incentives designed to improve efficiencies and advance policy goals, such as decarbonization and customer engagement. He works extensively on benefit-cost analyses, particularly with respect to investments in grid modernization, reliability, resilience, and smartening the grid. He has authored a wide range of reports and articles on PBR, "utility of the future" visions and implementation, the utility platform and multi-sided markets, and competition in the retail electricity sector.

Additionally, Mr. Zarakas has led special investigations on behalf of corporate boards of directors, as well as audits of management practices and operational and financial performance on behalf of regulatory commissions. He has provided expert testimony and reports before the Federal Communications Commission, the Federal Energy Regulatory Commission, the Securities and Exchange Commission, the Copyright Royalty Judges (Library of Congress), the US Congress, state regulatory agencies, arbitration panels, and foreign governments and courts of law.

Competition and Antitrust. Recent work includes:

- Conducted merger simulation analysis, submitted testimony and provided ongoing support on the potential effects of the merger of mobile wireless carriers Sprint and T-Mobile, under review before the US Federal Communications Commission, the Department of Justice, and various state Attorneys General on behalf of DISH Network.
- Conducted merger analysis, submitted testimony and provided ongoing support on the potential effects of the merger of Sinclair Broadcast Group and Tribune Media, under review before the US Federal Communications Commission on behalf of DISH Network.
- Conducted merger analysis, submitted testimony and provided ongoing support on the potential effects of the mergers of Comcast-Time Warner Cable; AT&T-Time Warner; and, Disney-Fox.
- Conducted competitive analysis, submitted testimony, and provided expert support in a regulatory proceeding before the Federal Communications Commission on competition issues in dedicated internet bandwidth services, including possession of market power and assessment of market power abuse on behalf of Sprint Corporation.
- Analyzed effectiveness of retail competition in U.S. electricity markets.

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- Analyzed market structure and degree of competition in U.S. retail telecom markets and authored expert reports with regard to Petitions for FCC to forbear from price regulating resale services and UNEs on behalf of Granite Telecom and Incompas.
- Analyzed acquisition price premium in merger of cross-state gas and electric utilities on behalf of TECO Energy, Inc., New Mexico Gas Company, Inc in a matter before the New Mexico Public Regulatory Commission.
- Analyzed prospective merger savings and divestiture losses for electric and gas utilities in merger applications before the U.S. Securities and Exchange Commission (SEC).

Spectrum Valuation and Due Diligence. Work includes:

- Led numerous analyses of the values of wireless spectrum in the U.S., Canada, the Middle East and North Africa (MENA), and other geographic markets. Scope of analyses included: PCS, AWS, 2.3-2.5 GHz, SMR, PLMR, IVDS, MSS and Big Leo spectrum bands, among others, for purposes of planning, transactional analysis, regulatory proceedings, domestic and international arbitration, and commercial litigation.
- Conducted analyses and authored expert reports concerning utility use of private networks vs. leased spectrum, and valuations of 900 MHz spectrum.
- Led due diligence of acquisition of spectrum holdings and telecom assets for major telecom carrier.
- Led due diligence of northwestern U.S. electric and gas utility on behalf of buyer; analysis included comprehensive sales, revenue, and operating and capital cost modeling and scenarios.

Telecom Regulatory and Compliance. Work includes:

- Analyzed and provided testimony in matters concerning access and foreclosure of network elements and services.
- Developed cost and revenue models to estimate costs, feasibility and customer rates associated with deploying wireless broadband to Alaska and rural areas in the continental U.S. on behalf of GCI Communications for FCC proceedings regarding the Connect America Fund and Mobility Fund.
- Analysis and expert reports on matters concerning pole attachment rates before the FCC on behalf of electric utilities.
- Led comprehensive modeling concerning costs and rates for unbundled network elements (UNEs), undertaken in fulfillment of requirements associated with the Telecommunications Act of 1996, using the Total Element Long Run Incremental Cost (TELRIC) methodology

Utility Regulatory and Business Models. Analyzed, advised and/or testified on matters concerning regulatory frameworks, performance-based regulation (PBR) and utility business models, notably with respect to emerging competitive alternatives and network integration. Recent work includes:

- Analyzed implementation of New York's Reforming the Energy Vision by modeling the economics of the utility platform model, access pricing and financial impacts of retail competition on utility.
- Analyzed, advised and/or testified on matters concerning performance incentive mechanism (PIMs); e.g., analyses of: New York's "earnings adjustment mechanisms" on behalf of New York's six investor owned utilities) and performance measures and incentive structures on behalf of the Hawaiian Electric Companies.

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- Surveyed and analyzed PBR frameworks and applications, including multi-year rate plans (MRPs), PIMs and other alternative regulatory mechanisms, including the U.K.'s "RIIO" model.
- Surveyed and analyzed regulatory approaches to setting electric distribution reliability standards around the world on behalf of the Australian Energy Market Commission (AEMC).
- Modeled multi-variate "utility of future" scenarios using system dynamic approach on behalf of utilities and industry groups.
- Advised Board of Directors of a major generation and transmission (G&T) cooperative and its member electric distribution cooperatives on matters concerning: asset valuations, risk management strategy, merger and acquisition options, and outlook for retail electric markets.

Infrastructure and Investment Analysis. Analyzed and testified on matters concerning infrastructure economics and financial feasibility. Work includes:

- Led benefit-cost and economic "break-even" analysis of utility system reliability and resilience investment using a value of lost load (VOLL) methodology on behalf of Public Service Electric & Gas Company (PSE&G).
- Conducted financial feasibility analysis concerning deployment of a broadband communications network for an Asian electric utility.
- Analyzed economics and financial feasibility of providing (wholesale) transport and (retail) broadband services for multiple U.S. electric utilities.

Management Analysis and Audits. Recent work includes:

- Led strategic organizational options analysis for the Board of Trustees of the Long Island Power Authority (LIPA).
- Led special investigations; e.g., economic analysis of "swap" transaction for the Special Committee of the Board of Directors of Global Crossing.
- Led management and/or regulatory audits of utilities and telecommunications carriers on behalf of state regulatory commissions Alabama, Kentucky, Maryland, New York and Pennsylvania.

Other Regulatory Analyses. Recent work includes:

- Led benchmarking studies of utility costs and regulatory practices.
- Analyzed markets for and costs of providing utility pole attachments.
- Calculated total factor productivity (TFP) and X factors in price regulation proceedings involving utilities before state regulatory commissions and incumbent telecommunications carriers before the FCC.
- Analyzed costs and value of retransmitted television programming in cable and satellite video markets on behalf of Music Claimants in proceedings involving distribution of royalty funds.
- Examined impact of regulatory fees and constraints on economic output in 22 countries in the Middle East and Africa for international mobile carrier.

Expert Testimony

WILLIAM P. ZARAKAS

Declaration of William Zarakas Verizon Maryland LLC, Complainant v. The Potomac Edison Company, Defendant, in a Pole Attachment Complaint Before the Federal Communications Commission, Proceeding No. 19-355, Bureau ID No. EB-19-MD-009 (February 1, 2020)

Declaration of William Zarakas Verizon Pennsylvania LLC and Verizon North LLC, Complainants v. Metropolitan Edison Company, Pennsylvania Electric Company, and Penn Power Company, Defendant, in a Pole Attachment Complaint Before the Federal Communications Commission, Proceeding No. 19-354, Bureau ID No. EB-19-MD-008 (February 1, 2020)

Declaration of William P. Zarakas BellSouth Telecommunications, LLC d/b/a AT&T Florida, Complainant, v. Florida Power & Light Company, Respondent, in a Pole Attachment Complaint Before the Federal Communications Commission, Proceeding No. 19-187, Bureau ID No. EB-19-MD-006 (September 12, 2019).

Direct Testimony of William Zarakas In the Matter of the Application of Potomac Electric Power Company for the Authority to Implement a Multiyear Rate Plan for Electric Distribution Service in the District of Columbia, Formal Case No. 1156 (May 30, 2019); Second Supplemental Direct Testimony (January 21, 2020).

Declarations of Coleman Bazelon, Jeremy Verlinda, and William Zarakas Before the Federal Communications Commission In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197

- May 1, 2019, Response to Israel, Katz, and Keating April 12, 2019 Declaration
- March 28, 2019, Response to Compass Lexecon February 20, 2019 Declaration and Mark McDiarmid March 6, 2019 Declaration
- March 25, 2019, Response to Applicants' February 7 Filings on Diversion Ratios
- March 18, 2019, Reply to Cornerstone's "Response to Dish's February 19 and 25 Submissions"
- February 19, 2019, Reply to Cornerstone "Response to Dish and CWA Comments"
- February 4, 2019, Network Model's Sensitivity to Millimeter Wave Adjustments
- January 28, 2019, Response to Applicant Filings on Diversion Ratios
- December 4, 2018, Further Reply Declaration of Coleman Bazelon, Jeremy Verlinda, and William Zarakas

Declaration (August 27, 2018) and Reply Declaration (October 31, 2018) of Joseph Harrington, Coleman Bazelon, Jeremy Verlinda, and William Zarakas Before the Federal Communications Commission In the

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Matter of Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197

“The Role of Competitive Bidding Based Prices in Determining the Rural Rate,” William Zarakas and Augustin J. Ros, In the Matter of Promoting Telehealth and Telemedicine in Rural America, Before the Federal Communications Commission, WC Docket No. 17-130 (May 24, 2019).

Response to PC 51 Request for Comments, Prepared for Joint Utilities of Maryland, Prepared by William Zarakas, Sanem Sergici, Pearl Donohoo-Vallett, and Nicole Irwin in Exploring the Use of Alternative Rate Plans or Methodologies to Establish New Base Rates for an Electric Company of Gas Company Before the Public Service Commission of Maryland, PC 51 (March 29, 2019).

Declaration of William Zarakas and Dr. Eliana Garces Before the Federal Communications Commission In the Matter of Tribune Media Company (Transferor) and Nexstar Media Group, Inc. (Transferee) Consolidated Application for Consent to Transfer Control, MB Docket No. 19-30 (March 18, 2019).

Expert Report of William P. Zarakas On Behalf of BC Hydro, BC Hydro Fiscal 2020—Fiscal 2021 Revenue Requirements Application to the British Columbia Utilities Commission (February 8, 2019).

Direct and Rebuttal Testimony of William P. Zarakas On Behalf of Public Service Company of Oklahoma Before the Corporation Commission of the State of Oklahoma In the Application of the Public Service Company of Oklahoma For an Adjustment To Its Rates and Charges and the Electric Service Rules, Regulations and Conditions of Service For Electric Service in the State of Oklahoma, Cause No. PUD 201800085 (September 21, 2018, February 5, 2019).

Declaration of William P. Zarakas Before the Federal Communications Commission In the Matter of Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks WC Docket No. 18-141, Opposition of Granite to USTelecom’s Forebearance Petition (August 6, 2018).

Declaration of William P. Zarakas Before the Federal Communications Commission In the Matter of Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks WC Docket No. 18-141, Opposition of Incompas, FISPA, Midwest Association of Competitive Communications, and the Northwest Telecommunications Association (August 6, 2018)

Expert report on behalf of GCI Communications “Rate of Return Analysis of GCI’s TERRA Network,” by William P. Zarakas, Augustin J. Ros, and Nicholas E. Powers. Prepared for GCI Communication Corp., March 30, 2018, in connection with the FCC’s investigation of the Rural Health Care Telecommunications Program.

Expert report on behalf of GCI Communications before the Federal Communications Commission, In the Matter of Connect America Fund and Universal Service Reform, WC Docket No. 10-90 and WT Docket

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No. 10-208A: analysis of the FCC's Rural Health Care Program Funding and Recipients, by William Zarakas, Augustin Ros, David Kwok, and M. Elaine Cunha, September 2017.

Declaration (August 7, 2017) and Reply Declaration (August 29, 2017) of William P. Zarakas and Jeremy A. Verlinda Before the Federal Communications Commission In the Matter of Tribune Media Company (Transferor) and Sinclair Broadcast Group, Inc. (Transferee), Consolidated Applications for Consent to Transfer Control, MB Docket No. 17-179.

Before the State of New York Public Service Commission In the Matter of Earnings Adjustment Mechanism and Scorecard Reforms Supporting the Commission's Reforming the Energy Vision, Case 16-M-0429, On Behalf of the New York Joint Utilities (Central Hudson Gas and Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation), Report: "Assessment of Load Factor as a System Efficiency Earnings Adjustment Mechanism," William Zarakas, Sanem Sergici, et. al. (February 10, 2017).

Declaration of William P. Zarakas Before the Federal Communications Commission In the Matter of Business Data Services in an Internet Protocol Environment, Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans, Special Access for Price Cap Local Exchange Carriers, AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, WC Docket No. 16-143, WC Docket No. 15-247, WC Docket No. 05-25, RM-10593. Declaration of William P. Zarakas and Susan M. Gately (January 27, 2016); Supplemental Declaration of William P. Zarakas (March 24, 2016); Declaration of William P. Zarakas and Jeremy Verlinda (June 28, 2016, Attachment D to Comments of Sprint Corporation); Declaration of David E. M. Sappington and William P. Zarakas (June 28, 2016, Attachment E to Comments of Sprint Corporation); Further Supplemental Declaration of William P. Zarakas (August 9, 2016, Attachment A of Reply Comments of Sprint Corporation).

Declaration of William P. Zarakas Before the Federal Communications Commission In the Matter of Verizon Virginia. LLC and Verizon South, Inc., Complainants, v. Virginia Electric and Power Company d/b/a Dominion Virginia Power, Docket No. 15-90, File No. EB-15-MD-006 (November 18, 2015).

Declaration of William P. Zarakas and Matthew Aharonian in the United States Court for the District of Columbia Circuit United States Telecom Association, Petitioner, v. Federal Communications Commission and the United States of America, Respondents, Case No. 15-1063 (and consolidated cases) (May 22, 2015).

Declarations Before the Federal Communications Commission In the Matter of Application of Comcast Corporation, General Electric Company and NBC Universal, Inc. for Comcast to Assign or Transfer Control of Licenses, Federal Communications Commission, MB Docket No. 10-56. Analysis of the FCC's Vertical Foreclosure and Nash Bargaining Models Applied To The Proposed Comcast-Time Warner Cable Transaction (December 21, 2014) and Supplemental Declaration: Analysis of the FCC's Vertical Foreclosure and Nash Bargaining Models Applied To The Proposed Comcast-Time Warner Cable Transaction (March 5, 2015).

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Before the Public Utilities Commission of the State of Hawaii, In The Matter of Public Utilities Commission Instituting an Investigation to Reexamine the Existing Decoupling Mechanisms for Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited, Docket No. 2013-1041, On Behalf of the Hawaiian Electric Companies. Report: "Targeted Performance Incentives: Recommendations to the Hawaiian Electric Companies," Prepared For The Hawaiian Electric Companies, William P. Zarakas and Philip Q Hanser (September 15, 2014).

Before the New Mexico Public Regulatory Commission, In The Matter Of The Application of TECO Energy, Inc., New Mexico Gas Company, Inc. and Continental Energy Systems, LLC, For Approval of TECO Energy Inc.'s Acquisition of New Mexico Gas Intermediate, Inc. and For All Other Approvals and Authorizations Required To Consummate and Implement The Acquisition, Utility Case No. 13-00231-UT, On Behalf of TECO Energy, Inc., New Mexico Gas Company, Inc. and Continental Energy Systems, LLC, Joint Applicants (March 2014).

"Analysis of Benefits: PSE&G's Energy Strong Program," by Peter Fox-Penner and William P. Zarakas Before the New Jersey Board of Public Utilities In the Matter of the Petition of Public Service Electric and Gas Company for Approval of the Energy Strong Program, Docket No. EO13020155 and GO13020156 (October 7, 2013).

"Review and Analysis of Service Quality Plan Structure In The Massachusetts Department of Public Utilities Investigation Regarding Service Quality Guidelines For Electric Distribution Companies and Local Gas Distribution Companies." Philip Q Hanser, David E. M. Sappington and William P. Zarakas, Massachusetts D.P.U. 12-120 (March 2013).

"Alaska Mobile Broadband Cost Model, Before The Federal Communications Commission In The Matter Of Connect America Fund and Universal Service Reform – Mobility Fund. WC Docket No. 10-90 and WT Docket No. 10-208A." William P. Zarakas and Giulia McHenry (February 2013; updated May 2016, with David Kwok).

Expert Report of William P. Zarakas In The United States District Court For The Northern District of Florida MCI Communications Services, Inc., Plaintiff v. Murphree Bridge Corporation, Defendant, Case No. 5:09-cv-337 (February 19, 2010).

Testimony of William P. Zarakas Before The Copyright Royalty Judges, Library of Congress, Washington D.C. In The Matter of Distribution of the 2004 and 2005 Cable Royalty Funds, Docket No. 2007-3 CRB CD 2004-20 (June 1, 2009).

Declaration of William P. Zarakas In The Circuit Court of Fairfax County, Virginia In The Matter of Sharon Dougherty, Plaintiff Vs. Thomas J. Dougherty, Defendant Case No. CL 2007-008757 (October 2008).

Expert report Public Service Company of New Mexico vs. Smith Bagley, Inc. and Lite Wave Communications LLC In The United States District Court For The District of New Mexico (March 2007).

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“Comparative Market Value Analysis of Upper 700 MHz Public Safety Spectrum” Before the Before the Federal Communications Commission In the Matter of The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, WT Docket No. 96-86 (June 2006).

“Analysis of Potential Lost Profits Associated With The Alleged Breach of Contract Between Orbcomm and Orbcomm Asia Limited” Before the American Arbitration Association (May 2006).

Expert report Before the Federal Communications Commission In Petition of ACS of Anchorage, Inc. Pursuant to Section 10 of the Communications Act of 1934, as amended, for Forbearance from Sections 251(c)(3) and 251(d)(1) In the Anchorage LEC Study Area, WC Docket No. 05-281 (January 9, 2006).

Letter report of William Zarakas and Dorothy Robyn Before the U.S. House of Representatives Committee on Energy and Commerce and the U.S. Senate Committee on Commerce, Science and Transportation regarding the value of wireless spectrum in the 700 MHz band (May 18, 2005).

Expert report in MCI WorldCom Network Services, Inc. v. MasTec, Inc. Before the United States District Court Southern District of Florida, Case No. 01-2059-CIV-GOLD (May 2002).

Direct and Rebuttal testimony Before the Federal Communications Commission In the Matter of Virginia Cable Telecommunications Association v. Virginia Electric and Power Company, d/b/a Dominion Virginia Power and Dominion North Carolina Power, PA No. 01-005 (December 21, 2001).

“Analysis Of The Economic Impact Of A Divestiture Of The Gas Operations Of Rochester Gas And Electric Corporation” Before the U.S. Securities and Exchange Commission included in Form U-1 Application/ Declaration Under The Public Utility Holding Company Act of 1935 in the combination of Energy East Corporation with RGS Energy Group, Inc. (June 20, 2001) in Exhibit J-1 (May 15, 2001).

“Analysis Of The Economic Impact Of A Divestiture Of The Gas Operations Of Sierra Pacific Resources” Before the U.S. Securities and Exchange Commission included in Form U-1 Application/ Declaration Under The Public Utility Holding Company Act of 1935 in the acquisition by Sierra Pacific Resources of Portland General Electric Company, 2000 in Exhibit H-1 (January 31, 2000).

“Analysis Of The Economic Impact Of A Divestiture Of The Gas Operations Of Energy East” Before the U.S. Securities and Exchange Commission included in Form U-1 Application/ Declaration Under The Public Utility Holding Company Act of 1935 in the combination of Energy East Corporation with CMP Group, Inc. and with CTG Resources, Inc. in Exhibit J-1 (October 29, 1999).

Supplemental Affidavit of William Zarakas Before the Supreme Court of the State of New York, County of Niagara in Village of Bergen, et al. vs. Power Authority of the State of New York, February 1999.

Direct (December 15, 1997) and Rebuttal (March 9, 1998) Panel Testimony of William P. Zarakas and D. Daonne Caldwell Before the North Carolina Utilities Commission In Re: Proceeding to Determine Permanent Pricing for Unbundled Network Elements, Docket No. P-100, SUB 133D.

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Direct (November 3, 1997) and Rebuttal (November 25, 1997) Panel Testimony of William P. Zarakas and D. Daonne Caldwell Before the South Carolina Public Service Commission In Re: Proceeding to Review BellSouth Telecommunications, Inc.'s Cost Studies for Unbundled Network Elements, Docket No. 97-374-C.

Direct Panel Testimony of William P. Zarakas and D. Daonne Caldwell Before the Florida Public Service Commission In Re: Petition of AT&T, MCI, and MFS for Arbitration with BellSouth Concerning Interconnection, Rates, Terms and Conditions of a Proposed Agreement, Docket Nos. 960757-TP/960833-TP/960846-TP/960916-TP/971140-TP (November 13, 1997).

Direct (October 10, 1997) and Rebuttal (October 17, 1997) Panel Testimony of William P. Zarakas and D. Daonne Caldwell Before the Tennessee Regulatory Authority In Re: Contested Cost Proceeding to Establish Final Cost Based Rates for Interconnection and Unbundled Network Elements, Docket No. 97-01262.

Direct (August 29, 1997) and Rebuttal (September 12, 1997) Panel Testimony of William P. Zarakas and D. Daonne Caldwell before the Alabama Public Service Commission In Re: Generic Proceeding: Consideration of TELRIC Studies, Docket No. 26029.

Direct (April 30, 1997) and Rebuttal (September 8, 1997) Panel Testimony of William P. Zarakas and D. Daonne Caldwell before the Georgia Public Service Commission In Re: Review of Cost Studies, Methodologies and Cost-Based Rates for Interconnection and Unbundling of BellSouth Telecommunications Services, Docket No. 7061-U.

Direct (July 11, 1997) and Rebuttal (September 5, 1997) Panel Testimony of William P. Zarakas and D. Daonne Caldwell Before the Louisiana Public Service Commission In Re: Review of Consideration of BellSouth Telecommunications, Inc.'s TSLRIC and LRIC Cost Studies to Determine Cost of Interconnection Services and Unbundled Network Components, to Establish Reasonable, Non-Discriminatory, Cost-Based Tariff Rates, Docket Nos. U-22022/22093.

Direct and Rebuttal Testimony Before the Virginia State Corporation Commission on Behalf of United Telephone - Southeast, Inc. and Centel Corporation (May 1994).

Direct and Rebuttal Testimony Before the Tennessee Public Service Commission on Behalf of United Telephone - Southeast, Inc., Docket No. 93-04818 (January 28, 1994).

Direct and Rebuttal Testimony Before the Florida Public Service Commission on Behalf of Southern Bell Telephone & Telegraph Company, Docket No. 920260-TL (December 10, 1993).

Direct and Rebuttal Testimony Before the Tennessee Public Service Commission on behalf of South Central Bell, Docket Nos. 92-13527 and 93-00311 (March 22 and March 29, 1993).

Papers, Publications and Presentations

WILLIAM P. ZARAKAS

Washington D.C. Performance Based Regulation Workshop, presented by William Zarakas, Sanem Sergici and Pearl Donohoo-Vallett, September 19, 2018.

Hawaii Public Utilities Commission Performance Based Regulation Workshop, PBR Tools and Experience Panel, “The Intersection of Utility Platforms and PBR,” William Zarakas, Honolulu, HI, July 23-24, 2018.

“A New Face for PBR: Aligning Incentives in the Electric Utility Ecosystem” by William Zarakas, *Public Utilities Fortnightly*, December 2017.

“Two-sided Markets and the Utility of the Future: How Services and Transactions Can Shape the Utility Platform,” by William P. Zarakas, *The Electricity Journal*, Volume 30 (2017) 43-46.

Performance Based Regulation: Plans Goals, Incentives and Alignment, by William Zarakas, Toby Brown, Léa Grausz, Heidi Bishop and Henna Trewn, prepared for DTE Energy, December 6, 2017.

PBR: Applications and Future, presented by William Zarakas to the Michigan PSC PBR Collaborative, Lansing, Michigan, November 8, 2017.

“DER Incentive Mechanisms as a Bridge to the Utility of the Future,” by William P. Zarakas, Frank C. Graves and Heidi Bishop, presented at SNL Knowledge Center’s Energy Utility Regulation Conference: Strategies for Profit and Reliability, December 14, 2016.

“Electric Utility Services and Evolving Platforms in the Mid-Atlantic Region,” by William Zarakas, presented at the Mid-Atlantic Conference of Regulatory Utilities Commissioners (MACRUC) 20th Annual Education Conference, Williamsburg, VA, June 23, 2015.

“Growth Prospects and Shifting Electric Utility Business Models: Retail, Wholesale and Telecom Markets,” by William P. Zarakas, *The Electricity Journal*, Volume 28, Issue 5, June 2015.

“Do We Need a New Way to Regulate Electric Utilities?,” by William P. Zarakas, presented at the Energy Bar Association 2015 Annual Meeting, Washington, DC, May 6, 2015.

“Investing In Electric Reliability and Resiliency,” by William P. Zarakas, presented at the NARUC 2014 Summer Meeting - Joint Electricity and Critical Infrastructure Committees, Dallas, TX, July 15, 2014.

“Utility Investments in Resiliency: Balancing Benefits with Cost in an Uncertain Environment,” by William P. Zarakas, Sanem Sergici, Heidi Bishop, Jake Zahniser-Word and Peter S. Fox-Penner, *The Electricity Journal*, Volume 27, Issue 5, June 2014.

“Infrastructure and Competition in the Electric Delivery System,” by William P. Zarakas, *The Electricity Journal*, Volume 26, Issue 7, September 2013.

“Low Voltage Resiliency Insurance, Portable small-scale generators could keep vital services on line during a major power outages,” by William Zarakas, Frank Graves, and Sanem Sergici, *Public Utilities Fortnightly* September 2013.

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"Finding the Balance Between Reliability and Cost: How Much Risk Should Consumers Bear?," by William P. Zarakas and Johannes P. Pfeifenberger, presented at the Western Conference of Public Service Commissioners, Santa Fe, NM, June 3, 2013

"The Utility of the Future: Distributed or Not?," by William P. Zarakas, presented at Advanced Energy 2013, New York, NY, April 30, 2013

"Rates, Reliability, and Region," by William P. Zarakas, Philip Q Hanser, and Kent Diep, *Public Utilities Fortnightly*, January 2013

"Approaches to Setting Electric Distribution Reliability Standards and Outcomes," by Serena Hesmondhalgh, William P. Zarakas, and Toby Brown, The Brattle Group, Inc., January 2012

"Analysis of Strategic Organizational Options for the Long Island Power Authority," by William P. Zarakas, Frank C. Graves, and Michael J. Beck, prepared for the Board of Trustees, Long Island Power Authority, October 2011.

"Measuring Concentration In Radio Spectrum License Holdings," by Coleman Bazelon and William Zarakas, presented at the Telecommunications Policy Research Conference (TPRC), George Mason University, September 26, 2009.

"Structural Simulation of Facility Sharing: Unbundling Policies and Investment Strategy in Local Exchange Markets," White Paper, July 2005 (with Glenn A. Woroch, Lisa V. Wood, Daniel L. McFadden, Nauman Ilias, and Paul C. Liu).

"Betting Against The Odds? Why broadband over power lines (BPL) can't stand alone as a high-speed Internet offering." *Public Utilities Fortnightly*, April 2005, pp. 41-45 (with Kenneth J. Martinian).

"The Impact of the Number of Mobile Operators on Consumer Benefit," White Paper, March 2005 (with Kenneth J. Martinian and Carlos Lapuerta).

"Wholesale Pricing and Local Exchange Competition", *Info*, Volume 6, Number 5, 2004, pp. 318-325 (with Lisa V. Wood and David E. M. Sappington).

"Regulatory Performance Measurement Plans and the Development of Competitive Local Exchange Telecommunications Markets", Working Paper, November 2003 (with David E. M. Sappington, Lisa V. Wood and Glenn A. Woroch).

"FCC Pole Attachment Rates: Rebutting Some of the Presumptions," presented to utility regulators, March 2003 (with Lisa V. Wood).

"The Concurrent Exchange of Fiber Optic Capacity and Services Between Global Crossing and its Carrier Customers," prepared for Special Committee on Accounting Matters of the Board of Directors of Global Crossing Ltd., January 2003.